NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit:

Mr. Thomas L. Clements
Environmental Superintendent
Stone Container Corporation
Panama City Mill
One Everitt Avenue
Panama City, Florida 32412-0560

DEP File No.: 0050009-014-AC/PSD-FL-288(A)
Bay County

Enclosed is the Final Air Construction Permit/PSD Permit Amendment, Nos. 0050009-014-AC/PSD-FL-288(A). The subject of the permit (letter) is a modification to correct the federally enforceable allowable production rates of the woodyard. The modification will correct the woodyard's allowable production rates from 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year to 1,524,600 tons of purchased chips per year and 1,946,934 tons of roundwood per year. The facility is located at One Everett Avenue, Panama City, Bay County. This permit (letter) is issued pursuant to Chapter 403, Florida Statutes (F.S.). There were no comments received during the Public Notice period.

Any party to this order (permit) has the right to seek judicial review of the permit (letter) pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and, by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

Trina L. Vielhauer
Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the Final Permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 6/30/03 to the person(s) listed or as otherwise noted:

Mr. Thomas L. Clements *, Environmental Superintendent, SCC – PC Mill.
Ms. Sandra Veazey, NWD
Mr. Kevin White, NWD
Mr. David Buff, P.E., GAI
Mr. Joel Huey, U.S. EPA, Region 4

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Barbara J. Friday 6/30/03
(Clerk) (Date)

FINAL DETERMINATION

Stone Container Corporation
Panama City Mill

Air Construction Permit No.: 0050009-014-AC
PSD-FL-288(A)

Bay County

An Intent to Issue an air construction permit/PSD permit amendment to Stone Container Corporation's Panama City Mill, located at One Everitt Avenue, Panama City, Bay County, Florida, was distributed on May 15, 2003. The Public Notice of Intent to Issue an Air Construction Permit was published in the Panama City News Herald on May 26, 2003. There were no comments submitted in response to the Public Notice. The U.S. EPA, Region 4 had no comments regarding the proposed permitting action.

The final action of the Department will be to issue the air construction permit/PSD permit amendment as noticed.

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

June 27, 2003

CERTIFIED MAIL – Return Receipt Requested

Mr. Thomas L. Clements
Environmental Superintendent
Stone Container Corporation
Panama City Mill
One Everitt Avenue
Panama City, Florida 32412-0560

Re: Final Air Construction Permit Project No.: 0050009-014-AC
PSD Permit Amendment No.: PSD-FL-288(A)
Stone Container Corporation: Panama City Mill

Dear Mr. Clements:

This letter modification corrects the woodyard's allowable production rates established in the air construction permit(s), Nos. 0050009-005-AC/PSD-FL-288, issued/clerked on September 5, 2002. Therefore, the following is changed:

1. Specific Condition A.1.
FROM:

Capacity. The woodyard's maximum allowable production rates are 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year.
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

TO: Specific Condition B.1.

Capacity. The woodyard's maximum allowable production rates are 1,524,600 tons of purchased chips per year and 1,946,934 tons of roundwood per year.
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

2. All of Section III., Subsection A., Woodyard Operations, is relabeled as Section III., Subsection B., Woodyard Operations, and all of the Specific Conditions under this subsection are renumbered as follows:
FROM:

A.1. thru A.10.

TO:

B.1. thru B.10.

This permit (letter) is issued pursuant to Chapter 403, Florida Statutes (F.S.). Any party to this order has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by

filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

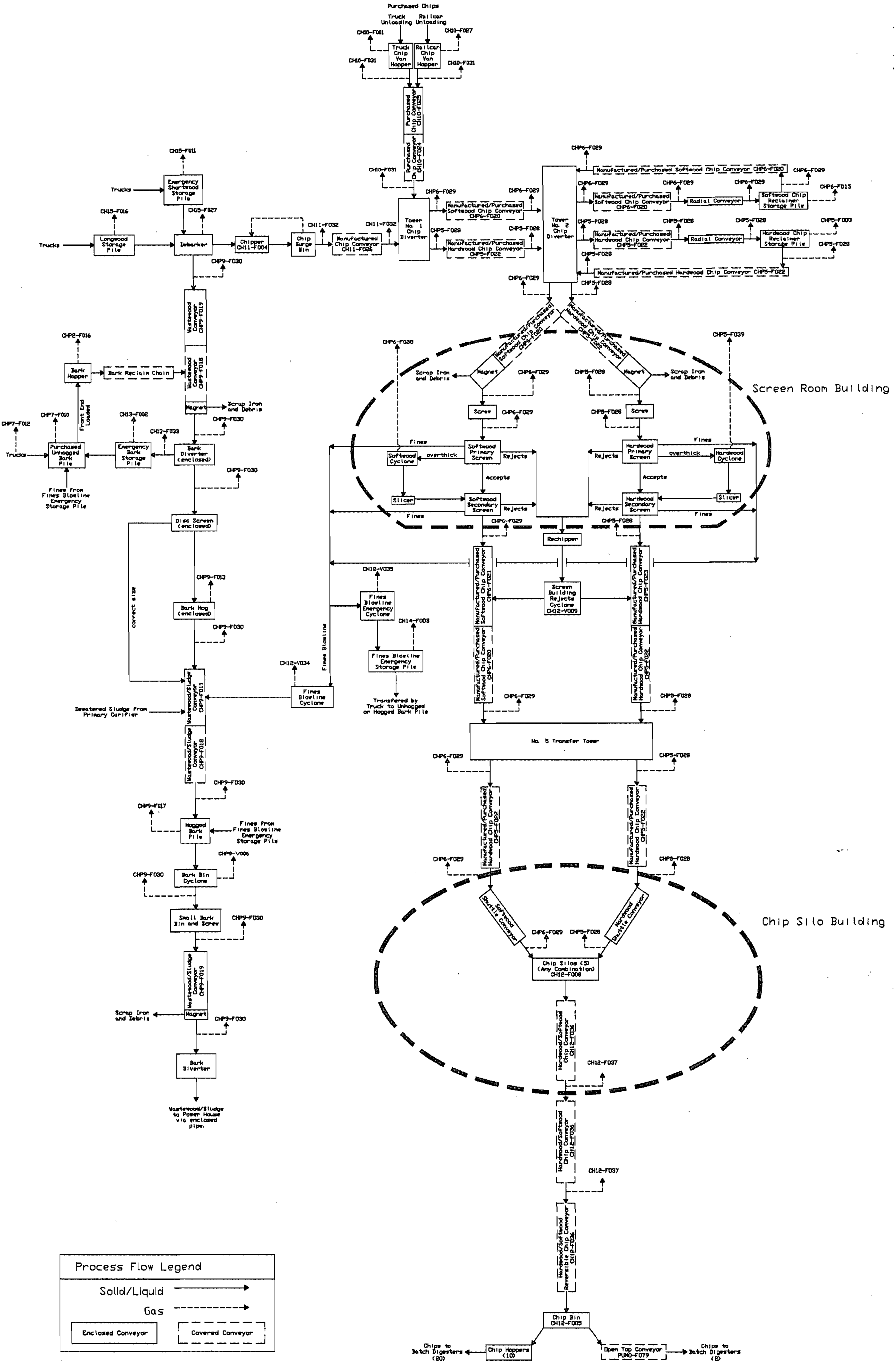
Sincerely,

Howard L. Rhodes

Howard L. Rhodes, Director
Division of Air Resource Management

HLR/rbm

cc: Ms. Sandra Veazey, DEP - NWD
Mr. Kevin White, DEP – NWD
Mr. Henry Hernandez, DEP - NWDB
Mr. Joel Huey, U.S. EPA, Region 4
Mr. David Buff, P.E., GA



Attachment SCC-EU1-J1
Process Flow Diagram
Stone Container Corporation
Panama City, Florida

Emission Unit: Woodyard
Process Area: Raw Materials
Filename: 0137598/4/4.4/4.4.1Woodyard/SCC-EU1-J1.dwg
Revision Date: 04/23/03 by JKW

Golder Associates

Attachment SCC-EU1-G8. Maximum Emissions from the Woodyard at Stone Container, Panama City

SOURCE	Type of Operation (a)	M Moisture Content (%)	U Wind Speed (MPH)	Uncontrolled Emission Factor	Type of Control	Control Efficiency (%)	Controlled Emission Factor	Activity Factor	Maximum Annual PM Emissions (tons/yr)	PM10 Size Multiplier (c)	Maximum Annual PM10 Emissions (tons/yr)
ROUNDWOOD HANDLING											
Debarker	Debarking	- -	- -	0.024 lbs/ton (d)	Enclosure	80	0.00480 lbs/ton	1,946,934 TPY (e)	4.673	0.35	1.635
Chipper	Continuous Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	1,946,934 TPY (e)	0.125	0.35	0.044
Chip Surge Bin to Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
BARK HANDLING											
Debarker to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
Bark Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
No. 1 Bark Diverter to Emergency Bark Storage Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	0 TPY (f)	0.0000	0.35	0.00000
Emergency Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Unhogged Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Trucked Bark to Purchased Unhogged Bark Storage Pile	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Front End Loaded to Bark Hopper	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Wastewood Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	316,098 TPY (g)	0.0041	0.35	0.00142
No. 1 Bark Diverter to Disc Screen	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Hog	Hammermill	--	--	0.024 lbs/ton (d)	Enclosed	80	0.00480 lbs/ton	471,853 TPY (h)	1.132	1.0	1.132
Bark Hog to Hogged Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Conveyor to Hogged Bark Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Pile	Wind Erosion	--	--	--	None	0	--	--	0.0023	1.0	0.0023
Bark Bin Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone	0	2.0 lb/hr	8,760 hr/yr	8.76	0.35	3.07
Bark Bin Cyclone to Small Bark Bin and Screw	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Small Bark Bin and Screw to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Conveyor to No. 2 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Storage Pile Maintenance	Vehicular Traffic	--	--	0.74 lbs/VMT	None	0	0.74 lbs/VMT	21,900 VMT (i)	8.103	0.35	2.836
PURCHASED CHIP HANDLING											
Truck Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Railcar Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Truck Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
Railcar Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
MANUFACTURED AND PURCHASED CHIP PROCESSING											
Tower No. 1 Diverter to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Reclaim Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaim Coveyor to Radial Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Radial Conveyor to Chip Reclaimer Storage Pile (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaimer Storage Pile (2)	Wind Erosion	--	--	--	None	0	--	--	0.048	1.0	0.048
Chip Reclaimer Storage Pile to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Screw (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screw to Primary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screens	Screening	-									
Softwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone, Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Hardwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Primary Screen to Secondary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Secondary Screen to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,321,045 TPY (l)	0.030	0.35	0.010
Screen Building Rejects Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.066
Screen Building Rejects Cyclone to Chip Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	994,734 TPY (m)	0.026	0.35	0.009
Fines Blowline Emergency Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.00017	1.0	0.00017
Fines Blowline Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.07
Fines Blowline Cyclone to Wastewood/Sludge Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	9,947 TPY (n)	0.000	0.35	0.000
Chip Conveyor to No. 5 Transfer Tower (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,305,772 TPY (o)	0.043	0.35	0.015
TOTAL									44.61		16.39

Notes:

(a) Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (US EPA, 1995) Section 13.2.4-3(1). $E = 0.0032 \times (U/5)^{1.3} / (M/2)^{1.4}$ lb/ton

(b) Wind Erosion Emissions based on AP-42 (US EPA, 1995) Section 13.2.5. Refer to Attachment A for derivation.

(c) PM10 Size Multiplier is based on particles < 10 micrometers.

(d) Debarker emissions are based on Table 28 of NCASI Technical Bulletin No. 424 (March 1984), Fugitive Dust Emission Factors and Control Methods Important to Forest Products Industry Manufacturing Operations.

(e) Roundwood throughput is based on 466,800 cords/yr (softwood) @ 2.7 tons/cord and 178,800 cords/yr (hardwood) @ 2.85 tons/cord, plus 10 percent.

(f) Bark throughput is based on 8 percent of roundwood.

(g) Based on purchased bark.

(h) Total bark throughput is sum of manufactured bark and purchased bark.

(i) Vehicle miles traveled (VMT) was calculated assuming front end loader operating 12 hrs/day, 365 days/yr in the woodyard.

(j) Purchased chip throughput is based on 142,800 cords/yr (softwood) and 411,600 cords/yr (hardwood) @ 2.5 tons/cord, plus 10 percent.

(k) Total chip throughput is based on 92 percent of roundwood throughput plus purchased chip throughput.

(l) Based on 70% of total chip throughput.

(m) Based on 30% of total chip throughput.

(n) Fines separated from wood chip stream.

(o) Total chips minus fines.

Table A-6. Maximum Emissions from the Woodyard at Stone Container, Panama City

SOURCE	Type of Operation (a)	M Moisture Content (%)	U Wind Speed (MPH)	Uncontrolled Emission Factor	Type of Control	Control Efficiency (%)	Controlled Emission Factor	Activity Factor	Maximum Annual PM Emissions (tons/yr)	PM10 Size Multiplier (c)	Maximum Annual PM10 Emissions (tons/yr)
ROUNDWOOD HANDLING											
Debarker	Debarking	--	--	0.024 lbs/ton (d)	Enclosure	80	0.00480 lbs/ton	1,946,934 TPY (e)	4.673	0.35	1.635
Chipper	Continuous Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	1,946,934 TPY (e)	0.125	0.35	0.044
Chip Surge Bin to Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
BARK HANDLING											
Debarker to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
Bark Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
No. 1 Bark Diverter to Emergency Bark Storage Pite	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	0 TPY (f)	0.0000	0.35	0.00000
Emergency Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Unhogged Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Trucked Bark to Purchased Unhogged Bark Storage Pile	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Front End Loaded to Bark Hopper	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Wastewood Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	316,098 TPY (g)	0.0041	0.35	0.00142
No. 1 Bark Diverter to Disc Screen	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Hog	Hammermill	--	--	0.024 lbs/ton (d)	Enclosed	80	0.00480 lbs/ton	471,853 TPY (h)	1.132	1.0	1.132
Bark Hog to Hogged Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Conveyor to Hogged Bark Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Pile	Wind Erosion	--	--	--	None	0	--	--	0.0023	1.0	0.0023
Bark Bin Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone	0	2.0 lb/hr	8,760 hr/yr	8.76	0.35	3.07
Bark Bin Cyclone to Small Bark Bin and Screw	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Small Bark Bin and Screw to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Conveyor to No. 2 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Storage Pile Maintenance	Vehicular Traffic	--	--	0.74 lbs/VMT	None	0	0.74 lbs/VMT	21,900 VMT (i)	8.103	0.35	2.836
PURCHASED CHIP HANDLING											
Truck Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Railcar Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Truck Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
Railcar Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
MANUFACTURED AND PURCHASED CHIP PROCESSING											
Tower No. 1 Diverter to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Reclaim Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaim Coveyor to Radial Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Radial Conveyor to Chip Reclaimer Storage Pile (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaimer Storage Pile (2)	Wind Erosion	--	--	--	None	0	--	--	0.048	1.0	0.048
Chip Reclaimer Storage Pile to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Screw (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screw to Primary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screens	Screening										
Softwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone, Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Hardwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Primary Screen to Secondary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Secondary Screen to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,321,045 TPY (l)	0.030	0.35	0.010
Screen Building Rejects Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.066
Screen Building Rejects Cyclone to Chip Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	994,734 TPY (m)	0.026	0.35	0.009
Fines Blowline Emergency Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.00017	1.0	0.00017
Fines Blowline Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.07
Fines Blowline Cyclone to Wastewood/Sludge Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	9,947 TPY (n)	0.000	0.35	0.000
Chip Conveyor to No. 5 Transfer Tower (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,305,772 TPY (o)	0.043	0.35	0.015
TOTAL									44.61		16.39

Notes:

(a) Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (US EPA, 1995) Section 13.2.4-3(1). $E = 0.0032 \times (U/5)^{1.3} / (M/2)^{1.4}$ lb/ton

(b) Wind Erosion Emissions based on AP-42 (US EPA, 1995) Section 13.2.5. Refer to Attachment A for derivation.

(c) PM10 Size Multiplier is based on particles < 10 micrometers.

(d) Debarker emissions are based on Table 28 of NCASI Technical Bulletin No. 424 (March 1984), Fugitive Dust Emission Factors and Control Methods Important to Forest Products Industry Manufacturing Operations.

(e) Roundwood throughput is based on 466,800 cords/yr (softwood) @ 2.7 tons/cord and 178,800 cords/yr (hardwood) @ 2.85 tons/cord, plus 10 percent.

(f) Bark throughput is based on 8 percent of roundwood.

(g) Based on purchased bark.

(h) Total bark throughput is sum of manufactured bark and purchased bark.

(i) Vehicle miles traveled (VMT) was calculated assuming front end loader operating 12 hrs/day, 365 days/yr in the woodyard.

(j) Purchased chip throughput is based on 142,800 cords/yr (softwood) and 411,600 cords/yr (hardwood) @ 2.5 tons/cord, plus 10 percent.

(k) Total chip throughput is based on 92 percent of roundwood throughput plus purchased chip throughput.

(l) Based on 70% of total chip throughput.

(m) Based on 30% of total chip throughput.

(n) Fines separated from wood chip stream.

(o) Total chips minus fines.

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Thomas L. Clements
Environmental Superintendent
Stone Container Corporation
Panama City Mill
One Everitt Avenue
Panama City, Florida
32412-0560

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery 2-1-03

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number
(Transfer from service label) 7000 2870 0000 7028 1235

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Mr. Thomas L. Clements

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

7000 2870 0000 7028 1235

Sent To
Mr. Thomas L. Clements
Street, Apt. No.; or PO Box No.
One Everitt Avenue
City, State, ZIP+4
Panama City, FL 32412-0560

PS Form 3800, May 2000 See Reverse for Instructions

Memorandum

Florida Department of
Environmental Protection

TO: Howard Rhodes

THRU: Scott Sheplak
Trina Vielhauer

FROM: Bruce Mitchell

DATE: June 26, 2003

SUBJECT: Stone Container Corporation
Panama City Mill
Final Air Construction Permit/PSD Permit Amendment
0050009-014-AC/PSD-FL-288(A)

Attached is the Final Air Construction Permit/PSD Permit Amendment, which is being issued to correct the federally enforceable allowable production rates of the woodyard. The modification will correct the woodyard's allowable production rates from 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year to 1,524,600 tons of purchased chips per year and 1,946,934 tons of roundwood per year. The existing pulp and paper mill is located in Panama City, Bay County.

There were no comments received during the Public Notice period. Therefore, it is recommended to issue the Final Air Construction Permit/PSD Permit Amendment as noticed.

June 26 is Day 24 on the permitting clock.

Attachments

HLR/bm

NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit:

Mr. Thomas L. Clements
Environmental Superintendent
Stone Container Corporation
Panama City Mill
One Everitt Avenue
Panama City, Florida 32412-0560

DEP File No.: 0050009-014-AC/PSD-FL-288(A)
Bay County

Enclosed is the Final Air Construction Permit/PSD Permit Amendment, Nos. 0050009-014-AC/PSD-FL-288(A). The subject of the permit (letter) is a modification to correct the federally enforceable allowable production rates of the woodyard. The modification will correct the woodyard's allowable production rates from 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year to 1,524,600 tons of purchased chips per year and 1,946,934 tons of roundwood per year. The facility is located at One Everett Avenue, Panama City, Bay County. This permit (letter) is issued pursuant to Chapter 403, Florida Statutes (F.S.). There were no comments received during the Public Notice period.

Any party to this order (permit) has the right to seek judicial review of the permit (letter) pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and, by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

Trina L. Vielhauer
Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the Final Permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 6/30/03 to the person(s) listed or as otherwise noted:

Mr. Thomas L. Clements *, Environmental Superintendent, SCC – PC Mill.
Ms. Sandra Veazey, NWD
Mr. Kevin White, NWD
Mr. David Buff, P.E., GAI
Mr. Joel Huey, U.S. EPA, Region 4

6/30/03 cc: Bruce Mitchell Reading File

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Barbara J. Friday 6/30/03
(Clerk) (Date)

FINAL DETERMINATION

Stone Container Corporation
Panama City Mill

Air Construction Permit No.: 0050009-014-AC
PSD-FL-288(A)

Bay County

An Intent to Issue an air construction permit/PSD permit amendment to Stone Container Corporation's Panama City Mill, located at One Everitt Avenue, Panama City, Bay County, Florida, was distributed on May 15, 2003. The Public Notice of Intent to Issue an Air Construction Permit was published in the Panama City News Herald on May 26, 2003. There were no comments submitted in response to the Public Notice. The U.S. EPA, Region 4 had no comments regarding the proposed permitting action.

The final action of the Department will be to issue the air construction permit/PSD permit amendment as noticed.

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

June 27, 2003

CERTIFIED MAIL – Return Receipt Requested

Mr. Thomas L. Clements
Environmental Superintendent
Stone Container Corporation
Panama City Mill
One Everitt Avenue
Panama City, Florida 32412-0560

Re: Final Air Construction Permit Project No.: 0050009-014-AC
PSD Permit Amendment No.: PSD-FL-288(A)
Stone Container Corporation: Panama City Mill

Dear Mr. Clements:

This letter modification corrects the woodyard's allowable production rates established in the air construction permit(s), Nos. 0050009-005-AC/PSD-FL-288, issued/clerked on September 5, 2002. Therefore, the following is changed:

1. Specific Condition A.1.
FROM:
Capacity. The woodyard's maximum allowable production rates are 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year.
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

TO: Specific Condition B.1.
Capacity. The woodyard's maximum allowable production rates are 1,524,600 tons of purchased chips per year and 1,946,934 tons of roundwood per year.
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

2. All of Section III., Subsection A., Woodyard Operations, is relabeled as Section III., Subsection B., Woodyard Operations, and all of the Specific Conditions under this subsection are renumbered as follows:
FROM:
A.1. thru A.10.

TO:
B.1. thru B.10.

This permit (letter) is issued pursuant to Chapter 403, Florida Statutes (F.S.). Any party to this order has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by

filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

Sincerely,

Howard L. Rhodes, Director
Division of Air Resource Management

HLR/rbm

cc: Ms. Sandra Veazey, DEP - NWD
Mr. Kevin White, DEP – NWD
Mr. Henry Hernandez, DEP - NWDB
Mr. Joel Huey, U.S. EPA, Region 4
Mr. David Buff, P.E., GA

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Thomas L. Clements
Environmental Superintendent
Stone Container Corporation
Panama City Mill
One Everitt Avenue
Panama City, Florida
32412-0560

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery 7-1-03

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7000 2870 0000 7028 1235

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Mr. Thomas L. Clements

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

7000 2870 0000 7028 1235

Sent To
Mr. Thomas L. Clements

Street, Apt. No.; or PO Box No.
One Everitt Avenue

City, State, ZIP+4
Panama City, FL 32412-0560

PS Form 3800, May 2000 See Reverse for Instructions

Smurfit-Stone

Containerboard Mill Division

RECEIVED

JUN 05 2003

BUREAU OF AIR REGULATION

June 2, 2003

Mr. Bruce Mitchell
Florida Dept. of Environmental Protection
Division of Air Resources Mgmt.
2600 Blair Stone Rd
Tallahassee, FL 32399-2400

Re: Public Notice

Dear Mr. Mitchell

The proof of public notice for permit PSD-FL-288(A) is attached. If you have any questions, please call me at (850) 785-4311 x470.

Sincerely

Tom Clements
Environmental Mgr.

Smurfit-Stone Container Corporation
1 Everitt Avenue 32401 P.O. Box 59560 32412-0560 Panama City, FL Phone (850) 785-4311 Fax (850) 763-6290

Florida Freedom Newspapers, Inc.

PUBLISHERS OF THE NEWS HERALD
Panama City, Bay County, Florida
Published Daily

RECEIVED
JUN 05 2003
BUREAU OF AIR REGULATION

State of Florida
County of Bay

Before the undersigned authority appeared _____

Pam Gregory, who on oath says that (s)he is Advertising Director of the News Herald, a daily newspaper published at Panama City, in Bay County, Florida; that the attached copy of advertisement, being a Legal Advertisement- 4284 in the matter of Notice of Intent AC Permit/Stone Container Corp. in the Bay County Court, was published in said newspaper in the issues of May 26, 2003

Affiant further says that the News Herald is a direct successor of the Panama City News and that this publication, together with its direct predecessor, has been continuously published in said Bay County, Florida, each day (except that the predecessor, Panama City News, was not published on Sundays), and that this publication together with its said predecessor, has been entered as a second class mail matter at the post office in Panama City in said Bay County, Florida, for a period of one year next preceding the first publication of the attached copy of the advertisement, all in accordance with the provisions of section 49.03, Florida Statutes; and affiant further says that (s)he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Pam Gregory

State of Florida
County of Bay
Sworn to and subscribed before me this 26th day of May, A. D., 2003 by Pam Gregory, Advertising Director of The News Herald, who is personally known to me or has produced na as identification.

Marie Forrest
MY COMMISSION # DD209621 EXPIRES
May 5, 2007
BONDED THRU TROY FAIN INSURANCE, INC.

Marie Forrest
Notary Public, State of Florida at Large

4284
PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/ PSD PERMIT AMENDMENT
STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Draft Air Construction Permit No.: 0050009-014-AC
Draft PSD Permit Amendment No.: PSD-FL-288(A)
Stone Container Corporation
Panama City Mill
Bay County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue an Air Construction Permit/ PSD Permit Amendment (letter) to Stone Container Corporation for its existing pulp mill located in Panama City, Bay County. The applicant's name and address are: Thomas L. Clements, Environmental Superintendent, One Everitt Avenue, Panama City, Florida 32412-0560. The permittee, Stone Container Corporation, applied on April 28, 2003, for a modification to the woodyard's method of operation at the existing pulp mill. The modification will correct the woodyard's allowable production rates from 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year to 1,524,600 tons of purchased chips per year and 1,946,934 tons of roundwood per year.
The permitting authority will issue the Air Construction Permit/PSD Permit Amendment, and subsequent Final Air Construction Permit/PSD Permit Amendment, in accordance with the condition of the Draft Air Construction Permit/PSD Permit Amendment, unless a response received in accordance with the following procedures results in a different decision or significant change of terms or condition.
The permitting authority will accept written comments concerning the proposed Draft Air Construction Permit/PSD Permit Amendment (letter) issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the Draft Air Construction Permit/PSD Permit Amendment (letter), the permitting authority shall issue a Revised Draft Air

Construction Permit/PSD Permit Amendment (letter) and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 of the Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of the notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the applicable time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Florida Administrative Code (F.A.C.) Rule 28-106.205.

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file(s) or identification number(s), if known;

(b) The name, address and telephone number of the petitioner; name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how petitioner's substantial rights will be affected by the agency determination;

(c) A statement of how and when the petitioner received notice of the agency action or proposed action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so state;

(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle petitioner to relief; and

(f) A demand for relief.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available for this proceeding.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Permitting Authority:
Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida
32301
Telephone: 850/488-0114
Fax: 850/922-6979

Affected District Office Authority:
Department of Environmental Protection
Northwest District Office
Air Resources
160 Governmental Place
Pensacola, Florida
32520-0328
Telephone: 850/595-0328
Fax: 850/595-8096

Affected District Branch Office Authority:
Department of Environmental Protection
Northwest District Branch Office
2353 Jenks Avenue
Panama City, Florida
32405
Telephone: 850/872-4375
Fax: 850/872-7790

The complete project file includes the Draft Air Construction Permit/PSD Permit Amendment, the application, the Technical Evaluation and Preliminary Determination, and the information submitted by the facility's representative, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott M. Sheplak, P.E., at the above address, or call 850/921-9532 for additional information.

May 26, 2003

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

May 7, 2002

9937518

Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Attention: Mr. C. H. Fancy, P.E., Chief, Bureau of Air Regulation

RE: FILE NO. 0050009-005-AC (PSD-FL-288)
STONE CONTAINER CORP. PANAMA CITY MILL
PULP PRODUCTION INCREASE

Dear Mr. Fancy:

On behalf of Stone Container Corporation (SCC), Golder Associates Inc. (Golder) is submitting additional information for the above-referenced request for a pulp production increase for SCC's Panama City mill. As requested by Bruce Mitchell in a telephone conversation with Charlie Ackel on April 30, 2002, the particular item of interest is the attached facility plot plan. This plot contains the modeling origin (denoted by the darkest, intersecting lines), the modeled buildings and sources (plotted in dark black over the AutoCAD plot plan), and a grid comprised of 100 foot spaced gridlines. The angle of rotation used to translate the locations from plant north to true north inherent in the actual model runs is 40 degrees.

Thank you in advance for promptly reviewing this information. Please call me or Erin Gorman at 352-336-5600 if you have any questions concerning this information.

Sincerely,

GOLDER ASSOCIATES INC.

David A. Buff

David A. Buff, P.E.
Principal Engineer
Florida P.E. # 19011
SEAL

Attachments

DB/nav

cc: Howard Rhodes, DARM w/o enclosure
Bruce Mitchell, DARM w/o enclosure
Sandra Veazey, FDEP Pensacola w/o enclosure
Charlie Ackel, SCC w/o enclosure
Tom Clements, SCC
Steve Hamilton, SCC w/o enclosure
Terry Cole, Oertel & Hoffman w/o enclosure

T:\Erin\Stone April 2002\Stone Plot Letter.doc

7/9/03

Dear Yi,

Please check the ARMS change that was made for the above referenced permitting project. The change affected EU -030 for the Woodyard Operations…I made a comment in the "comment area" to reflect the amount of chips and roundwood allowed to be processed in the Woodyard Operations. Many thanks and please advise if I need to anything more. Take care.

Bruce

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

P.E. Certification Statement

Permittee:
Stone Container Corp.
Panama City Mill

Permit No.: 0050009-014-AC/PSD-FL-288(A)

Project type: Air Construction Permit - Modification of the Woodyard

I HEREBY CERTIFY *that the engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).*

Scott M. Sheplak, P.E. — 05/03/03
Scott M. Sheplak, P.E. — date
Registration Number: 48866

Permitting Authority:
Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/921-9532
Fax: 850/922-6979

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

May 12, 2003

CERTIFIED MAIL - Return Receipt Requested

Mr. Thomas L. Clements
Environmental Superintendent
Stone Container Corporation
Panama City Mill
One Everitt Avenue
Panama City, Florida 32412-0560

Re: Request for Modification of the Woodyard
Air Construction Permit/PSD Permit Amendment Nos.: 0050009-014-AC/PSD-FL-288(A)

Dear Mr. Clements:

One copy of the Draft Air Construction Permit/PSD Permit Amendment (letter) for the modification of the woodyard's processing rates at Stone Container Corporation's existing pulp mill located at One Everitt Avenue, Panama City, Bay County, Florida, is enclosed. The modification will correct the woodyard's allowable production rates from 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year to 1,524,600 tons of purchased chips per year and 1,946,934 tons of roundwood per year. The permitting authority's "INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/PSD PERMIT AMENDMENT" and the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/PSD PERMIT AMENDMENT " are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/PSD PERMIT AMENDMENT" must be published as soon as possible. Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit (letter) pursuant to Rule 62-110.106(11), F.A.C.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to Scott M. Sheplak, P.E., at the above letterhead address. If you have any other questions, please contact Bruce Mitchell at 850/413-9198.

Sincerely,

Trina L. Vielhauer
Chief
Bureau of Air Regulation

TLV/rbm

Enclosures

In the Matter of an
Application for Permit by:

Stone Container Corporation
One Everitt Avenue
Panama City, Florida 32412-0560

Permit Project No.: 0050009-014-AC/PSD-FL-288(A)
Panama City Mill
Bay County

/

INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/PSD PERMIT AMENDMENT

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue an Air Construction Permit/PSD Permit Amendment (letter; and, copy of the Draft permit(s) enclosed) for the modification of the woodyard's method of operation at Stone Container Corporation's existing pulp mill located at One Everitt Avenue, Panama City, Bay County, Florida. The modification will correct the woodyard's allowable production rates from 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year to 1,524,600 tons of purchased chips per year and 1,946,934 tons of roundwood per year.

The permittee, Stone Container Corporation - Panama City Mill, applied on April 28, 2003, for the modification.

The permitting authority has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-212. This modification is not exempt from permitting procedures. The permitting authority has determined that an Air Construction Permit/PSD Permit Amendment are required for the proposed modification.

The permitting authority intends to issue the Air Construction Permit/PSD Permit Amendment (letter) based on the belief that reasonable assurances have been provided to indicate that operation of the emissions unit will not adversely impact air quality, and the emissions unit will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.0872, F.S., and Rules 62-110.106 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/PSD PERMIT AMENDMENT." The notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit(s). If you are uncertain that a newspaper meets these requirements, please contact the permitting authority at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0144; Fax: 850/922-6979), within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit(s) (letter) pursuant to Rule 62-110.106(11), F.A.C.

The permitting authority will issue the Final Air Construction Permit/PSD Permit Amendment in accordance with the conditions of the enclosed Draft Air Construction Permit/PSD Permit Amendment unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/PSD PERMIT AMENDMENT." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the Draft Air Construction Permit/PSD Permit Amendment, the permitting authority shall issue a Revised Draft Air Construction Permit/PSD Permit Amendment and require, if applicable, another Public Notice.

The permitting authority will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S. Mediation under Section 120.573, F.S., will not be available for this proposed action.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). Petitions filed by the permit applicant or any of the parties listed below must be filed within 14 (fourteen) days of receipt of this notice of intent. Petitions filed by any other person must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-5.207, F.A.C.

A petition must contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number, and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the permitting authority's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the permitting authority's action or proposed action;

(d) A statement of the material facts disputed by the petitioner, if any;

(e) A statement of the facts that the petitioner contends warrant reversal or modification of the permitting authority's action or proposed action;

(f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the permitting authority's action or proposed action; and,

(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the permitting authority to take with respect to the action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

In addition to the above, a person subject to regulation has a right to apply to the Department of Environmental Protection for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information:

(a) The name, address, and telephone number of the petitioner;

(b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any;

(c) Each rule or portion of a rule from which a variance or waiver is requested;

(d) The citation to the statute underlying (implemented by) the rule identified in (c) above;

(e) The type of action requested;

(f) The specific facts that would justify a variance or waiver for the petitioner;

(g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and,

(h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2), F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the United States Environmental Protection Agency and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Trina L. Vielhauer
Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/PSD PERMIT AMENDMENT (including the PUBLIC NOTICE and the Draft permit(s)) and all copies were sent by certified mail before the close of business on 5/12/03 to the person(s) listed:

Mr. Thomas L. Clements, Environmental Superintendent, SCC - PC Mill

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/PSD PERMIT AMENDMENT (including the PUBLIC NOTICE and the Draft permit(s)) were sent by U.S. mail on the same date to the person(s) listed:

Ms. Sandra Veazey, DEP - NWD
Mr. Kevin White, DEP – NWD
Mr. Henry Hernandez, DEP - NWDB
Ms. Jeananne Gettle, U.S. EPA, Region 4
Mr. David Buff, P.E., GA

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency Clerk, receipt of which is hereby acknowledged.

Patricia J. Friday 5/15/03
(Clerk) (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/PSD PERMIT AMENDMENT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Draft Air Construction Permit No.: 0050009-014-AC
Draft PSD Permit Amendment No.: PSD-FL-288(A)
Stone Container Corporation
Panama City Mill
Bay County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue an Air Construction Permit/PSD Permit Amendment (letter) to Stone Container Corporation for its existing pulp mill located in Panama City, Bay County. The applicant's name and address are: Thomas L. Clements, Environmental Superintendent, One Everitt Avenue, Panama City, Florida 32412-0560.

The permittee, Stone Container Corporation, applied on April 28, 2003, for a modification to the woodyard's method of operation at the existing pulp mill. The modification will correct the woodyard's allowable production rates from 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year to 1,524,600 tons of purchased chips per year and 1,946,934 tons of roundwood per year.

The permitting authority will issue the Air Construction Permit/PSD Permit Amendment, and subsequent Final Air Construction Permit/PSD Permit Amendment, in accordance with the conditions of the Draft Air Construction Permit/PSD Permit Amendment, unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed Draft Air Construction Permit/PSD Permit Amendment (letter) issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the Draft Air Construction Permit/PSD Permit Amendment (letter), the permitting authority shall issue a Revised Draft Air Construction Permit/PSD Permit Amendment (letter) and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of the notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the applicable time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Florida Administrative Code (F.A.C.) Rule 28-106.205.

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file(s) or identification number(s), if known;

(b) The name, address and telephone number of the petitioner; name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how petitioner's substantial rights will be affected by the agency determination;

(c) A statement of how and when the petitioner received notice of the agency action or proposed action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so state;

(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle petitioner to relief; and

(f) A demand for relief.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available for this proceeding.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Permitting Authority:
Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0114
Fax: 850/922-6979

Affected District Office Authority:
Department of Environmental Protection
Northwest District Office
Air Resources
160 Governmental Place
Pensacola, Florida 32520-0328
Telephone: 850/595-8364
Fax: 850/595-8096

Affected District Branch Office Authority:
Department of Environmental Protection
Northwest District Branch Office
2353 Jenks Avenue
Panama City, Florida 32405
Telephone: 850/872-4375
Fax: 850/872-7790

The complete project file includes the Draft Air Construction Permit/PSD Permit Amendment, the application, the Technical Evaluation and Preliminary Determination, and the information submitted by the facility's representative, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott M. Sheplak, P.E., at the above address, or call 850/921-9532 for additional information.

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

Stone Container Corporation
Panama City Mill
Facility ID No.: 0050009
Bay County

Air Construction Permit/PSD Permit Amendment
Draft Air Construction Permit No.: 0050009-014-AC
PSD Permit Amendment No.: PSD-FL-288(A)

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Title V Section

1. APPLICATION INFORMATION.

A. Applicant Name and Address:
Stone Container Corporation
Panama City Mill
P. O. Box 59560
Panama City, Florida 32412-0560

Responsible Official
Mr. Thomas L. Clements, Environmental Superintendent

B. Reviewing and Process Schedule:
April 28, 2003: Receipt of Application

2. FACILITY INFORMATION.

A. Facility Location

The Stone Container Corporation's Panama City Mill is located at One Everitt Avenue in Panama City, Bay County, Florida.

The UTM coordinates of this facility are: Zone 16; 632.8 km East; and, 3335.1 km North.

B. Standard Industrial Classification Code (SIC):

Major Group No.	26	Paper and Allied Products
Group No.	261	Pulp Mills
Industry No.	2611	Pulp Mills

C. Facility Category

The Panama City Mill is classified as a major air pollutant emitting facility and is a Title V facility. The initial Title V Permit, No. 0050009-002-AV, was effective on June 28, 2006.

3. PROJECT DESCRIPTION.

An Air Construction (AC) Permit/PSD Permit Amendment is required to correct the federally enforceable allowable production rates of the woodyard. The modification will correct the woodyard's allowable production rates from 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year to 1,524,600 tons of purchased chips per year and 1,946,934 tons of roundwood per year.

4. RULE APPLICABILITY.

The proposed project is subject to permitting under Rule 62-210.300, F.A.C., Permits Required.

The permitting authority intends to issue this Air Construction Permit/PSD Permit Amendment based on the belief that reasonable assurances have been provided to indicate that the correction in the proposed throughput rates of the aforementioned woodyard operation will not adversely impact air quality; and, the affected woodyard operation will be in compliance with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

5. AIR QUALITY ANALYSIS.

An air quality analysis was not required.

6. CONCLUSION.

Based on the foregoing technical evaluation, the Department has made a preliminary determination that the proposed project will be in compliance with all applicable state and federal air pollution regulations. The proposed corrected permit (letter) is attached.

Permit Engineer: Bruce Mitchell

Reviewed and Approved by Scott M. Sheplak, P.E.

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

Month Day, 2003

CERTIFIED MAIL – Return Receipt Requested

Mr. Thomas L. Clements
Environmental Superintendent
Stone Container Corporation
Panama City Mill
One Everitt Avenue
Panama City, Florida 32412-0560

DRAFT

Re: Draft Air Construction Permit Project No.: 0050009-014-AC
Draft PSD Permit Amendment No.: PSD-FL-288(A)
Stone Container Corporation: Panama City Mill

Dear Mr. Clements:

This letter modification corrects the woodyard's allowable production rates established in the air construction permit(s), Nos. 0050009-005-AC/PSD-FL-288, issued/clerked on September 5, 2002. Therefore, the following is changed:

1. Specific Condition A.1.
FROM:
Capacity. The woodyard's maximum allowable production rates are 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year.
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

TO: Specific Condition B.1.
Capacity. The woodyard's maximum allowable production rates are 1,524,600 tons of purchased chips per year and 1,946,934 tons of roundwood per year.
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

2. All of Section III., Subsection A., Woodyard Operations, is relabeled as Section III., Subsection B., Woodyard Operations, and all of the Specific Conditions under this subsection are renumbered as follows:
FROM:
A.1. thru A.10.

TO:
B.1. thru B.10.

This permit (letter) is issued pursuant to Chapter 403, Florida Statutes (F.S.). Any party to this order has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by

filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

Sincerely,

Howard L. Rhodes, Director
Division of Air Resource Management

HLR/rbm

cc: Ms. Sandra Veazey, DEP - NWD
Mr. Kevin White, DEP – NWD
Mr. Henry Hernandez, DEP - NWDB
Ms. Jeananne Gettle, U.S. EPA, Region 4
Mr. David Buff, P.E., GA

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

April 23, 2003

0137598

Florida Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Attention: Ms. Trina Vielhauer, Chief, Bureau of Air Regulation

RE: STONE CONTAINER CORPORATION - PANAMA CITY MILL
PERMIT NO. 0050009-005-AC/PSD-FL-288
WOODYARD OPERATIONS

Dear Ms. Vielhauer:

Stone Container Corporation (SCC) was issued construction permit No. 0050009-005-AC/PSD-FL-288 for modification to the batch digester system and woodyard operations on September 9, 2002. The purpose of this letter is to request a revision to this permit in regards to the facility description of the Woodyard and the capacity limitations on the Woodyard. SCC is in the process of revising the Title V permit for the facility, and wants to correct the construction permit in order to obtain a correct Title V permit:

In the facility description in Section I, Subsection A, of the above referenced PSD construction permit, the following is stated:

> "In addition, the modification will allow the woodyard's production rates to increase from 554,000 cords of purchased chips per year and 645,600 cords of roundwood per year to 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year."

In Section III, Subsection A, Condition A.1, of the permit it is stated:

> "The woodyard's maximum allowable production rates are 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year."

Review of these permitted rates with the rates specified in the application for the pulp production increase indicates that the units were incorrectly stated in the permit as cords per year instead of tons per year.

The Woodyard production rates corresponding to the increase in pulp production to 781,000 tons per year (TPY) of pulp were contained in the document entitled "Supplemental Information for PSD Permit Application, Stone Container Corporation, Panama City, Florida" (April 2000), prepared by Golder Associates Inc. The rates were presented in Appendix A, Table A-6, of this document, and is attached for your convenience. As shown, the correct rates are 1,946,934 tons of roundwood per year and 1,524,600 tons of purchased chips per year (see footnotes "e" and "j" in table). In terms of cords, the correct rates are 710,160 cords of roundwood per year and 609,840 cords of purchased chips per year. These rates are summarized in the attached Table 1, and contain the 10-percent safety factor indicated in the footnotes to Table A-6.

SCC requests that the facility description and Condition A.1 of the construction permit be revised to reflect the correct throughput rates for the Woodyard. To support this request, attached is the air permit application form for the Woodyard.

Thank you for your consideration of this request. If you have any questions, please call me at (352) 336-5600 or Tom Clements at (850) 785-4311 ext. 470.

Sincerely,

GOLDER ASSOCIATES INC.

David A. Buff

David A. Buff, P. E., Q. E. P.
Principal Engineer

DB/jkw

cc: Tom Clements
Sandra Veazey, Northwest District

P:\Projects\2001\0137598 Stone Container Panama City\4\4.1\042303\L042303.doc

Table A-6. Maximum Emissions from the Woodyard at Stone Container, Panama City

SOURCE	Type of Operation (a)	M Moisture Content (%)	U Wind Speed (MPH)	Uncontrolled Emission Factor	Type of Control	Control Efficiency (%)	Controlled Emission Factor	Activity Factor	Maximum Annual PM Emissions (tons/yr)	PM10 Size Multiplier (c)	Maximum Annual PM10 Emissions (tons/yr)
ROUNDWOOD HANDLING											
Debarker	Debarking	- -	- -	0.024 lbs/ton (d)	Enclosure	80	0.00480 lbs/ton	1,946,934 TPY (e)	4.673	0.35	1.635
Chipper	Continuous Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	1,946,934 TPY (e)	0.125	0.35	0.044
Chip Surge Bin to Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
BARK HANDLING											
Debarker to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
Bark Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
No. 1 Bark Diverter to Emergency Bark Storage Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	0 TPY (f)	0.0000	0.35	0.00000
Emergency Bark Storage Pile	Wind Erosion	–	--	--	None	0	–	–	0.0094	1.0	0.0094
Unhogged Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Trucked Bark to Purchased Unhogged Bark Storage Pile	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Front End Loaded to Bark Hopper	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Wastewood Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	316,098 TPY (g)	0.0041	0.35	0.00142
No. 1 Bark Diverter to Disc Screen	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Hog	Hammermill	--	--	0.024 lbs/ton (d)	Enclosed	80	0.00480 lbs/ton	471,853 TPY (h)	1.132	1.0	1.132
Bark Hog to Hogged Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Conveyor to Hogged Bark Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Pile	Wind Erosion	--	--	--	None	0	--	--	0.0023	1.0	0.0023
Bark Bin Cyclone	Cyclone Vent	–	--	2.0 lb/hr	Cyclone	0	2.0 lb/hr	8,760 hr/yr	8.76	0.35	3.07
Bark Bin Cyclone to Small Bark Bin and Screw	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Small Bark Bin and Screw to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Conveyor to No. 2 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Storage Pile Maintenance	Vehicular Traffic	--	--	0.74 lbs/VMT	None	0	0.74 lbs/VMT	21,900 VMT (i)	8.103	0.35	2.836
PURCHASED CHIP HANDLING											
Truck Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Railcar Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Truck Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
Railcar Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
MANUFACTURED AND PURCHASED CHIP PROCESSING											
Tower No. 1 Diverter to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Reclaim Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaim Coveyor to Radial Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Radial Conveyor to Chip Reclaimer Storage Pile (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaimer Storage Pile (2)	Wind Erosion	–	--	–	None	0	–	–	0.048	1.0	0.048
Chip Reclaimer Storage Pile to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Screw (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screw to Primary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screens	Screening										
Softwood Primary Screen Cyclone	Cyclone Vent	–	–	2.0 lb/hr	Cyclone, Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Hardwood Primary Screen Cyclone	Cyclone Vent	–	–	2.0 lb/hr	Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Primary Screen to Secondary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Secondary Screen to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,321,045 TPY (l)	0.030	0.35	0.010
Screen Building Rejects Cyclone	Cyclone Vent	–	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.066
Screen Building Rejects Cyclone to Chip Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	994,734 TPY (m)	0.026	0.35	0.009
Fines Blowline Emergency Storage Pile	Wind Erosion	–	–	–	None	0	–	–	0.00017	1.0	0.00017
Fines Blowline Cyclone	Cyclone Vent	–	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.07
Fines Blowline Cyclone to Wastewood/Sludge Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	9,947 TPY (n)	0.000	0.35	0.000
Chip Conveyor to No. 5 Transfer Tower (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,305,772 TPY (o)	0.043	0.35	0.015
TOTAL									44.61		16.39

Notes:

(a) Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (US EPA, 1995) Section 13.2.4-3(1). $E = 0.0032 \times (U/5)^{1.3} / (M/2)^{1.4}$ lb/ton

(b) Wind Erosion Emissions based on AP-42 (US EPA, 1995) Section 13.2.5. Refer to Attachment A for derivation.

(c) PM10 Size Multiplier is based on particles < 10 micrometers.

(d) Debarker emissions are based on Table 28 of NCASI Technical Bulletin No. 424 (March 1984), Fugitive Dust Emission Factors and Control Methods Important to Forest Products Industry Manufacturing Operations.

(e) Roundwood throughput is based on 466,800 cords/yr (softwood) @ 2.7 tons/cord and 178,800 cords/yr (hardwood) @ 2.85 tons/cord, plus 10 percent.

(f) Bark throughput is based on 8 percent of roundwood.

(g) Based on purchased bark.

(h) Total bark throughput is sum of manufactured bark and purchased bark.

(i) Vehicle miles traveled (VMT) was calculated assuming front end loader operating 12 hrs/day, 365 days/yr in the woodyard.

(j) Purchased chip throughput is based on 142,800 cords/yr (softwood) and 411,600 cords/yr (hardwood) @ 2.5 tons/cord, plus 10 percent.

(k) Total chip throughput is based on 92 percent of roundwood throughput plus purchased chip throughput.

(l) Based on 70% of total chip throughput.

(m) Based on 30% of total chip throughput.

(n) Fines separated from wood chip stream.

(o) Total chips minus fines.

Table 1. Maximum Woodyard Throughput Rates, SCC Panama City

Basis	cords/yr			tons/yr		
	Softwood	Hardwood	Total	Softwood	Hardwood	Total
			Roundwood			
PSD Application[a]	466,800	178,800	645,600	1,260,360	509,580	1,769,940
- plus 10%	46,680	17,880		126,036	50,958	176,994
- Total	513,480	196,680	710,160	1,386,396	560,538	**1,946,934**
			Purchased Chips			
PSD Application[a]	142,800	411,600	554,400	357,000	1,029,000	1,386,000
- plus 10%	14,280	41,160		35,700	102,900	138,600
- Total	157,080	452,760	609,840	392,700	1,131,900	**1,524,600**

Conversions: Purchased chips: 2.5 tons/cord
Roundwood: Softwood: 2.7 tons/cord
Hardwood: 2.85 tons/cord

Footnotes:

[a] Reference "Supplemental Information for PSD Permit Application, Stone Container Corporation, Panama City, Florida" (April 2000), prepared by Golder Associates Inc., Appendix A, Table A-6.

Department of Environmental Protection

Division of Air Resources Management

APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

Identification of Facility

1. Facility Owner/Company Name: **Stone Container Corporation**	
2. Site Name: **Panama City Mill**	
3. Facility Identification Number: **0050009** [ ] Unknown	
4. Facility Location: Street Address or Other Locator: **One Everitt Avenue** City: **Panama City** County: **Bay** Zip Code: **32402**	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [X] Yes [ ] No

Application Contact

1. Name and Title of Application Contact: **Tom Clements, Environmental Superintendent**
2. Application Contact Mailing Address: Organization/Firm: **Stone Container Corporation** Street Address: **One Everitt Avenue** City: **Panama City** State: **FL** Zip Code: **32402**
3. Application Contact Telephone Numbers: Telephone: (**850**) **785** - **4311** Fax: (**850**) **763** - **8530**

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	4-28-03
2. Permit Number:	0050009-014-AC
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

Purpose of Application

Air Operation Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[ ] Initial Title V air operation permit for an existing facility which is classified as a Title V source.

[ ] Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number:_____

[ ] Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: _____

Operation permit number to be revised: _____

[ ] Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)

Operation permit number to be revised/corrected:_____

[ ] Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit number to be revised:_____

Reason for revision:_____

Air Construction Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[X] Air construction permit to construct or modify one or more emissions units.

[ ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

[ ] Air construction permit for one or more existing, but unpermitted, emissions units.

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:
   Jack B. Prescott, General Manager
2. Owner/Authorized Representative or Responsible Official Mailing Address:
   Organization/Firm: **Stone Container Corporation**
   Street Address: **One Everitt Avenue**
   City: **Panama City** State: **FL** Zip Code: **32402**
3. Owner/Authorized Representative or Responsible Official Telephone Numbers:
   Telephone: (**850**) **785** - **4311** Fax: (**850**) **763** - **6290**
4. Owner/Authorized Representative or Responsible Official Statement:

   I, the undersigned, am the owner or authorized representative(check here [ ], if so) or the responsible official (check here [**X**], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.*

   Signature 4/24/03
   Date

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: **David A. Buff**
   Registration Number: **19011**
2. Professional Engineer Mailing Address:
   Organization/Firm: **Golder Associates Inc.***
   Street Address: **6241 NW 23rd Street, Suite 500**
   City: **Gainesville** State: **FL** Zip Code: **32653-1500**
3. Professional Engineer Telephone Numbers:
   Telephone: (**352**) **336** - **5600** Fax: (**352**) **336** - **6603**

*** Board of Professional Engineers Certificate of Authorization #00001670**

4. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [ ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

David A. Buff — Signature

4/23/03 — Date

(seal)

* Attach any exception to certification statement.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
030	Woodyard	ACM1	

Application Processing Fee

Check one: [ ] Attached - Amount: $: _____ [X] Not Applicable

Construction/Modification Information

1. Description of Proposed Project or Alterations:

   This application is to correct the Woodyard throughput rate specified in permit No. 0050009-005-AC/PSD-FL-288.

2. Projected or Actual Date of Commencement of Construction: **NA**

3. Projected Date of Completion of Construction: **NA**

Application Comment

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Regulated or Unregulated Emissions Unit? (Check one)

[ ] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[X] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
Woodyard

4. Emissions Unit Identification Number:
ID: **030**
[ ] No ID
[ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A		**26**	[ ]

9. Emissions Unit Comment: (Limit to 500 Characters)

Emission unit consists of roundwood, bark and purchased chip handling, and manufactured and purchased chip processing.

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

   Process Enclosed

   Centrifugal Collectors

2. Control Device or Method Code(s): **007, 054**

Emissions Unit Details

1. Package Unit:		
Manufacturer:	Model Number:	
2. Generator Nameplate Rating:	MW	
3. Incinerator Information:		
Dwell Temperature:		°F
Dwell Time:		seconds
Incinerator Afterburner Temperature:		°F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:				mmBtu/hr
2. Maximum Incineration Rate:	lb/hr			tons/day
3. Maximum Process or Throughput Rate:		**3,471,534**	**tons/yr wood**	
4. Maximum Production Rate:				
5. Requested Maximum Operating Schedule:				
	24	hours/day	**7**	days/week
	52	weeks/year	**8,760**	hours/year

6. Operating Capacity/Schedule Comment (limit to 200 characters):

See Attachment SCC-EU1-C5.

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

62-296.320(4)(b)1. General VE Limitation
62-296.320(4)(c) Unconfined PM Emissions

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? **030**	2. Emission Point Type Code: **3**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): **Conveyor transfer points, cyclone vents, storage piles, bark hog, screens**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **H**	6. Stack Height: feet	7. Exit Diameter: feet
8. Exit Temperature: **77** °F	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: **10** feet	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):		
14. Emission Point Comment (limit to 200 characters): **Refer to Attachment SCC-EU1-D14 for a description of emission sources.**		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **Pulp and Paper & Wood Products, Fugitive Emissions: Purchased Chips Handling**		
2. Source Classification Code (SCC): **3-07-888-01**	3. SCC Units: **Tons Product**	
4. Maximum Hourly Rate: **191**	5. Maximum Annual Rate: **1,524,600**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): **Maximum rates based on 142,800 cords/yr (softwood) and 411,600 cords/yr (hardwood) at 2.5 tons/cord, plus 10 percent. Hourly rate based on 8,000 hrs/yr.**		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **Pulp and Paper & Wood Products, Fugitive Emissions: Purchased Roundwood Handling**		
2. Source Classification Code (SCC): **3-07-888-02**	3. SCC Units: **Tons Product**	
4. Maximum Hourly Rate: **243**	5. Maximum Annual Rate: **1,946,934**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): **Maximum rates based on 466,800 cords/yr (softwood) at 2.7 tons/cord and 178,000 cords/yr (hardwood) at 2.85 tons/cord, plus 10 percent. Hourly rate based on 8,000 hrs/yr.**		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			WP
PM_{10}			NS
VOC			NS

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour **44.61** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code: **3**
8. Calculation of Emissions (limit to 600 characters): **See Attachment SCC-EU1-G8.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: **VE20**	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: **20** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 9**	
5. Visible Emissions Comment (limit to 200 characters): **Rule 62-296.320(4)(b)1.**	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ ] Other	
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: SCC-EU1-J1 [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID:_____ [X] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
[ ] Attached, Document ID: _____ [X] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID: _____ [X] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID: _____ [X] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID: _____ [X] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID: _____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID: _____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID: _____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID: _____

[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID: _____

[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID: _____

[X] Not Applicable

ATTACHMENT SCC-EU1-C5
OPERATING CAPACITY COMMENT

ATTACHMENT SCC-EU1-C5

OPERATING CAPACITY COMMENT

Maximum throughput rate based on 466,800 cords/yr (round softwood), 178,800 cords/yr (round hardwood), and 554,400 cords/yr (purchased chips); and the conversion factors of 2.7, 2.85, and 2.5 tons per cord, respectively, plus 10 percent. Therefore, the total maximum throughput rate for the woodyard is 513,480 cords/yr (round softwood), 196,680 cords/yr (round hardwood), and 609,840 cords/yr (purchased chips). Conversion may change depending on type of wood purchased and wood density.

ATTACHMENT SCC-EU1-D14
LIST OF SOURCES IN WOODYARD

Attachment SCC-EU1-D14. List of Sources in Woodyard

SOURCE	Type of Operation
ROUNDWOOD HANDLING	
Debarker	Debarking
Chipper	Continuous Drop
Chip Surge Bin to Conveyor	Continuous Drop
Conveyor to Tower No. 1 Chip Diverter	Continuous Drop
BARK HANDLING	
Debarker to Bark Conveyor	Continuous Drop
Bark Conveyor to No. 1 Bark Diverter	Continuous Drop
No. 1 Bark Diverter to Emergency Bark Storage Pile	Continuous Drop
Emergency Bark Storage Pile	Wind Erosion
Unhogged Bark Storage Pile	Wind Erosion
Trucked Bark to Purchased Unhogged Bark Storage Pile	Batch Drop
Front End Loaded to Bark Hopper	Batch Drop
Wastewood Conveyor to No. 1 Bark Diverter	Continuous Drop
No. 1 Bark Diverter to Disc Screen	Continuous Drop
Bark Hog	Hammermill
Bark Hog to Hogged Bark Conveyor	Continuous Drop
Hogged Bark Conveyor to Hogged Bark Pile	Continuous Drop
Hogged Bark Pile	Wind Erosion
Bark Bin Cyclone	Cyclone Vent
Bark Bin Cyclone to Small Bark Bin and Screw	Continuous Drop
Small Bark Bin and Screw to Bark Conveyor	Continuous Drop
Bark Conveyor to No. 2 Bark Diverter	Continuous Drop
Bark Storage Pile Maintenance	Vehicular Traffic
PURCHASED CHIP HANDLING	
Truck Unloading (Chip Van Hopper)	Batch Drop
Railcar Unloading (Chip Van Hopper)	Batch Drop
Truck Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop
Railcar Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop
MANUFACTURED AND PURCHASED CHIP PROCESSING	
Tower No. 1 Diverter to Chip Conveyor (2)	Continuous Drop
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop
Tower No. 2 Diverter to Chip Reclaim Conveyor (2)	Continuous Drop
Chip Reclaim Coveyor to Radial Conveyor (2)	Continuous Drop
Radial Conveyor to Chip Reclaimer Storage Pile (2)	Continuous Drop
Chip Reclaimer Storage Pile (2)	Wind Erosion
Chip Reclaimer Storage Pile to Chip Conveyor (2)	Continuous Drop
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop
Tower No. 2 Diverter to Chip Screw (2)	Continuous Drop
Chip Screw to Primary Screen (2)	Continuous Drop
Chip Screens	Screening
Softwood Primary Screen Cyclone	Cyclone Vent
Hardwood Primary Screen Cyclone	Cyclone Vent
Primary Screen to Secondary Screen (2)	Continuous Drop
Secondary Screen to Chip Conveyor (2)	Continuous Drop
Screen Building Rejects Cyclone	Cyclone Vent
Screen Building Rejects Cyclone to Chip Conveyor	Continuous Drop
Fines Blowline Emergency Storage Pile	Wind Erosion
Fines Blowline Cyclone	Cyclone Vent
Fines Blowline Cyclone to Wastewood/Sludge Conveyor	Continuous Drop
Chip Conveyor to No. 5 Transfer Tower (2)	Continuous Drop

ATTACHMENT SCC-EU1-G8
MAXIMUM EMISSIONS INFORMATION

Attachment SCC-EU1-GB. Maximum Emissions from the Woodyard at Stone Container, Panama City

SOURCE	Type of Operation (a)	M Moisture Content (%)	U Wind Speed (MPH)	Uncontrolled Emission Factor	Type of Control	Control Efficiency (%)	Controlled Emission Factor	Activity Factor	Maximum Annual PM Emissions (tons/yr)	PM10 Size Multiplier (c)	Maximum Annual PM10 Emissions (tons/yr)
ROUNDWOOD HANDLING											
Debarker	Debarking	--	--	0.024 lbs/ton (d)	Enclosure	80	0.00480 lbs/ton	1,946,934 TPY (e)	4.673	0.35	1.635
Chipper	Continuous Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	1,946,934 TPY (e)	0.125	0.35	0.044
Chip Surge Bin to Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
BARK HANDLING											
Debarker to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
Bark Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
No. 1 Bark Diverter to Emergency Bark Storage Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	0 TPY (f)	0.0000	0.35	0.00000
Emergency Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Unhogged Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Trucked Bark to Purchased Unhogged Bark Storage Pile	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Front End Loaded to Bark Hopper	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Wastewood Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	316,098 TPY (g)	0.0041	0.35	0.00142
No. 1 Bark Diverter to Disc Screen	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Hog	Hammermill	--	--	0.024 lbs/ton (d)	Enclosed	80	0.00480 lbs/ton	471,853 TPY (h)	1.132	1.0	1.132
Bark Hog to Hogged Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Conveyor to Hogged Bark Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Pile	Wind Erosion	--	--	--	None	0	--	--	0.0023	1.0	0.0023
Bark Bin Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone	0	2.0 lb/hr	8,760 hr/yr	8.76	0.35	3.07
Bark Bin Cyclone to Small Bark Bin and Screw	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Small Bark Bin and Screw to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Conveyor to No. 2 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Storage Pile Maintenance	Vehicular Traffic	--	--	0.74 lbs/VMT	None	0	0.74 lbs/VMT	21,900 VMT (i)	8.103	0.35	2.836
PURCHASED CHIP HANDLING											
Truck Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Railcar Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Truck Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
Railcar Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
MANUFACTURED AND PURCHASED CHIP PROCESSING											
Tower No. 1 Diverter to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Reclaim Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaim Coveyor to Radial Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Radial Conveyor to Chip Reclaimer Storage Pile (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaimer Storage Pile (2)	Wind Erosion	--	--	--	None	0	--	--	0.048	1.0	0.048
Chip Reclaimer Storage Pile to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Screw (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screw to Primary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screens	Screening										
Softwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone, Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Hardwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Primary Screen to Secondary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Secondary Screen to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,321,045 TPY (l)	0.030	0.35	0.010
Screen Building Rejects Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.066
Screen Building Rejects Cyclone to Chip Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	994,734 TPY (m)	0.026	0.35	0.009
Fines Blowline Emergency Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.00017	1.0	0.00017
Fines Blowline Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.07
Fines Blowline Cyclone to Wastewood/Sludge Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	9,947 TPY (n)	0.000	0.35	0.000
Chip Conveyor to No. 5 Transfer Tower (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,305,772 TPY (o)	0.043	0.35	0.015
TOTAL									44.61		16.39

Notes:

(a) *Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (US EPA, 1995) Section 13.2.4-3(1). E = 0.0032 x (U/5)^1.3 / (M/2)^1.4 lb/ton*

(b) Wind Erosion Emissions based on AP-42 (US EPA, 1995) Section 13.2.5. Refer to Attachment A for derivation.

(c) PM10 Size Multiplier is based on particles < 10 micrometers.

(d) Debarker emissions are based on Table 28 of NCASI Technical Bulletin No. 424 (March 1984), Fugitive Dust Emission Factors and Control Methods Important to Forest Products Industry Manufacturing Operations.

(e) Roundwood throughput is based on 466,800 cords/yr (softwood) @ 2.7 tons/cord and 178,800 cords/yr (hardwood) @ 2.85 tons/cord, plus 10 percent.

(f) Bark throughput is based on 8 percent of roundwood.

(g) Based on purchased bark.

(h) Total bark throughput is sum of manufactured bark and purchased bark.

(i) Vehicle miles traveled (VMT) was calculated assuming front end loader operating 12 hrs/day, 365 days/yr in the woodyard.

(j) Purchased chip throughput is based on 142,800 cords/yr (softwood) and 411,600 cords/yr (hardwood) @ 2.5 tons/cord, plus 10 percent.

(k) Total chip throughput is based on 92 percent of roundwood throughput plus purchased chip throughput.

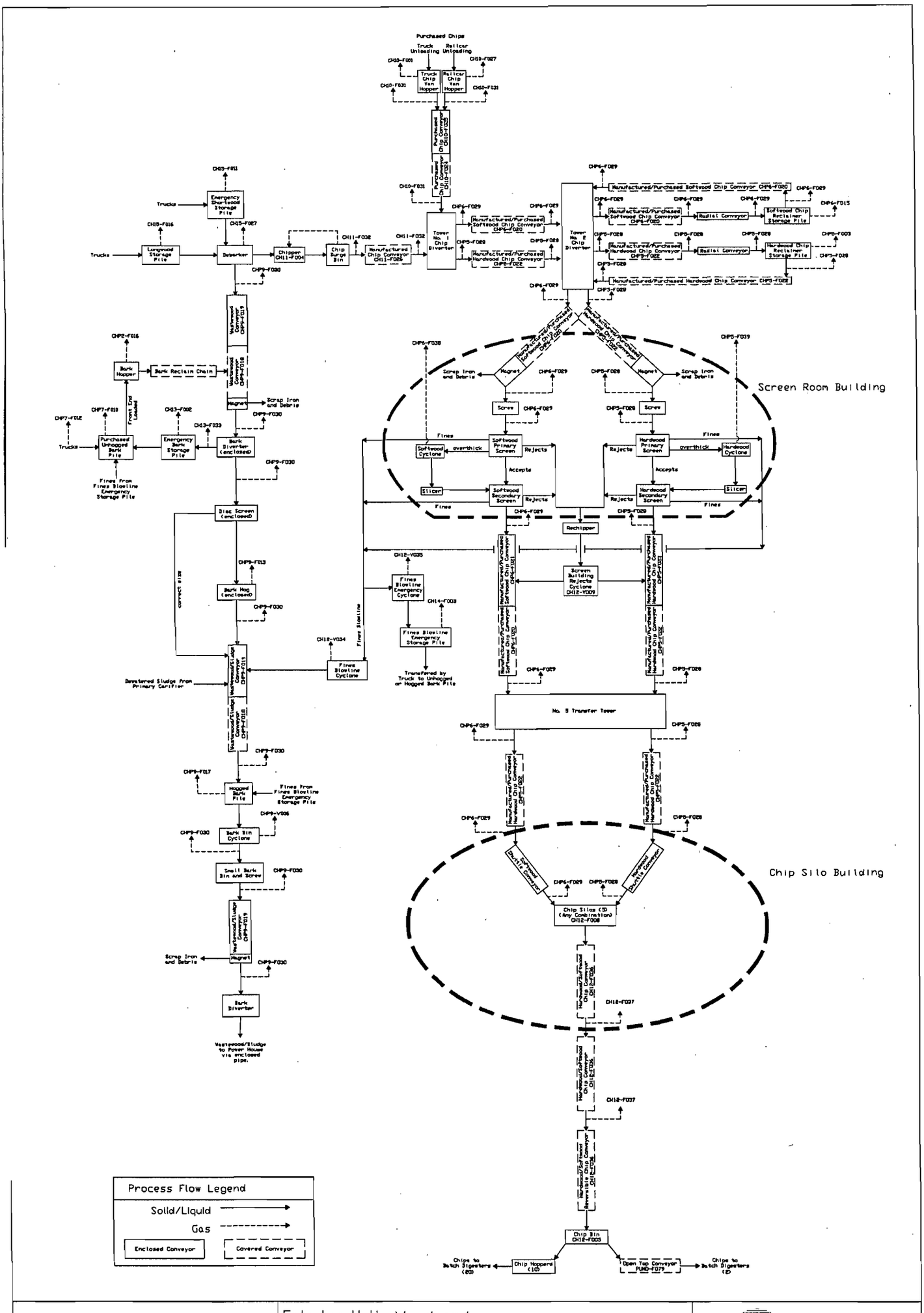
(l) Based on 70% of total chip throughput.

(m) Based on 30% of total chip throughput.

(n) Fines separated from wood chip stream.

(o) Total chips minus fines.

ATTACHMENT SCC-EU1-J1
PROCESS FLOW DIAGRAM



Attachment SCC-EU1-J1 Process Flow Diagram Stone Container Corporation Panama City, Florida	Emission Unit: Woodyard Process Area: Raw Materials Filename: 0137598/4/4.4/4.4.1Woodyard/SCC-EU1-J1.dwg Revision Date: 04/23/03 by JKW

Golder Associates

PULP PRODUCTION INCREASE
CONSTRUCTION PERMIT

NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit:

Mr. Thomas L. Clements
Environmental Superintendent
Stone Container Corporation
Panama City Mill
One Everitt Avenue
Panama City, Florida 32412-0560

DEP File No.: 0050009-005-AC/PSD-FL-288
Bay County
Pulp Production Increase

Enclosed is the Final Air Construction Permit/PSD Permit, Nos. 0050009-005-AC/PSD-FL-288. The subject of the permit is a modification to the batch digester system's and woodyard's method of operations at the existing pulp mill. The facility is located at One Everett Avenue, Panama City, Bay County. This permit is issued pursuant to Chapter 403, Florida Statutes (F.S.). There were no comments received during the Public Notice period.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and, by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

Scott M. Sheplak, P.E.
Administrator
Title V Section

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the Final Permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 9/9/02 to the person(s) listed or as otherwise noted:

Mr. Thomas L. Clements *, Environmental Superintendent, SCC – PC Mill.
Mr. Sandra Veazey, NWD
Mr. David Buff, P.E., GAI
Mr. Gregg Worley, U.S. EPA, Region 4

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Barbara J. Friday 9/9/02
(Clerk) (Date)

FINAL DETERMINATION

Stone Container Corporation
Panama City Mill

Air Construction Permit No.: 0050009-005-AC
PSD-FL-288

Bay County

An Intent to Issue an air construction permit to Stone Container Corporation's Panama City Mill, located at One Everitt Avenue, Panama City, Bay County, Florida, was distributed on July 16, 2002. The Public Notice of Intent to Issue an Air Construction Permit was published in the Panama City News Herald on July 26, 2002. There were no comments submitted in response to the Public Notice. The U.S. EPA, Region 4 had no comments regarding the proposed permitting action.

The final action of the Department will be to issue the air construction permit as noticed.

Stone Container Corporation
Panama City Mill
Facility ID No.: 0050009
Bay County

Final Air Construction Permit
Permit No.: 0050009-005-AC
PSD-FL-288

Permitting Authority:
State of Florida
Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Title V Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Telephone: 850/488-0114
Fax: 850/922-6979

Compliance Authority:
Department of Environmental Protection
Northwest District Office
160 Governmental Center
Pensacola, FL 32501-5794
Telephone: 850/595-8364
Fax: 850/595-8096

Table of Contents

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

Permittee:
Stone Container Corporation
One Everitt Avenue
Panama City, Florida 32412-0560

Permit No.: 0050009-005-AC
PSD-FL-288
Facility ID No.: 0050009
SIC Nos.: 26, 2611
Project: Modification of the Batch Digester System and Woodyard Operations

This air construction permit is for modification to the existing Panama City Mill located at One Everitt Avenue, Panama City, Bay County. The purpose of the modification is to allow the batch digester system's pulp production rates to increase from 87.3 tons per hour (TPH) and 668,850 tons per year (TPY) of air-dried unbleached pulp (ADUP) to 120 TPH and 781,000 TPY ADUP. In addition, the modification will allow the woodyard's production rates to increase from 554,400 cords of purchased chips per year and 645,600 cords of roundwood per year to 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year. The UTM Coordinates are: Zone 16, 632.8 km East and 3335.1 km North; and, Latitude: 30° 08' 30" North and Longitude: 85° 37' 25" West.

STATEMENT OF BASIS: This air construction permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-212, 62-296 and 62-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:
Appendix TV-4, Title V Conditions (version 02/12/2002)
TRS Venting Contingency Plan

Effective Date: September 5, 2002
Expiration Date: September 5, 2004

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Howard L. Rhodes, Director
Division of Air Resource Management

HLR/sms/bm

Section I. Facility Information.

Subsection A. Facility Description.

This facility is a Kraft pulp and paper mill which consists of the following major areas: wood yard, digesting system, brown stock washing, bleaching, chemical recovery, and a power/utilities area..

The modification will allow the batch digester system's pulp production rates to increase from 87.3 tons per hour (TPH) and 668,850 tons per year (TPY) of air-dried unbleached pulp (ADUP) to 120 TPH and 781,000 TPY ADUP. In addition, the modification will allow the woodyard's production rates to increase from 554,400 cords of purchased chips per year and 645,600 cords of roundwood per year to 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year. The changes in the method of operations do not require any physical changes to the batch digester system, and its associated control methods, and the woodyard operations. The TRS NCGs generated by the batch digester system's operations are collected and incinerated in the facility's lime kiln, with backup by the facility's No. 4 Combination Boiler. The TRS NCGs are incinerated by subjecting them to a minimum temperature of 1200°F for at least 0.5 seconds. The woodyard operations employ good housekeeping and enclosing or covering the conveyors, where possible.

{Note: The batch digester system is regulated under Rule 62-296.404, F.A.C., Kraft Pulp Mills, 40 CFR 60, Subpart BB, Standards and Performance for Kraft Pulp Mills, and 40 CFR 63, Subpart S, National Emissions Standards for Hazardous Air Pollutants from the Pulp and Paper Industry. The No. 4 Combination Boiler is regulated under Rule 62-296.410, F.A.C., Carbonaceous Fuel Burning Equipment, Rule 62-296.404, F.A.C., Kraft Pulp Mills, 40 CFR 60, Subpart BB, Standards and Performance for Kraft Pulp Mills, and 40 CFR 63, Subpart S, National Emissions Standards for Hazardous Air Pollutants from the Pulp and Paper Industry. The woodyard is regulated under Rule 62-296.320(4)(b)1. & 4., F.A.C.}

This facility is a major source of hazardous air pollutants (HAPs).

Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

E.U. ID No.	Brief Description
027	Batch Digester System
030	Woodyard Operation

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Subsection C. Relevant Documents.

The document listed below is not a part of this permit; however, it is specifically related to this permitting action.

These documents are on file with the permitting authority:

July 26, 1999: Date of Receipt of Application

April 10, 2000: Date of Receipt of Supplemental Information (Response to August 17, 1999 letter)

June 1, 2000: Date of Receipt of Supplemental Information (Revised Ambient Impact Analysis)

June 15, 2000: Date of Receipt of Supplemental Information (Response to May 9, 2000 letter)

June 19, 2000: Date of Receipt of Supplemental Letter

November 6, 2000: Date of Receipt of Supplemental Information (Response to July 10 and October 31, 2000 letters)

March 22, 2001: Date of Receipt of Supplemental Letter (Response to December 5, 2000 letter)

February 19, 2002: Date of Receipt of Supplemental Information (Response to December 5, 2000 letter)

April 24, 2002: Date of Receipt of Supplemental Information (Response to March 21, 2002 letter)

May 13, 2002: Date of Receipt of Supplemental Information (Response to December 5, 2000 letter: Revised Ambient Impact Analysis)

Subsection D. Miscellaneous.

The use of 'Permitting Notes' throughout this permit are for informational purposes only and are not permit conditions.

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-4, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-4, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided one copy when requested or otherwise appropriate.}

2. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants that cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.; AC03-190964; and, 0050009-003-AC]

3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]

4. Prevention of Accidental Releases (Section 112(r) of CAA).
a. As required by Section 112(r)(7)(B)(iii) of the CAA and 40 CFR 68, the owner or operator shall submit an updated Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center.
b. As required under Section 252.941(1)(c), F.S., the owner or operator shall report to the appropriate representative of the Department of Community Affairs (DCA), as established by Department rule, within one working day of discovery of an accidental release of a regulated substance from the stationary source, if the owner or operator is required to report the release to the United States Environmental Protection Agency under Section 112(r)(6) of the CAA.
c. The owner or operator shall submit the required annual registration fee to the DCA on or before April 1, in accordance with Part IV, Chapter 252, F.S., and Rule 9G-21, F.A.C.

Any required written reports, notifications, certifications, and data required to be sent to the DCA, should be sent to:

Department of Community Affairs
Division of Emergency Management
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100
Telephone: 850/413-9921, Fax: 850/488-1739

Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center
Post Office Box 3346
Merrifield, VA 22116-3346
Telephone: 703/816-4434

Any required reports to be sent to the National Response Center, should be sent to:

National Response Center
EPA Office of Solid Waste and Emergency Response
USEPA (5305 W)
401 M Street, SW
Washington, D.C. 20460
Telephone: 1/800/424-8802

Send the required annual registration fee using approved forms made payable to:

Cashier
Department of Community Affairs
State Emergency Response Commission
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2149

[Part IV, Chapter 252, F.S.; and, Rule 9G-21, F.A.C.]

5. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
{Permitting Note: Nothing was deemed necessary and ordered at this time.}
[Rule 62-296.320(1)(a), F.A.C.]

6. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include: Paving and maintenance of roads, parking areas and yards; application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities; landscaping or planting of vegetation; and, enclosure or covering of conveyor systems.
[Rule 62-296.320(4)c.2., F.A.C.]

7. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.
[Rule 62-213.440, F.A.C.]

8. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Northwest District Office at:

Department of Environmental Protection
Northwest District Office
160 Governmental Center
Pensacola, Florida 32501-5794
Telephone: 850/595-8364
Fax: 850/595-8096

Notification of compliance testing may be submitted by electronic mail to:
NWDAIR@dep.state.fl.us.

9. A copy of all compliance related notifications shall also be sent to the Department's Northwest District Branch Office in Panama City at 2353 Jenks Ave, Panama City FL 32405.

10. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air and EPCRA Enforcement Branch, Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9055
Fax: 404/562-9164

11. The permittee shall retain a Professional Engineer, registered in the State of Florida, for the inspection of this project. Upon completion, the Professional Engineer shall inspect for conformity to the permit application and associated documents. An application for a revision to the facility's Title V operating permit shall be submitted within 90 days after initial operation.
[Rules 62-210.300 and 62-4.050(3), F.A.C.]

12. The Department shall be notified and prior approval shall be obtained of any changes or revisions made during construction. Projects beyond one year require annual status reports.
[Rule 62-4.030, F.A.C.]

13. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C.
[Rules 62-213.440(3) and 62-213.900, F.A.C.]

{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-4, TITLE V CONDITIONS.}

14. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.
[Rule 62-213.420(4), F.A.C.]

15. For PSD evaluation purposes, the facility's maximum pulp production is 781,000 TPY ADUP. Pulp production records shall be maintained and available for inspection by the Department upon request.
[Rules 62-4.070(3), 62-4.160(2), and 62-212.400(5), F.A.C.]

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
030	Woodyard Operation

Wood chips are used as the raw material in the papermaking process and scrap wood and bark are used in steam generation. Roundwood (whole tree trunks) is received as either shortwood or longwood. Purchased hardwood or softwood chips are also received. Bark is a byproduct of log processing and some bark is also purchased. The chipping process begins by passing logs through a debarker to remove bark, which is collected and transferred via conveyors and hogged to obtain a desired size. After processing the bark, it is stored in piles, transferred to the bark bin, and then used as a fuel for the combination boilers at the facility. The logs are then chipped and the chips screened for proper size. Both purchased and manufactured chips are conveyed and stored in chip reclaimer storage piles. The facility has one softwood chip reclaimer and one hardwood reclaimer storage pile, where chips are stored temporarily until needed by the facility.

A single cyclone is associated with the bark transfer and conveying system, and used to pneumatically convey the bark. Conveyors are covered and roads are paved and maintained to minimize particulate entrainment. Four (4) cyclones are used in the Screening Room to separate pneumatically conveyed chips and fines from the conveying air stream.

{Note: The woodyard operation is regulated under Rule 62-296.320(4)(b)1. & 4., F.A.C.}

The following specific conditions apply to the emissions unit listed above:

Essential Potential to Emit (PTE) Parameters

A.1. Capacity. The woodyard's maximum allowable production rates are 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year.
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

tons, not cords

A.2. Hours of Operation. The woodyard operation is allowed to operate continuously, i.e., 8,760 hours/year.
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; and, 0050009-003-AC]

Emission Limitations and Standards

A.3. Visible Emissions. See Facility-wide Condition 3. Visible emissions testing shall be performed upon request by the Department.
[0050009-002-AV; and, 0050009-003-AC]

A.4. Objectionable Odors. See Facility-wide Condition 2.
[0050009-003-AC]

A.5. Reasonable precautions shall be taken to prevent emissions of unconfined particulate matter. Reasonable precautions shall include, but are not limited to, the following:

a. Maintenance of roads, parking areas and yards;
b. Application of water or other dust suppressants, when necessary, to control emissions;
c. Removal of particulate matter from roads and other paved areas under control of the owner or operator, and from buildings or work areas to prevent reentrainment;
d. Permittee will protect dust transfer points and transport and storage containers from wind action which might make dust airborne;
e. Chips manufactured on-site shall be screened following storage;
f. Chips shall be screened following removal from storage prior to conveying to the digesters;
g. All conveyor systems shall be covered or enclosed;
h. Drop distance from chip storage stacker shall be maintained to a minimum; and,
i. All access roads shall be paved.

[0050009-003-AC]

Excess Emissions

{Permitting note: The requirements of this rule do not vary any requirement of a NSPS, NESHAP, or Acid Rain program provision.}

A.6. (1) Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
(4) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.
(5) Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest.
(6) In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's Northwest District Office and Northwest District Branch Office - Panama City in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700, F.A.C.]

Testing Requirements and Procedures

A.7. Visible Emissions. See Facility-wide Condition 3.
[0050009-003-AC]

A.8. Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
[Rul3 62-297.310(7)(b), F.A.C.; and, 0050009-003-AC]

Recordkeeping and Reporting Requirements

A.9. Records of purchased wood and roundwood received and processed shall be kept and maintained for Department review for a five (5) year timeframe.
[Rule 62-213.440(1)(b)2.b., F.A.C.]

A.10. Annual Operating Report. See APPENDIX TV-4, Condition 24.
[0050009-003-AC]

2000

continued

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June 14, 2000

9937518

Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Attention: Mr. A. A. Linero, P.E.
Administrator, New Source Review Section

RE: FILE NO. 0050009-005-AC (PSD-FL-288)
STONE CONTAINER CORP. PANAMA CITY MILL
PULP PRODUCTION INCREASE

Dear Mr. Linero:

This correspondence is in response to the Department's letter dated May 9, 2000, concerning the above referenced pulp production increase for Stone Container Corp.'s (SCC) Panama City mill. The letter contains five comments by the Department, as well as a letter with comments from the U.S. Fish and Wildlife Service (USFWS). The Department's comment regarding the ISC-PRIME model is also addressed. Responses to each of the comments are presented in the same order as they appear in the referenced letters.

FDEP Comments

1. SCC continues to object to the Department's recent re-interpretation of the Florida PSD rules to require application of best available control technology (BACT) to those emission units for which there is no physical modification or change in the method of operation. Please refer to Attachment A for a discussion of this new interpretation and SCC's response. Counsel for SCC has advised the company that this constitutes adoption of non-rule policy, which is prohibited under the Florida Administrative Procedures Act. Nevertheless, SCC has provided the information requested in Comment 1 of the Department's letter. As explained below, since this application only involves existing units, the emissions limits SCC has proposed in its application are in fact BACT.

   There are several fuel burning sources at the Panama City mill which burn, or are permitted to burn, No. 6 fuel oil with a maximum sulfur content of 2.4 percent. These consist of the two recovery boilers, the two combination boilers, and the lime kiln.

   In the case of the recovery boilers, fuel oil is only burned for startup/shutdown and as an auxiliary fuel. When oil is burned as an auxiliary fuel, in combination with black liquor (with up to 50 percent of total heat input due to fuel oil), NCASI studies have shown that no increase in SO_2 emissions occurs due to high sulfur fuel oil firing. This is due to two reasons. First, the black liquor contains in the range of 4 to 6-percent sulfur. Therefore, firing fuel oil of less than 2.5-percent sulfur results in a reduction in sulfur input to the

furnace. Secondly, the SO_2 generated in the recovery furnace is converted to alkali sulfates that become part of the smelt or the fly ash. Therefore, fuel oil firing would not increase SO_2 emissions except for periods during startup/shutdown conditions when the fuel oil constitutes greater than 50 percent of the total heat input. These conditions occur very infrequently and occur for limited duration.

In the case of the lime kiln, SO_2 emissions are negligible and are minimally affected by the fuel oil sulfur content. This has been demonstrated from source testing of lime kilns, as investigated by NCASI, and shown by other lime kiln test data. This is due to the large SO_2 absorption capacity of lime kilns, resulting from the lime material being processed, which is highly alkaline in nature.

The combination boilers will be controlled through pH monitoring and control of the caustic scrubbing media and/or a continuous SO_2 monitor in order to meet lower SO_2 emission limits proposed in SCC's application. The lower SO_2 emission limits that SCC has proposed will eliminate worst case modeled exceedances of the SO_2 ambient air quality standards (AAQS). SCC has chosen to limit SO_2 emissions through pH monitoring and control of the caustic scrubbing media and/or a continuous SO_2 monitor instead of using lower sulfur fuels. Either method achieves the same results.

The No. 3 Combination Boiler is permitted for fire bark/wood, No. 6 fuel oil, No. 2 oil and natural gas. The No. 4 Combination Boiler is permitted to fire bark/wood, coal, No. 6 fuel oil, No. 2 oil and natural gas. The proposed combined SO_2 emission limit for the two boilers is 525 lb/hr. The current potential SO_2 emissions from the two boilers, based on fuel oil with 2.4-percent sulfur, are as follows:

No. 3 Combination Boiler: 2,520 gal/hr x (157 x 2.4) lb/1000 gal = 950 lb/hr SO_2

No. 4 Combination Boiler: 3,153 gal/hr x (157 x 2.4) lb/1000 gal = 1,188 lb/hr SO_2

Total = 950 lb/hr + 1,188 lb/hr = 2,138 lb/hr SO_2

Fuel oil with a sulfur content of less than 0.7 percent (the minimum for No. 6 fuel oil) cannot be efficiently utilized in the existing fuel oil burners, since the burners are designed for No. 6 fuel oil. If fuel oil with a sulfur content of 0.7 percent were utilized, the potential SO_2 emissions would be 624 lb/hr. Therefore, use of lower sulfur No. 6 fuel oil would not result in lower emissions than those achieved through pH monitoring and control of the caustic scrubbing media (i.e., resulting in SO_2 emissions of 525 lb/hr).

The cost of using lower sulfur fuel oil, assuming <u>all</u> the sulfur in the fuel oil is converted to SO_2, can be calculated based on fuel characteristics and prices of fuel oil. The cost effectiveness calculations and the basis of the calculations are shown in Table A attached. However, as discussed previously, lower sulfur fuel would have little or no effect upon SO_2 emissions from the recovery boilers, the lime kiln, or the combination boilers. Therefore, the actual cost per ton of SO_2 removed would be considerably higher than shown in Table A.

Based on Panama City mill's fuel oil consumption in 1999 (18 million gallons) and current quoted oil prices, the cost of switching to 1.5-percent sulfur oil would be approximately $500,000/yr; switching to 1.0-percent sulfur oil would be $720,000/yr; and switching to 0.5-percent sulfur oil would be $2,300,000/yr. Based on the previous calculation of potential uncontrolled emissions from fuel oil firing, use of 1.5- or 1.0-percent sulfur fuel oil would not lower SO_2 emissions below the already proposed limit of 525 lb/hr for the two combination boilers. Use of 0.5-percent sulfur fuel oil would lower SO_2 emissions to about 445 lb/hr, or about an 80 lb/hr (350 TPY) decrease compared to the proposed limit of 525 lb/hr. Based on the additional cost of 0.5-percent fuel oil ($2,300,000/yr), the cost effectiveness of using 0.5-percent sulfur fuel oil is $6,570/ton of SO_2 removed. This estimate is conservative since SCC attempts to minimize oil burning and maximize coal and bark/wood burning for economic reasons. Additionally, as described above, use of 0.5-percent sulfur fuel oil would necessitate replacement of fuel oil burners, which are currently designed to fire No. 6 fuel oil. This would be an additional significant cost.

Based on the above discussion, the use of lower sulfur fuel oil is not economically feasible.

2. Stack test data for the requested sources for the last two years are attached, as requested. Note that only a limited number of pollutants are required to be tested at Panama City, therefore, data for all PSD affected pollutants are not available.

3. Both FDEP and EPA have generally used a "consecutive" two-year period for determining baseline emissions for PSD applicability unless some other period was deemed more representative of normal full operation. Since 1998 was not a "representative" year of normal operation, due to a 3-month shutdown of the mill, the year 1999 was not used since this would not represent a consecutive 2-year period. Therefore, the most recent consecutive two-year period representative of normal source operation (1996-1997) was selected.

4. The overall mill flow diagram has been corrected and is attached.

5. SCC is addressing, in a separate MACT compliance project application and permit, the potential increases in SO_2 from the No. 3 Combination Boiler when burning HAP/TRS containing gases from the proposed condensate stripper. As discussed in Appendix B, any increase in SO_2 emissions from burning stripper off gases to meet the MACT I requirements should be excluded from PSD review. In any event, the SO_2 emissions will be controlled by limiting the two combination boilers to a total of 525 lb/hr through wet caustic scrubbing and/or a continuous SO_2 monitor. In addition, no changes in the design or sizing of the condensate stripper (500 gallons per minute), as presented in the MACT application and reflected in the MACT construction permit, are needed to accommodate the increased pulp production, and therefore the condensate stripper emissions unit is not "affected" by the proposed modification.

Golder will continue to pursue approval of the ISC-PRIME model with the Department and the U.S. EPA. A revised ambient impact analysis for the Panama City mill has been submitted, which presents the necessary information for approval of the ISC-PRIME model.

USFWS COMMENTS

Golder Associates Inc. (Mr. David A. Buff, P.E.) contacted the USFWS (Ms. Ellen Porter and Ms. Kirsten King) to discuss the USFWS comment letter. It was stated by USFWS that the ambient impact analysis report for the Panama City mill had been received, and this resolved concerns over the PSD Class I increment consumption. Mr. Buff explained that the BACT requirements for emission units other than the digesters was a "state-only" BACT analysis, since EPA rules would not subject these other sources to BACT. After researching this issue, the USFWS stated they agreed that BACT would only apply to the digesters and the control device for the digesters (lime kiln for SO_2 only), and that this resolved their concerns over the BACT analysis.

The USFWS letter presented a table showing the net increase in emissions based on current actual emissions and future potential emissions. The "future potential emissions" used in the permit application were based on the current maximum permitted emission limits in the existing Panama City mill permits. In order to present the ultimate future case, the potential increases in emissions due to the project have been recalculated using the EPA's proposed MACT II limits for combustion sources. Updated tables from the Supplemental Information report submitted by SCC in April 2000, reflecting these changes, are attached. As shown, subtracting the average 1996-1997 actual emissions from the potential emissions for the affected units, the revised calculated net increase in emissions for PM is 264.6 tons per year (TPY), and for PM-10 is 207.4 TPY. These are much lower than the previous estimates of 779 TPY for PM and 624 TPY for PM-10 calculated using the current allowable emissions. Based on the new limits SCC is proposing to meet in accordance with MACT II, we believe that there will be no increase in actual emissions as a result of the increased pulp production.

Best Available Control Technology Review

Based on Mr. David Buff's discussion with USFWS, they now recognize that this is a "state-only" BACT evaluation. Under federal EPA PSD rules, the only emission units required to undergo BACT review are the digesters. While the digesters will not undergo a physical change or a change in the method of operation, they are subject to BACT review because of the PSD production thresholds established for the digesters through the TRS compliance project permits issued in 1989. No other emission units at the facility are undergoing a physical change or change in the method of operation as a result of the pulp production increase. A BACT review is being performed for the other mill sources only as a result of FDEP's stated interpretation of the state PSD regulation.

Recovery Boilers

Again, while we understand that USFWS no longer intends to pursue its BACT comments now that they had better understand what is covered by our permit application, we have nevertheless addressed the substance of their comments. We believe that the recovery boiler limits cited by the USFWS are for new recovery boilers, not existing boilers that have undergone BACT review. Obviously, a new recovery boiler can be cost effectively designed

to meet the 0.021 gr/dscf PM limit suggested by USFWS. However, in order for the SCC recovery boilers to meet such a limit on a continuous basis, new ESPs would be required. This is because it is not possible to upgrade the existing ESPs, because of their physical configuration (i.e., location on the roof of the recovery boiler building, with no ability to add an additional field). New stacks, ductwork and other alterations would also be required.

New ESPs for the SCC recovery boilers have been estimated to cost at least $7.5 million per boiler, excluding any cost of downtime to perform the installation. The annualized cost of just the capital investment for the two boilers is $1.65 million/yr ($15 million x 0.11 capital recovery factor). Potential PM emissions for each recovery boiler at the proposed 0.044 gr/dscf limit are 309.1 TPY. At 0.021 gr/dscf, the level of control suggested by USFWS, potential PM emissions would be 147.5 TPY. Therefore, the reduction in potential PM emissions would be 161.6 TPY for each boiler, or 323.2 TPY for both boilers. Even looking solely at capital cost, it would cost over $5,100 for each additional ton of PM removed. This does not account for any annual operating and maintenance costs, or economic losses due to mill downtime in order to install the new ESP's. This is a very high cost and is ruled out as economically infeasible.

In addition, although SCC agrees to comply with the proposed MACT II PM limit of 0.044 gr/dscf, actual emissions from SCC's recovery boilers are already in the range of 0.015 to 0.025 gr/dscf. Although SCC cannot agree to a limit lower than 0.044 gr/dscf in order to maintain an adequate safety margin above actual emissions, actual emissions are expected to remain below 0.044 gr/dscf in the future.

In regards to add-on NO_x controls, the first step in a BACT analysis is to identify technically feasible alternatives. Technical feasibility is demonstrated through proven operating systems. There are no known SNCR or SCR systems operating on recovery boilers. The EPA's RACT/BACT/LAER Clearinghouse does not list any recovery boilers as having SNCR or SCR determined as BACT for NO_x emissions. Although there may have been advances in such systems, until there are proven operating systems, SCC cannot commit to such a system on an existing recovery boiler. No recovery boiler to date has been required to install these systems as BACT. BACT for all previous determinations has been established as good combustion practices and proper design and operation. Therefore, SNCR/SCR is considered technically infeasible. It is also noted that NO_x emissions from direct contact type recovery boilers are already low (average of 0.1 lb/MMBtu) compared to other fuels, including fossil fuels and carbonaceous fuels. Add-on NO_x controls are ruled out from further consideration.

In regards to TRS control, the cost for converting the existing boilers to low odor design has been estimated at $25 million each boiler, or $50 million total. The annualized capital cost of this investment is $5.5 million/yr. The potential reduction in TRS emissions, from 17.5 ppm to 5 ppm , achievable through low odor design, is 54.2 TPY each boiler (75.9 TPY – 21.7 TPY), or 108 TPY for both boilers combined. The cost is therefore over $51,000/ton of TRS removed. This does not account for any annual operating and maintenance costs, or economic losses due to mill downtime in order to convert the recovery boilers. This option is therefore ruled out based on economic impacts. It is noted that actual TRS emissions from

the two SCC recovery boilers averaged about 10 ppm in 1999, below the current limit of 17.5 ppm.

Due to relatively low emissions of SO_2 from recovery boilers, flue gas desulfurization (FGD) systems have not been applied to recovery boilers. There are no known FGD systems operating on recovery boilers. The EPA's RACT/BACT/LAER Clearinghouse does not list any recovery boilers as having FGD systems required as BACT for SO_2 emissions. BACT for all previous determinations has been established as good combustion practices and proper design and operation.

Nevertheless, a cost analysis for adding a FGD system to the existing recovery boilers is was performed. A dry lime injection system or spray dryer were considered, but were rejected due to limitations on the existing ESPs. The existing ESPs would not be able to handle the additional particulate loading from these systems. As described previously, the existing ESPs cannot be upgraded due to their location on the roof of the recovery boiler building. Replacing the existing ESPs with new ESPs was ruled out as economically infeasible.

An add-on wet limestone FGD system would be the only feasible alternative for SO_2 control. A wet FGD system achieving 90-percent SO_2 removal is estimated to cost $16 million per recovery boiler (NCASI, 1983). The annual cost of the capital investment would be $1.8 million/yr. Annual O&M costs are estimated at least 3 percent of the capital cost (EPRI, 1983), or at least $0.5 million/yr. Therefore, total annual costs are estimated to be at least $2.3 million/yr per boiler. Estimated potential SO_2 emissions for each recovery boiler are 568.4 TPY. At 90 percent reduction, the total SO_2 reduced is 512 TPY. This analysis shows that the cost effectiveness of SO_2 control is at least $4,500/ton for the wet limestone FGD system. This cost is considered economically prohibitive for the existing recovery boilers. In addition, no other recovery boiler, new or existing, has been required to implement flue gas desulfurization.

Lime Kiln

A new ESP for the SCC lime kiln is estimated to cost $3.1 million, based on the actual cost at a similar SCC mill. The annualized cost of just the capital investment is $340,000/yr. Potential PM emissions from the lime kiln at the proposed limit of 29.83 lb/hr are 130.7 TPY. This is equivalent to 0.051 gr/dscf, assuming the maximum estimated air flow rate for the lime kiln. At 0.033 gr/dscf, as suggested by USFWS, potential PM emissions would be 84.6 TPY. Therefore, the reduction in potential PM emissions would be 46.1 TPY. The cost of this reduction is $ 7,375/ton of PM removed. This is a very high cost and is ruled out as economically infeasible.

Smelt Dissolving Tanks

SCC can commit to meeting a PM limit of 0.2 lb/ton BLS for the smelt dissolving tanks, based on the proposed MACT II. Since SCC will be installing new wet scrubbers in order to meet the MACT requirements for PM, the scrubbers could be designed to meet a PM limit of 0.12 lb/ton BLS, as suggested by USFWS. Meeting a limit of 0.12 lb/ton BLS would be more costly; however, the cost impact cannot be quantified at this time. Moreover, there is no compelling reason to implement this requirement prior to the MACT compliance date. As shown from

the ambient impact analysis, all ambient air quality standards will be met based on the proposed maximum PM emissions for the SCC mill.

Bleach Plant

The new scrubber on the Bleach Plant, to meet the MACT requirements, is now being installed at SCC. To comply with the MACT rules, the installation will be completed by April 16, 2001. SCC will be installing equipment to allow up to 100-percent elemental chlorine-free bleaching by this date. SCC currently uses, and will continue to use, hydrogen peroxide in several stages of the bleaching process. Hence, as of April 16, 2001, the bleach plant will be complying with MACT, which is at least as stringent as whatever might be determined to be BACT for an existing facility.

Lime Slaker

The 4 lb/hr limit was proposed by SCC in order to reduce worst case modeled ambient PM impacts using current allowable emissions. Actual PM emissions during the last two compliance tests averaged 1.26 and 0.53 lb/hr, respectively. Therefore, actual emissions are already similar to 0.9 lb/hr, as suggested by USFWS. Given that this is an existing source and the already low rate of emissions, it would not be cost effective to retrofit additional PM control equipment.

Air Quality Related Values Analysis

The ambient impact analysis report, submitted separately by SCC, addresses Class I increments for PM and SO_2.

Please call if you have any questions concerning this information.

Sincerely,

GOLDER ASSOCIATES INC.

David A. Buff

David A. Buff, P.E., Q.E.P.
Principal Engineer
Florida P.E. # 19011
SEAL

DB/jkw

Enclosures

cc: Ed Middleswart, FDEP Pensacola ✓
David Riley
Charlie Ackel
Tom Clements
Steve Hamilton

cc: S. Arif, BAR
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EPA
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ATTACHMENT A

RESPONSE TO FDEP INTERPRETATION OF STATE PSD RULE

EPA's PSD regulations are codified at 40 CFR 52.21. This rule requires, among other things, that BACT be employed to control emissions from a proposed new source or modification. However, the EPA rules governing control technology review state:

> "A major modification shall apply best available control technology for each pollutant subject to regulation under the Act for which it would result in a significant net emissions increase at the source. This requirement applies to each proposed emissions unit at which a net emissions increase in the pollutant would occur as a result of a physical change or change in the method of operation in the unit." (40 CFR 52.21 (j)(3)).

Therefore, it is clear that BACT does not apply to an emissions unit at which there is no physical change or change in the method of operation. Further, under the federal PSD rules, a change in the method of operation specifically excludes increased operating hours and production rates, unless prohibited by a federally enforceable NSR/PSD air construction permit condition that was established after January 6, 1975. (40 CFR 52.21(b)(2)(iii)).

Historically, the federal PSD rule has consistently been interpreted in this manner by EPA, through guidance memos, applicability determinations, and the PSD workshop manual (draft). The only exception to the application of the rule was a recent determination for a case where a separate emissions unit served as the control device for an emissions unit undergoing a modification (such as pulp digesters subject to PSD, with a lime kiln used to incinerate TRS emissions). In that case, EPA determined that the control device was to be considered as part of the emissions unit. Hence, if the emissions unit required BACT review, then the associated emissions unit serving as the control device was also required to undergo BACT review for those pollutants that would significantly increase as a result of the modification.

The State of Florida PSD rule was promulgated in the early 1980's, after EPA revised the federal PSD rule. The State of Florida's PSD rules state that:

> "The proposed facility or modification shall apply Best Available Control Technology (BACT) for each pollutant subject to preconstruction review requirements as set forth in Rule 62-212.400(2)(f), F.A.C.". (Rule 62-212.400(5)(c)).

Thus, the state rule is not as clear as the federal rule. Mr. David Buff, P.E., Q.E.P., now of Golder Associates Inc., recalls that at the time of adoption of the state rule, there was no intention to be more stringent than the EPA PSD rule. It was intended that the rule be interpreted and applied in the same manner as the federal rule. This is witnessed by the fact that an economic impact statement was not performed by the State of Florida at the time of rule adoption, nor was there review by the Governor and Cabinet, which would have been required if the rule was more stringent than the EPA rule.

Interpretation of the state PSD rule in the manner, which FDEP is now prescribing, would have severe economic consequences on sources. Being required to apply BACT to multiple emissions units not being physically modified could result in severe economic impacts, and would likely stifle economic growth. Companies would find PSD too costly or too risky to undertake, and therefore would not be as likely to undertake expansion projects. Generally, as EPA intended, when an emission unit is physically modified, or undergoes a change in the method of operation, a capital expenditure is associated with the change. This is the appropriate time to require additional capital expenditure for pollution control purposes, and makes it much easier to justify the additional capital and operating costs as part of an expansion project. However, again, if BACT requirements are expanded to other emissions units that have no associated capital expenditure, the cost impact is much greater.

The state PSD rule states that "The proposed facility or modification shall apply Best Available Control Technology.....". The SCC Panama City pulp production increase is not a "proposed facility", since the facility already exists. The project does include a proposed revision of a permit limit on the annual production rate of existing process equipment (the digesters). Therefore, one must again turn to the definition of "modification" to determine the meaning of this language. The state's definition of modification at Rule 62-210.200(185) is very similar to the federal definition. Specifically, the state definition excludes increases in operating hours or production rates from the term "modification", unless the increase would be prohibited under any federally enforceable NSR/PSD air construction permit condition established after January 6, 1975. Applying this reading directly to the SCC proposed project, the "modification" would not include the emission units which are not being physically modified or for which there is no change in the method of operation (i.e., the recovery boilers, smelt tanks, lime kiln, etc.).

Hence, FDEP should not require BACT to be applied to all emission units for which there is an increase in emissions associated with the "modification" -- in this case an increase in production without a physical change or change in method of operation. FDEP can continue to require emission increases "associated with" the "modification", but not part of the specific modification being requested (in this case, an increase in pulp production from the digesters), to be included in the PSD netting analysis to determine pollutants which trigger PSD review.

The State of Florida has for nearly 20 years applied its PSD regulations in a manner consistent with EPA PSD regulations, guidance and policy. This has set a legal precedent, which now cannot be changed merely by a different interpretation or policy. A formal rule change and economic impact statement would be required. Absent that, such an interpretation constitutes non-rule policy and is invalid under Section 120, Florida Statutes.

ATTACHMENT B

PCP EXCLUSION FOR MACT CONTROL PROJECTS

The applicant believes that the PCP exclusion is available for collateral pollutants generated when burning condensate stripper off-gases (SOG), or other HAP gases containing TRS, ammonia, and other compounds. Florida Administrative Code (F.A.C.), Rule 62-212.400(2)(a)2, Pollution Control Project Exemptions, reads as follows:

> "A significant net increase in the actual emissions of a collateral pollutant that would occur solely as a result of a project undertaken for the purpose of complying with the hazardous air pollutant emission reduction requirements of 40 CFR Part 63, Subpart S, adopted and incorporated by reference at Rule 62-204.800, F.A.C, shall not be subject of the preconstruction review requirements of this rule, provided...."

The wording "solely as a result of a project" is applicable to the Panama City cluster rule compliance project. The "project" includes burning SOG in the No. 3 Combination Boiler. The SOG necessarily contains total reduced sulfur (TRS) compounds and ammonia, which produce SO_2 and NO_x when combusted.

The Department's stated interpretation of the PCP exclusion is that any collateral PSD pollutants generated due to non-HAP pollutants, collected along with HAPs, are not covered under the PCP exclusion. The Department's stated interpretation of the PCP exclusion would render it ineffective. First, it would be extremely difficult to quantify the collateral emissions generated solely from HAPs collected in the stripper off-gases. The SOG contains a large percentage of methanol, but many other HAPs and non-HAPs are also present, as indicated by NCASI Technical Bulletin No. 701. These compounds include many organic species. The HAPs collected would have the potential to generate CO, VOC, and NO_x. But what amount the HAPs would contribute versus the non-HAPs contained in the same SOG is difficult, if not impossible, to determine.

Secondly, the purpose of a pollution control project exclusion is to exempt mandated projects from PSD review that are overall environmentally beneficial, but cause other PSD-regulated emissions. If such an exclusion is not provided for MACT compliance projects, the applicant is faced with not only complying with the MACT rule, but has the added burden of being subject to PSD, and the associated BACT review and other PSD requirements. This is contrary to EPA's stated intent in when it promulgated the MACT I rule.

In the preamble to the final MACT rule for the pulp and paper industry, EPA states (Federal Register, April 15, 1998, pages 18531-18533):

> "To comply with the MACT portion of the pulp and paper cluster rule, mills will route vent gases from specified pulping and condensate emission points to a combustion

control device for destruction. The incineration of these gases at kraft mills has the potential to generate sulfur dioxide and, to a lesser extent, nitrogen oxides."

This clearly indicates that EPA recognized that SO_2 emissions due to TRS compounds in the HAP-containing gas stream would occur, and that NO_x emissions would also be generated. EPA refers to the John S. Seitz memo of July 1, 1994 in its discussion, and states that in this memo EPA specifically identified the combustion of organic toxic pollutants as an example of an add-on control that could be considered a PCP. The preamble states:

> "EPA considers that combustion for the control of HAP emissions from pulping systems and condensate control systems to be a PCP, because the combustion controls are being installed to comply with the MACT and will reduce emissions of hazardous air pollutants. EPA also considers the reduction of these pollutants to represent an environmental benefit. EPA recognizes that the incidental formation of SO_2 and NO_x due to the destruction of HAPs will occur."

The Department adopted the rule allowing the PCP exemption to be applicable to the pulp and paper industry expressly for the purpose of expediting permitting of MACT compliance projects at DEP. The purpose was also to avoid the complex issues being raised in the processing of this permit for SCC Panama City. Based on the Florida rule wording, and EPA's stated purpose, the PCP should be granted for the SCC Panama City MACT control project.

Table A. Fuel Sulfur Content, Fuel Cost and SO_2 Cost Effectiveness

Fuel Type/ Sulfur Content	Unit Cost ($/gal)	Sulfur Content (% by wt.)	Heat Content (Btu/gal)	Density (lb/gal)	Cost Increase ($/gal)	SO_2 Emission Rate[a] (lb/gal)	SO_2 Emission Reduction[b] (lb/gal)	Cost Effectiveness[c] ($/ton SO_2)
No. 6 Fuel Oil								
2.4-percent sulfur	0.59	2.4	150,000	8.00	--	0.384	--	--
1.5-percent sulfur	0.62	1.5	148,000	7.80	0.03	0.234	0.150	400
1.0-percent sulfur	0.63	1.0	146,000	7.60	0.04	0.152	0.232	345
No. 2 Fuel Oil								
0.5-percent sulfur	0.72	0.5	140,000	6.83	0.13	0.068	0.316	824

Note:
1. All prices based on Coastal Fuels Marketing, Inc.'s current prices (FOB)

[a] Based on stochiometric calculation of SO_2 emissions.
[b] As compared to base case of 2.4-percent sulfur fuel oil.
[c] Does not account for any SO_2 reductions inherent in specific emission units (i.e., recovery boiler, lime kiln, etc.)

Table 1-1. 1996-1997 Baseline Emissions, Stone Container Corp., Panama City

Regulated Pollutant	No . 1 Recovery Boiler (TPY)	No . 2 Recovey Boiler (TPY)	No. 1 Smelt Dissolving Tank (TPY)	No. 2 Smelt Dissolving Tank (TPY)	Lime Kiln (TPY)	Bleach Plant (TPY)	Pulping Area (TPY)	Lime Slaker (TPY)	Woodyard (TPY)	Chemical Recovery Area (TPY)	Paper Making (TPY)	No. 3 Combination Boiler (TPY)	TOTAL BASELINE EMISSIONS (TPY)
Particulate (TSP)	185.2	160.9	69.6	97.4	98.5	--	--	1.7	41.3	--	--	--	654.6
Particulate (PM_{10})	143.7	124.9	62.3	87.2	96.8	--	--	1.7	15.0	--	--	--	531.5
Sulfur dioxide	490.4	497.1	3.7	3.8	16.4	--	--	--	--	--	--	--	1,011.4
Nitrogen oxides	272.4	276.2	7.7	7.8	156.0	--	--	--	--	--	--	75.25 [a]	795.4
Carbon monoxide	2,476.8	2,510.6	--	--	15.7	119.9	--	--	--	--	--	--	5,122.9
Volatile organic compds.	158.0	160.2	14.5	14.7	16.8	73.5	57.3	3.1	--	159.5	190.9	3.68 [b]	852.2
Sulfuric acid mist	30.0	14.0	0.23	0.23	1.0	--	--	--	--	--	--	--	45.5
Total Reduced Sulfur	28.4	34.6	2.6	3.1	9.4	4.7	70.0	--	--	14.4	--	--	167.3
Lead	0.020	0.020	0.0040	0.0040	0.271	--	--	--	--	--	--	--	0.32
Mercury	0.015	0.015	4.21E-05	4.26E-05	6.48E-04	--	--	--	--	--	--	--	0.0309
Beryllium	5.18E-04	5.25E-04	3.27E-05	3.32E-05	1.21E-03	--	--	--	--	--	--	--	0.0023
Fluorides	--	--	--	--	--	--	--	--	--	--	--	--	--

[a] Represents emissions due to current permitted pulp production limit of 668,850 TPY ADUP.

[b] Represents VOC emissions due to condensate stripper off-gas at current permitted pulp production limit of 668,850 TPY.

Table 1-2. Maximum Future Potential Emissions at 781,000 TPY Pulp Production, Stone Container Corp., Panama City

Regulated Pollutant	No . 1 Recovery Boiler (TPY)	No . 2 Recovey Boiler (TPY)	No. 1 Smelt Dissolving Tank (TPY)	No. 2 Smelt Dissolving Tank (TPY)	Lime Kiln (TPY)	Bleach Plant (TPY)	Pulping Area (TPY)	Lime Slaker (TPY)	Woodyard (TPY)	Chemical Recovery Area (TPY)	Paper Making (TPY)	No. 3 Combination Boiler (TPY)	TOTAL FUTURE POTENTIAL (TPY)
Particulate (TSP)	309.1	309.1	54.2	54.2	130.7	--	--	17.5	44.6	--	--	--	919.3
Particulate (PM_{10})	239.8	239.8	48.5	48.5	128.4	--	--	17.5	16.4	--	--	--	739.0
Sulfur dioxide	568.4	568.4	4.3	4.3	20.6	--	--	--	--	--	--	--	1,166.1
Nitrogen oxides	315.8	315.8	8.9	8.9	195.7	--	--	--	--	--	--	87.86	933.0
Carbon monoxide	2,872.0	2,872.0	--	--	19.7	177.3	--	--	--	--	--	--	5,941.0
Volatile organic compds.	183.2	183.2	16.8	16.8	21.1	96.7	70.3	5.4	--	193.8	234.3	4.30 [a]	1,025.9
Sulfuric acid mist	34.8	34.8	0.27	0.27	1.3	--	--	--	--	--	--	--	71.4
Total Reduced Sulfur	75.9	75.9	13.0	13.0	31.9	6.3	85.9	--	--	16.4	--	--	318.3
Lead	0.023	0.023	0.0050	0.0050	0.34	--	--	--	--	--	--	--	0.40
Mercury	0.017	0.017	4.90E-05	4.90E-05	8.10E-04	--	--	--	--	--	--	--	0.0349
Beryllium	6.00E-04	6.00E-04	3.80E-05	3.80E-05	1.50E-03	--	--	--	--	--	--	--	0.00278
Fluorides	--	--	--	--	--	--	--	--	--	--	--	--	--

[a] Based on baseline VOC emissions (See Table 1-1) times ratio of 781,000 / 668,850 TPY ADUP.

Table 1-3. Net Change in Emissions Due to Proposed Pulp Production of 781,000 TPY
Stone Container Corp., Panama City

Regulated Pollutant	1996-1997 BASELINE EMISSIONS (TPY)	FUTURE POTENTIAL EMISSIONS (TPY)	NET CHANGE (TPY)	SIGNIFICANT EMISSION RATE (TPY)	PSD REVIEW APPLIES ?
Particulate (TSP)	654.6	919.3	264.6	25	Yes
Particulate (PM_{10})	531.5	739.0	207.4	15	Yes
Sulfur dioxide	1,011.4	1,166.1	154.6	40	Yes
Nitrogen oxides	795.4	933.0	137.6	40	Yes
Carbon monoxide	5,122.9	5,941.0	818.1	100	Yes
Volatile organic compds.	852.2	1,025.9	173.7	40	Yes
Sulfuric acid mist	45.5	71.4	26.0	7	Yes
Total Reduced Sulfur	167.3	318.3	151.0	10	Yes
Lead	0.32	0.40	0.078	0.6	No
Mercury	0.0309	0.0349	0.004	0.1	6.48E-04
Beryllium	0.0005	0.00278	0.00226	0.00040	Yes
Fluorides	--	--	--	3	No

Table A-1. Maximum Emissions from Each Recovery Boiler Nos. 1 and 2 , Stone Container Corporation, Panama City

Regulated Pollutant	Each Recovery Boiler: Emission Factor	Reference	Activity Factor [a]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	0.044 gr/dscf	1	187,100 dscfm [b]	70.6	309.1
Particulate (PM_{10})	77.6 % of PM	6	--	54.76	239.8
Sulfur dioxide	0.18 lb/MMBtu	3	721 MMBtu/hr	129.78	568.4
Nitrogen oxides	0.10 lb/MMBtu	3	721 MMBtu/hr	72.10	315.8
Carbon monoxide	20 lb/1,000 lb BLS	7	123.7 1,000 lb BLS/hr	2,474	2,872
VOC	0.058 lb C /MMBtu	3	721 MMBtu/hr	41.82	183.2
Sulfuric acid mist	0.011 lb/MMBtu	5	721 MMBtu/hr	7.95	34.8
Total reduced sulfur	17.5 ppmvd	8	187,100 dscfm (b)	17.3	75.9
Lead	7.2E-06 lb/MMBtu	2	721 MMBtu/hr	5.2E-03	2.3E-02
Mercury	5.5E-06 lb/MMBtu	2	721 MMBtu/hr	4.0E-03	1.7E-02
Beryllium	1.9E-07 lb/MMBtu	2	721 MMBtu/hr	1.4E-04	6.0E-04
Fluorides	ND	4	--	--	--

[a] Based on currently permitted maximum operating rate of 123,700 lb virgin BLS/hr, 5,830 Btu/lb BLS, and 8,760 hr/yr.

[b] Based on 1997 compliance testing. Flow rate is corrected to 8-percent oxygen.

References:

1. Proposed MACT standard.
2. Emission factor based on NCASI Bulletin No. 650, Table 11D, direct contact evaporator, average factor used.
3. Emission factor based on NCASI Bulletin No. 646, Tables 8-11, direct contact evaporator with ESP, average factor used.
4. From "Application of Combustion Modifications to Industrial Combustion Equipment" EPA-600/7-79-015a. one test from recovery boiler.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5 percent of SO_2 becomes SO_3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on AP-42 Tables 10.2-1, 10.2-2, and Figure 10.2-2 for Kraft pulping sources.

8. Currently permitted emission limit.

Table A-4. Maximum Emissions from No. 1 Smelt Dissolving Tank at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor [a]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	0.20 lb/ton BLS	1	61.85 tons BLS/hr	12.4	54.2
Particulate (PM_{10})	89.5 % of PM	2	--	11.1	48.5
Sulfur dioxide	0.016 lb/ton BLS	3	61.85 tons BLS/hr	0.99	4.3
Nitrogen oxides	0.033 lb/ton BLS	3	61.85 tons BLS/hr	2.04	8.9
Carbon monoxide	--		--	--	--
VOC	0.062 lb/ton BLS	3	61.85 tons BLS/hr	3.83	16.8
Sulfuric acid mist	5 % of SO2	5	--	0.061	0.3
Total reduced sulfur	0.048 lb/ton BLS	6	61.85 tons BLS/hr	3.0	13.0
Lead	1.7E-05 lb/ton BLS	4	61.85 tons BLS/hr	0.001	4.6E-03
Mercury	1.8E-07 lb/ton BLS	4	61.85 tons BLS/hr	1.1E-05	4.9E-05
Beryllium	1.4E-07 lb/ton BLS	4	61.85 tons BLS/hr	8.7E-06	3.8E-05
Fluorides	--		--	--	--

[a] Based on the currently permitted maximum allowable operating rate of 123,700 lb virgin BLS/hr and 8,760 hr/yr.

References:
1. Proposed MACT standard.
2. AP-42, Table 10.2-7.
3. Data is averages from NCASI Bulletin No. 646, Tables 16-18, for smelt dissolving tanks with scrubbers.
4. Data is averages from NCASI Bulletin No. 650, Tables 14A and 14B, for smelt dissolving tanks with scrubbers.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on Rule 62-296.404(3)(d)1., F.A.C

Table A-5. Maximum Emissions from No. 2 Smelt Dissolving Tank at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor [a]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	0.20 lb/ton BLS	1	61.85 tons BLS/hr	12.4	54.2
Particulate (PM_{10})	89.5 % of PM	2	--	11.1	48.5
Sulfur dioxide	0.016 lb/ton BLS	3	61.85 tons BLS/hr	0.99	4.3
Nitrogen oxides	0.033 lb/ton BLS	3	61.85 tons BLS/hr	2.04	8.9
Carbon monoxide	--		--	--	--
VOC	0.062 lb/ton BLS	3	61.85 tons BLS/hr	3.83	16.8
Sulfuric acid mist	5 % of SO2	5	--	0.061	0.3
Total reduced sulfur	0.048 lb/ton BLS	6	61.85 tons BLS/hr	3.0	13.0
Lead	1.7E-05 lb/ton BLS	4	61.85 tons BLS/hr	0.001	4.6E-03
Mercury	1.8E-07 lb/ton BLS	4	61.85 tons BLS/hr	1.1E-05	4.9E-05
Beryllium	1.4E-07 lb/ton BLS	4	61.85 tons BLS/hr	8.7E-06	3.8E-05
Fluorides	--		--	--	--

[a] Based on the currently permitted maximum allowable operating rate of 123,700 lb virgin BLS/hr and 8,760 hr/yr.

References:
1. Proposed MACT standard.
2. AP-42, Table 10.2-7.
3. Data is averages from NCASI Bulletin No. 646, Tables 16-18, for smelt dissolving tanks with scrubbers.
4. Data is averages from NCASI Bulletin No. 650, Tables 14A and 14B, for smelt dissolving tanks with scrubbers.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Currently permitted emission limit.

Table A-7. Maximum Emissions from Lime Kiln (No. 6 Fuel Oil Fired) at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor [a]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	29.83 lb/hr	1	8,760 hr/yr	29.83	130.7
Particulate (PM_{10})	98.3 % of PM	2	--	29.32	128.4
Sulfur dioxide	0.23 lb/ton CaO	4	20.4 ton CaO/hr	4.69	20.6
Nitrogen oxides	2.19 lb/ton CaO	4	20.4 ton CaO/hr	44.68	195.7
Carbon monoxide	0.22 lb/ton CaO	6	20.4 ton CaO/hr	4.49	19.7
VOC	0.24 lb C/ton CaO	4	20.4 ton CaO/hr	4.81	21.1
Sulfuric acid mist	0.014 lb/ton CaO	5	20.4 ton CaO/hr	0.29	1.3
Total reduced sulfur	20 ppmvd [b]	7	68,000 dscfm [c]	7.27	31.9
Lead	3.8E-03 lb/ton CaO	3	20.4 ton CaO/hr	7.8E-02	0.3
Mercury	9.1E-06 lb/ton CaO	3	20.4 ton CaO/hr	1.9E-04	0.0
Beryllium	1.7E-05 lb/ton CaO	3	20.4 ton CaO/hr	3.5E-04	0.0
Fluorides	--		--	--	--

[a] Based on currently permitted operating limit of 18.35 tons CaO/hr plus 10% impurities (20.4 tons/hr), 8,760 hr/yr.

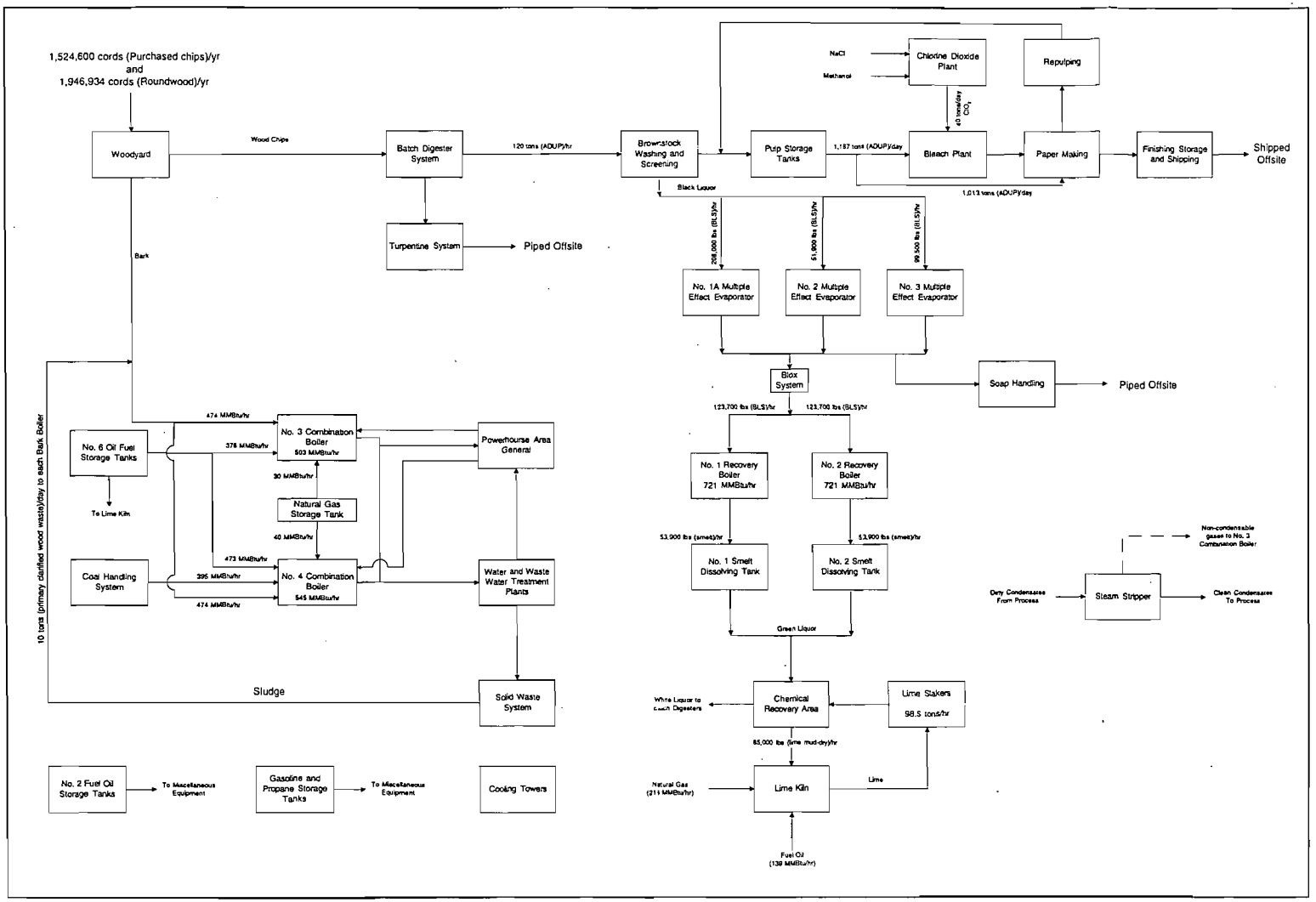
[b] TRS Emission Factor as H2S corrected to 10% O2 as a 12-hour average.

[c] Flow rate corrected to 10% oxygen.

References

1. Based on current permit limit, which is lower than the proposed MACT standard of 0.067gr/dscf @ 10% O_2.
2. Based on AP-42 Section 10.2 and Tables 10.2-1 and 10.2-4..
3. Based on NCASI Technical Bulletin No. 650, Table 13C.
4. Based on NCASI Technical Bulletin No. 646, Tables 12-14.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of
   into account the ratio of sulfuric acid mist and gaseous sulfate molecular wei
6. Based on NCASI Technical Bulletin No. 416, Table 6.
7. Currently permitted emission limit.

Why was Table A-7 resubmitted?



Stone Container Corporation		Emission Unit: Facility	
		Process Area: Overall Plant Flow Diagram	
SCC-FI-C3	Panama City, FL	Filename: 9937518Y/F1/WP/SCC-FAC.VSD	
		Latest Revision Date: 6/7/00 5:29 PM	Golder Associates

c16535D100E01E111Ec104E35E*c66E49E*c88E112W

Panama City Mill TC1+ Data

1999

II. Summary and discussion of results

No. 3 BB 1999

Results of the testing are summarized in Table I. Complete emissions data along with supportive field and analytical data are included in Appendices A, B, C, and F.

The No. 3 Bark Boiler was within compliance during the test. The average particulate emissions were 47.62 lbs/hr. The calculated allowable emissions for this source are 75.58 lbs/hr.

The visible emissions average opacity was 5.6%, with an allowable of 30%.

II. Summary And Discussion Of Results

NO. 4 BARK BOILER 1999

Results of these tests are summarized in Tables I through IV. Complete emissions data along with the supporting field and analytical data are included in Appendices A through L.

This unit is within compliance limitations for the required parameters. The allowable emissions and the measured emissions are listed below:

Parameter	Allowable Emissions	Measured Emissions
Particulate Matter	80.64 Lbs/Hr	18.34 Lbs/Hr
Sulfur Dioxide (Wiithout NCG)	772 Lbs/Hr	539.9 Lbs/Hr
Sulfur Dioxide (Wiith NCG)	781 Lbs/Hr	12.15 Lbs/Hr
Total Reduced Sulfur Gases (Wiith NCG)	5.0 PPM	0.03 PPM
Visible Emissions	30%	6.46 %

T S I

Volumetric Flow and Emission Output - Table I

FACILITY: Stone Container
LOCATION: Panama City, Fl.

SOURCE: No. 3 Bark Boiler

Date	Run Number	Particulate Emissions GR/SCF	LB/HR	LB/MMBTU	Vol. Flow Rate ACFM	SCFMD	Percent O2	Stack Temp 'F	Percent Isokinetic
11/8/99	1	0.0282	42.01	0.068	219577.0	173806.0	9.1	124.7	92.9
11/8/99	2	0.0368	54.38	0.093	221702.0	172388.0	9.5	127.7	90.1
11/8/99	3	0.0312	46.48	0.075	223789.0	173804.0	8.9	128.4	91.1
	Mean	0.0321	47.62	0.079	221689.3	173332.7	9.2	126.9	91.4

Mean determined as arithmetic average of the results for each of the three runs.

REMARKS: Allowable Emissions = 75.58 lbs/hr

LB/MMBTU = (Gr/SCF/7000) x (Fuel Fact.) x [20.9 / (20.9 - %O2)]

T S I

Volumetric Flow and Emission Output - Table I

FACILITY: Smurfit-Stone Container Corp.
LOCATION: Panama City, Fl.

SOURCE: No. Bark Boiler

Date	Run Number	Particulate Emissions GR/SCF	LB/HR	LB/MMBTU	Vol. Flow Rate ACFM	SCFMD	Percent O2	Stack Temp 'F	Percent Isokinetic
11/5/99	**1**	0.0165	23.63	0.036	232844.0	167094.0	7.9	140.2	94.8
11/5/99	**2**	0.0137	18.54	0.029	223437.0	157881.0	7.5	142.0	98.8
11/5/99	**3**	0.0097	12.86	0.021	217461.0	154687.0	8.0	141.0	97.7
	Mean	0.0133	18.34	0.029	224580.7	159887.3	7.8	141.1	97.1

Mean determined as arithmetic average of the results for each of the three runs.

REMARKS: Allowable Emissions = 80.64 lbs/hr

LB/MMBTU = (Gr/SCF/7000) x (Fuel Fact.) x [20.9 / (20.9 - %O2)]

TABLE II
SULFUR DIOXIDE EMISSION SUMMARY
NO. 4 BARK BOILER WITH NCG
STONE CONTAINER CORPORATION
PANAMA CITY, FLORIDA

DATE	TIME	LEVEL	SULFUR DIOXIDE PPM	VOLUMETRIC FLOW SCFM	MASS EMISSIONS LB/SCF	LB / HR
11/06/99	0930 - 1030	MAX	13.10		2.175E-06	21.495
		MIN	5.50		9.130E-07	9.025
		AVG	8.06	164741	1.339E-06	13.231
11/06/99	1045 - 1145	MAX	16.20		2.689E-06	25.593
		MIN	3.60		5.976E-07	5.687
		AVG	8.32	158614	1.382E-06	13.150
11/06/99	1215 - 1315	MAX	12.20		2.025E-06	19.344
		MIN	1.80		2.988E-07	2.854
		AVG	6.35	159197	1.055E-06	10.075
	MEAN		7.58	160851	1.258E-06	12.152

SCFM = Standard Cubic feet per minute. Standard conditions are dry, 68 F and 29.92 Hg.

LBS / HR = ppm * 1.660E-07 * 60 min / hr * SCFM

TABLE III
SULFUR DIOXIDE EMISSION SUMMARY
NO. 4 BARK BOILER WITHOUT NCG
STONE CONTAINER CORPORATION
PANAMA CITY, FLORIDA

DATE	TIME	LEVEL	SULFUR DIOXIDE PPM	VOLUMETRIC FLOW SCFM	MASS EMISSIONS LB/SCF	LB / HR
11/05/99	0915 - 1015	MAX	454.4		7.543E-05	756.277
		MIN	346.0		5.743E-05	575.812
		AVG	405.8	167094	6.736E-05	675.287
11/05/99	1035 - 1135	MAX	322.5		5.353E-05	507.063
		MIN	301.6		5.007E-05	474.289
		AVG	312.3	157881	5.184E-05	491.056
11/05/99	1225 - 1325	MAX	339.3		5.633E-05	522.807
		MIN	231.3		3.839E-05	356.322
		AVG	294.3	154687	4.885E-05	453.415
	MEAN		337.4	159887	5.602E-05	539.919

SCFM = Standard Cubic feet per minute. Standard conditions are dry, 68 F and 29.92 Hg.

LBS / HR = ppm * 1.660E-07 * 60 min / hr * SCFM

TECHNICAL SERVICES INC.

TABLE IV

TOTAL REDUCED SULFUR GAS EMISSIONS
Bark Boiler No. 4 w/NCG

Smurfit-Stone Container Corporation
Smurfit-Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	CONCENTRATIONS, PPM H2S	CH3SH	DMS	DMDS	TRS
11/06/99	1	0900 - 1200	MAX	0.21	0.00	0.00	0.00	0.21
			MIN	0.00	0.00	0.00	0.00	0.00
			AVG	0.04	0.00	0.00	0.00	0.04
11/06/99	2	1200 - 1500	MAX	0.12	0.00	0.00	0.00	0.12
			MIN	0.00	0.00	0.00	0.00	0.00
			AVG	0.04	0.00	0.00	0.00	0.04
11/06/99	3	1500 - 1800	MAX	0.08	0.00	0.00	0.00	0.08
			MIN	0.00	0.00	0.00	0.00	0.00
			AVG	0.01	0.00	0.00	0.00	0.01
			MEAN	0.03	0.00	0.00	0.00	0.03

PPM - Parts per million by volume
H2S - Hydrogen Sulfide
CH3SH - Methyl Mercaptan
DMS - Dimethyl Sulfide
DMDS - Dimethyl Disulfide
TRS - Total Reduced Sulfur Compounds
*** Mean determined as arithmetic average of the average results for each of the runs**

II. Summary And Discussion Of Results

SLAKER VENT 1999

Results of these tests are summarized in Table I. Complete emissions data along with the supporting field and analytical data are included in Appendices A through F.

This unit is within compliance limitations for the required parameters. The allowable emissions and the measured emissions are listed below:

Parameter	Allowable Emissions	Measured Emissions
Particulate Matter	48.52 Lbs/Hr	1.26 Lbs/Hr
Visible Emissions	20%	0.00 %

T S I

Volumetric Flow and Emission Output - Table I

FACILITY: Smurfit-Stone Container Corp.
LOCATION: Panama City, Fl

SOURCE: Slaker Vent Stack

Date	Run Number	Particulate Emissions GR/SCF	LB/HR	Vol. Flow Rate ACFM	SCFMD	Percent O2	Stack Temp 'F	Percent H20	Percent Isokinetic
11/4/99	**1**	0.0404	1.23	7873.0	3566.0	20.9	177.5	46.1	102.4
11/4/99	**2**	0.0496	1.57	7805.0	3691.0	20.9	174.4	44.0	96.2
11/4/99	**3**	0.0309	0.96	7838.0	3637.0	20.9	175.0	45.0	98.1
	Mean	0.0403	1.26	7838.7	3631.3	20.9	175.6	45.0	98.9

Mean determined as arithmetic average of the results for each of the three runs.

REMARKS: Allowable Emissions = [55 x (Tons/hr)^0.11] - 40 = lbs/hr
= [55 x (75.70 tph^0.11] - 40 = 48.52 lbs/hr

Note: Calculations for the Tons/hr can be found in the process data in Appendix D

II. Summary And Discussion Of Results

LIME KILN 1999

Results of these tests are summarized in Tables I through III. Complete emissions data along with the supporting field and analytical data are included in Appendices A through J.

This unit is within compliance limitations for the required parameters. The allowable emissions and the measured emissions are listed below:

Parameter	Allowable Emissions	Measured Emissions
Particulate Matter	31.63 Lbs/Hr	28.77 Lbs/Hr
Total Reduced Sulfur (TRS)	20 ~~8~~ PPM @ 10% O2	0.71 PPM @ 10% O2
Visible Emissions	20%	0.0 %

T S I

Volumetric Flow and Emission Output - Table I

FACILITY: Smurfit-Stone Container Corp.
LOCATION: Panama City, Fl.

SOURCE: Lime Kiln

Date	Run Number	Particulate Emissions GR/SCF	LB/HR	Vol. Flow Rate ACFM	SCFMD	Percent O2	Stack Temp 'F	Percent H20	Percent Isokinetic
11/12/99	1	0.0570	28.18	106539.0	57674.0	6.3	167.2	36.1	95.4
11/12/99	2	0.0539	25.98	100862.0	56230.0	5.6	167.1	34.2	101.7
11/12/99	3	0.0620	32.17	105127.0	60530.0	5.1	169.3	31.8	107.1
	Mean	0.0576	28.77	104176.0	58144.7	5.6	167.9	34.0	101.4

Mean determined as arithmetic average of the results for each of the three runs.

REMARKS: Allowable Emissions = 17.31(P)^0.16 = lbs/hr
= 31.63 lbs/hr @ 43.28 tons/hr process feed

TECHNICAL SERVICES INC.

TABLE II

TOTAL REDUCED SULFUR GAS EMISSIONS
LIME KILN

Stone Container Corporation
Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	CONCENTRATIONS, PPM H2S	CH3SH	DMS	DMDS	TRS
11/12/99	1	0900 - 1200	MAX	1.49	0.00	0.00	0.00	1.49
			MIN	0.64	0.00	0.00	0.00	0.64
			AVG	0.98	0.00	0.00	0.00	0.98
11/12/99	2	1200 - 1500	MAX	3.17	0.00	0.00	0.00	3.17
			MIN	0.47	0.00	0.00	0.00	0.47
			AVG	0.85	0.00	0.00	0.00	0.85
11/12/99	3	1500 - 1800	MAX	1.76	0.00	0.00	0.00	1.76
			MIN	0.41	0.00	0.00	0.00	0.41
			AVG	1.20	0.00	0.00	0.00	1.20
			MEAN	1.01	0.00	0.00	0.00	1.01

PPM - Parts per million by volume
H2S - Hydrogen Sulfide
CH3SH - Methyl Mercaptan
DMS - Dimethyl Sulfide
DMDS - Dimethyl Disulfide
TRS - Total Reduced Sulfur Compounds
*** Mean determined as arithmetic average of the average results for each of the runs**

TECHNICAL SERVICES INC.

TABLE III

TOTAL REDUCED SULFUR GAS EMISSIONS SUMMARY
LIME KILN

Stone Container Corporation
Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	OXYGEN %	CONCENTRATIONS, PPM TRS	TRS / COR. FOR O2
11/12/99	1	0900 - 1200	MAX	6.21	1.49	1.11
			MIN	5.91	0.64	0.46
			AVG	6.06	0.98	0.72
11/12/99	2	1200 - 1500	MAX	5.59	3.17	2.26
			MIN	4.99	0.47	0.33
			AVG	5.36	0.85	0.60
11/12/99	3	1500 - 1800	MAX	5.18	1.76	1.22
			MIN	4.89	0.41	0.28
			AVG	5.05	1.20	0.83
			MEAN	5.49	1.01	0.71

PPM - Parts per million by volume
*** Mean determined as arithmetic average of the average results for each of the runs**

No. 1 Recovery 1999

II. Summary And Discussion Of Results

Results of these tests are summarized in Tables I through V. Complete emissions data along with the supporting field and analytical data are included in Appendices A through E and H.

Both stacks for this unit are well within compliance limitations. The allowable emissions and the measured emissions are listed below:

Parameter	Allowable Emissions	Measured Emissions
Particulate Matter	3.0 lbs/Ton BLS (Both stacks combined)	0.67 lb/Ton BLS
Total Reduced Sulfur (TRS)	17.5 PPM @ 8% O2	7.20 PPM @ 8% O2 (Stack 1A)
Total Reduced Sulfur (TRS)	17.5 PPM @ 8% O2	3.99 PPM @ 8% O2 (Stack 1B)
Total Reduced Sulfur (TRS)	17.5 PPM @ 8% O2	5.60 PPM @ 8% O2 (Average both stacks)
Visible Emissions	45%	2.50 % (Stack 1A)
Visible Emissions	45%	0.63 % (Stack 1B)

TECHNICAL SERVICES INC.

TABLE IV

TOTAL REDUCED SULFUR GAS EMISSIONS SUMMARY
Recovery Boiler 1B

Smurfit-Stone Container Corporation
Smurfit-Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	OXYGEN %	CONCENTRATIONS, PPM TRS	TRS / COR. FOR O2
11/08/99	1	1300 - 1600	**MAX**	7.89	4.92	4.88
			MIN	7.85	1.96	1.93
			AVG	7.87	3.38	3.35
11/08/99	2	1600 - 1900	**MAX**	7.89	4.51	4.48
			MIN	7.57	2.78	2.69
			AVG	7.76	3.48	3.41
11/08/99	3	1900 - 2200	**MAX**	8.08	11.74	11.80
			MIN	7.72	2.91	2.85
			AVG	7.89	5.24	5.19
			MEAN	7.84	4.03	3.99

PPM - Parts per million by volume
*** Mean determined as arithmetic average of the average results for each of the runs**

T S I

Volumetric Flow and Emission Output - Table V

FACILITY: Smurfit-Stone Container Corp.
LOCATION: Panama City, Florida

SOURCE: No. 1 Recovery Boiler System

Date	Run Number	Source Recoverys	Particulate Emissions LB/HR	LB/Ton BLS	Vol. Flow Rate ACFM	SCFMD	Black Liquor Firing Rate (Tons/Hr)	Percent Isokinetic
11/2/99	1	1A	19.93	1.02	169506.0	85479.0	39.24 /2	102.4
11/2/99	2	1A	19.13	0.97	169053.0	82369.0	39.41 /2	109.2
11/2/99	3	1A	24.78	1.26	168778.0	86551.0	39.33 /2	107.8
		Mean	21.28	1.08	169112.3	84799.7	39.33 /2	106.5
11/2/99	1	1B	3.52	0.18	153259.0	79053.0	39.32 /2	107.0
11/2/99	2	1B	6.68	0.34	153508.0	79564.0	39.44 /2	106.3
11/2/99	3	1B	5.17	0.26	166369.0	88628.0	39.61 /2	104.3
		Mean	5.13	0.26	157712.0	82415.0	39.46 /2	105.8
		Total	26.41	0.67	326824.3	167214.7	39.39	

Mean determined as arithmetic average of the results for each of the three runs.

REMARKS: Allowable Emissions (Stacks A and B) = 3.0 lbs/Ton Black Liquor Solids
One Ton BLS = 3000 lbs

TECHNICAL SERVICES INC.

TABLE I

TOTAL REDUCED SULFUR GAS EMISSIONS
Recovery Boiler 1A

Smurfit-Stone Container Corp.
Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	CONCENTRATIONS. PPM H2S	CH3SH	DMS	DMDS	TRS
11/08/99	1	0900 - 1200	MAX	5.15	2.89	0.00	0.65	9.33
			MIN	2.37	1.41	0.00	0.00	3.78
			AVG	4.18	2.55	0.00	0.12	6.97
11/08/99	2	1200 - 1500	MAX	10.22	3.69	0.00	0.49	14.89
			MIN	4.12	2.28	0.00	0.05	6.49
			AVG	5.08	3.04	0.00	0.12	8.36
11/08/99	3	1500 - 1800	MAX	6.96	4.12	0.00	0.09	11.27
			MIN	4.32	2.47	0.00	0.06	6.91
			AVG	5.94	3.39	0.00	0.00	9.33
			MEAN	5.06	2.99	0.00	0.08	8.22

PPM - Parts per million by volume
H2S - Hydrogen Sulfide
CH3SH - Methyl Mercaptan
DMS - Dimethyl Sulfide
DMDS - Dimethyl Disulfide
TRS - Total Reduced Sulfur Compounds
*** Mean determined as arithmetic average of the average results for each of the runs**

TECHNICAL SERVICES INC.

TABLE II

TOTAL REDUCED SULFUR GAS EMISSIONS SUMMARY
Recovery Boiler 1A

Smurfit-Stone Container Corp.
Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	OXYGEN %	CONCENTRATIONS, PPM TRS	TRS / COR. FOR O2
11/08/99	1	0900 - 1200	MAX	6.39	9.33	8.30
			MIN	6.33	3.78	3.35
			AVG	6.36	6.97	6.19
11/08/99	2	1200 - 1500	MAX	6.09	14.89	12.98
			MIN	5.99	6.49	5.62
			AVG	6.03	8.36	7.26
11/08/99	3	1500 - 1800	MAX	6.18	11.27	9.89
			MIN	6.04	6.91	6.01
			AVG	6.11	9.33	8.14
			MEAN	6.17	8.22	7.20

PPM - Parts per million by volume
*** Mean determined as arithmetic average of the average results for each of the runs**

TECHNICAL SERVICES INC.

TABLE III

TOTAL REDUCED SULFUR GAS EMISSIONS
Recovery Boiler 1B

Smurfit-Stone Container Corporation
Smurfit-Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	CONCENTRATIONS. PPM H2S	CH3SH	DMS	DMDS	TRS
11/08/99	1	1300 - 1600	MAX	2.01	2.08	0.00	0.42	4.92
			MIN	1.02	0.94	0.00	0.00	1.96
			AVG	1.49	1.68	0.00	0.11	3.38
11/08/99	2	1600 - 1900	MAX	2.14	2.14	0.00	0.11	4.51
			MIN	1.07	1.54	0.00	0.08	2.78
			AVG	1.47	1.82	0.00	0.09	3.48
11/08/99	3	1900 - 2200	MAX	3.99	7.58	0.00	0.08	11.74
			MIN	1.08	1.69	0.00	0.07	2.91
			AVG	2.56	2.67	0.00	0.00	5.24
			MEAN	1.84	2.06	0.00	0.07	4.03

PPM - Parts per million by volume
H2S - Hydrogen Sulfide
CH3SH - Methyl Mercaptan
DMS - Dimethyl Sulfide
DMDS - Dimethyl Disulfide
TRS - Total Reduced Sulfur Compounds
* Mean determined as arithmetic average of the average results for each of the runs

No. 2 Recovery 1999

II. Summary And Discussion Of Results

NO. 2 RECOVERY BOILER

Results of these tests are summarized in Tables I through V. Complete emissions data along with the supporting field and analytical data are included in Appendices A through E and H.

Both stacks for this unit are well within compliance limitations. The allowable emissions and the measured emissions are listed below:

Parameter	Allowable Emissions	Measured Emissions
Particulate Matter	3.0 lbs/Ton BLS (Both stacks combined)	0.70 lb/Ton BLS
Total Reduced Sulfur (TRS)	17.5 PPM @ 8% O2	13.79 PPM @ 8% O2 (Stack 2A)
Total Reduced Sulfur (TRS)	17.5 PPM @ 8% O2	14.28 PPM @ 8% O2 (Stack 2B)
Total Reduced Sulfur (TRS)	17.5 PPM @ 8% O2	14.04 PPM @ 8% O2 (Average both stacks)
Visible Emissions	45%	3.75 % (Stack 2A)
Visible Emissions	45%	3.54 % (Stack 2B)

TECHNICAL SERVICES INC.

TABLE I

TOTAL REDUCED SULFUR GAS EMISSIONS
Recovery Boiler 2A

Smurfit-Stone Container Corporation
Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	CONCENTRATIONS. PPM H2S	CH3SH	DMS	DMDS	TRS
11/09/99	1	1300 - 1600	MAX	16.75	6.29	0.00	0.62	24.28
			MIN	12.10	4.54	0.00	0.00	16.64
			AVG	14.90	5.28	0.00	0.12	20.43
11/09/99	2	1600 - 1900	MAX	11.41	5.01	0.00	0.11	16.64
			MIN	7.81	3.80	0.00	0.00	11.60
			AVG	9.30	4.21	0.00	0.08	13.67
11/09/99	3	1900 - 2200	MAX	24.88	4.21	0.00	0.10	29.28
			MIN	3.94	3.60	0.00	0.00	7.54
			AVG	9.49	3.89	0.00	0.00	13.38
			MEAN	11.23	4.46	0.00	0.07	15.82

PPM - Parts per million by volume
H2S - Hydrogen Sulfide
CH3SH - Methyl Mercaptan
DMS - Dimethyl Sulfide
DMDS - Dimethyl Disulfide
TRS - Total Reduced Sulfur Compounds
* Mean determined as arithmetic average of the average results for each of the runs

TECHNICAL SERVICES INC.

TABLE II

TOTAL REDUCED SULFUR GAS EMISSIONS SUMMARY
Recovery Boiler 2A

Smurfit-Stone Container Corporation
Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	OXYGEN %	CONCENTRATIONS, PPM TRS	TRS / COR. FOR O2
11/09/99	1	1300 - 1600	**MAX**	5.90	24.28	20.90
			MIN	5.51	16.64	13.97
			AVG	5.71	20.43	17.36
11/09/99	2	1600 - 1900	**MAX**	6.38	16.64	14.79
			MIN	6.04	11.60	10.08
			AVG	6.24	13.67	12.04
11/09/99	3	1900 - 2200	**MAX**	6.65	29.28	26.52
			MIN	6.28	7.54	6.66
			AVG	6.47	13.38	11.97
			MEAN	6.14	15.82	13.79

PPM - Parts per million by volume
*** Mean determined as arithmetic average of the average results for each of the runs**

TECHNICAL SERVICES INC.

TABLE IV

TOTAL REDUCED SULFUR GAS EMISSIONS SUMMARY
Recovery Boiler 2B

Smurfit-Stone Container Corporation
Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	OXYGEN %	CONCENTRATIONS, PPM TRS	TRS / COR. FOR O2
11/10/99	1	1300 - 1600	MAX	5.08	21.60	17.64
			MIN	5.06	9.45	7.71
			AVG	5.07	13.14	10.73
11/10/99	2	1600 - 1900	MAX	5.01	19.31	15.70
			MIN	4.78	11.64	9.32
			AVG	4.90	14.48	11.69
11/10/99	3	1900 - 2200	MAX	5.05	18.13	14.77
			MIN	4.91	4.96	4.01
			AVG	4.96	15.21	12.32
			MEAN	4.98	14.28	11.58

PPM - Parts per million by volume
*** Mean determined as arithmetic average of the average results for each of the runs**

TECHNICAL SERVICES INC.

TABLE III

TOTAL REDUCED SULFUR GAS EMISSIONS
Recovery Boiler 2B

Smurfit-Stone Container Corporation
Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	CONCENTRATIONS. PPM H2S	CH3SH	DMS	DMDS	TRS
11/10/99	1	1300 - 1600	MAX	16.09	4.30	0.00	0.61	21.60
			MIN	7.45	2.00	0.00	0.00	9.45
			AVG	9.10	3.85	0.00	0.10	13.14
11/10/99	2	1600 - 1900	MAX	12.55	6.54	0.00	0.11	19.31
			MIN	7.52	4.11	0.00	0.00	11.64
			AVG	9.32	5.01	0.00	0.07	14.48
11/10/99	3	1900 - 2200	MAX	11.44	6.46	0.00	0.12	18.13
			MIN	0.00	4.96	0.00	0.00	4.96
			AVG	9.52	5.69	0.00	0.00	15.21
			MEAN	9.32	4.85	0.00	0.06	14.28

PPM - Parts per million by volume
H2S - Hydrogen Sulfide
CH3SH - Methyl Mercaptan
DMS - Dimethyl Sulfide
DMDS - Dimethyl Disulfide
TRS - Total Reduced Sulfur Compounds
* Mean determined as arithmetic average of the average results for each of the runs

T S I

Volumetric Flow and Emission Output - Table V

FACILITY: Smurfitt-Stone Container Corp.
LOCATION: Panama City, Florida

SOURCE: No. 2 Recovery Boiler System

Date	Run Number	Source Recoverys	Particulate Emissions LB/HR	Particulate Emissions LB/Ton BLS	Vol. Flow Rate ACFM	Vol. Flow Rate SCFMD	Black Liquor Firing Rate (Tons/Hr)	Percent Isokinetic
11/3/99	1	1A	9.85	0.50	181251.0	90522.0	39.24 /2	108.2
11/3/99	2	1A	22.70	1.15	182535.0	89755.0	39.41 /2	108.8
11/3/99	3	1A	19.46	0.99	177859.0	89010.0	39.33 /2	108.4
		Mean	17.33	0.88	180548.3	89762.3	39.33 /2	108.5
11/3/99	1	1B	10.94	0.56	170877.0	81801.0	39.32 /2	107.9
11/3/99	2	1B	10.55	0.53	173183.0	80970.0	39.44 /2	109.2
11/3/99	3	1B	9.06	0.46	172636.0	81926.0	39.61 /2	108.9
		Mean	10.18	0.52	172232.0	81565.7	39.46 /2	108.6
		Total	27.52	0.70	352780.3	171328.0	39.39	

Mean determined as arithmetic average of the results for each of the three runs.

REMARKS: Allowable Emissions (Stacks A and B) = 3.0 lbs/Ton Black Liquor Solids
One Ton BLS = 3000 lbs

II. Summary And Discussion Of Results

NO. 1 SMELT DISSOLVING TANK 1999

Results of these tests are summarized in Tables I through III. Complete emissions data along with the supporting field and analytical data are included in Appendices A through E and J.

This unit is within compliance limitations for the required parameters. The allowable emissions and the measured emissions are listed below:

Parameter	Allowable Emissions	Measured Emissions
Particulate Matter	27.08 Lbs/Hr	21.54 ~~26.03~~ Lbs/Hr
Total Reduced Sulfur (TRS)	0.048 Lb/Ton DPF	0.0202 Lb/Ton DPF
Visible Emissions	20%	2.50 %

T S I

Volumetric Flow and Emission Output - Table I

FACILITY: Smurfit-Stone
LOCATION: Panama City Fl.

SOURCE: No. 1 Smelt Dissolving tank

Date	Run Number	Particulate Emission GR/SCF	Particulate Emission LB/HR	Vol. Flow Rate ACFM	Vol. Flow Rate SCFMD	Black Liquor Firing Rat (Tons/Hr)(3000 lbs/Ton)	Process Feed Rate (DPF)
11/2/99	**1**	0.1576	23.99	27852.0	17758.0	37.92	26.17
11/2/99	**2**	0.1150	17.50	28025.0	17754.0	38.08	26.20
11/2/99	**3**	0.1512	23.14	28183.0	17854.0	37.62	25.73
	Mean	0.1413	21.54	28020.0	17788.7	37.87	26.03

Mean determined as arithmetic average of the results for each of the three runs.

REMARKS: Allowable Emissions = 3.59 (DPF)^0.62

DPF = Dry Process feed rate in Tons/Hr

Run 1 = 26.17 lbs/hr
Run 2 = 26.20 lbs/hr
Run 3 = 25.73lbs/hr
Average = 26.03 lbs/hr

TECHNICAL SERVICES INC.

TABLE II

TOTAL REDUCED SULFUR GAS EMISSIONS
No. 1 Smelt Dissolving Tank Vent

Smurfit-Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	CONCENTRATIONS H2S	CH3SH	DMDS	DMS	TRS
11/02/99	1	1000 - 1300	MAX	10.11	2.70	0.00	0.00	12.81
			MIN	1.69	1.46	0.00	0.00	3.15
			AVG	4.61	1.96	0.00	0.00	6.57
11/02/99	2	1300 - 1560	MAX	2.66	1.92	0.00	0.00	4.59
			MIN	1.33	1.39	0.00	0.00	2.71
			AVG	1.85	1.57	0.00	0.00	3.43
11/02/99	3	1600 - 1900	MAX	10.28	4.35	0.00	0.00	14.63
			MIN	1.46	1.70	0.00	0.00	3.16
			AVG	4.36	2.76	0.00	0.00	7.12
			MEAN	3.61	2.10	0.00	0.00	5.71

ppm - Parts per million by volume
H2S - Hydrogen Sulfide
CH3SH - Methyl Mercatan
DMS - Dimethyl Sulfide
DMDS - Dimethyl Disulfide
TRS - Total Reduced Sulfur Compounds
* Mean determined as arithmetic average of the average results for each of three runs

TECHNICAL SERVICES INC.

TABLE III

TOTAL REDUCED SULFUR GAS EMISSIONS SUMMARY
No. 1 Smelt Dissolving Tank Vent

Smurfit-Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	TRS PPM	VOL FLOW SCFMD	DPF SOLIDS TONS/HR	TRS MASS EMISSIONS LBS/HR	TRS MASS EMISSIONS LBS/TON DPF
11/02/99	1	1000 - 1300	MAX	12.81			1.2175	0.0474
			MIN	3.15			0.2999	0.0117
			AVG	6.57	17902	25.675	0.6247	0.0243
11/02/99	2	1300 - 1560	MAX	4.59			0.4022	0.0158
			MIN	2.71			0.2381	0.0094
			AVG	3.43	16518	25.450	0.3006	0.0118
11/02/99	3	1600 - 1900	MAX	14.63			1.2830	0.0504
			MIN	3.16			0.2768	0.0109
			AVG	7.12	16149	25.379	0.6247	0.0245
			MEAN	5.71	16856	25.501	0.5166	0.0202

ppm - Parts per million by volume
* Mean determined as arithmetic average of the average results for each of the runs

LBS/HR = 1E-06*PPM*5.31*SCFMD

II. Summary And Discussion Of Results

NO. 2 SMELT DISSOLVING TANK 1999

Results of these tests are summarized in Tables I through III. Complete emissions data along with the supporting field and analytical data are included in Appendices A through J.

This unit is within compliance limitations for the required parameters. The allowable emissions and the measured emissions are listed below:

Parameter	Allowable Emissions	Measured Emissions
Particulate Matter	27.08 Lbs/Hr	16.81 Lbs/Hr
Total Reduced Sulfur (TRS)	0.048 Lb/Ton DPF	0.0151 Lb/Ton DPF
Visible Emissions	20%	4.17 %

T S I

Volumetric Flow and Emission Output - Table I

FACILITY: Smurfit-Stone
LOCATION: Panama City Fl.

SOURCE: No. 2 Smelt Dissolving tank

Date	Run Number	Particulate Emissions GR/SCF	LB/HR	Vol. Flow Rate ACFM	SCFMD	Black Liquor Firing Rat (Tons/Hr)(3000 lbs/Ton)	Process Feed Rate (DPF)
11/3/99	**1**	0.1434	16.39	22902.0	13338.0	37.92	26.17
11/3/99	**2**	0.1470	16.93	23257.0	13436.0	38.08	26.20
11/3/99	**3**	0.1508	17.10	22593.0	13228.0	37.62	25.73
	Mean	0.1471	16.81	22917.3	13334.0	37.87	26.03

Mean determined as arithmetic average of the results for each of the three runs.

REMARKS:

DPF = Dry Process feed rate in Tons/Hr

Allowable Emissions = 3.59 (DPF)^0.62

Run 1 = 27.17 lbs/hr
Run 2 = 27.19 lbs/hr
Run 3 = 26.89 lbs/hr
Average = 27.08 lbs/hr

TECHNICAL SERVICES INC.

TABLE II

TOTAL REDUCED SULFUR GAS EMISSIONS
No. 2 Smelt Dissolving Tank Vent

Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	CONCENTRATIONS H2S	CH3SH	DMDS	DMS	TRS
11/03/99	1	1000 - 1300	MAX	0.86	13.72	0.30	0.00	15.17
			MIN	0.00	3.90	0.14	0.00	4.19
			AVG	0.26	6.79	0.19	0.00	7.44
11/03/99	2	1300 - 1600	MAX	0.22	6.77	0.21	0.00	7.42
			MIN	0.00	2.24	0.11	0.00	2.46
			AVG	0.13	3.89	0.15	0.00	4.33
11/03/99	3	1600 - 1900	MAX	1.10	4.17	0.16	0.00	5.60
			MIN	0.00	3.42	0.00	0.00	3.42
			AVG	0.82	3.93	0.01	0.00	4.77
			MEAN	0.41	4.87	0.12	0.00	5.51

ppm - Parts per million by volume
H2S - Hydrogen Sulfide
CH3SH - Methyl Mercatan
DMS - Dimethyl Sulfide
DMDS - Dimethyl Disulfide
TRS - Total Reduced Sulfur Compounds
* Mean determined as arithmetic average of the average results for each of the runs

TECHNICAL SERVICES INC.

TABLE III

TOTAL REDUCED SULFUR GAS EMISSIONS SUMMARY
No. 2 Smelt Dissolving Tank Vent

Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	TRS PPM	VOL FLOW SCFMD	DPF SOLIDS TONS/HR	TRS MASS EMISSIONS LBS/HR	TRS MASS EMISSIONS LBS/TON DPF
11/03/99	1	1000 - 1300	MAX	15.17			1.0749	0.0419
			MIN	4.19			0.2969	0.0116
			AVG	7.44	13340	25.675	0.5272	0.0205
11/03/99	2	1300 - 1600	MAX	7.42			0.5165	0.0201
			MIN	2.46			0.1715	0.0067
			AVG	4.33	13117	25.725	0.3015	0.0117
11/03/99	3	1600 - 1900	MAX	5.60			0.3923	0.0153
			MIN	3.42			0.2395	0.0094
			AVG	4.77	13194	25.570	0.3342	0.0131
			MEAN	5.51	13217	25.657	0.3876	0.0151

ppm - Parts per million by volume
*** Mean determined as arithmetic average of the average results for each of the runs**

LBS/HR = 1E-06*PPM*5.31*SCFM

Panama City Mill Test Data
1998

II. Summary and discussion of results

1998

Results of the testing are summarized in Tables I through IV. Complete emissions data along with supportive field and analytical data are included in Appendices A through I, and L.

The No. 3 Bark Boiler was within compliance during the tests. The average particulate emissions were 13.27 lbs/hr. The calculated allowable emissions for this source are 69.73 lbs/hr.

The SO2 (with NCG) emissions averaged 1.87 lbs/hr, with an allowable of 781 lbs/hr.

The SO2 (without NCG) emissions averaged 500.69 lbs/hr, with an allowable of 772 lbs/hr.

The TRS emissions averaged 0.42 ppm, with an allowable of 5.0 ppm.

The visible emissions average opacity was 8.54 %, with an allowable of 30%.

T S I

Volumetric Flow and Emission Output - Table I

FACILITY: Smurfit-Stone
LOCATION: Panama City, Florida

SOURCE: No. 4 Bark Boiler

Date	Run Number	Particulate Emissions GR/SCF	Particulate Emissions LB/HR	Vol. Flow Rate ACFM	Vol. Flow Rate SCFMD	Percent O2	Stack Temp 'F	Percent H20
12/06/98	**1**	0.0103	14.47	254261.0	163924.0	7.2	144.6	26.4
12/06/98	**2**	0.0088	12.34	251249.0	163561.0	6.9	144.5	25.7
12/06/98	**3**	0.0094	13.00	247900.0	161362.0	7.3	142.8	25.9
	Mean	0.0095	13.27	251136.7	162949.0	7.1	144.0	26.0

Mean determined as arithmetic average of the results for each of the three runs.

REMARKS: Allowable Emissions = 69.73 lbs/hr

TECHNICAL SERVICES INC.

TABLE II

SULFUR DIOXIDE EMISSIONS SUMMARY
No. 4 Bark Boiler with NCG

STONE CONTAINER CORPORATION
PANAMA CITY, FLORIDA

DATE	RUN No.	TIME PERIOD	LEVEL	SO2 PPM	VOLUMETRIC FLOW SCFMD	OXYGEN %	SO2 EMISSIONS LBS/DSCF	SO2 EMISSIONS LB/HR
15/05/98	1	1430 - 1530	**MAX**	1.77			2.937E-07	2.8801
			MIN	0.77			1.272E-07	1.2468
			AVG	1.39	163419	6.00	2.308E-07	2.2635
15/05/98	2	1540 - 1640	**MAX**	5.20			8.637E-07	8.3410
			MIN	1.00			1.661E-07	1.6040
			AVG	1.30	160948	5.90	2.155E-07	2.0813
15/05/98	3	1650 - 1750	**MAX**	8.23			1.366E-06	13.2539
			MIN	0.30			4.998E-08	0.4849
			AVG	0.79	161704	5.90	1.307E-07	1.2685
			MEAN	1.16	162024	5.93	1.924E-07	1.8711

ppm - Parts per million by volume

*** Mean determined as arithmetic average of the average results for each of the runs**

LBS/HR = 1.660E-07 x PPM x SCFMD x 60

TECHNICAL SERVICES INC.

TABLE III

SULFUR DIOXIDE EMISSIONS SUMMARY
No. 4 Bark Boiler without NCG

STONE CONTAINER CORPORATION
PANAMA CITY, FLORIDA

DATE	RUN No.	TIME PERIOD	LEVEL	SO2 PPM	VOLUMETRIC FLOW SCFMD	OXYGEN %	SO2 EMISSIONS LBS/DSCF	SO2 EMISSIONS LB/HR
12/06/98	1	0930 - 1030	MAX	345.87			5.742E-05	563.4207
			MIN	215.80			3.582E-05	351.5349
			AVG	280.82	163552	7.17	4.662E-05	457.4445
12/06/98	2	1040 - 1140	MAX	324.57			5.388E-05	528.1803
			MIN	246.76			4.096E-05	401.5548
			AVG	297.35	163384	6.89	4.936E-05	483.8819
12/06/98	3	1155 - 1255	MAX	369.40			6.132E-05	594.6556
			MIN	317.40			5.269E-05	510.9380
			AVG	348.33	161625	7.24	5.782E-05	560.7332
			MEAN	308.83	162854	7.10	5.127E-05	500.6866

ppm - Parts per million by volume

* Mean determined as arithmetic average of the average results for each of the runs

LBS/HR = 1.660E-07 x PPM x SCFMD x 60

TECHNICAL SERVICES INC.

TABLE IV

TOTAL REDUCED SULFUR GAS EMISSIONS
Bark Boiler No. 4 w/NCG

Stone Container Corporation
Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	CONCENTRATIONS, PPM H2S	CH3SH	DMS	DMDS	TRS
12/05/98	1	1100 - 1400	MAX	0.72	0.00	0.00	0.00	0.72
			MIN	0.00	0.00	0.00	0.00	0.00
			AVG	0.12	0.00	0.00	0.00	0.12
12/05/98	2	1400 - 1700	MAX	11.49	0.00	0.00	0.00	11.49
			MIN	0.00	0.00	0.00	0.00	0.00
			AVG	1.03	0.00	0.00	0.00	1.03
12/05/98	3	1700 - 2000	MAX	1.77	0.00	0.00	0.00	1.77
			MIN	0.00	0.00	0.00	0.00	0.00
			AVG	0.10	0.00	0.00	0.00	0.10
			MEAN	0.42	0.00	0.00	0.00	0.42

PPM - Parts per million by volume
H2S - Hydrogen Sulfide
CH3SH - Methyl Mercaptan
DMS - Dimethyl Sulfide
DMDS - Dimethyl Disulfide
TRS - Total Reduced Sulfur Compounds
* Mean determined as arithmetic average of the average results for each of the runs

II. Summary and discussion of results

1998

Results of the testing are summarized in Table I. Complete emissions data along with supportive field and analytical data are included in Appendices A, B, and C.

The No. 3 Bark Boiler was within compliance during the test. The average particulate emissions were 53.58 lbs/hr. The calculated allowable emissions for this source are 93.14 lbs/hr.

The visible emissions average opacity was 4.2%, with an allowable of 30%.

T S I

Volumetric Flow and Emission Output - Table I

FACILITY: Stone Container
LOCATION: Panama City, Fl.

SOURCE: No. 3 Bark Boiler

Date	Run Number	Particulate Emissions GR/SCF	LB/HR	LB/MMBTU	Vol. Flow Rate ACFM	SCFMD	Percent O2	Stack Temp 'F	Percent Isokinetic
12/4/98	1	0.0461	60.97	0.106	231654.0	154307.0	8.4	141.6	101.3
12/4/98	2	0.0416	56.38	0.093	231389.0	158115.0	8.1	141.3	97.8
12/4/98	3	0.0324	43.39	0.079	232025.0	156231.0	9.1	140.8	99.5
	Mean	0.0400	53.58	0.093	231689.3	156217.7	8.5	141.2	99.5

Mean determined as arithmetic average of the results for each of the three runs.

REMARKS: Allowable Emissions = 93.14 lbs/hr

LB/MMBTU = (Gr/SCF/7000) x (Fuel Fact.) x [20.9 / (20.9 - %O2)]

II. Summary and discussion of results

1998

Results of the testing are summarized in Table I. Complete emissions data along with supportive field and analytical data are included in Appendices A, B, and C.

The Slaker Vent Stack was well within compliance during the test. The average particulate emissions were 0.53 lb/hr. The calculated allowable emissions for this source are 48.606 lbs/hr.

Due to the high concentration of entrained moisture in the impingers, theoretical moisture had to be used in the flow calculations.

T S I

Volumetric Flow and Emission Output - Table I

FACILITY: Stone Container
LOCATION: Panama City, Fl.

SOURCE: Slaker Vent

Date	Run Number	Particulate Emissions GR/SCF	LB/HR	Vol. Flow Rate ACFM	SCFMD	Stack Temp 'F	Percent Moisture (Theoretical)	Percent Isokinetic
12/7/98	1	0.0315	1.08	8442.0	3998.0	172.7	43.5	91.7
12/8/98	2	0.0093	0.30	8295.0	3778.0	175.0	45.5	96.0
12/8/98	3	0.0062	0.20	7989.0	3711.0	174.1	44.5	99.3
	Mean	0.0157	0.53	8242.0	3829.0	173.9	44.5	95.7

Mean determined as arithmetic average of the results for each of the three runs.

REMARKS:

Allowable Emissions (Ea) = [55 x (Tons/hr)^0.11] - 40
Allowable Emissions (Ea) = [55 x (76.34)^0.11] - 40 = 48.606 lbs/hr

Note: Calculations for the tons/hr can be found in the process data in Appendix D

TECHNICAL SERVICES, INC.

SOURCE EMISSIONS TEST SUMMARY

STONE CONTAINER CORPORATION
PANAMA CITY, FLORIDA

EMISSIONS TESTS:

PARTICULATE MATTER
TOTAL REDUCED SULFUR GASES
VISIBLE EMISSIONS

Emissions Tests Performed By: Technical Services, Inc.

SOURCE NAME: LIME KILN 1998

SOURCE ID NO.: 10PCY03000904

PARAMETER	ALLOWABLE EMISSIONS	MEASURED EMISSIONS	REMARKS
PARTICULATE MATTER	30.68 Lbs/Hr.	28.49 Lbs/Hr.	PASS
TOTAL REDUCED SULFUR GASES	20 PPM @ 10% O2	2.20 PPM @ 10% O2	PASS
VISIBLE EMISSIONS	20 % Opacity	0.0 Opacity	PASS

T S I

Volumetric Flow and Emission Output - Table I

FACILITY: Stone Container
LOCATION: Panama City, Fl.

SOURCE: Lime Kiln

Date	Run Number	Particulate Emissions GR/SCF	LB/HR	Vol. Flow Rate ACFM	SCFMD	Percent O2	Stack Temp 'F	Percent H20	Percent Isokinetic
12/7/98	**1**	0.0691	28.60	84967.0	48283.0	6.1	163.0	33.2	99.0
12/7/98	**2**	0.0570	24.39	87493.0	49921.0	7.2	163.3	32.9	101.4
12/7/98	**3**	0.0782	32.48	85413.0	48457.0	6.2	163.1	33.3	100.0
	Mean	0.0681	28.49	85957.7	48887.0	6.5	163.1	33.1	100.1

Mean determined as arithmetic average of the results for each of the three runs.

REMARKS: Allowable Emissions = 17.31(P)^0.16 = lbs/hr

TECHNICAL SERVICES INC.

TABLE II

TOTAL REDUCED SULFUR GAS EMISSIONS
LIME KILN

Stone Container Corporation
Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	CONCENTRATIONS, PPM H2S	CH3SH	DMS	DMDS	TRS
12/07/98	1	1100 - 1400	MAX	2.98	0.00	0.00	0.00	2.98
			MIN	1.38	0.00	0.00	0.00	1.38
			AVG	2.02	0.00	0.00	0.00	2.02
12/07/98	2	1400 - 1700	MAX	3.32	0.00	0.00	0.00	3.32
			MIN	0.27	0.00	0.00	0.00	0.27
			AVG	2.50	0.00	0.00	0.00	2.50
12/07/98	3	1700 - 2000	MAX	7.42	0.00	0.00	0.00	7.42
			MIN	2.04	0.00	0.00	0.00	2.04
			AVG	4.22	0.00	0.00	0.00	4.22
			MEAN	2.91	0.00	0.00	0.00	2.91

PPM - Parts per million by volume
H2S - Hydrogen Sulfide
CH3SH - Methyl Mercaptan
DMS - Dimethyl Sulfide
DMDS - Dimethyl Disulfide
TRS - Total Reduced Sulfur Compounds
*** Mean determined as arithmetic average of the average results for each of the runs**

TECHNICAL SERVICES INC.

TABLE III

TOTAL REDUCED SULFUR GAS EMISSIONS SUMMARY
LIME KILN

Stone Container Corporation
Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	OXYGEN %	CONCENTRATIONS, PPM TRS	TRS / COR. FOR O2
12/07/98	1	1100 - 1400	MAX	6.25	2.98	2.22
			MIN	6.08	1.38	1.02
			AVG	6.17	2.02	1.50
12/07/98	2	1400 - 1700	MAX	10.22	3.32	3.39
			MIN	6.28	0.27	0.20
			AVG	7.71	2.50	2.07
12/07/98	3	1700 - 2000	MAX	5.71	7.42	5.34
			MIN	5.65	2.04	1.46
			AVG	5.68	4.22	3.03
			MEAN	6.52	2.91	2.20

PPM - Parts per million by volume
*** Mean determined as arithmetic average of the average results for each of the runs**

II. Summary and discussion of results

1998

Results of the testing are summarized in Tables I through III. Complete emissions data along with supportive field and analytical data are included in Appendices A through E, G and J.

The No. 2 Smelt Tank was within compliance during the tests. The average particulate emissions were 24.36 lbs/hr. The calculated allowable emissions for this source are 26.83 lbs/hr.

The TRS emissions averaged 0.0338 lb/Ton BLS, with an allowable of 0.048 lb/Ton BLS.

The visible emissions average opacity was 1% , with an allowable of 20%.

T S I

Volumetric Flow and Emission Output - Table I

FACILITY: Stone Container Corp.
LOCATION: Panama City Fl.

SOURCE: No. 2 Smelt Dissolving tank

Date	Run Number	Particulate Emissions GR/SCF	LB/HR	Vol. Flow Rate ACFM	SCFMD	Black Liquor Firing Rat (Tons/Hr)(3000 lbs/Ton)	Process Feed Rate (DPF)
11/30/98	1	0.2263	24.13	21091.0	12442.0	37.79	25.58
11/30/98	2	0.2153	24.08	22411.0	13046.0	37.88	25.57
11/30/98	3	0.2222	24.88	22650.0	13061.0	38.29	25.77
	Mean	0.2213	24.36	22050.7	12849.7	37.99	25.64

Mean determined as arithmetic average of the results for each of the three runs.

REMARKS: Allowable Emissions = 3.59 (DPF)^0.62

DPF = Dry Process feed rate in Tons/Hr

Run 1 = 26.79 lbs/hr
Run 2 = 26.78 lbs/hr
Run 3 = 26.91 lbs/hr
Average = 26.83 lbs/hr

TECHNICAL SERVICES INC.

TABLE II

TOTAL REDUCED SULFUR GAS EMISSIONS
No. 2 Smelt Dissolving Tank Vent

Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	CONCENTRATIONS H2S	CH3SH	DMDS	DMS	TRS
12/01/98	1	1000 - 1300	MAX	3.04	16.96	0.22	0.00	20.44
			MIN	1.68	8.16	0.16	0.00	10.16
			AVG	2.17	11.98	0.19	0.00	14.54
12/01/98	2	1300 - 1600	MAX	5.77	11.47	0.19	0.00	17.63
			MIN	1.99	7.17	0.00	0.00	9.15
			AVG	3.72	8.76	0.07	0.00	12.62
12/01/98	3	1600 - 1900	MAX	2.83	11.78	0.00	0.00	14.61
			MIN	1.80	9.65	0.00	0.00	11.44
			AVG	2.18	10.93	0.00	0.00	13.11
			MEAN	2.69	10.56	0.09	0.00	13.42

ppm - Parts per million by volume
H2S - Hydrogen Sulfide
CH3SH - Methyl Mercatan
DMS - Dimethyl Sulfide
DMDS - Dimethyl Disulfide
TRS - Total Reduced Sulfur Compounds
* Mean determined as arithmetic average of the average results for each of the runs

TECHNICAL SERVICES INC.

TABLE III

TOTAL REDUCED SULFUR GAS EMISSIONS SUMMARY
No. 2 Smelt Dissolving Tank Vent

Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	TRS PPM	VOL FLOW SCFMD	DPF SOLIDS TONS/HR	TRS MASS EMISSIONS LBS/HR	TRS MASS EMISSIONS LBS/TON DPF
12/01/98	1	1000 - 1300	MAX	20.44			1.3109	0.0511
			MIN	10.16			0.6517	0.0254
			AVG	14.54	12077	25.675	0.9324	0.0363
12/01/98	2	1300 - 1600	MAX	17.63			1.1548	0.0455
			MIN	9.15			0.5998	0.0237
			AVG	12.62	12338	25.360	0.8265	0.0326
12/01/98	3	1600 - 1900	MAX	14.61			0.9271	0.0363
			MIN	11.44			0.7262	0.0285
			AVG	13.11	11952	25.515	0.8320	0.0326
			MEAN	13.42	12122	25.517	0.8637	0.0338

ppm - Parts per million by volume
*** Mean determined as arithmetic average of the average results for each of the runs**

LBS/HR = 1E-06*PPM*5.31*SCFM

II. Summary and discussion of results

1998

Results of the testing are summarized in Tables I through III. Complete emissions data along with supportive field and analytical data are included in Appendices A through E, G and J.

The No. 1 Smelt Tank was within compliance during the tests. The average particulate emissions were 22.17 lbs/hr. The calculated allowable emissions for this source are 27.08 lbs/hr.

The TRS emissions averaged 0.0399 lb/Ton BLS, with an allowable of 0.048 lb/Ton BLS.

The visible emissions average opacity was 0 %, with an allowable of 20%.

T S I

Volumetric Flow and Emission Output - Table I

FACILITY: Stone Container Corp.
LOCATION: Panama City Fl.

SOURCE: No. 1 Smelt Dissolving tank

Date	Run Number	Particulate Emissions GR/SCF	LB/HR	Vol. Flow Rate ACFM	SCFMD	Liquor Firing Rate (Tons/Hr)(3000 lbs/Ton)	Process Feed Rate (DPF)
12/5/98	**1**	0.1722	23.18	26762.0	15703.0	37.92	26.17
12/5/98	**2**	0.1325	18.58	27415.0	16359.0	38.08	26.20
12/5/98	**3**	0.1701	24.75	27611.0	16972.0	37.62	25.73
	Mean	0.1583	22.17	27262.7	16344.7	37.87	26.03

Mean determined as arithmetic average of the results for each of the three runs.

REMARKS: Allowable Emissions = 3.59 (DPF)^0.62

DPF = Dry Process feed rate in Tons/Hr

Run 1 = 27.17 lbs/hr
Run 2 = 27.19 lbs/hr
Run 3 = 26.89 lbs/hr
Average = 27.08 lbs/hr

TECHNICAL SERVICES INC.

TABLE II

TOTAL REDUCED SULFUR GAS EMISSIONS
No. 1 Smelt Dissolving Tank Vent

Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	CONCENTRATIONS H2S	CH3SH	DMDS	DMS	TRS
11/30/98	1	1230 - 1530	MAX	13.32	5.06	0.20	0.00	18.77
			MIN	5.72	2.83	0.00	0.00	8.55
			AVG	8.30	3.73	0.03	0.00	12.10
11/30/98	2	1530 - 1830	MAX	19.00	3.74	0.00	0.00	22.74
			MIN	6.16	3.06	0.00	0.00	9.22
			AVG	7.47	3.35	0.00	0.00	10.82
11/30/98	3	1830 - 2130	MAX	10.81	3.81	0.00	0.00	14.62
			MIN	6.26	3.19	0.00	0.00	9.46
			AVG	8.44	3.50	0.00	0.00	11.94
			MEAN	8.07	3.53	0.01	0.00	11.62

ppm - Parts per million by volume
H2S - Hydrogen Sulfide
CH3SH - Methyl Mercatan
DMS - Dimethyl Sulfide
DMDS - Dimethyl Disulfide
TRS - Total Reduced Sulfur Compounds
*** Mean determined as arithmetic average of the average results for each of the runs**

TECHNICAL SERVICES INC.

TABLE III

TOTAL REDUCED SULFUR GAS EMISSIONS SUMMARY
No. 1 Smelt Dissolving Tank Vent

Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	TRS PPM	VOL FLOW SCFMD	DPF SOLIDS TONS/HR	TRS MASS EMISSIONS LBS/HR	TRS MASS EMISSIONS LBS/TON DPF
11/30/98	1	1230 - 1530	MAX	18.77			1.6775	0.0653
			MIN	8.55			0.7642	0.0298
			AVG	12.10	16828	25.675	1.0809	0.0421
11/30/98	2	1530 - 1830	MAX	22.74			2.0025	0.0785
			MIN	9.22			0.8120	0.0318
			AVG	10.82	16586	25.512	0.9526	0.0373
11/30/98	3	1830 - 2130	MAX	14.62			1.2592	0.0491
			MIN	9.46			0.8142	0.0318
			AVG	11.94	16216	25.624	1.0280	0.0401
			MEAN	11.62	16543.3	25.604	1.0205	0.0399

ppm - Parts per million by volume
*** Mean determined as arithmetic average of the average results for each of the runs**

LBS/HR = 1E-06*PPM*5.31*SCFMD

II. Summary and discussion of results

No. 2 Recovery 1998

Results of the testing are summarized in Tables I through V. Complete emissions data along with supportive field and analytical data are included in Appendices A through E, and H.

The No.'s 2A and 2B Recovery Boilers were within compliance during the tests. The average particulate emissions combined were 0.52 lb/Ton BLS. The allowable emissions for this source are 3.0 lbs/Ton BLS.

The TRS emissions for the No.'s 2A and 2B Recoverys averaged 14.96 ppm corrected to 8% O2, with an allowable of 17.5 ppm corrected to 8% O2.

The visible emissions opacity was 2.5% for both Recoverys, with an allowable of 45%.

TECHNICAL SERVICES INC.

TABLE I

TOTAL REDUCED SULFUR GAS EMISSIONS
Recovery Boiler 2A

Stone Container Corporation
Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	CONCENTRATIONS. PPM H2S	CH3SH	DMS	DMDS	TRS
12/3-4/98	1	1300 - 1600	MAX	6.31	6.61	0.00	0.00	12.92
			MIN	4.45	3.15	0.00	0.00	7.60
			AVG	5.55	5.66	0.00	0.00	11.22
12/3-4/98	2	1600 - 1900	MAX	6.16	6.14	0.00	0.00	12.31
			MIN	4.54	5.26	0.00	0.00	9.80
			AVG	5.12	5.65	0.00	0.00	10.78
12/3-4/98	3	1900 - 2200	MAX	6.82	6.86	0.00	0.00	13.68
			MIN	3.60	5.19	0.00	0.00	8.79
			AVG	5.39	5.86	0.00	0.00	11.24
			MEAN	5.35	5.72	0.00	0.00	11.08

PPM - Parts per million by volume
H2S - Hydrogen Sulfide
CH3SH - Methyl Mercaptan
DMS - Dimethyl Sulfide
DMDS - Dimethyl Disulfide
TRS - Total Reduced Sulfur Compounds
* Mean determined as arithmetic average of the average results for each of the runs

TECHNICAL SERVICES INC.

TABLE II

TOTAL REDUCED SULFUR GAS EMISSIONS SUMMARY
Recovery Boiler 2A

Stone Container Corporation
Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	OXYGEN %	CONCENTRATIONS, PPM TRS	TRS / COR. FOR O2
12/3-4/98	1	1300 - 1600	MAX	6.74	12.92	11.78
			MIN	6.52	7.60	6.83
			AVG	6.63	11.22	10.15
12/3-4/98	2	1600 - 1900	MAX	7.06	12.31	11.48
			MIN	6.21	9.80	8.62
			AVG	6.61	10.78	9.74
12/3-4/98	3	1900 - 2200	MAX	6.69	13.68	12.43
			MIN	6.12	8.79	7.68
			AVG	6.42	11.24	10.02
			MEAN	6.55	11.08	9.97

PPM - Parts per million by volume
*** Mean determined as arithmetic average of the average results for each of the runs**

TECHNICAL SERVICES INC.

TABLE III

TOTAL REDUCED SULFUR GAS EMISSIONS
Recovery Boiler 2B

Stone Container Corporation
Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	CONCENTRATIONS. PPM H2S	CH3SH	DMS	DMDS	TRS
12/05/98	1	1300 - 1600	MAX	6.20	24.52	0.00	0.00	30.72
			MIN	3.90	5.85	0.00	0.00	9.75
			AVG	5.04	18.86	0.00	0.00	23.90
12/05/98	2	1600 - 1900	MAX	5.37	19.44	0.00	0.00	24.82
			MIN	3.91	15.64	0.00	0.00	19.55
			AVG	4.65	17.67	0.00	0.00	22.32
12/05/98	3	1900 - 2200	MAX	6.68	23.87	0.00	0.00	30.55
			MIN	3.33	15.30	0.00	0.00	18.63
			AVG	4.19	17.54	0.00	0.00	21.74
			MEAN	4.63	18.03	0.00	0.00	22.65

PPM - Parts per million by volume
H2S - Hydrogen Sulfide
CH3SH - Methyl Mercaptan
DMS - Dimethyl Sulfide
DMDS - Dimethyl Disulfide
TRS - Total Reduced Sulfur Compounds
* Mean determined as arithmetic average of the average results for each of the runs

TECHNICAL SERVICES INC.

TABLE IV

TOTAL REDUCED SULFUR GAS EMISSIONS SUMMARY
Recovery Boiler 2B

Stone Container Corporation
Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	OXYGEN %	CONCENTRATIONS, PPM TRS	TRS / COR. FOR O2
12/05/98	1	1300 - 1600	MAX	6.25	30.72	27.07
			MIN	6.12	9.75	8.52
			AVG	6.19	23.90	20.97
12/05/98	2	1600 - 1900	MAX	6.51	24.82	22.26
			MIN	5.73	19.55	16.64
			AVG	6.12	22.32	19.50
12/05/98	3	1900 - 2200	MAX	6.70	30.55	27.77
			MIN	6.21	18.63	16.37
			AVG	6.44	21.74	19.40
			MEAN	6.25	22.65	19.96

PPM - Parts per million by volume
* Mean determined as arithmetic average of the average results for each of the runs

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Volumetric Flow and Emission Output - Table V

FACILITY: Smurfitt-Stone
LOCATION: Panama City, Florida

SOURCE: No. 2 Recovery Boiler System

Date	Run Number	Source Recoverys	Particulate Emissions LB/HR	Particulate Emissions LB/Ton BL	Vol. Flow Rate ACFM	Vol. Flow Rate SCFMD	Black Liquor Firing Rate (Tons/Hr)	Percent Isokinetic
12/01/98	1	2A	5.18	0.26	174172.0	81728.0	39.19 /2	103.5
12/01/98	2	2A	7.07	0.38	167579.0	81612.0	37.68 /2	101.2
12/01/98	3	2A	5.17	0.27	178528.0	87485.0	37.93 /2	97.9
		Mean	5.81	0.30	173426.3	83608.3	38.27 /2	100.9
12/01/98	1	2B	15.11	0.80	162854.0	76965.0	37.79 /2	99.6
12/01/98	2	2B	14.20	0.75	143319.0	70797.0	37.94 /2	95.7
12/01/98	3	2B	12.10	0.64	154223.0	76747.0	37.99 /2	98.6
		Mean	13.80	0.73	153465.3	74836.3	37.91 /2	98.0
		Total	19.61	0.52	326891.7	158444.7	38.09	

Mean determined as arithmetic average of the results for each of the three runs.

REMARKS: Allowable Emissions (Stacks A and B) = 3.0 lbs/Ton Black Liquor Solids
One Ton BLS = 3000 lbs

II. Summary and discussion of results

No. 1 Recovery 1998

Results of the testing are summarized in Tables I through V. Complete emissions data along with supportive field and analytical data are included in Appendices A through E, and H.

The No.'s 1A and 1B Recovery Boilers were within compliance during the tests. The average particulate emissions combined were 0.72 lb/Ton BLS. The allowable emissions for this source are 3.0 lbs/Ton BLS.

The TRS emissions for the No.'s 1A and 1B Recoverys averaged 9.47 ppm corrected to 8% O2, with an allowable of 17.5 ppm corrected to 8% O2.

The visible emissions opacity was 0% for both Recoverys, with an allowable of 45%.

TECHNICAL SERVICES INC.

TABLE I

TOTAL REDUCED SULFUR GAS EMISSIONS
Recovery Boiler 1A

Stone Container Corporation
Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	CONCENTRATIONS. PPM H2S	CH3SH	DMS	DMDS	TRS
12/02/98	1	1030 - 1330	MAX	7.36	4.81	0.00	0.00	12.17
			MIN	5.19	2.67	0.00	0.00	7.87
			AVG	5.97	4.12	0.00	0.00	10.09
12/02/98	2	1330 - 1630	MAX	8.52	5.37	0.00	0.00	13.88
			MIN	5.41	3.20	0.00	0.00	8.61
			AVG	6.71	3.92	0.00	0.00	10.63
12/02/98	3	1630 - 1930	MAX	10.92	5.84	0.00	0.00	16.76
			MIN	6.36	3.53	0.00	0.00	9.89
			AVG	8.41	4.32	0.00	0.00	12.73
			MEAN	7.03	4.12	0.00	0.00	11.15

PPM - Parts per million by volume
H2S - Hydrogen Sulfide
CH3SH - Methyl Mercaptan
DMS - Dimethyl Sulfide
DMDS - Dimethyl Disulfide
TRS - Total Reduced Sulfur Compounds
* Mean determined as arithmetic average of the average results for each of the runs

TECHNICAL SERVICES INC.

TABLE II

TOTAL REDUCED SULFUR GAS EMISSIONS SUMMARY
Recovery Boiler 1A

Stone Container Corporation
Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	OXYGEN %	CONCENTRATIONS, PPM TRS	TRS / COR. FOR O2
12/02/98	1	1030 - 1330	MAX	6.82	12.17	11.16
			MIN	6.56	7.87	7.08
			AVG	6.69	10.09	9.17
12/02/98	2	1330 - 1630	MAX	7.27	13.88	13.15
			MIN	6.95	8.61	7.97
			AVG	7.15	10.63	9.98
12/02/98	3	1630 - 1930	MAX	7.22	16.76	15.82
			MIN	6.98	9.89	9.17
			AVG	7.12	12.73	11.93
			MEAN	6.99	11.15	10.36

PPM - Parts per million by volume
*** Mean determined as arithmetic average of the average results for each of the runs**

TECHNICAL SERVICES INC.

TABLE III

TOTAL REDUCED SULFUR GAS EMISSIONS
Recovery Boiler 1B

Stone Container Corporation
Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	CONCENTRATIONS. PPM H2S	CH3SH	DMS	DMDS	TRS
12/03/98	1	1300 - 1600	MAX	5.27	6.37	0.00	0.00	11.64
			MIN	0.15	3.13	0.00	0.00	3.29
			AVG	3.98	5.56	0.00	0.00	9.55
12/03/98	2	1600 - 1900	MAX	6.54	8.30	0.00	0.00	14.84
			MIN	2.18	4.05	0.00	0.00	6.23
			AVG	3.96	6.30	0.00	0.00	10.27
12/03/98	3	1900 - 2200	MAX	2.94	4.84	0.00	0.00	7.78
			MIN	1.35	2.79	0.00	0.00	4.14
			AVG	1.90	3.65	0.00	0.00	5.56
			MEAN	3.28	5.17	0.00	0.00	8.46

PPM - Parts per million by volume
H2S - Hydrogen Sulfide
CH3SH - Methyl Mercaptan
DMS - Dimethyl Sulfide
DMDS - Dimethyl Disulfide
TRS - Total Reduced Sulfur Compounds
* Mean determined as arithmetic average of the average results for each of the runs

TECHNICAL SERVICES INC.

TABLE IV

TOTAL REDUCED SULFUR GAS EMISSIONS SUMMARY
Recovery Boiler 1B

Stone Container Corporation
Stone, Panama City
Panama City, Florida

DATE	RUN No.	TIME PERIOD	LEVEL	OXYGEN %	CONCENTRATIONS, PPM TRS	TRS / COR. FOR O2
12/03/98	1	1300 - 1600	MAX	8.25	11.64	11.86
			MIN	8.15	3.29	3.33
			AVG	8.20	9.55	9.69
12/03/98	2	1600 - 1900	MAX	8.53	14.84	15.46
			MIN	7.05	6.23	5.80
			AVG	7.79	10.27	10.10
12/03/98	3	1900 - 2200	MAX	8.85	7.78	8.32
			MIN	8.74	4.14	4.39
			AVG	8.79	5.56	5.92
			MEAN	8.26	8.46	8.57

PPM - Parts per million by volume
* Mean determined as arithmetic average of the average results for each of the runs

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Volumetric Flow and Emission Output - Table V

FACILITY: Smurfitt-Stone
LOCATION: Panama City, Florida

SOURCE: No. 1 Recovery Boiler System

Date	Run Number	Source Recoverys	Particulate Emissions LB/HR	Particulate Emissions LB/Ton BLS	Vol. Flow Rate ACFM	Vol. Flow Rate SCFMD	Black Liquor Firing Rate (Tons/Hr)	Percent Isokinetic
12/02/98	1	1A	20.66	1.05	174218.0	86373.0	39.24 /2	98.6
12/02/98	2	1A	21.04	1.07	177051.0	86731.0	39.41 /2	99.4
12/02/98	3	1A	26.86	1.37	178027.0	87058.0	39.33 /2	99.5
		Mean	22.85	1.16	176432.0	86720.7	39.33 /2	99.1
12/02/98	1	1B	3.73	0.19	149353.0	74997.0	39.32 /2	101.1
12/03/98	2	1B	6.96	0.35	147781.0	74533.0	39.44 /2	101.4
12/03/98	3	1B	5.36	0.27	146627.0	75337.0	39.61 /2	100.5
		Mean	5.35	0.27	147920.3	74955.7	39.46 /2	101.0
		Total	28.20	0.72	324352.3	161676.3	39.39	

Mean determined as arithmetic average of the results for each of the three runs.

REMARKS: Allowable Emissions (Stacks A and B) = 3.0 lbs/Ton Black Liquor Solids
One Ton BLS = 3000 lbs

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

May 31, 2000

9937518B/R1/03

Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Attention: Mr. A. A. Linero, P.E.
Administrator, New Source Review Section

Subject: File No. 0050009-005-AC (PSD-FL-288)
Stone Container Corp. Panama City Mill
Pulp Production Increase

Dear Mr. Linero:

Please find enclosed four (4) copies of the ambient impact analysis report for Stone Container Corporation's Panama City mill. This report is being submitted in support of the request for a pulp production increase for the mill. Please forward a copy of the report to EPA Region 4 as soon as possible, in order to begin their review of the ISC-PRIME model.

Responses to the Department's completeness letter dated May 9, 2000, are being developed and will be forthcoming in the near future. Please call if you have any questions concerning this information.

Sincerely,

GOLDER ASSOCIATES INC.

David A. Buff

David A. Buff, P.E.
Principal Engineer
Florida P.E. #19011
SEAL

cc: Ed Middleswart, FDEP Pensacola (w/o report)
David Riley
Charlie Ackel
Tom Clements
Steve Hamilton

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REVISED

AMBIENT IMPACT ANALYSIS
FOR
STONE CONTAINER CORPORATION

PANAMA CITY MILL

Prepared For:

STONE CONTAINER CORPORATION
PANAMA CITY, FLORIDA

Prepared By:

Golder Associates Inc.
6241 NW 23rd Street, Suite 500
Gainesville, Florida 32653-1500

May 2000
9937518B/R1

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1.0 INTRODUCTION

Stone Container Corporation (SCC) operates a Kraft pulp mill located in Panama City, Bay County, Florida. SCC proposes to revise the pulp production capacity of the mill for PSD purposes, as described in the air construction permit application for the pulp production increase.

At SCC's request, Golder Associates Inc. (Golder) has conducted an atmospheric dispersion modeling analysis of the Panama City mill in support of the air construction permit application for the revised pulp production capacity. As a prerequisite to issuance of an air construction permit, SCC Panama City must demonstrate that the mill is in compliance with all ambient air quality standards (AAQS) and prevention of significant deterioration (PSD) Class II and Class I allowable increments.

This report presents an assessment of potential air quality impacts associated with the SCC Panama City mill. This report contains the technical information and analysis developed in accordance with PSD regulations as promulgated by the U.S. Environmental Protection Agency (EPA) and implemented through delegation to the Florida Department of Environmental Protection (FDEP). The air quality impacts of the following pollutants, for which AAQS and PSD increments have been promulgated, are addressed:

- Particulate matter with aerodynamic diameter of 10 microns or less (PM_{10}),
- Nitrogen dioxide (NO_x),
- Sulfur dioxide (SO_2), and
- Carbon monoxide (CO) (AAQS only).

The existing applicable national and Florida AAQS are presented in Table 1-1. Primary national AAQS were promulgated to protect the public health, and secondary national AAQS were promulgated to protect the public welfare from any known or anticipated adverse effects associated with the presence of pollutants in the ambient air.

Florida has adopted state AAQS in Rule 62-2-4.240. These standards are the same as the national AAQS, except in the case of SO_2. For SO_2, Florida has adopted the former national 24-hour and annual average secondary standards of 260 $\mu g/m^3$ and 60 $\mu g/m^3$, respectively.

EPA has promulgated allowable PSD air quality increments, which limit increases in air quality levels above an air quality baseline concentration level for SO_2, PM_{10}, and NO_2. Increases above these increments would constitute significant deterioration. The EPA class designations and allowable PSD increments are presented in Table 1-1. The magnitude of the allowable increment depends on the classification of the area in the source is located or will have an impact. Three classifications are designated based on criteria established in the Clean Air Act Amendments. Congress promulgated areas as Class I (international parks, national wilderness areas, and memorial parks larger than 5,000 acres and national parks larger than 6,000 acres) or as Class II (all areas not designated as Class I). No Class III areas, which would be allowed greater deterioration than Class II areas, were designated. The State of Florida has adopted the EPA class designations and allowable PSD increments for SO_2, PM_{10}, and NO_2 increments.

Bay County has been designated as an attainment or unclassifiable area for all criteria pollutants. The county is also classified as a PSD Class II area for PM_{10}, SO_2, and NO_2.. The nearest PSD Class I areas are the St. Marks National Wilderness Area and the Bradwell Bay Wilderness Area, located about 95 km east of the SCC Panama City mill.

The air quality impact analysis demonstrates that emissions from the SCC Panama City mill will not result in ambient concentrations above the AAQS or the PSD Class II or Class I increments.

This report is divided into five major sections, including this introduction:

- Section 2.0 presents a description of the SCC Panama City facility, along with source emission rates and stack parameters;
- Section 3.0 presents existing air quality data for purposes of determining suitable background air quality concentrations for each pollutant;

- Section 4.0 presents the air modeling methodology, emissions inventories and data used in the modeling analysis;
- Section 5.0 presents the air dispersion modeling results.

The preliminary modeling analysis predicted exceedances of the SO_2 and PM_{10} AAQS, based on maximum emission rates from modeled sources. Based on this analysis, SCC proposes the following SO_2 emission limits for the combination boilers to comply with the SO_2 AAQS.

24-hr SO_2 AAQS

1. SO_2 emission limit for the No. 3 Combination Boiler of 485 lb/hr (24-hour average),
2. SO_2 emission limit for the No. 4 Combination Boiler of 575 lb/hr (24-hour average), and
3. Combined SO_2 emission limit for the No. 3 and No. 4 Combination Boilers of 525 lb/hr (24-hour avg.) when both boilers are burning fuel oil and/or coal.

3-hr SO_2 AAQS

1. SO_2 emission limit for the No. 3 Combination Boiler of 875 lb/hr (3-hour average),
2. SO_2 emission limit for the No. 4 Combination Boiler of 875 lb/hr (3-hour average),
3. Combined SO_2 emission limit for the No. 3 and No. 4 Combination Boilers of 1,750 lb/hr (3-hour avg.) when both boilers are burning fuel oil and/or coal.

These SO_2 emission rates represent a significant reduction from the current allowable emissions for these sources. Currently, the combination boilers SO_2 emissions are limited by fuel usage rates and fuel oil and coal sulfur content. SCC proposes to install a continuous SO_2 monitor for the combination boilers to monitor compliance with these SO_2 limits. A single SO_2 monitor is proposed to alternatively monitor the two combination boilers. SCC will continue to employ caustic addition to the wet scrubbing system on the No. 4 Combination Boiler to achieve the individual and combined SO_2 emission rates. Caustic addition to the wet scrubbing system on No. 3 Combination Boiler will be implemented and used as needed.

SCC proposes the following lower emission limits to meet the PM_{10} AAQS:

- Lime Slaker - 4 lb/hr

Table 1-1. National and State AAQS, Allowable PSD Increments, and Significant Impact Levels ($\mu g/m^3$)

Pollutant	Averaging Time	AAQS			PSD Increments		Significant Impact Levels[d]
		National Primary Standard	National Secondary Standard	State of Florida	Class I	Class II	
Particulate Matter[a] (PM_{10})	Annual Arithmetic Mean	50	50	50	4	17	1
	24-Hour Maximum	150[b]	150[b]	150[b]	8	30	5
Sulfur Dioxide	Annual Arithmetic Mean	80	NA	60	2	20	1
	24-Hour Maximum	365[b]	NA	260[b]	5	91	5
	3-Hour Maximum	NA	1,300[b]	1,300[b]	25	512	25
Carbon Monoxide	8-Hour Maximum	10,000[b]	10,000[b]	10,000[b]	NA	NA	500
	1-Hour Maximum	40,000[b]	40,000[b]	40,000[b]	NA	NA	2,000
Nitrogen Dioxide	Annual Arithmetic Mean	100	100	100	2.5	25	1
Ozone[a]	1-Hour Maximum	235[c]	235[c]	235[c]	NA	NA	NA
Lead	Calendar Quarter Arithmetic Mean	1.5	1.5	1.5	NA	NA	NA

Note: Particulate matter (PM_{10}) = particulate matter with aerodynamic diameter less than or equal to 10 micrometers.
NA = Not applicable, i.e., no standard exists.

[a] On July 18, 1997, EPA promulgated revised AAQS for particulate matter and ozone. For particulate matter, $PM_{2.5}$ standards were introduced with a 24-hour standard of 65 $\mu g/m^3$ (3-year average of 98th percentile) and an annual standard of 15 $\mu g/m^3$ (3-year average at community monitors). Implementation of these standards are many years away. The ozone standard was modified to be 0.08 ppm for 8-hour average; achieved when 3-year average of 99th percentile is 0.08 ppm or less. FDEP has not yet adopted these standards.

[b] Short-term maximum concentrations are not to be exceeded more than once per year.

[c] Achieved when the expected number of days per year with concentrations above the standard is fewer than 1.

[d] Maximum concentrations.

Sources: Federal Register, Vol. 43, No. 118, June 19, 1978. 40 CFR 50. 40 CFR 52.21. Rule 62-204, F.A.C.

2.0 PROJECT DESCRIPTION

2.1 SITE DESCRIPTION

The SCC Panama City mill is located in Panama City , Bay County , Florida. A site map of the area, showing the plant property boundaries, is provided in Figure 2-1. The mill consists of a Kraft pulp and paper mill which has two recovery boilers, two smelt dissolving tanks, a lime kiln, a lime slaker, a bleach plant, and two combination bark/fossil-fuel boilers, which constitute the permitted point sources for the facility. No new additional point sources will be required at the facility to destroy non-condensable gases containing total reduced sulfur (TRS) as part of the Cluster Rule Compliance project. The No. 3 combination boiler will be used to incinerate off-gases from the proposed condensate stripper being installed for cluster rule compliance.

2.2 SCC PANAMA CITY EMISSIONS

The maximum short-term (hourly) emissions for all permitted point sources of PM_{10}, SO_2, NO_x, and CO located at the SCC Panama City mill are presented in Table 2-1. The maximum emissions were used for modeling all averaging times (i.e., 1-hour, 3-hour, 3-hour, 24-hour and annual). The maximum emissions are based on the permitted emission rates or maximum calculated emission rates derived from permitted operational rates, except for SO_2 emissions from the combination boilers, and PM_{10} emission from the lime slaker. SCC proposes to limit SO_2 emissions from the Nos. 3 and 4 Combination Boilers to the following to meet the SO_2 AAQS:

	3-hour average (lb/hr)	24-hour average (lb/hr)
No. 3 Combination Boiler	875	485
No. 4 Combination Boiler	875	575
Combined Operation	1,750	525

The recovery boilers emissions are based on the burning of black liquor solids (BLS), since BLS is the primary fuel of the recovery boilers.

SCC also proposes to reduce maximum permitted PM emissions from the line slaker to 4 lb/hr. This reduction in permitted emissions is proposed to meet the PM_{10} 24-hr AAQS, based on the modeling analysis.

The proposed cluster rule changes, i.e., additional TRS burning in the No. 4 Combination Boiler, stripper off-gas burning in the No. 3 Combination Boilers, and modified bleach plant, are included in Table 2-1. The additional TRS burning from the proposed condensate stripper will generate additional SO_2 and NO_x emissions. SO_2 emissions will be controlled by caustic addition and the proposed continuous SO_2 monitor. CO emissions will result from the modified bleach plant. Supportive tables are presented in Appendix A.

Baseline emissions for the SCC Panama City mill, for purposes of calculating PSD increment consumption, are presented in Table 2-2. For SO_2 and PM_{10}, the major source baseline date is January 6, 1975; for NO_x, the date is March 8, 1988. The 1974 PSD baseline emissions were obtained from 1974 plant operating data, construction and operating permits in existence at the time, permit application information, and previous stack testing performed at the Panama City mill. The 1988 baseline emissions for NO_x were obtained from the 1988 Annual Operating Report submitted by SCC to FDEP. Supportive tables are presented in Appendix B.

2.3 SITE LAYOUT AND STRUCTURES

A plot plan of the SCC Panama City facility , showing stack locations, is presented in Figure 2-2. The dimensions of the major buildings and structures at the facility are presented in Section 4.0. The SCC site and modeling receptors used in the modeling analysis are shown in Figure 2-3. A photograph of the most significant structure at the facility, the recovery boiler building, is presented in Figure 2-4. The combination boiler stacks are also shown.

2.4 STACK PARAMETERS

Stack parameters for both the future case and the PSD baseline years are presented in Table 2-3. For both cases, stack data are based on available construction/operation permit information and stack testing. Supportive information for baseline stack parameters is provided in Appendix B.

Table 2-1. Maximum Future Emissions Used in the Modeling Analysis for Stone Container - Panama City

		PM_{10}		SO_2		NO_x		CO	
Emission Unit	Unit ID	lb/hr	g/s	lb/hr	g/s	lb/hr	g/s	lb/hr	g/s
No. 1 Recovery Boiler	RB1	87.3	11.00	129.8	16.35	72.1	9.08	2,474.0	311.72
No. 2 Recovery Boiler	RB2	87.3	11.00	129.8	16.35	72.1	9.05	2,474.0	311.72
No. 1 Smelt Dissolving Tank	SDT1	26.6	3.35	1.0	0.13	2.0	0.26	--	--
No. 2 Smelt Dissolving Tank	SDT2	25.5	3.21	1.0	0.13	2.0	0.26	--	--
Lime Kiln	LK1	29.3	3.69	4.7	0.59	44.7	5.63	4.5	0.57
No. 3 Combination Boiler	BB3	47.8	12.32	240.0[b]	30.24	157.1	19.79	176.4	22.23
No. 4 Combination Boiler	BB4	81.5	10.27	285.0[b]	35.91	189.1	23.83	177.8	22.40
Modified Bleach Plant	BLEACH	--	--	--	--	--	--	46.2	5.82
Lime Slaker	LSKR	4.0[a]	0.50	--	--	--	--	--	--
Woodyard	WOODYARD	3.7	0.47	--	--	--	--	--	--
TOTALS		443.2	54.7	778.7	98.1	544.3	72.2	5,252.3	661.8

[a] Represents a reduction in emissions from current permitted or maximum emission rate.

[b] Proposed 24-hour average permit limits when both No. 3 and No. 4 Combination Boilers are burning fuel oil and/or coal (525 lb/hr total).

Maximum individual 3-hour average SO_2 limits are: No. 3 Combination Boiler 875 lb/hr
No. 4 Combination Boiler 875 lb/hr

Maximum individual 24-hour average SO_2 limits are: No. 3 Combination Boiler 485 lb/hr
No. 4 Combination Boiler 575 lb/hr

Table 2-2. Baseline Emissions Used in the Modeling Analysis for Stone Container - Panama City

Emission Unit	Unit ID	1974 Baseline PM_{10}		1974 Baseline SO_2		1988 Baseline NO_x	
		Short-Term Emissions					
		lb/hr	g/s	lb/hr	g/s		
No. 1 Recovery Boiler	RB1	45.9	5.78	121.5	15.3	--	--
No. 2 Recovery Boiler	RB2	52.3	6.59	121.5	15.3	--	--
No. 1 Smelt Dissolving Tank	SDT1	4.0	0.50	7.5	0.9	--	--
No. 2 Smelt Dissolving Tank	SDT2	19.7	2.48	7.5	0.9	--	--
Lime Kiln	LK1	24.1	3.04	3.2	0.4	--	--
No. 4 Power Boiler	PB4[a]	11.9	1.50	205.5	25.9	--	--
No. 5 Power Boiler	PB5[a]	12.2	1.54	212.0	26.7	--	--
No. 6 Power Boiler	PB6	30.2	3.81	524.0	66.0		
No. 3 Combination Boiler	BB3	140.1	17.65	342.9	43.2		
No. 4 Combination Boiler	BB4	140.1	17.65	546.0	68.8	--	--
Lime Slaker	LSKR	5.0	0.63	--	--		
TOTALS		480.5	60.54	2,091.6	263.5	--	--
		Long-Term Emissions					
		TPY	g/s	TPY	g/s	TPY	g/s
No. 1 Recovery Boiler	RB1	192.7	5.54	452.8	13.0	276.9	7.97
No. 2 Recovery Boiler	RB2	219.7	6.32	452.8	13.0	287.4	8.27
No. 1 Smelt Dissolving Tank	SDT1	16.6	0.48	26.4	0.8	7.0	0.20
No. 2 Smelt Dissolving Tank	SDT2	82.9	2.38	26.4	0.8	7.8	0.22
Lime Kiln	LK1	101.2	2.91	12.0	0.3	137.0	3.94
No. 4 Power Boiler	PB4[a]	44.6	1.28	773.9	22.3	--	--
No. 5 Power Boiler	PB5[a]	44.6	1.28	773.9	22.3	97.5	2.80
No. 6 Power Boiler	PB6	111.6	3.21	1,934.7	55.7	--	--
No. 3 Combination Boiler	BB3	697.4	20.06	1,335.9	38.4	228.3	6.57
No. 4 Combination Boiler	BB4	747.7	21.51	2,114.8	60.8	484.3	13.93
Lime Slaker	LSKR	21.0	0.60	--	--	--	--
TOTALS		2,259.0	64.98	7,903.6	227.4	1,526.2	43.9

[a] Common stack in baseline.

Table 2-3. Stack Parameters and Locations Used in the Modeling Analysis for Stone Container- Panama City

		Relative Location				Stack Parameters				Operating Parameters			
		X		Y		Height		Diameter		Temperature		Velocity	
Emission Unit	Unit ID	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(°F)	(°K)	(ft/s)	(m/s)
Future Conditions													
No. 1 Recovery Boiler[a]	RB1	16	5	-29	-9	233	71.0	6.46	1.97	286	414	93.8	28.60
No. 2 Recovery Boiler[a]	RB2	59	18	21	6	233	71.0	6.46	1.97	310	428	93.5	28.50
No. 1 Smelt Dissolving Tank	SDT1	3	1	-18	-5	233	71.0	6.00	1.83	166	348	17.2	5.24
No. 2 Smelt Dissolving Tank	SDT2	45	14	33	10	233	71.0	6.00	1.83	166	348	15.0	4.56
Lime Kiln	LK1	537	164	-118	-36	61	18.6	8.00	2.44	167	348	38.8	11.84
Slaker	LSKR	136	40	-484	-148	56	17.1	2.90	0.88	200	366	42.9	13.09
No. 3 Combination Boiler	BB3	-77	-23	27	8	213	64.9	7.80	2.38	149	338	77.1	23.50
No. 4 Combination Boiler	BB4	-108	-33	-9	-3	213	64.9	7.80	2.38	143	335	89.6	27.32
Bleach Plant	BLEACH	202	62	-688	-210	86	26.2	3.00	0.91	114	319	59.0	17.97
NO_x PSD Baseline (1988) Conditions													
No. 1 Recovery Boiler[a]	RB1	16	5	-29	-9	233	71.0	6.46	1.97	310	428	88.0	26.82
No. 2 Recovery Boiler[a]	RB2	59	18	21	6	233	71.0	6.46	1.97	320	433	81.3	24.78
No. 1 Smelt Dissolving Tank	SDT1	3	1	-18	-5	233	71.0	6.00	1.83	150	339	16.9	51.5
No. 2 Smelt Dissolving Tank	SDT2	45	14	33	10	233	71.0	6.00	1.83	140	333	17.4	5.30
Lime Kiln	LK1	537	164	-118	-36	61	18.6	8.00	2.44	160	344	33.6	10.24
Slaker	LSKR	136	41	-484	-148	56	17.1	2.90	0.88	155	341	44.1	13.44
No. 5 Power Boiler	PB5	-152	-46	41	12	296	90.2	12.00	3.66	400	478	24.8	7.56
No. 3 Combination Boiler	BB3	-77	-23	27	8	213	64.9	7.80	2.38	149	338	77.1	23.50
No. 4 Combination Boiler	BB4	-108	-33	-9	-3	213	64.9	7.80	2.38	143	335	89.6	27.32
PM/SO_2 PSD Baseline (1974) Conditions													
No. 1 Recovery Boiler[a]	RB1	16	5	-29	-9	233	71.0	6.46	1.97	310	428	88.0	26.82
No. 2 Recovery Boiler[a]	RB2	59	18	21	6	233	71.0	6.46	1.97	320	433	81.3	24.78
No. 1 Smelt Dissolving Tank	SDT1	3	1	-18	-5	233	71.0	6.00	1.83	150	339	16.9	5.15
No. 2 Smelt Dissolving Tank	SDT2	45	14	33	10	233	71.0	6.00	1.83	140	333	17.4	5.30
Lime Kiln	LK1	537	164	-118	-36	61	18.6	8.00	2.44	160	344	33.6	10.24
Slaker	LSKR	136	41	-484	-148	56	17.1	3.00	0.91	155	341	44.1	13.44
No. 4 Power Boiler[b]	PB4	-152	-46	41	12	296	90.2	12.00	3.66	400	478	24.8	7.57
No. 5 Power Boiler[b]	PB5	-152	-46	41	12	296	90.2	12.00	3.66	400	478	24.8	7.56
No. 6 Power Boiler	PB6	172	52	18	5	241	73.5	8.00	2.44	430	494	35.6	10.85
No. 3 Combination Boiler	BB3	-77	-23	27	8	150	45.7	8.50	2.59	440	500	48.2	14.69
No. 4 Combination Boiler	BB4	-108	-33	-9	-3	150	45.7	7.34	2.24	470	516	60.6	18.47

a Source has two identical stacks. Parameters are for each stack

b Nos. 4 and 5 Power Boilers shared a common stack.

9937518B/R1/FIG-BOX.VSD

07/15/99

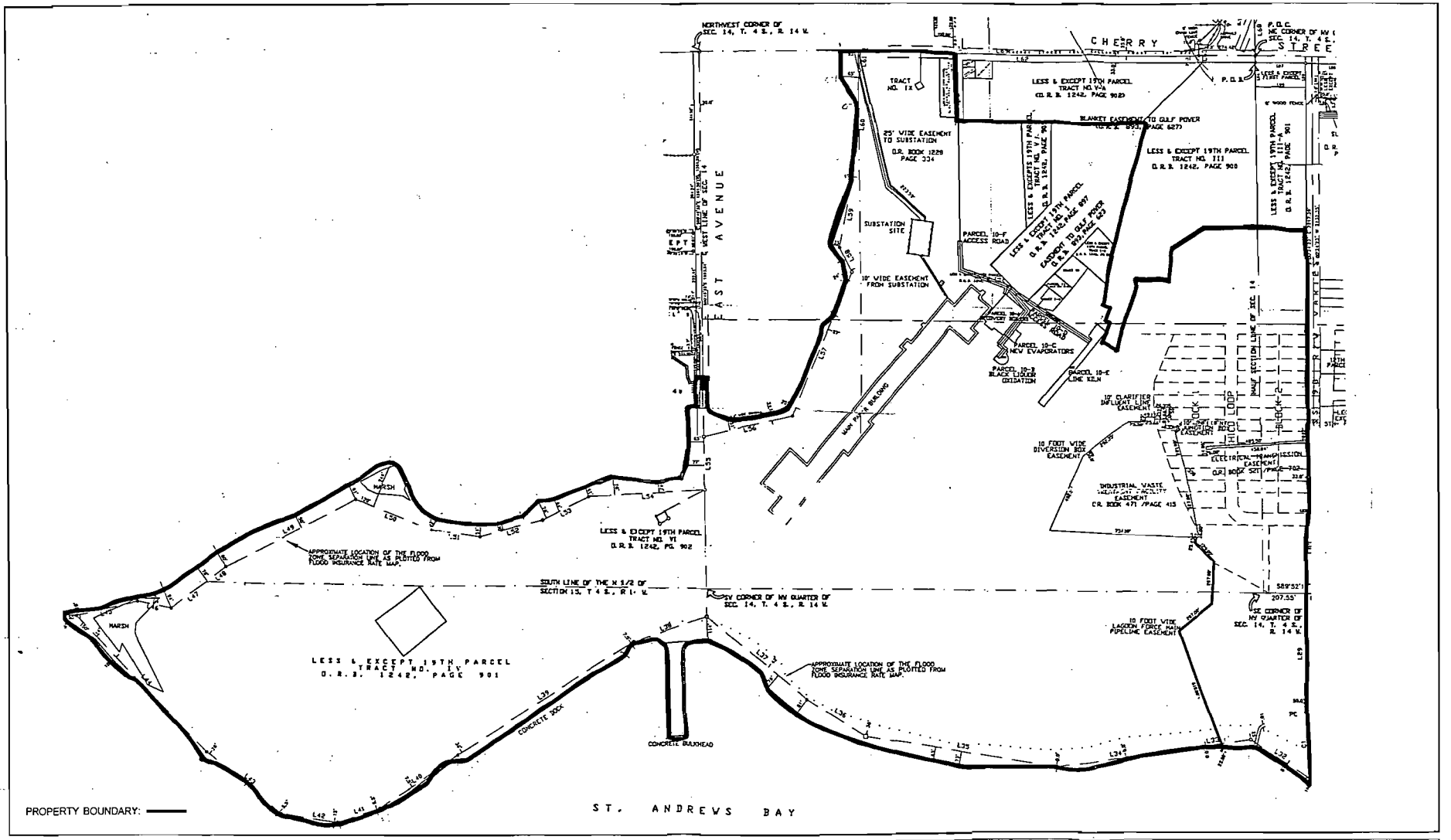
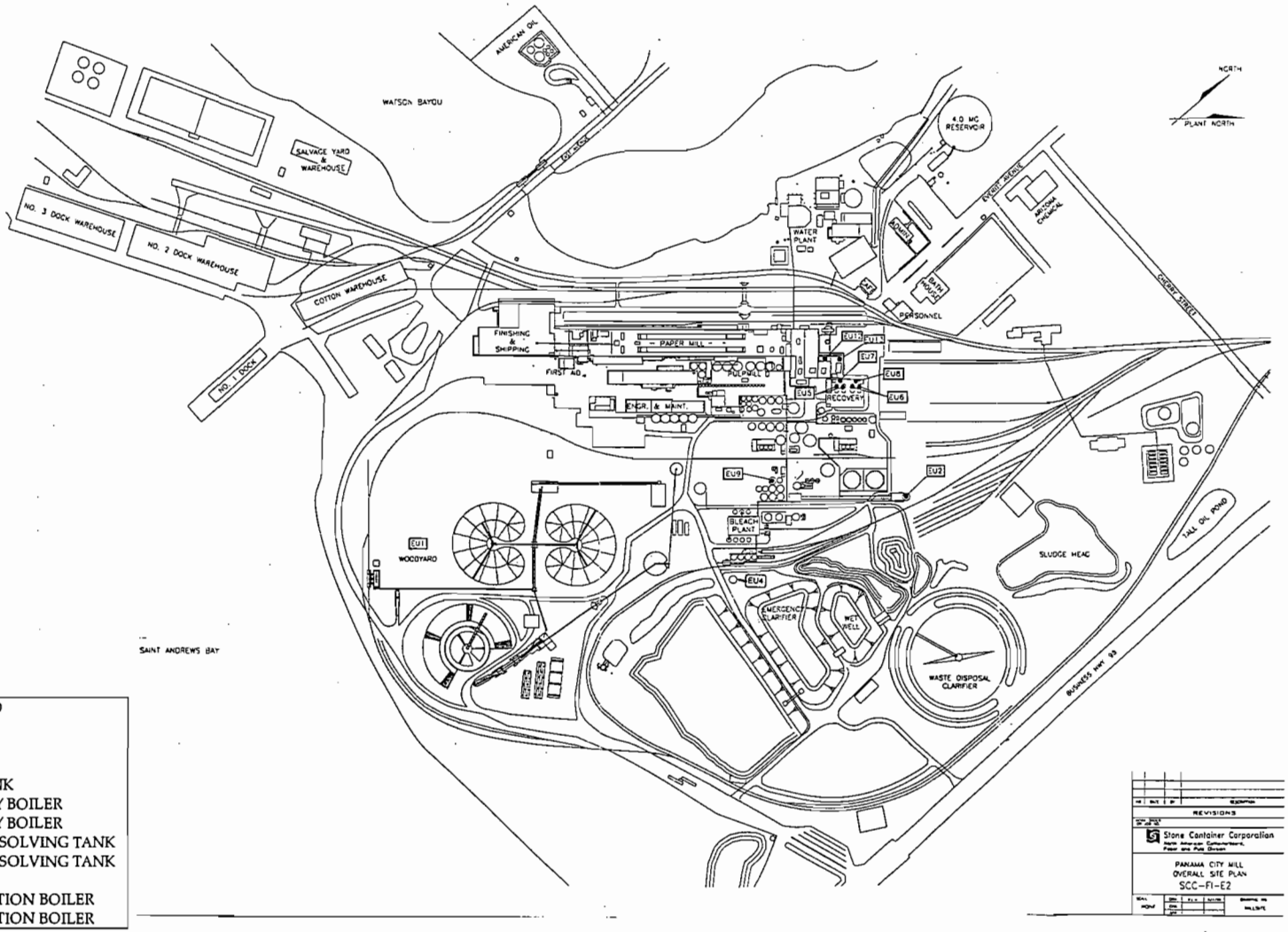


Figure 2-1. Panama City Property Boundary

Smurfit-Stone Container Corporation

Golder Associates



LEGEND

EU1	WOODYARD
EU2	LIME KILN
EU4	METHANOL TANK
EU5	NO. 1 RECOVERY BOILER
EU6	NO. 2 RECOVERY BOILER
EU7	NO. 1 SMELT DISSOLVING TANK
EU8	NO. 2 SMELT DISSOLVING TANK
EU9	LIME SLAKER
EU12	NO. 3 COMBINATION BOILER
EU13	NO. 4 COMBINATION BOILER

Figure 2-2. Facility Plot Plan

Smurfit-Stone Container Corporation

Golder Associates

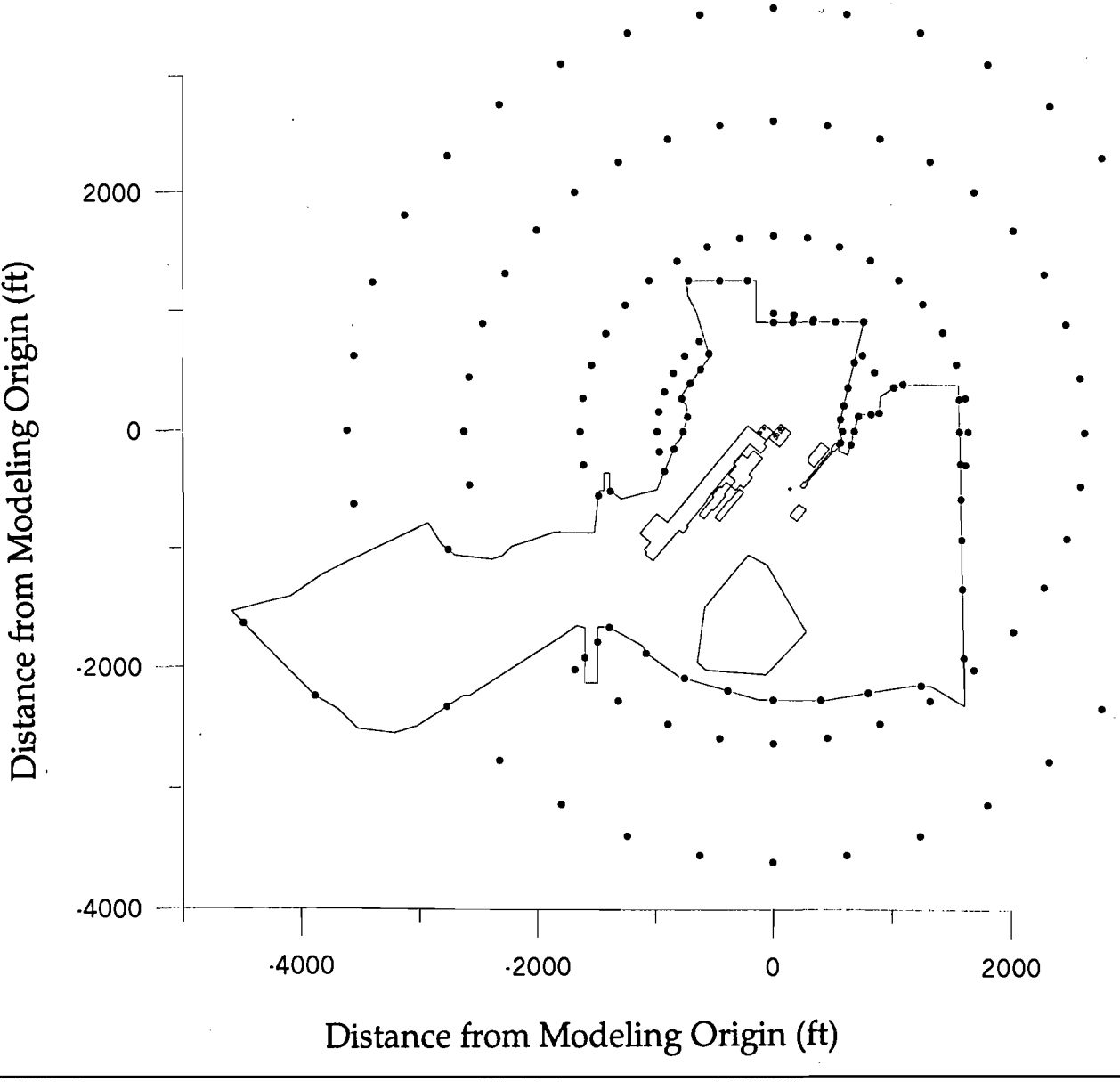


Figure 2-3
SCC Site and Near-Field Modeling Receptor Locations

Golder Associates

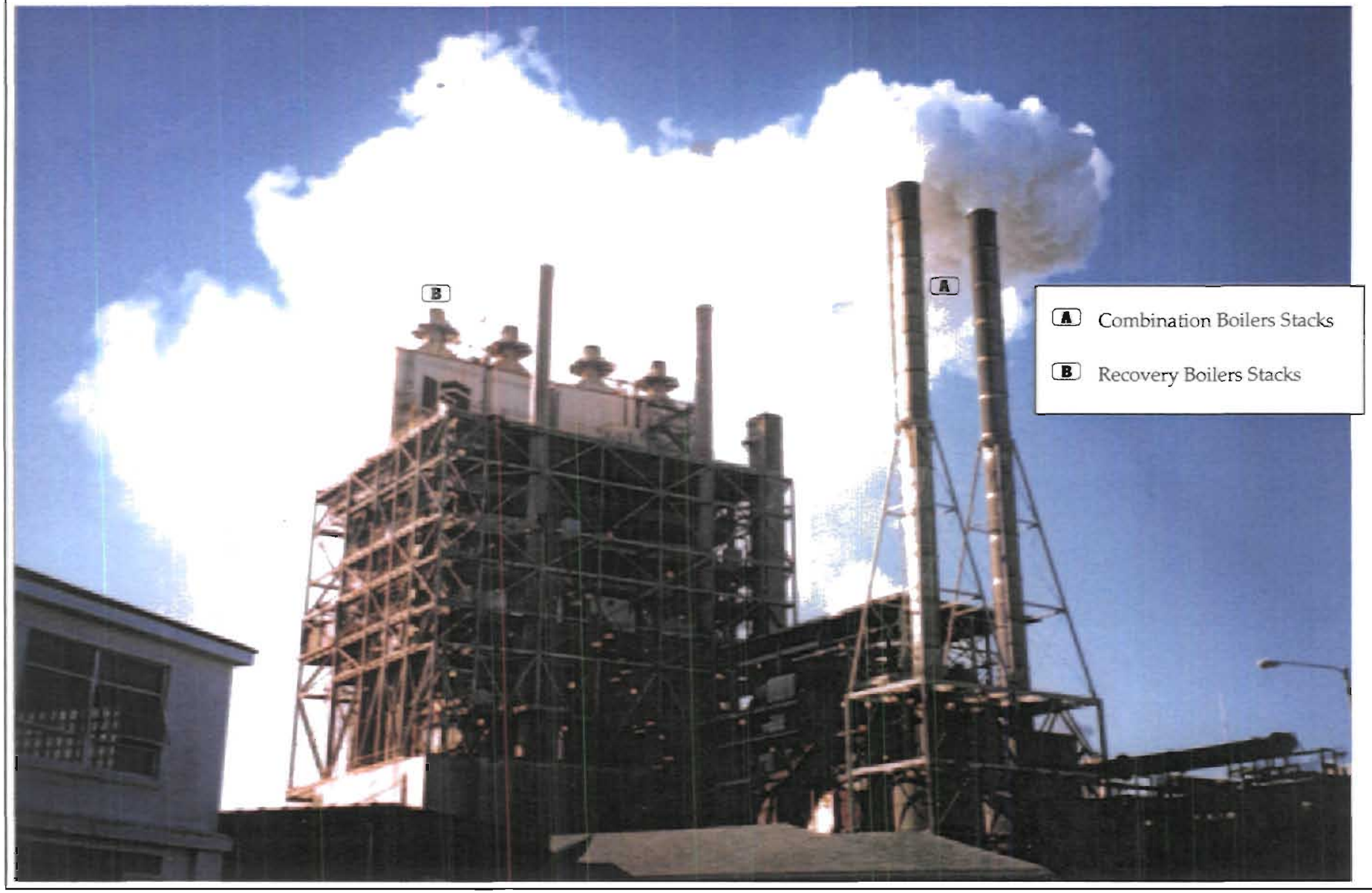


Figure 2-4. Photo of Recovery Boilers Building at SCC, Panama City
Note: Unlabeled stacks are smelt dissolving tank vents.

Source: Golder Associates Inc., 2000

3.0 AMBIENT MONITORING ANALYSIS

Background concentrations are necessary to determine total ambient air quality impacts to demonstrate compliance with AAQS. For purposes of this analysis, background concentrations are defined as concentrations due to sources other than those specifically included in the modeling analysis. For all pollutants, background concentrations would include other air emission sources not included in the modeling (i.e., faraway sources or small sources), fugitive emission sources, and natural background sources. For the purposes of this analysis, air quality monitoring data were used to develop appropriate background concentrations.

3.1 PM_{10} AMBIENT BACKGROUND CONCENTRATIONS

A summary of ambient PM_{10} data for existing monitors located in the vicinity of the SCC Panama City mill is presented in Table 3-1. Data are presented for the last two years of record, 1997 and 1998. As shown, only one PM_{10} monitor was operational in the vicinity of Panama City during this period. The monitoring data show that ambient PM_{10} concentrations were well below the 24-hour and annual AAQS of 150 $\mu g/m^3$ and 50 $\mu g/m^3$, respectively. The highest recorded 24-hour concentration was 73 $\mu g/m^3$, and the annual average concentration was 28 $\mu g/m^3$.

For purposes of establishing an ambient PM_{10} background concentration for use in the modeling analysis, the annual average PM_{10} concentration of 25 $\mu g/m^3$ recorded at the Panama City monitor during 1997 was selected. This concentration was utilized for both the 24-hour and annual average background PM_{10} concentrations in the air quality impact analysis since the existing SCC Panama City mill impacts this monitor, which is included explicitly in the modeling analysis. Other major point sources of PM in the area impact this monitor and are also included explicitly in the modeling analysis. Therefore, this monitor would be influenced significantly by the SCC mill and other point sources and would represent a conservative estimate of actual background concentrations.

3.2 SO_2 AMBIENT BACKGROUND CONCENTRATIONS

A summary of continuous ambient SO_2 data for existing monitors located in the Pensacola area is presented in Table 3-2. In 1997 and 1998, the closest SO_2 monitors to the Panama City facility

were located in Pensacola. The data from these stations were selected to represent a conservative estimate of air quality in the vicinity of the Panama City facility. The Pensacola monitors were selected based on their reasonable proximity to the Panama City facility and the similarity of air emission sources located in each area. In addition, there are more air emission sources in Pensacola than Panama City.

Data are presented for the last 2 years of record, 1997 to 1998. As shown, two SO_2 monitors were operational in Pensacola during this period. The monitoring data show that ambient SO_2 concentrations were well below the 3-hour, 24-hour average, and annual AAQS of 1,300 $\mu g/m^3$, 260 $\mu g/m^3$, and 60 $\mu g/m^3$, respectively.

For purposes of establishing an ambient SO_2 background concentration for use in the modeling analysis, the annual average SO_2 concentration of 12 $\mu g/m^3$ recorded at the Pensacola monitor during 1997 was selected. This concentration was utilized for the 3- hour, 24-hour and annual average background SO_2 concentrations in the air quality impact analysis since this monitor is impacted by an existing paper mill in the Pensacola area with emissions similar to these from the SCC mill. Also, all major sources of SO_2 in Panama City are explicitly included in the modeling analysis. Therefore, concentrations measured at this monitor would represent a conservative estimate of actual background concentrations.

3.3 CO AMBIENT BACKGROUND CONCENTRATIONS

There are no CO monitors located in Panama City or in the Florida panhandle. The closest CO monitors to the Panama City facility were located in Jacksonville. A summary of continuous ambient CO data for 1997 and 1998, for monitors located in Jacksonville is presented in Table 3-3. The data from these stations represent a conservative estimate of air quality in the vicinity of the Panama City facility.

Data are presented for the last two years of record, 1997 and 1998. Although several CO monitoring stations are located in Jacksonville, the station exhibiting the lowest CO levels was selected for use, since this would be more representative of levels in Panama City. The CO monitoring data show that ambient CO concentrations were well below the 1-hour and 8-hour AAQS of 35 ppm (40,000 $\mu g/m^3$) and 9 ppm (10,000 $\mu g/m^3$), respectively. The monitor in

Jacksonville is not considered to be representative of the Panama City area due to the distance this monitor is located from Panama City, but is the closest monitoring station, and therefore was used in the analysis.

For purposes of establishing an ambient CO background concentration for use in the modeling analysis, the second highest 1-hour CO concentration of 6,000 $\mu g/m^3$ (5 ppm) and the second highest 8-hour concentration of 3,000 $\mu g/m^3$ (3 ppm), recorded at the Jacksonville monitor during 1997, were selected. These concentrations are very conservative since the concentrations measured at this monitor is impacted by significant mobile sources in Jacksonville, while Panama City has a relatively small number of mobile sources.

3.4 NO_x AMBIENT BACKGROUND CONCENTRATIONS

A summary of continuous ambient NO_2 data for the monitor located in Pensacola is presented in Table 3-4. The closest NO_2 monitor to the Panama City facility was located in Pensacola. The data from this station were selected to represent a conservative estimate of air quality in the vicinity of the Panama City facility. The Pensacola monitor was selected based on the reasonable proximity to the Panama City facility and the similarity of air emission sources located in each area. In addition, there are more air emission sources in Pensacola than Panama City.

The NO_2 monitor shows that ambient NO_2 concentrations were well below the annual AAQS of 100 $\mu g/m^3$. Data for 1997 were selected since no data were available for 1998.

For purposes of establishing an ambient NO_2 background concentration for use in the modeling analysis, the annual average concentration of 16 $\mu g/m^3$ recorded at this monitor during 1997 was selected. This NO_2 concentration was utilized for the annual average background NO_2 concentrations in the air quality impact analysis since this monitor is impacted by an existing paper mill in the Pensacola area with emissions similar to those at the SCC mill. Also, all major point sources of NO_2 in the Panama City area were explicitly included in the modeling analysis. Therefore, concentrations measured at this monitor would represent a conservative estimate of actual background concentrations.

Table 3-1. Summary of PM_{10} Ambient Monitoring Data Collected in Panama City

Year	County	Station ID	Monitor Location	Number of Hourly Observations	Concentration ($\mu g/m^3$)			
					Maximum 24-Hour	2nd High 24-Hour	3rd High 24-Hour	Annual Average
1997	Bay	3480-004-F02	Panama City - Cherry Street and Henderson Avenue	56	62	52	51	25
1998	Bay	12-005-1004	Panama City - Cherry Street and Henderson Avenue	54	73	64	62	28

Note: $\mu g/m^3$ = micrograms per cubic meter

Table 3-2. Summary of Sulfur Dioxide Ambient Monitoring Data Collected in Pensacola

Year	County	Station ID	Monitor Location	Number of Hourly Observations	Concentration ($\mu g/m^3$)				
					Maximum 3-Hour	2nd High 3-Hour	Maximum 24-Hour	2nd-High 24-Hour	Annual Average
1997	Escambia	3540-004-F01	Pensacola - Ellyson Industrial Park	8,715	233	191	98	76	11
1977	Escambia	3540-022-F02	Pensacola - 11000 University Parkway	8,657	333	322	114	86	12
1998	Escambia	12-033-0004	Pensacola - Ellyson Industrial Park	8,707	254 (0.1 ppm)	215 (0.08 ppm)	60 (0.023 ppm)	58 (0.022 ppm)	10 (0.004 ppm)
1998	Escambia	12-033-0022	Pensacola - 11000 University Parkway	8,595	265 (0.1 ppm)	212 (0.08 ppm)	63 (0.021 ppm)	63 (0.024 ppm)	8 (0.003 ppm)

Note: $\mu g/m^3$ = micrograms per cubic meter

Table 3-3. Summary of Carbon Monoxide Ambient Monitoring Data Collected in Jacksonville

Year	County	Station ID	Monitor Location	Number of Hourly Observations	Concentration ($\mu g/m^3$)			
					Maximum 1-Hour	2nd High 1-Hour	Maximum 8-Hour	2nd-High 8-Hour
1997	Duval	1960-083-H01	Jacksonville - 1200 S. McDuff Avenue	8,544	8,000 (7 ppm)	6,000 (5 ppm)	3,000 (3 ppm)	3,000 (3 ppm)
1998	Duval	12-031-0083	Jacksonville - 1200 S. McDuff Avenue	8,013	5,400 (4.9 ppm)	5,300 (4.8 ppm)	3,400 (3.1 ppm)	3,200 (2.9 ppm)

Note: ppm = parts per million

1 ppm = 1,111 $\mu g/m^3$

$\mu g/m^3$ = micrograms per cubic meter

Table 3-4. Summary of Nitrogen Dioxide Ambient Monitoring Data Collected in Pensacola

Year	County	Station ID	Monitor Location	Number of Hourly Observations	Annual Average Concentration ($\mu g/m^3$)
1997	Escambia	3540-004-F01	Pensacola - Ellyson Industrial Park	6,161	16

Note: ppm = parts per million

0.053 ppm = 100 $\mu g/m^3$

$\mu g/m^3$ = micrograms per cubic meter

4.0 AIR QUALITY IMPACT ANALYSIS METHODOLOGY

The air quality impact analysis is provided to demonstrate that the mill's emissions of SO_2, NO_x, PM_{10}, and CO will comply with the AAQS and allowable PSD Class I and II increments. This section presents the air quality modeling methodology.

The air quality modeling analysis was initially performed using the Industrial Source Complex Short-Term (ISCST3) model, Version 98356, currently recommended for regulatory applications, to assess maximum ground-level impacts due to sources at the plant. These maximum concentrations were predicted at or near the plant boundary due to building downwash conditions. The building downwash routines currently in the ISCST3 model assume that, if a stack is within the building wake region, it is treated as though it were at the center of the lee wall of the building. The wake region is assumed to extend downwind about 5 times L (5L) from the lee of the building where L is the lesser dimension of the building height or width. The location of the stack or the plume within the wake region is not considered even though the effect of building downwash conditions are reduced downwind of the building. The building downwash routines assume an "all-or-nothing" approach even though stacks or plumes located in the far wake region (about 3L to 5L) will be less influenced by downwash conditions than those located in the near wake region.

It should also be noted that the downwash routines in the ISCST3 model were largely developed with data that represented neutral stability , moderate to high wind speeds, winds perpendicular to the building face, and non-buoyant or low buoyancy plumes. Besides the lack of consideration of a stack's location within the building wake region, some of the limitations of the these downwash routines include:

- No consideration for streamline deflection to account for ascent of wind streamlines upwind of and over the building and descent in the lee of the building;
- No connection between plume material captured by the near wake and far wake concentrations;
- No wind direction effects for squat buildings; and

- Predictions of high concentrations during light wind speed, stable conditions that are not supported by observations.

Based on the sources under evaluation for this project, the associated stacks (boilers) at the mill are located within 3L from the most influential buildings (see Section 4.7). Although these sources are within the wake effects of these buildings, the current downwash procedures assume that these stacks are essentially on the buildings and the full downwash effects are used to predict maximum concentrations. Based on studies performed by the EPRI (1997), the effects of building downwash within the wake region are reduced as a stack's or plume's location increases away from the building. In fact, wind tunnel and field studies have made it clear that incorporating the location of stacks, as well as estimates of wind speed, streamline deflection, and turbulence intensities in the wake, are crucial in improving model simulations of the influence of buildings on ground-level concentrations. As a result, the use of the building downwash routine in the ISCST3 model is not appropriate for assessing building downwash effects for the sources at the mill since the stack and plume locations are not considered and the plumes from these sources would not be expected to be influenced by the full downwash effects within the entire wake region.

To provide more realistic plume behavior and resulting concentrations in the vicinity of nearby building structures, a non-regulatory version of the Industrial Source Complex Short-Term (ISCST) model was used to assess building downwash effects. Referred to as the ISC-PRIME model (Version 99020), the model incorporates the Plume Rise Model Enhancement (PRIME) downwash algorithm developed by the Electric Power Research Institute (EPRI). The ISC-PRIME model, which has undergone extensive testing by the EPA and EPRI, is currently planned as a future replacement for the current regulatory version of the ISCST3 model. Based on discussions with FDEP and EPA, it is anticipated that the model would be included as a regulatory model after EPA holds the seventh Conference on Air Quality Modeling tentatively scheduled for the fall of 1999. Other than having different downwash algorithms, the ISC-PRIME and ISCST3 models are identical and use the same methods for estimating pollutant

concentrations. A more detailed discussion on the ISC-PRIME model is presented in Sections 4.4 and 4.7.

4.1 AIR MODELING ANALYSIS APPROACH

An air quality impact analysis of the SCC mill was conducted for four pollutants for which AAQS and PSD increments have been established: SO_2, NO_2, PM_{10}, and CO (AAQS only for CO). The analysis followed EPA and FDEP modeling guidelines for assessing compliance with the AAQS and PSD increments.

The impact analysis used screening and refinement phases to determine the maximum pollutant impacts associated with the SCC mill. The difference between the two modeling phases is the density of the receptor grid spacing used when predicting concentrations. Concentrations are predicted for the screening phase using a coarse (i.e., large spacing) receptor grid and a 5-year meteorological data record. In this analysis, the receptor grid consisted of a polar receptor grid with a 10-degree angular spacing between receptors.

Refinements of the maximum predicted concentrations from the screening phase are typically performed in the vicinity of the receptors of the screening receptor grid at which the highest predicted concentrations occurred over the 5-year period. Generally, if maximum concentrations predicted in another year are within 10 percent of the overall maximum concentration predicted for the 5-year period, then the other concentrations are refined as well. Modeling refinements are performed to determine maximum concentrations with a receptor grid spacing of 100 meters (m) or less.

The domain of a refined receptor grid will generally extend to all adjacent screening receptors surrounding a particular screening grid receptor. The air dispersion model is then executed with the refined grid for the entire year of meteorology during which the maximum concentration in the screening phase occurred. This approach is used to ensure that a valid maximum concentration is obtained.

Because the SCC mill is located approximately 95 and 137 km, from the Bradwell Bay National Wildlife Refuge (BBNWR) and the St. Marks NWR (SMNWR) PSD Class I areas, respectively, a PSD increment consumption analysis was conducted at those areas.

A more detailed description of the model, along with the emission inventory, meteorological data, and screening receptor grids, is presented in the following sections.

4.2 AAQS AND PSD CLASS II INCREMENT ANALYSES

In general, when 5 years of meteorological data are used, the highest annual and the highest, second-highest (H2H) short-term concentrations are to be compared to the applicable AAQS and allowable PSD Class II increments. The H2H is calculated for a receptor field by:

1. Eliminating the highest concentration predicted at each receptor,
2. Identifying the second-highest concentration at each receptor, and
3. Selecting the highest concentration among these second-highest concentrations.

This approach is consistent with most air quality standards and all allowable PSD increments, which permit a short-term average concentration to be exceeded once per year at each receptor.

For the AAQS analysis, the future emissions of the plant site are modeled together with background emission facilities. Additionally, a non-modeled background concentration is added to the maximum predicted air quality concentrations to determine a total air quality concentration. The maximum annual and H2H short-term total concentrations are compared to the AAQS.

For the PSD Class II increment analysis, the PSD increment consuming and expanding sources at the SCC mill site are modeled with background PSD consuming or expanding sources. The maximum annual and H2H short-term PSD increment are compared to the allowable PSD Class II increments.

4.3 PSD CLASS I INCREMENT ANALYSIS

For PM_{10}, SO_2 and NO_2, which have established PSD Class I allowable increments, a detailed PSD increment analysis was performed at the PSD Class I area. For the PSD Class I increment analysis, the PSD increment consuming and expanding sources at the SCC mill site are modeled along with other background PSD consuming or expanding sources located within 150 miles from the PSD Class I area. The maximum annual and H2H short-term concentrations are compared to the allowable PSD Class I increments.

4.4 MODEL SELECTION

The ISC-PRIME dispersion model (Version 99020) was used to evaluate the pollutant impacts due to the proposed project alone and in combination with other emission sources. This model is currently available for evaluation on the EPA's Internet website, Support Center for Regulatory Air Models (SCRAM), within the Technical Transfer Network (TTN). A listing of ISC-PRIME model features is presented in Table 4-1. The ISC-PRIME model is designed to calculate hourly concentrations based on hourly meteorological data (i.e., wind direction, wind speed, atmospheric stability, ambient temperature, and mixing heights). The ISC-PRIME model is applicable to sources located in either flat or rolling terrain where terrain heights do not exceed stack heights. These areas are referred to as simple terrain. The model can also be applied in areas where the terrain exceeds the stack heights. These areas are referred to as complex terrain.

Since the terrain surrounding the SCC mill is flat, the modeling analysis assumed that all receptors were at the base elevation of the sources (i.e., flat terrain assumption in ISC-PRIME).

In this analysis, the EPA regulatory default options were used to predict all maximum impacts. The ISC-PRIME model can run in the rural or urban land use mode, which affects stability dispersion coefficients, wind speed profiles, and mixing heights. Land use can be characterized based on a scheme recommended by EPA (Auer, 1978). If more than 50 percent of the land use within a 3-km radius circle around a project is classified as industrial or commercial, or high-density residential, then the urban option should be selected. Otherwise, the rural option is appropriate. Based on reviews of aerial and U.S. Geological Survey (USGS) topographical maps

and a site visit, the land use within a 3-km (1.9 mile) radius of the SCC mill site is considered to be rural (i.e., very little heavy industrial, light-moderate industrial, commercial, or compact residential land use categories). Therefore, the rural mode was used in the air dispersion model to predict impacts from the SCC mill and other emission sources considered in the modeling analysis.

The ISC-PRIME model was used to predict maximum pollutant concentrations for the annual, 24-hour, 8-hour, 3-hour, and 1-hour averaging periods. The predicted concentrations were then compared to allowable PSD increments and the AAQS.

4.5 METEOROLOGICAL DATA

Meteorological data used in the ISC-PRIME model to determine air quality impacts consisted of a 5-year period of hourly surface weather observations and twice-daily upper air soundings. The first two years of the data record, 1986 to 1987, consisted of surface and upper air soundings from the National Weather Service (NWS) stations located at the Pensacola Regional Airport (PEN) and Apalachicola, respectively. The last three years of the data record, 1988 to 1990, consisted of surface and upper air soundings from Apalachicola. Concentrations were predicted using each of the 5 years of hourly meteorological data. The NWS station at Pensacola is located approximately 156 km (97 miles) west of the mill site. The NWS station at Apalachicola is located approximately 73 km (45 miles) east-southeast of the mill site. The data collected at Pensacola and Apalachicola are considered to experience the same marine-like climatic features that are expected to occur at the SCC mill site.

The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling height. The wind speed, cloud cover, and cloud ceiling values were used in the ISC-PRIME meteorological preprocessor program to determine atmospheric stability using the Turner stability scheme. Based on the temperature measurements at morning and afternoon, mixing heights were calculated from the radiosonde data at Apalachicola using the Holzworth approach (Holzworth, 1972). Hourly mixing heights were derived from the morning and afternoon mixing heights using the interpolation method developed by EPA (Holzworth, 1972). The hourly surface data and mixing heights were used to develop a sequential, hourly

meteorological data set (i.e., wind direction, wind speed, temperature, stability, and mixing heights). Because the observed hourly wind directions at the NWS stations are classified into one of thirty-six 10-degree sectors, the wind directions were randomized within each sector to account for the expected variability in air flow. These calculations were performed using the EPA RAMMET meteorological preprocessor program. The height of the wind speed sensors at Pensacola and Apalachicola are 22 and 30 feet, respectively. These heights were used in the ISC-PRIME modeling analysis.

4.6 EMISSION INVENTORY

4.6.1 SCC MILL

The maximum emissions for the SCC mill for the future operating condition are summarized in Table 2-1. The 1974 PSD baseline emissions for PM_{10} and SO_2 and the 1988 baseline emissions for NO_x are presented in Table 2-2. Future and baseline stack parameters and source locations are presented in Table 2-3. The future source emissions and operating parameters were used for the AAQS modeling analysis, while the future and baseline source emissions and parameters were used for the PSD Class I and II increment analyses.

4.6.2 OTHER EMISSION SOURCES

The emission inventories for other facilities were developed from source information provided by the FDEP and from discussions with FDEP State and Regional Office personnel. Source information for Gulf Power Corporation's Lansing Smith Power Plant was obtained from FDEP from a recent air modeling analysis. For PSD Class I and Class II increment analyses, Bay County Energy Systems was the only PSD increment consuming source in the vicinity of the SCC mill.

FDEP has approved a technique for eliminating sources in the modeling analyses if the source's emissions do not meet an emission criterion. The technique is the *Screening Threshold* method, developed by the North Carolina Department of Natural Resources and Community Development (NCDNRCD), and approved by EPA. The method is designed to objectively eliminate from the emission inventory those sources that are unlikely to have a significant interaction with the source undergoing evaluation. In general, sources that should be

considered in the modeling analyses are those with emissions greater than a screening threshold value (in TPY) that is calculated by the following criteria:

$$Q = 20 \times D$$

where Q = the screening threshold value (TPY), and

D = The distance (km) from the proposed facility to the source undergoing evaluation for short-term analysis, or

= The distance (km) from the edge of the proposed facility's significant impact area to the source undergoing evaluation for long-term (annual) analysis.

For this analysis, the long-term criterion was used since fewer facilities would be eliminated than with the short-term criterion. Also, the total emissions from a facility were used rather than emissions from individual sources for comparison to the screening threshold value. These methods result in a more conservative approach to produce higher-than-expected concentrations. Those facilities with maximum allowable emissions that are below the calculated *screening threshold* were eliminated from further consideration in the AAQS modeling analyses.

Sulfur Dioxide

A summary of all nearby background facilities, their locations with respect to the SCC mill, and their allowable SO_2 emission rates is provided in Table 4-2. Based on the NC screening technique, the facilities to be included in the air modeling analysis are the Gulf Power Corporation Lansing Smith Power Plant, Arizona Chemical Company, and Florida Coast Paper in Gulf County. Although emissions from the Bay County Energy Systems facility were below the emission threshold, this facility was included in the air modeling analysis because it is a PSD increment consuming source. In addition, City of Tallahassee Hopkins and Purdom plants were included in the Class I increment modeling inventory only, due to their proximity to the Class I areas.

The individual source emissions, stack, and operating parameters for sources considered in the AAQS and PSD Class I and II modeling analyses are presented in Table 4-3. To minimize model

run time, identical stacks within facilities were combined into one source and small emission sources within distant facilities were combined into one source.

Particulate Matter

A summary of all nearby background facilities, their locations with respect to the SCC mill, and their allowable PM emission rate is provided in Table 4-4. Based on the NCDNRCD screening technique, the facilities included in the air modeling analysis were the Gulf Power Corporation Lansing Smith Power Plant, Arizona Chemical Company, and Florida Coast Paper in Gulf County. As previously discussed, Bay County Energy Systems and City of Tallahassee Hopkins and Purdom facilities were also included in the air modeling analysis. The individual source emissions, stack, and operating parameters for sources considered in the AAQS and PSD Class I and II modeling analyses are presented in Table 4-5. To minimize model run time, identical stacks within facilities were combined into one source and small emission sources within distant facilities were combined into one source.

Carbon Monoxide

No other facilities were considered in the CO AAQS analysis. The high CO background concentration developed from monitoring data (see Section 3.0) provides a conservative background representing concentrations from other CO emission sources in the Bay County area.

Nitrogen Oxides

A summary of all nearby background facilities, their locations with respect to the SCC mill, and their allowable NO_x emission rate is provided in Table 4-6. Based on the NCDNRCD facility screening technique, the facilities included in the air modeling analysis were the Gulf Power Corporation Lansing Smith Power Plant, Arizona Chemical Company, and Florida Coast Paper in Gulf County. The only PSD increment-affecting sources among the background sources were the two City of Tallahassee facilities. The individual source emissions, stack, and operating parameters for the AAQS modeling analysis is presented in Table 4-7. To minimize model execution time, identical stacks within facilities were combined into one source and small emission sources within distant facilities were combined into one source.

4.7 BUILDING DOWNWASH EFFECTS FOR SCC MILL

Based on the building dimensions associated with buildings and structures at the plant, all stacks at the SCC mill will comply with the good engineering practice (GEP) stack height regulations. However, these stacks are calculated to be less than GEP height. Therefore, the potential for building downwash to occur was considered in the air modeling analysis for these stacks.

Generally, a stack is considered to be within the influence of a building if it is within the lesser of 5 times L, where L is the lesser dimension of the building height or projected width. The ISCST3 model uses two procedures to address the effects of building downwash. For both methods, the direction-specific building dimensions are input for H_b and l_b for 36 radial directions, with each direction representing a 10-degree sector. The H_b is the building height and l_b is the lesser of the building height or projected width. For short stacks (i.e., physical stack height is less than $H_b + 0.5\, l_b$), the Schulman and Scire (1980) method is used. The features of the Schulman and Scire method are as follows:

1. Reduced plume rise as a result of initial plume dilution,
2. Enhanced plume spread as a linear function of the effective plume height, and
3. Specification of building dimensions as a function of wind direction.

For cases where the physical stack height is greater than $H_b + 0.5\, l_b$, but less than GEP, the Huber-Snyder (1976) method is used. Both downwash algorithms affect stacks that are within the influence of a building, without regard for the actual distance the stack or stack's plume is from the building during any given moment.

As discussed previously, the ISC-PRIME model was developed to correct the deficiencies of the building downwash within the current version of the ISCST3 model. The ISC-PRIME model incorporates the PRIME algorithm that was developed under the support of EPRI.

Based on studies performed by the EPA (1997), the effects of building downwash within the wake region are reduced as a stack's location increases away from the building. In fact, wind

tunnel and field studies have made it clear that incorporating the location of stacks and plumes, as well as estimates of wind speed, streamline deflection, and turbulence intensities in the wake, are crucial in improving model simulations of the influence of buildings on ground-level concentrations. As a result, the use of the building downwash routine in the ISCST3 model is not appropriate for assessing building downwash effects for the sources at the mill since the stack and plume locations are not considered and the plumes from these sources would not be expected to be influenced by the full downwash effects within the wake region.

The building dimensions considered in the air modeling analysis for the SCC mill are presented in Table 4-8. The location of the SCC mill's buildings and stacks are shown on the site plot plan in Figures 2-2 and 2-3.

At the Panama City mill, several stacks are in the area of influence (i.e., within 5 L) of the tallest structure: the 198-ft Recovery Boilers building. The 239-ft tall higher tier of the building is not of sufficient width to influence stacks at the mill. The stack height to building height ratios for the stacks range from 0.28 to 1.08 and the distance of these boilers from the buildings are as follows:

Stack Location with Respect to:

Source	198-ft Recovery Boilers Building	
	Distance (ft)	D/L
No. 1 and No. 2 Recovery Boiler	0	0
No. 1 and No. 2 Smelt Dissolving Tank	0	0
No. 3 Combination Boiler	126	0.65
No. 4 Combination Boiler	117	0.60
Lime Kiln	403	2.07
Lime Slaker	366	1.88

Note: Distance (D) = Distance from source to the Recovery Boilers building,
L = lesser dimension of the projected height or width of the Recovery Boilers building = 194 ft.

Although certain stacks at the mill are within the wake effects of nearby buildings, the current downwash procedures assume that these stacks are essentially on the buildings and the full

downwash effects are used to estimate maximum concentrations. In reality, the building downwash effects should be reduced from that assumed by the ISCST3 downwash routines as the plume travels away from the building.

The primary purpose for using the ISC-PRIME model in this modeling analysis is to incorporate more realistic assumptions and procedures in evaluating ground-level concentrations that the ISCST3 model does not consider. The following features include:

1. Enhanced plume dispersion in the region of a building's turbulent wake
2. Reduced plume rise due to streamline deflection in the lee of a building
3. Increased plume entrainment in the building wake
4. Continuous plume treatment from the near field wake adjoining the building to the far wake fields away from the building, and
5. Reduced downwash effects as a plume's position increases away from the building.

For sources located away from buildings, it is important that the plume's position is tracked within the wake to account for the reduced downwash effect from buildings as a plume travels further from influence of the building.

For the modeling analysis, the ISC-PRIME model's input files for the downwash analysis are very similar to those in the current regulatory ISCST3 model. The direction-specific building dimensions are input for H_b and l_b for 36 radial directions, with each direction representing a 10-degree. The H_b is the building height and l_b is the lesser of the building height or projected width. In addition, the ISC-PRIME model inputs three additional building parameters that further describe the building/wake configuration:

- Projected length of the building along the flow direction,
- Along-flow distance from the stack to the center of the upwind face of the projected building, and
- Cross-flow distance from the stack to the center of the upwind face of the projected building.

All direction-specific building parameters were calculated with the Building Profile Input Program, Version 95039, modified to process the additional direction-specific building information for ISC-PRIME (BPIPPRM). BPIPPRM was used to generate building data for the ISC-PRIME model input. A detailed listing of direction-specific building data used in the air modeling analysis is provided in Appendix C.

A comparison of stack, operating, and building data for the Panama City mill and the data cited in the evaluation of the ISC-PRIME model is presented in Table 4-9.

4.8 RECEPTOR LOCATIONS

For predicting maximum concentrations in the vicinity of the SCC mill, different receptor arrays were used in the screening and refined analysis. The screening analyses used an array of both gridded and discrete polar receptors. The discrete receptor array consisted of 138 receptors, including 36 receptors located along the property line of SCC mill (see Figures 2-2 and 2-3). An additional 102 receptors were located offsite the SCC mill property boundary at distances of 0.3, 0.6, and 0.9 km along radials spaced at 10 degrees with the grid centered on the easternmost corner of the Combination Boilers building. A summary of the property boundary receptors used at SCC mill is presented in Table 4-10.

For the screening analysis, an additional 324 receptors were included in a polar grid with an angular spacing of 10 degrees and at distances along each radial of 1.2, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, and 5.0 km from the origin location.

Modeling refinements were performed, as needed, by employing a polar receptor grid with a maximum spacing of 100 m along each radial and an angular spacing between radials of 1 or 2 degrees. At a distance of less than 575 m, the angular distance between receptors is 100 m or less and additional refinements may not be performed. At distances of 600 m and beyond, modeling refinements are performed by employing an angular spacing between radials of 1 or 2 degrees and a spacing interval along radials of 100 m.

Pollutant concentrations for SO_2, PM_{10}, and NO_2 were also predicted at 33 receptors located in and around the BBNWR and the SMNWR PSD Class I Areas. A listing of these receptors is presented in Table 4-11. Due to the large distance from the SCC mill to the BBNWR and the SMNWR, additional receptor refinements were not performed for these areas.

4.9 BACKGROUND CONCENTRATIONS

Total air quality impacts were predicted for the AAQS analysis by adding the maximum annual and highest, second-highest short-term concentrations due to all modeled sources to estimated background concentrations. Background concentrations are concentrations due to sources not explicitly included in the modeling analysis. These concentrations consist of two components:

- Impacts due to other non-modeled emission sources (i.e., point sources not explicitly included in the modeling inventory), and
- Natural and fugitive emission sources.

The non-modeled background concentrations were obtained from air quality monitoring data, as described in Section 3.0, and are as follows:

Pollutant	Averaging Period	Background Concentration ($\mu g/m^3$)
PM_{10}	24-hour	25
	Annual	25
SO_2	3-hour	12
	24-hour	12
	Annual	12
NO_x	Annual	16
CO	8-hour	3,000
	1-hour	6,000

Table 4-1. Major Features of the ISC-PRIME Model

ISC-PRIME Model Features[a]
• Polar or Cartesian coordinate systems for receptor locations
• Rural or one of three urban options which affect wind speed profile exponent, dispersion rates, and mixing height calculations
• Plume rise due to momentum and buoyancy as a function of downwind distance for stack emissions (Briggs, 1969, 1971, 1972, and 1975; Bowers, et al., 1979).
• Procedures suggested by Schulman et al. (1998) for evaluating building wake effects
• Procedures suggested by Briggs (1974) for evaluating stack-tip downwash
• Separation of multiple emission sources
• Consideration of the effects of gravitational settling and dry deposition on ambient particulate concentrations
• Capability of simulating point, line, volume, area, and open pit sources
• Capability to calculate dry and wet deposition, including both gaseous and particulate precipitation scavenging for wet deposition
• Variation of wind speed with height (wind speed-profile exponent law)
• Concentration estimates for 1 hour to annual average times
• Terrain-adjustment procedures for elevated terrain including a terrain truncation algorithm for ISCST3; a built-in algorithm for predicting concentrations in complex terrain
• Consideration of time-dependent exponential decay of pollutants
• The method of Pasquill (1976) to account for buoyancy-induced dispersion
• A regulatory default option to set various model options and parameters to EPA recommended values (see text for regulatory options used)
• Procedure for calm-wind processing including setting wind speeds less than 1 m/s to 1 m/s.

Note: ISC-PRIME = Industrial Source Complex Short-Term Model with Plume Rise Model Enhancement (PRIME) downwash algorithm.

[a] References:

Bowers, J.F., J.R. Bjorklund and C.S. Cheney. 1979. Industrial Source Complex (ISC) Dispersion Model User's Guide. Volume I, EPA-450/4-79-030; Volume II. EPA-450/4-79-031. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

Briggs, G.A. 1969. Plume Rise, USAEC Critical Review Series, TID-25075. National Technical Information Service, Springfield, Virginia 22161.

Briggs, G.A. 1972. Discussion on Chimney Plumes in Neutral and Stable Surroundings. *Atmos. Environ.*, Q, 507-510.

Briggs, G.A. 1974. Diffusion Estimation for Small Emissions. *In:* ERL, ARL USAEC Report ATDL-106. U.S. Atomic Energy Commission, Oak Ridge, Tennessee.

Briggs, G.A. 1975. Plume Rise Predications. In Lectures on Air Pollution and Environmental Impact Analysis. American Meteorological Society, Boston, Massachusetts.

Briggs, G.A. 1979. Some Recent Analyses of Plume Rise Observations. *In*: Proceedings of the Second International Clean Air Congress. Academic Press, New York.

Pasquill, F. 1976. Atmospheric Dispersion Parameters in Gaussian Plume Modeling - Part II. Possible Requirements for Change in the Turner Workbook Values. EPA-600/4-76-030b, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

Schulman, L.L. and J.S. Scire. 1980. Buoyant Line and Point Source (BLP) Dispersion Model User's Guide. Document P-7304B, Environmental Research and Technology, Inc., Concord, MA.

Table 4-2. Summary of Competing SO_2 Facilities Considered for Inclusion in the AAQS and PSD Class I and Class II Air Modeling Analyses

Facility ID Number	Facility	County	UTM Coordinates East (km)	UTM Coordinates North (km)	Relative to Smurfit-Stone Mill X (km)	Relative to Smurfit-Stone Mill Y (km)	Relative to Smurfit-Stone Mill Distance (km)	Relative to Smurfit-Stone Mill Direction (deg)	Maximum SO_2 Emissions (TPY)	Q, Emission Threshold Distance x 20	Include in Modeling Analysis ?
0050001	Arizona Chemical Company	Bay	633.1	3335.4	0.3	0.3	0.4	45	1,226	8.5	YES
0050008	G.A.C. Contractors	Bay	634.9	3343.7	2.1	8.6	8.9	14	2	177.1	NO
0050038	Triangle Construction	Bay	638.8	3347.0	6.0	11.9	13.3	27	45	266.5	NO
0050014	Gulf Power	Bay	625.2	3349.1	-7.6	14.0	15.9	332	80,769	318.6	YES
0050031	Bay County Energy Systems	Bay	644.0	3348.9	11.2	13.8	17.8	39	313	355.5	YES[a]
0450002	Sylvachem	Gulf	663.4	3299.6	30.6	-35.5	46.9	139	2	937.4	NO
0450005	Florida Coast Paper	Gulf	662.8	3299.0	30.0	-36.1	46.9	140	3,224	938.8	YES
7300003	City of Tallahassee - Hopkins	Leon	769.5	3340.0	136.7	4.9	136.8	88	17,428	2735.7	YES[b]
1290001	City of Tallahassee - Purdom	Wakulla	749.5	3371.7	116.7	36.6	122.3	73	5,414	2446.7	YES[b]
SSCC Mill UTM coordinates:			632.8	3335.1							

The facility screening process was limited to facilities that are within 70 km of the project site.

[a] Facility was included in the air modeling analysis, because of its proximity to the PSD Class I areas.

[b] Facility included for PSD Class I analysis only.

Table 4-3. Summary of Background SO_2 Sources Included in the Air Modeling Analysis

Facility ID Number	Facility	Units	ISC-PRIME ID Name	Stack Parameters: Height (m)	Diameter (m)	Temper. (K)	Velocity (m/s)	Emission Rate (g/s)	PSD Source? (EXP/CON)	Modeled in: AAQS	Class II	Class I
0050001	Arizona Chemical Company											
		Boiler #1	ARIZCHM1	30.5	1.22	510.9	22.75	17.64		Yes	No	No
		Boiler #2	ARIZCHM2	30.5	1.22	466.5	17.64	17.64		Yes	No	No
0050014	Gulf Power											
		Lansing Smith Units 1 and 2	GULFPW12	60.7	5.49	441.0	31.30	3258.20		Yes	No	No
		Peaking Turbines	GULFPWPK	10.1	4.18	922.0	36.90	34.50		Yes	No	No
0050031	Bay County Energy Systems											
		Boilers No. 1 and 2	BAYENRGY	38.1	1.37	477.6	17.50	9.02	CON	Yes	Yes	Yes
0050005	Florida Coast Paper											
		Kiln #1		33.8	1.22	352.6	20.78	0.30				
		Kiln #2		33.8	1.22	352.6	19.85	0.30				
		Kiln #3		33.5	1.22	352.6	18.31	0.30				
		Smelt Dissolving Tank No. 5		38.1	1.07	360.4	7.71	0.44				
		Smelt Dissolving Tank No. 6		38.1	1.07	355.4	7.71	0.44				
		Smelt Dissolving Tank No. 7		30.5	2.38	367.6	2.25	1.32				
			FCPLKSDT	30.5	2.38	367.6	2.25	3.10		Yes	No	No
		Recovery Boiler #5		38.1	2.56	460.9	14.81	32.29				
		Recovery Boiler #7		38.1	2.56	394.3	2.94	32.26				
		Recovery Boiler #7		61.0	5.33	429.8	9.10	22.06				
			PCPRB567	38.1	2.56	394.3	9.10	86.61		Yes	No	No
		Power Boiler #9	FCPPB9	51.8	4.27	343.1	10.33	76.23	CON	Yes	Yes	Yes
7300003	City of Tallahassee S.O.Purdom Plant											
		Unit No. 2	TALPURD2	26.0	1.95	478.0	5.89	-39.88	EXP	No	No	Yes
		Unit No. 3	TALPURD3	26.0	1.95	478.0	5.89	-39.88	EXP	No	No	Yes
		Unit No. 4	TALPURD4	26.0	1.95	478.0	5.89	-39.88	EXP	No	No	Yes
		Unit No. 5	TALPURD5	38.1	3.96	447.0	7.23	-104.04	EXP	No	No	Yes
		Unit No. 6	TALPURD6	38.1	3.96	447.0	7.23	-104.04	EXP	No	No	Yes
		Unit No. 7	TALPURD7	54.9	2.74	422.0	14.44	-68.92	EXP	No	No	Yes
		Unit No. 8	TALPURD8	61.0	5.00	353.0	15.38	7.82	CON	No	No	Yes
		Gas Turbines	TALPURGT	11.6	3.05	744.0	25.56	-10.29	EXP	No	No	Yes
1290001	City of Tallahassee A.B.Hopkins Plant											
		Unit No. 1	TALHOPK1	61.0	3.35	400.0	21.11	-227.59	EXP	No	No	Yes
		Unit No. 2	TALHOPK2	76.2	4.27	400.0	21.00	410.76	CON	No	No	Yes

Table 4-4. Summary of Competing PM Facilities Considered for Inclusion in the AAQS and PSD Class I and Class II Air Modeling Analyses

Facility ID Number	Facility	County	UTM Coordinates East (km)	UTM Coordinates North (km)	Relative to Smurfit-Stone Mill X (km)	Relative to Smurfit-Stone Mill Y (km)	Relative to Smurfit-Stone Mill Distance (km)	Relative to Smurfit-Stone Mill Direction[a] (deg)	Maximum PM Emissions (TPY)	Q, Emission Threshold Distance x 20	Include in Modeling Analysis ?
0050001	Arizona Chemical Company	Bay	633.1	3335.4	0.3	0.3	0.4	45	219	8.5	YES
0050005	Florida Asphalt Paving	Bay	631.4	3338.3	-1.4	3.2	3.5	336	29	69.9	NO
0050008	G.A.C. Contractors	Bay	634.9	3343.7	2.1	8.6	8.9	14	44	177.1	NO
0050038	Triangle Construction	Bay	638.8	3347.0	6.0	11.9	13.3	27	12	266.5	NO
0050014	Gulf Power	Bay	625.2	3349.1	-7.6	14.0	15.9	332	1,836	318.6	YES
0050031	Bay County Energy Systems	Bay	644.0	3348.9	11.2	13.8	17.8	39	59	355.5	YES[a]
0050028	Louisiana Pacific	Bay	608.8	3355.2	-24.0	20.1	31.3	310	37	626.1	NO
0450001	Premier Refractories, Inc	Gulf	664.7	3302.8	31.9	-32.3	45.4	135	345	907.9	NO
0450002	Sylvachem	Gulf	663.4	3299.6	30.6	-35.5	46.9	139	71	937.4	NO
0450005	Florida Coast Paper	Gulf	662.8	3299.0	30.0	-36.1	46.9	140	1,831	938.8	YES
1330002	Florida Asphalt Paving	Washington	624.4	3399.8	-8.4	64.7	65.2	353	44	1304.9	NO
1310019	Perdue Farms	Walton	590.1	3399.3	-42.7	64.2	77.1	326	87	1542.1	NO
7300003	City of Tallahassee - Hopkins	Leon	769.5	3340.0	145.1	-59.8	157.0	112	788	3139.0	YES[b]
1290001	City of Tallahassee - Purdom	Wakulla	749.5	3371.7	125.1	-28.1	128.2	103	463	2564.9	YES[b]
SSCC Mill UTM coordinates:			632.8	3335.1							

The facility screening process was limited to facilities that are within 70 km of the project site.

[a] Facility was included in the air modeling analysis, because it is a PSD source

[b] Facility included for PSD Class I analysis only, because of its proximity to the PSD Class I areas.

Table 4-5. Summary of Background PM Sources Included in the Air Modeling Analysis

Facility ID Number	Facility	Units	ISC-PRIME ID Name	Stack Parameters: Height (m)	Diameter (m)	Temper. (K)	Velocity (m/s)	Emission Rate (g/s)	PSD Source? (EXP/CON)	Modeled in: AAQS	Class II	Class I
0050001	Arizona Chemical Company											
		Boiler #1	ARIZCHM1	30.5	1.22	510.9	22.75	2.20		Yes	No	No
		Boiler #2	ARIZCHM2	30.5	1.22	466.5	17.64	2.20		Yes	No	No
0050014	Gulf Power											
		Lansing Smith Units 1 and 2	GULFPW12	60.7	5.49	441.0	31.30	48.01		Yes	No	No
		Peaking Turbines	GULFPWPK	10.1	4.18	922.0	36.90	4.16		Yes	No	No
0050031	Bay County Energy Systems											
		Boilers No. 1 and 2	BAYENRGY	38.1	1.37	477.6	17.50	1.72	CON	Yes	Yes	Yes
0050005	Florida Coast Paper											
		Kiln #1		33.8	1.22	352.6	20.78	1.30				
		Kiln #2		33.8	1.22	352.6	19.85	1.30				
		Kiln #3		33.5	1.22	352.6	18.31	1.30				
		Slaker A		12.2	0.76	355.4	1.45	3.23				
		Slaker B		12.2	0.76	355.4	1.45	3.23				
		Smelt Dissolving Tank No. 5		38.1	1.07	360.4	7.71	0.71				
		Smelt Dissolving Tank No. 6		38.1	1.07	355.4	7.71	0.71				
		Smelt Dissolving Tank No. 7		30.5	2.38	367.6	2.25	2.51				
			FCPLKSDT	30.5	2.38	367.6	2.25	14.29		Yes	No	No
		Recovery Boiler #5		38.1	2.56	460.9	14.81	4.72				
		Recovery Boiler #7		38.1	2.56	394.3	2.94	4.72				
		Recovery Boiler #7		61.0	5.33	429.8	9.10	19.20				
			PCPRB567	38.1	2.56	394.3	9.10	28.64		Yes	No	No
		Power Boiler #9	FCPPB9	51.8	4.27	343.1	10.33	11.11	CON	Yes	Yes	Yes
7300003	City of Tallahassee S.O.Purdom Plant											
		Unit No. 2	TALPURD2	26.0	1.95	478.0	5.89	-1.81	EXP	No	No	Yes
		Unit No. 3	TALPURD3	26.0	1.95	478.0	5.89	-1.81	EXP	No	No	Yes
		Unit No. 4	TALPURD4	26.0	1.95	478.0	5.89	-1.81	EXP	No	No	Yes
		Unit No. 5	TALPURD5	38.1	3.96	447.0	7.23	-4.73	EXP	No	No	Yes
		Unit No. 6	TALPURD6	38.1	3.96	447.0	7.23	-4.73	EXP	No	No	Yes
		Unit No. 8	TALPURD8	61.0	5.00	353.0	15.38	2.14	CON	No	No	Yes
		Cooling Tower	TALPCOOL	13.4	10.08	305.0	7.09	0.30	CON	No	No	Yes
		Gas Turbines	TALPURGT	11.6	3.05	744.0	25.56	0.01	CON	No	No	Yes
1290001	City of Tallahassee A.B.Hopkins Plant											
		Unit No. 2	TALHOPK2	76.2	4.27	400.0	21.00	29.32	CON	No	No	Yes

Table 4-6. Summary of Competing NO_x Facilities Considered for Inclusion in the AAQS and PSD Class I Air Modeling Analyses

Facility ID Number	Facility	County	UTM Coordinates East (km)	UTM Coordinates North (km)	Relative to Smurfit-Stone Mill X (km)	Relative to Smurfit-Stone Mill Y (km)	Relative to Smurfit-Stone Mill Distance (km)	Relative to Smurfit-Stone Mill Direction (deg)	Maximum NOx Emissions (TPY)	Q, Emission Threshold Distance x 20	Include in Modeling Analysis ?
0050001	Arizona Chemical Company	Bay	633.1	3335.4	0.3	0.3	0.4	45	460	8.5	YES
0050024	US Air Force - Tyndall	Gulf	635.6	3326.8	2.8	-8.3	8.8	161	19	175.2	NO
0050008	G.A.C. Contractors	Bay	634.9	3343.7	2.1	8.6	8.9	14	13	177.1	NO
0050014	Gulf Power	Bay	625.2	3349.1	-7.6	14.0	15.9	332	6,920	318.6	YES
0050031	Bay County Energy Systems	Bay	644.0	3348.9	11.2	13.8	17.8	39	236	355.5	NO
0450002	Sylvachem	Gulf	663.4	3299.6	30.6	-35.5	46.9	139	201	937.4	NO
0450005	Florida Coast Paper	Gulf	662.8	3299.0	30.0	-36.1	46.9	140	2,839	938.8	YES
1330005	Florida Gas Transmission		610.6	3394.2	-22.2	59.1	63.1	339	1,062	1262.6	NO
1310019	Perdue Farms	Walton	590.1	3399.3	-42.7	64.2	77.1	326	36	1542.1	NO
7300003	City of Tallahassee - Hopkins	Leon	769.5	3340.0	136.7	4.9	136.8	88	5,384	2735.7	YES[a]
1290001	City of Tallahassee - Purdom	Wakulla	749.5	3371.7	116.7	36.6	122.3	73	465	2446.7	YES[a]
SSCC Mill UTM coordinates:			632.8	3335.1							

The facility screening process was limited to facilities that are within 70 km of the project site.

[a] Facility included for PSD Class I analysis only, because of its proximity to the PSD Class I areas.

Table 4-7. Summary of Background NO_2 Sources Included in the Air Modeling Analysis

Facility ID Number	Facility	Units	ISC-PRIME ID Name	Stack Parameters: Height (m)	Diameter (m)	Temper. (K)	Velocity (m/s)	Emission Rate (g/s)	PSD Source? (EXP/CON)	Modeled in: AAQS	Class II	Class I
0050001	Arizona Chemical Company											
		Boiler #1	ARIZCHM1	30.5	1.22	510.9	22.75	6.62		Yes	No	No
		Boiler #2	ARIZCHM2	30.5	1.22	466.5	17.64	6.62		Yes	No	No
0050014	Gulf Power											
		Lansing Smith Units 1 and 2	GULFPW12	60.7	5.49	441.0	31.30	258.00		Yes	No	No
		Peaking Turbines	GULFPWPK	10.1	4.18	922.0	36.90	47.67		Yes	No	No
0050031	Bay County Energy Systems											
		Boilers No. 1 and 2	BAYENRGY	38.1	1.37	477.6	17.50	6.78	CON	Yes	Yes	Yes
0050005	Florida Coast Paper											
		Kiln #1		33.8	1.22	352.6	20.78	7.76				
		Kiln #2		33.8	1.22	352.6	19.85	7.76				
		Kiln #3		33.5	1.22	352.6	18.31	7.76				
			FCPLKSDT	30.5	2.38	367.6	2.25	23.28		Yes	No	No
		Recovery Boiler #5		38.1	2.56	460.9	14.81	34.03				
		Recovery Boiler #7		38.1	2.56	394.3	2.94	16.80				
		Recovery Boiler #7		61.0	5.33	429.8	9.10	4.40				
			PCPRB567	38.1	2.56	394.3	9.10	55.23		Yes	No	No
		Power Boiler #9	FCPPB9	51.8	4.27	343.1	10.33	33.34		Yes	No	No
7300003	City of Tallahassee S.O.Purdom Plant											
		Unit No. 5	TALPURD5	38.1	3.96	447.0	7.23	-0.52	EXP	No	No	Yes
		Unit No. 6	TALPURD6	38.1	3.96	447.0	7.23	-1.25	EXP	No	No	Yes
		Unit No. 7	TALPURD8	54.9	2.74	422.0	14.44	11.98	CON	No	No	Yes
		Gas Turbines	TALPURGT	11.6	3.05	744.0	25.56	0.17	CON	No	No	Yes
		Auxiliary Boiler	TALPAUXB	9.2	0.61	450.0	6.47	0.0675	CON	No	No	Yes
1290001	City of Tallahassee A.B.Hopkins Plant											
		Unit No. 2	TALHOPK2	76.2	4.27	400.0	21.00	94.50	CON	No	No	Yes

Table 4-8. SCC Mill Building Structures Considered in the Air Modeling Analysis

Structure	Height		Length		Width	
	ft	m	ft	m	ft	m
Recovery Boilers Building Upper Tiers	239.0	72.8	34.5	10.5	18.0	5.5
Recovery Boilers Building Lower Level	198.0	60.4	157.5	48.0	126.0	38.4
Bleach Plant	71.0	21.6	123.0	37.5	78.0	23.8
Engineering & Maintenance	35.0	10.7	315.0	96.0	55.5	16.9
Offices/Storeroom	35.0	10.7	361.5	110.2	88.5	27.0
Cooling Towers	30.0	9.1	199.5	60.8	90.0	27.4
Pulp Mill	83.0	25.3	295.5	90.1	193.5	59.0
Paper Mill	40.0	12.2	1284.0	391.4	352.5	107.4
Bark Boilers Building	111.0	33.8	97.5	29.7	100.5	30.6
Power Boiler 6 Building[a]	150.0	45.7	34.5	10.5	52.5	16.0

[a] Existed during baseline (1974 and 1988) only.

Table 4-9. Comparison of Stack, Operating, and Building Data for Plant Smith to Emission Units Used in the Evaluation of the ISC-PRIME Model

Parameters	Panama City Mill						Emission Units in ISC-PRIME Evaluation	
	No. 1/No. 2 Recovery Boilers	No. 1/No. 2 Smelt Dissolving Tanks	No. 3 Combination Boiler	No. 4 Combination Boiler	Lime Kiln	Lime Slaker	Bowline Point	Lee Power Plant
Stack data								
Height (m)	71.0	71.0	64.9	64.9	18.6	17.1	86.9	64.8
Diameter (m)	1.97	1.83	2.38	2.38	2.44	0.88	5.7	2.5
Operating data								
Temperature (K)	414-428	348	338	335	348	366	370 to 400	440
Velocity (m/s)	28.6	5.2-4.6	23.5	27.32	11.84	13.1	10 to 30	17
Influencing Building Data								
Height (m)	60.4	60.4	60.4	60.4	60.4	60.4	65.2	42.6
Length (m)	48.0	48.0	48.0	48.0	48.0	48.0		
Width (m)	38.4	38.4	38.4	38.4	38.4	38.4		
Diagonal (m)	59.3	59.3	59.3	59.3	59.3	59.3		
Lessor dimension (Lb) (m) [a]	59.3	59.3	59.3	59.3	59.3	59.3	65.2	42.6
Ratio								
Stack height/ Lessor building dimension	1.20	1.20	1.09	1.09	0.31	0.29	1.33	1.52
Distance of Measurements/Predictions								
Method	Predictions-Maximum Concentrations with ISC-PRIME model [b]						Measurements/ Predictions (4 sites)	Measurements/ Predictions (6 sites)
Distance from Unit (m)	500	500	500	500	500	500	251 to 848	150 to 900
Ratio-Distance/Lessor Dimension	8.4	8.4	8.4	8.4	8.4	8.4	3.8 to 13.0	3.5 to 21.1

[a] Based on evaluation used in determining a Good Engineering Practice (GEP) stack height.

[b] Based on distance to maximum 24-hr SO_2 impacts due to SCC mill.

Table 4-10. Property Boundary Receptors Used in the Air Modeling Analysis

Receptor	Direction (degrees)	Distance (meters)	Receptor	Direction (degrees)	Distance (meters)
1	10	282	19	190	677
2	20	295	20	200	675
3	30	320	21	210	659
4	40	362	22	220	659
5	50	272	23	230	1102
6	60	223	24	240	1367
7	70	194	25	250	301
8	80	176	26	260	263
9	90	179	27	270	234
10	100	175	28	280	226
11	110	512	29	290	253
12	120	558	30	300	249
13	130	633	31	310	247
14	140	760	32	320	260
15	150	755	33	330	442
16	160	716	34	340	407
17	170	702	35	350	389
18	180	690	36	360	277

Note: Distances are relative to the air modeling origin location, which is the easternmost corner of the Combination boilers building.

Table 4-11. Summary of Receptors Used for the PSD Class I Modeling Analyses

Receptor Number	UTM Coordinate (m) Easting	Northing
St. Marks NWR		
1	769660	3334380
2	770000	3333480
3	770420	3332920
4	771060	3332350
5	771850	3332110
6	772100	3332710
7	772380	3332160
8	772230	3331440
9	771570	3331050
10	771450	3330530
11	771700	3330220
12	772420	3329810
13	773350	3329870
14	774000	3330230
15	774270	3331020
16	774100	3330040
17	774740	3330480
18	775370	3330910
19	776140	3331240
20	776220	3331880
21	776490	3332400
22	776440	3333010
23	777370	3332250
24	770000	3338000
25	770000	3336000
26	772000	3336000
27	772000	3333000
28	772000	3331000
29	775000	3333000
30	775000	3331000
31	777000	3333000
32	770200	3339000
33	770200	3338000
34	770200	3337200
35	774400	3336100
36	770400	3333000
37	768900	3337600
38	769100	3336800
39	768800	3338400
40	769300	3338800
41	769800	3339100
42	768755	3338411
43	769098	3338713
44	769399	3338902
45	769717	3339105
46	770257	3339219
47	769200	3336000
48	769700	3335000
49	770000	3334000
50	771000	3332000
51	773000	3330500
52	774000	3330500
53	771000	3336000
54	773000	3336000
55	774000	3336000
56	775000	3335000
57	775000	3334000
58	775000	3333000
59	776000	3333000
60	776000	3331000
61	778000	3333500
62	779000	3334000
63	789000	3333000
64	794368	3328454.5
65	778372	3332268.5
66	778882.5	3332190.7
67	779661.2	3332675.2
68	780388.1	3332580.1
69	780742.8	3332363.7
70	781219.2	3332424.5
71	781868.1	3332952.4
72	782335.4	3332987
73	782984.3	3333471.6
74	783192	3333359.1
75	783936.1	3333488.9
76	784585	3333627.3
77	785173.4	3333203.3
78	785597	3333748.3
79	786159.4	3333644.4
80	787000	3333750
81	788000	3333218.75
82	782000	3335390.24
83	781000	3335268.29
84	780000	3333939
85	789500	3331512
86	791098	3330375
87	790098	3330847
88	794098	3329274
89	793098	3329183
90	792098	3329606
91	791244	3330549
92	791305	3333366
93	790915	3335000
94	791342	3337159
95	789000	3337914
96	788000	3337182
97	787000	3336476
98	786000	3336415
99	785000	3336244
100	784000	3336183
101	783000	3336171
102	791646	3336585
103	791439	3338244
104	789431	3338305
105	791300	3332259.3
106	791300	3331468.6
107	790443	3338299.2
108	791257.6	3335786.3
St. Marks NWR (Thoms Isl.)		
109	744700	3322400
110	745400	3321399.9
111	746500	3321399.9
112	747100	3320500
113	746400	3319899.9
114	746200	3318800
115	745600	3318000
116	745200	3319200
117	745200	3320399.9
118	744100	3321500
119	744700	3321000
120	744700	3321700
121	745400	3321000
122	745400	3322000
123	746000	3319500
124	746000	3320500
125	746000	3321200
Bradwell Bay NWR		
1	728000	3343000
2	728000	3341000
3	731000	3343000
4	731000	3341000
5	731000	3338000
6	733000	3343000
7	733000	3341000
8	733000	3338000
9	733000	3336000
10	733000	3333000
11	736000	3346000
12	736000	3343000
13	736000	3341000
14	736000	3338000
15	736000	3336000
16	738000	3343000
17	738000	3341000
18	741000	3341000

5.0 AIR MODELING ANALYSIS RESULTS

5.1 AAQS ANALYSES

Maximum predicted annual and 24-hour SO_2 concentrations are presented in Table 5-1 for three combination boiler emission scenarios:

1. Combination Boilers No. 3 and No. 4 both operating and emitting a maximum of 240 and 285 lb/hr, respectively (525 lb/hr total);
2. Combination Boiler No. 3 operating on fuel oil emitting a maximum of 485 lb/hr with No. 4 Combination Boiler operating on bark/natural gas only (minimal SO_2 emissions); and
3. Combination Boiler No. 4 operating on fuel oil and emitting a maximum of 575 lb/hr with No. 3 Combination Boiler operating on bark/natural gas only (minimal SO_2 emissions).

The maximum predicted 3-hour SO_2 concentrations are determined for the emission scenario of Combination Boilers No. 3 and No 4 both operating and emitting a maximum of 875 lb/hr SO_2 each. The maximum predicted NO_x, PM_{10}, and CO concentrations from the screening analysis due to all future modeled sources are presented in Table 5-2.

Based on the results of the screening analyses presented in Tables 5-1 and 5-2, refined modeling analyses were performed for each pollutant. The refined modeling results are added to a measured non-modeled background concentration to produce a cumulative total air quality concentration that can be compared with the AAQS. A summary of the refined analysis is presented in Table 5-3. All maximum impacts occurred at or near the SCC property boundary.

From the refined analyses, the maximum predicted total SO_2 concentrations are 42, 257, and 1,225 $\mu g/m^3$, for the annual, 24-hour, and 3-hour averaging times, respectively. These concentrations are all below the AAQS of 60, 260, and 1,300 $\mu g/m^3$ for the respective averaging times.

The maximum predicted total NO_2 concentration is 34 $\mu g/m^3$, for the annual averaging time. This concentration is below the AAQS of 100 $\mu g/m^3$.

The maximum predicted total PM_{10} concentrations are 44 and 146 $\mu g/m^3$, for the annual and 24-hour averaging times, respectively. These concentrations are all below the AAQS of 50 and 150 $\mu g/m^3$ for the respective averaging times.

The maximum predicted total CO concentrations are 8,994 and 10,417 $\mu g/m^3$, for the 8-hour and 1-hour averaging times, respectively. These concentrations are below the AAQS of 10,000 and 40,000 $\mu g/m^3$ for the respective averaging times.

5.2 PSD CLASS II ANALYSIS

Maximum predicted annual and 24-hour SO_2 PSD Class II increment consumption is presented in Table 5-4 for the three combination boiler emission scenarios. The maximum predicted 3-hour SO_2 PSD Class II increment consumption is determined for the emission scenario of Combination Boilers No. 3 and No 4 operating together and emitting SO_2 at 900 lb/hr each. The maximum predicted NO_2 and PM_{10} concentrations from the screening analysis due to all PSD-affecting sources are presented in Table 5-5. Based on the results of the screening analyses performed in Tables 5-4 and 5-5, refined modeling analyses were shown for all pollutants. The refined modeling results are compared with the allowable PSD Class II increments in Table 5-6.

The maximum predicted Class II SO_2 increment consumption concentrations are 18 and 500 $\mu g/m^3$, for the 24-hour and 3-hour averaging times, respectively. For the annual averaging time, the PSD increment was predicted to be expanded in all areas (i.e., <0.0 $\mu g/m^3$). These concentrations are all below the allowable PSD Class II increments of 20, 91, and 512 $\mu g/m^3$, for the annual, 24-hour, and 3-hour averaging times, respectively.

The maximum predicted Class II NO_2 increment consumption concentration is 6.1 $\mu g/m^3$, which is below the allowable PSD Class II increment of 25 $\mu g/m^3$.

The maximum predicted Class II PM_{10} increment consumption concentrations are 3.3 and 22.6 $\mu g/m^3$, for the annual and 24-hour averaging times, respectively. These concentrations are below the allowable PSD Class II increments of 17 and 30 $\mu g/m^3$, respectively.

5.3 PSD CLASS I ANALYSIS

The maximum predicted SO_2, PM_{10}, and NO_2 concentrations due to PSD-affecting sources at the BBNWR and SMNWR PSD Class I areas are compared to the allowable PSD Class I increments in Table 5-7. The maximum predicted Class I SO_2 increment consumption concentrations are <0, 3.05, and 12.66 $\mu g/m^3$ for the annual, 24-hour, and 3-hour averaging times, respectively. These concentrations are below the allowable PSD Class I increments of 2, 5 and 25 $\mu g/m^3$, respectively, for the annual, 24-hour, and 3-hour averaging times.

The maximum predicted Class I PM_{10} increment consumption concentrations are less than 0.0 $\mu g/m^3$ for the annual averaging time and 0.73 $\mu g/m^3$ for the 24-hour averaging time, respectively. These concentrations are below the allowable PSD Class I increments of 4 $\mu g/m^3$ and 8 $\mu g/m^3$ for the annual and 24-hour averaging times, respectively.

The maximum predicted Class I NO_2 increment consumption concentration is 0.39 $\mu g/m^3$ for the annual averaging time. This concentration is well below the allowable PSD Class I increment of 2.5 $\mu g/m^3$.

5.4 MODEL COMPARISON

A comparison of ISCST3 and ISC-PRIME model results for SO_2 and PM_{10} are presented in Table 5-8. Two modeling scenarios are presented for comparison. The first column (Column A) presents the ISCST3 model results for the proposed compliance scenario, i.e., proposed lower emission rates for SO_2 and PM_{10} as described in Sections 1.0 and 2.0. The second column (Column B) provides ISCST-PRIME model results for the compliance scenario.

Table 5-1. Maximum Predicted SO_2 Impacts Due to All Future Sources, AAQS Screening Analysis

Averaging Time	Concentration[a] (ug/m^3)	Receptor Location[b] Direction (degree)	Receptor Location[b] Distance (m)	Time Period (YYMMDDHH)
Both Combination Boilers Operating on Fuel Oil and/or Coal				
Annual				
	26.8	170	702	86123124
	28.7	170	702	87123124
	22.4	300	900	88123124
	19.9	330	900	89123124
	28.8	300	900	90123124
HSH 24-Hour				
	178	160	716	86081824
	243	290	500	87120724
	167	160	900	88100424
	164	150	755	89022324
	186	300	700	90060124
HSH 3-Hour				
	1,046	270	900	86021606
	1,213	280	700	87120806
	1,023	260	700	88092806
	981	270	700	89112503
	1,140	300	700	90091312
Only Combination Boiler No. 3 Operating on Fuel Oil and/or Coal				
Annual				
	27.7	170	702	86123124
	29.5	170	702	87123124
	22.5	300	900	88123124
	20.5	330	900	89123124
	28.8	300	900	90123124
HSH 24-Hour				
	186	160	716	86081824
	243	290	500	87120724
	172	160	900	88100424
	173	180	690	89122224
	188	300	700	90021424
Only Combination Boiler No. 4 Operating on Fuel Oil and/or Coal				
Annual				
	26.1	170	702	86123124
	28.0	170	702	87123124
	22.5	300	900	88123124
	19.4	330	900	89123124
	29.2	300	900	90123124
HSH 24-Hour				
	173	160	900	86030124
	245	290	500	87120724
	163	160	900	88100424
	163	150	755	89022324
	189	300	700	90060124

[a] Based on 5-year meteorological record, Pensacola/Apalachicola, 1986-87, and Apalachicola/Apalachicola, 1988-90

[b] Relative to Modeling Analysis Origin Location

Note:

YYMMDDHH = Year, Month, Day, Hour Ending

HSH = Highest, Second-Highest Concentration in 5 years.

Table 5-2. Maximum Predicted NO_2, PM_{10}, and CO Pollutant Impacts Due to All Future Sources, AAQS Screening Analyses

Averaging Time	Concentration[a] (ug/m^3)	Receptor Location[b]		Time Period (YYMMDDHH)
		Direction (degree)	Distance (m)	
NO_2				
Annual				
	14.6	170	702	86123124
	15.3	170	702	87123124
	13.1	300	900	88123124
	10.8	330	900	89123124
	17.2	300	900	90123124
PM_{10}				
Annual				
	18.2	180	700	86123124
H6H 24-Hour				
	110.6	300	500	87031824
CO				
H2H 8-Hour				
	1,978	170	702	86050324
	2,895	280	300	87120808
	1,788	300	500	88040116
	1,779	180	690	89020916
	1,914	270	500	90042008
H2H 1-Hour				
	4,144	350	900	86100401
	4,199	270	900	87060723
	4,198	340	900	88062223
	4,406	340	900	89060502
	4,176	280	900	90011719

[a] Based on 5-year meteorological record, Pensacola/Apalachicola, 1986-87, and Apalachicola /Apalachicola, 1988-90

[b] Relative to Modeling Analysis Origin Location

Notes

YYMMDDHH = Year, Month, Day, Hour Ending

H2H = Highest, 2nd-Highest Concentration in 5 years.

H6H = 6th-Highest Concentration in 5 years.

Table 5-3. Maximum Predicted Pollutant Impacts Due to All Future Sources for Comparison to AAQS, Refined Analysis

Averaging Time	Concentration (ug/m^3)			Receptor Location[b]		Time Period	Florida AAQS
	Total	Modeled	Background	Direction (degree)	Distance (m)	(YYMMDDHH)	(ug/m^3)
SO_2							
Both Combination Boilers Operating on Fuel Oil and/or Coal							
Annual	40.7	28.7	12	170	702	87123124	60
	41.3	29.3	12	302	800	90123124	
H2H 24-Hour	255	243	12	290	500	87120724	260
H2H 3-Hour	1,225	1,213	12	280	700	87120806	1300
Only Combination Boiler No. 3 Operating on Fuel Oil and/or Coal							
Annual	41.6	29.6	12	172	698	87123124	60
	41.5	29.5	12	302	800	90123124	
H2H 24-Hour	255	243	12	290	500	87120724	260
Only Combination Boiler No. 4 Operating on Fuel Oil and/or Coal							
Annual	40.0	28.0	12	170	702	87123124	60
	41.5	29.5	12	302	800	90123124	
H2H 24-Hour	257	245	12	290	500	87120724	260
NO_2							
Annual	33.7	17.7	16	302	800	90123124	100
PM_{10}							
Annual	43.7	18.7	25	176	700	86123124	50
H6H 24-Hour	145.5	120.5	25	272	800	87031824	150
CO							
H2H 8-Hour	8,994	2,994	6,000	278	400	87120808	10,000
H2H 1-Hour	10,339	4,339	6,000	346	900	86020519	40,000
	10,319	4,319	6,000	268	900	87060722	
	10,417	4,417	6,000	342	900	88070923	
	10,406	4,406	6,000	340	900	89060502	
	10,265	4,265	6,000	278	900	90010324	

[a] Based on 5-year meteorological record, Pensacola/Apalachicola, 1986-87, and Apalachicola /Apalachicola, 1988-90

[b] Relative to Modeling Analysis Origin Location

Notes

YYMMDDHH = Year, Month, Day, Hour Ending

H2H = Highest, 2nd-Highest Concentration in 5 years.

H6H = 6th-Highest Concentration in 5 years.

Table 5-4. Maximum Predicted SO_2 PSD Class II Increment - Screening Analysis

Averaging Time	Concentration[a] (ug/m^3)	Receptor Location[b] Direction (degree)	Receptor Location[b] Distance (m)	Time Period (YYMMDDHH)
Both Combination Boilers Operating on Fuel Oil and/or Coal				
Annual				
	<0	NA	NA	86123124
	<0	NA	NA	87123124
	<0	NA	NA	88123124
	<0	NA	NA	89123124
	<0	NA	NA	90123124
HSH 24-Hour				
	8.2	310	700	86082224
	7.0	210	1200	87092224
	14.0	300	1500	88020324
	7.0	350	1200	89070124
	6.7	260	700	90062924
HSH 3-Hour				
	395	330	900	86090918
	500	320	700	87060215
	452	300	900	88020112
	400	310	700	89072615
	434	270	700	90091212
Only Combination Boiler No. 3 Operating on Fuel Oil and/or Coal				
Annual				
	<0	NA	NA	86123124
	<0	NA	NA	87123124
	<0	NA	NA	88123124
	<0	NA	NA	89123124
	<0	NA	NA	90123124
HSH 24-Hour				
	6.8	270	2500	86020324
	7.0	260	700	87092824
	13.2	300	1500	88020324
	7.2	360	700	89042024
	7.8	260	1200	90121724
Only Combination Boiler No. 4 Operating on Fuel Oil and/or Coal				
Annual				
	<0	NA	NA	86123124
	<0	NA	NA	87123124
	<0	NA	NA	88123124
	<0	NA	NA	89123124
	<0	NA	NA	90123124
HSH 24-Hour				
	10.8	310	700	86082224
	7.9	210	1500	87092224
	15.2	300	1500	88020324
	8.2	350	1200	89070124
	7.9	260	700	90062924

[a] Based on 5-year meteorological record, Pensacola/Apalachicola, 1986-87, and Apalachicola/Apalachicola, 1988-90

[b] Relative to Modeling Analysis Origin Location

Notes:

YYMMDDHH = Year, Month, Day, Hour Ending

HSH = Highest, Second-Highest Concentration in 5 years.

Table 5-5. Maximum Predicted PM_{10} and NO_2 PSD Class II Increment, Screening Analysis

Averaging Time	Concentration[a] (ug/m^3)	Receptor Location[b] Direction (degree)	Receptor Location[b] Distance (m)	Time Period (YYMMDDHH)
PM_{10}				
Annual				
	2.84	190	700	86123124
	2.40	190	700	87123124
	2.63	200	700	88123124
	2.76	200	700	89123124
	3.17	300	900	90123124
H2H 24-Hour				
	15.0	270	700	86101224
	16.7	190	700	87122224
	20.8	20	295	88071024
	18.2	20	300	89010124
	16.8	20	500	90072224
NO_2				
Annual				
	4.4	170	702	86123124
	4.6	170	702	87123124
	4.4	300	900	88123124
	3.5	300	900	89123124
	6.0	300	900	90123124

[a] Based on 5-year meteorological record, Pensacola/Apalachicola, 1986-87, and Apalachicola /Apalachicola, 1988-90

[b] Relative to Modeling Analysis Origin Location

Notes

NA = Not Applicable

YYMMDDHH = Year, Month, Day, Hour Ending

H2H = Highest, 2nd-Highest Concentration in 5 years.

Table 5-6. Maximum Predicted Pollutant PSD Increment Consumption For Comparision With PSD Class II Allowable Increments, Refined Analysis

Averaging Time	Concentration (ug/m^3)	Receptor Location[b]		Time Period (YYMMDDHH)	Allowable PSD Class II Increment (ug/m^3)
		Direction (degree)	Distance (m)		
SO_2					
Both Combination Boilers Operating on Fuel Oil and/or Coal					
Annual	<0	NA	NA	NA	20
H2H 24-Hour	16.6	302	1700	88020324	91
H2H 3-Hour	500	320	700	87060215	512
Only Combination Boiler No. 3 Operating on Fuel Oil and/or Coal					
Annual	<0	NA	NA	NA	20
H2H 24-Hour	15.7	302	1700	88020324	91
Only Combination Boiler No. 4 Operating on Fuel Oil and/or Coal					
Annual	<0	NA	NA	NA	20
H2H 24-Hour	17.8	302	1700	88020324	91
PM_{10}					
Annual	3.3	300	800	90123124	17
H2H 24-Hour	22.6	16	400	88071024	30
	19.7	16	400	89010124	
NO_2					
Annual	6.1	302	800	90123124	25

[a] Based on 5-year meteorological record, Pensacola/Apalachicola, 1986-87, and Apalachicola/Apalachicola, 1988-90

[b] Relative to Modeling Analysis Origin Location

Notes:

YYMMDDHH = Year, Month, Day, Hour Ending

H2H = Highest, 2nd-Highest Concentration in 5 years.

PSD = Prevention of Significant Deterioration

Table 5-7. Maximum Predicted SO_2, PM_{10}, and NO_2 PSD Increment at the Bradwell Bay and St. Marks NWRs

Averaging Time	Concentration[a] (ug/m^3)	Receptor Location (U (m)	(m)	Time Period (YYMMDDH	Allowable PSD Class I Increment (ug/m^3)
SO_2					
Annual					
	<0	NA	NA	86123124	2
	<0	NA	NA	87123124	
	<0	NA	NA	88123124	
	<0	NA	NA	89123124	
	<0	NA	NA	90123124	
H2H 24-Hour					
	2.47	728000	3341000	86010824	5
	2.11	738000	3341000	87102224	
	2.78	736000	3343000	88112224	
	3.05	736000	3343000	89080824	
	1.54	747100	3320500	90092424	
H2H 3-Hour					
	11.87	731000	3343000	86120103	25
	8.96	738000	3343000	87102212	
	10.67	736000	3343000	88010306	
	12.66	736000	3343000	89080812	
	8.61	736000	3341000	90080812	
PM_{10}					
Annual					
	<0	NA	NA	86123124	1
	<0	NA	NA	87123124	
	<0	NA	NA	88123124	
	<0	NA	NA	89123124	
	<0	NA	NA	90123124	
H2H 24-Hour					
	0.51	728000	3341000	86010824	5
	0.46	741000	3341000	87122224	
	0.65	736000	3346000	88010324	
	0.73	733000	3343000	89092024	
	0.40	786000	3336415	90102524	
NO_2					
Annual					
	0.39	770000	3338000	86123124	2.5
	0.38	770000	3338000	87123124	
	0.26	769700	3335000	88123124	
	0.26	736000	3346000	89123124	
	0.26	770000	3338000	90123124	

[a] Based on 5-year meteorological record, Pensacola/Apalachicola, 1986-87, and Apalachicola /Apalachicola, 1988-90

Note:
PSD = Prevention of Significant Deterioration
YYMMDDHH = Year, Month, Day, Hour Ending
UTM = Universal Transverse Mercator
H2H = Highest, 2nd-Highest

Table 5-8. ISCST3 and ISC-PRIME Results: Maximum Predicted Pollutant Impacts

Pollutant/ Averaging Time	(A) ISCST3 Reduced SO_2 and PM Emissions[a] Concentration (mg/m^3)	(B) ISC-PRIME Reduced SO_2 and PM Emissions[a] Concentration (mg/m^3)	Florida Air Quality Standard Standard (mg/m^3)
	AMBIENT AIR QUALITY STANDARDS		
SO_2			
Annual	45	41	60
24-Hour	283	257	260
3-Hour	2,597	1,225	1,300
PM_{10}			
Annual	45	44	50
24-Hour[b]	155	133	150
	PSD CLASS II INCREMENTS		
SO_2			
Annual	<0	0	20
24-Hour	7	17.8	91
3-Hour	1,057	500	512
PM_{10}			
Annual	2	3.3	50
24-Hour	14	22.6	150
	PSD CALSS I INCREMENTS		
SO_2			
Annual	<0	0.017	2
24-Hour	3.0	1.3	5
3-Hour	14.1	8.3	25
PM_{10}			
Annual	0.03	0	4
24-Hour	0.73	0.005	8

[a] Based on emissions for compliance scenario, as described in Section 2.0.

[b] Based on sixth-highest concentration in five years.

Notes

All concentrations represent Highest, 2nd-Highest Concentration in 5 years, unless otherwise noted.
Based on 5-year meterolological record, West Palm Beach, 1987-91.
All predicted concentrations include the following background concentrations:

SO_2 = 12 $\mu g/m^3$, annual average
= 12 $\mu g/m^3$, 24-hour average
= 12 $\mu g/m^3$, 3-hour average
PM_{10} = 25 $\mu g/m^3$, annual average
= 25 $\mu g/m^3$, 24-hour average
CO = 3,000 $\mu g/m^3$, 8-hour average
= 6,000 $\mu g/m^3$, 1-hour average

APPENDIX A

MAXIMUM CALCULATED EMISSION RATES

Table A-1. Maximum Emissions from Recovery Boiler Nos. 1 and 2 , Stone Container Corporation, Panama City

	Each Recovery Boiler				
Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	112.5 lb/hr	1	8,760 hr/yr	112.5	492.8
Particulate (PM10)	77.6 % of PM	6	--	87.30	382.4
Sulfur dioxide	0.18 lb/MMBtu	3	721 MMBtu/hr	129.78	568.4
Nitrogen oxides	0.10 lb/MMBtu	3	721 MMBtu/hr	72.10	315.8
Carbon monoxide	20 lb/1,000 lb BLS	7	123.7 1,000 lb BLS/hr	2,474	2,872
VOC	0.058 lb C /MMBtu	3	721 MMBtu/hr	41.82	183.2
Sulfuric acid mist	0.011 lb/MMBtu	5	721 MMBtu/hr	7.95	34.8
Total reduced sulfur	17.5 ppmvd	1	187,100 dscfm (b)	17.3	75.9
Lead	7.2E-06 lb/MMBtu	2	721 MMBtu/hr	5.2E-03	2.3E-02
Mercury	5.5E-06 lb/MMBtu	2	721 MMBtu/hr	4.0E-03	1.7E-02
Beryllium	1.9E-07 lb/MMBtu	2	721 MMBtu/hr	1.4E-04	6.0E-04
Fluorides	ND	4	--	--	--

Notes:
(a) Based on currently permitted maximum operating rate of 123,700 lb virgin BLS/hr, 5,830 Btu/lb BLS, and 8,760 hr/yr.
(b) Based on 1997 compliance testing and 8% salt cake content of BLS throughput, ie. 92% virgin BLS. Flow rate at 8% oxygen.

References:
1. Currently permitted emission limit.
2. Emission factor based on NCASI Bulletin No. 650, Table 11D, direct contact evaporator, average factor used.
3. Emission factor based on NCASI Bulletin No. 646, Tables 8-11, direct contact evaporator with ESP, average factor used.
4. From "Application of Combustion Modifications to Industrial Combustion Equipment" EPA-600/7-79-015a. one test from recovery boiler.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on AP-42 Tables 10.2-1, 10.2-2, and Figure 10.2-2 for Kraft pulping sources.
7. Based on NCASI Bulletin No. 416, Table 5 and Figure 17 (20 lb/1,000 lb BLS for hourly emissions and 5.3 lb/1,000 lb BLS for annual average).

Table A-2a. Maximum Emissions for Individual Fuels, No. 3 Combination Boiler Stone Container, Panama City

Regulated Pollutant	No. 6 Oil					Wood/Bark					Natural Gas				
	Emission Factor	Ref.	Activity Factors (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a,b)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	0.10 lb/MMBt	1	378 MMBtu/hr	37.80	165.56	0.3 lb/MMBt	1	474 MMBtu/hr	109.50 (e)	479.61	0.1 /MMBtu	1	30 MBtu/hr	3.00	13.14
Particulate (PM10)	86 % of PM	9	–	32.51	142.39	87 % of PM	5	– –	95.27	417.26	0.1 /MMBtu	1	30 MBtu/hr	3.00	13.14
Sulfur dioxide: 3-hr	875 lb/hr	8	– Mgal/hr	875.00		0.075 lb/TWWF	5	60.0 tons/hr	4.50		0.6 b/MMscf	6	0.03 MMscf/h	0.018	
24-hr	485 lb/hr (d)	8	–	485.00	2,124.30	0.075 lb/TWWF	5	60.0 tons/hr	4.50	19.71	0.6 b/MMscf	6	0.03 MMscf/h	0.018	0.079
Nitrogen oxides	47 lb/Mgal	2	2.52 Mgal/hr	118.44	518.77	1.5 lb/TWWF	5	60.0 tons/hr	90.00	394.20	280 lb/MMsc	6	0.03 MMscf/h	8.40	36.79
Carbon monoxide	5 lb/Mgal	2	2.52 Mgal/hr	12.60	55.19	2.923 lb/TWWF	7	60.0 tons/hr	175.38	768.16	84 lb/MMsc	6	0.03 MMscf/h	2.52	11.04
VOC	0.28 lb/Mgal	2	2.52 Mgal/hr	0.71	3.09	0.12 lb/TWWF	3	60.0 tons/hr	7.20	31.54	5.5 lb/MMsc	6	0.03 MMscf/h	1.65E-01	7.23E-01
Sulfuric acid mist: 24-	5.75 lb/Mgal (c	2	2.52 Mgal/hr	42.23	184.97	6.1 % of SO2	4	60.0 tons/hr	0.27	1.20	6.1 % of SO	4	–	0.0011	0.0048
Total reduced sulfur	–		–	–	–	–		–	–	–	–		–	–	–
Lead	1.51E-03 lb/Mgal	2	2.52 Mgal/hr	3.81E-03	1.67E-02	4.45E-04 lb/TWWF	5	60.0 tons/hr	2.67E-02	1.17E-01	1.00E-08 lb/MMsc	6	0.03 MMscf/h	3.00E-10	1.31E-09
Mercury	1.13E-04 lb/Mgal	2	2.52 Mgal/hr	2.85E-04	1.25E-03	5.15E-06 lb/TWWF	5	60.0 tons/hr	3.09E-04	1.35E-03	2.60E-04 lb/MMsc	6	0.03 MMscf/h	7.80E-06	3.42E-05
Beryllium	2.78E-05 lb/Mgal	2	2.52 Mgal/hr	7.01E-05	3.07E-04	– –		– –	–	–	1.20E-05 lb/MMsc	6	0.03 MMscf/h	3.60E-07	1.58E-06
Fluorides	3.73E-02 lb/Mgal	2	2.52 Mgal/hr	9.40E-02	4.12E-01	– –		– –	–	–	– –		– –	–	–

Notes:
TWWF - ton of wet wood residue fuel
All annual emissions based on 8,760 hr/yr operation.
Footnotes:
(a) Refer to Attachment SCC-EU8-G1.
(b) Based on 30 tons/hr dry basis, and 50% moisture in wood/bark.
(c) S = 2.4% max by current permit
(d) Proposed permit limit for 24 hour average for No. 3 Combination Boiler operating, with No. 4 Combination Boiler shutdown or operating on bark/natural gas only.
(e) Based on limit in current operating permit.
References:
1. Based on Florida Rule 62-296.410.
2. Emission Factors based on AP-42 Section 1.3 Table 1.3-1, 1.3-3, 1.3-4 and 1.3-11 for metals (assuming uncontrolled for metals). For sulfuric acid mist, factor shown is for SO3. Convert to HsSO4 by multiplying by 98/80.
3. Emission Factor Based on NCASI TB 646 for an average Spreader Stoker Boilers with Scrubbers Tables1, 2, and 3.
4. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil: 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and sulfur trioxide molecular weights (98/80).
5. Emission Factors based on AP-42 Section 1.6 Table 1.6-1, 1.6-2, 1.6-3, 1.6-5 and 1.6-6 (2/99).
6. Emission Factors based on AP-42 Section 1.4 Table 1.4-1, 1.4-2, and 1.4-4.
7. Emission Factor Based on NCASI TB 416, Table 4.
8. Based on proposed permit limit.
9. Based on AP-42 Section 1.3, Table 1.3-5, for industrial boilers firing residual oil with no control.

Table A-2b. Proposed Maximum Emissions For Alternate Fuel Scenarios for No. 3 Combination Boiler, Stone Container, Panama City

Regulated Pollutant	Maximum Wood/Bark plus Fuel Oil		Maximum Fuel Oil plus Wood/Bark		Condensate Stripper		Maximum (a)	
	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	109.50	479.61	56.40	247.03	--	--	109.50	479.61
Particulate (PM10)	97.76	428.18	48.69	213.26	--	--	97.76	428.18
Sulfur dioxide: 3-hr	77.22	--	875.00	--	240.24	--	875.00	--
24-hr	77.22	338.23	485.00	2,124.30	240.24	1,052.25	485.00	2,124.30
Nitrogen oxides	99.07	433.93	130.14	570.01	27.00	87.86	157.14	657.88
Carbon monoxide	176.35	772.39	35.40	155.05	--	--	176.35	772.39
VOC	7.25	31.77	1.64	7.19	--	--	7.25	31.77
Sulfuric acid mist	2.91	12.77	42.27	185.12	--	--	42.27	185.12
Total reduced sulfur	--	--	--	--	3.81	16.69	3.81	16.69
Lead	2.70E-02	1.18E-01	7.28E-03	3.19E-02	--	--	2.70E-02	1.18E-01
Mercury	3.31E-04	1.45E-03	3.25E-04	1.42E-03	--	--	3.31E-04	1.45E-03
Beryllium	5.37E-06	2.35E-05	7.01E-05	3.07E-04	--	--	7.01E-05	3.07E-04
Fluorides	7.20E-03	3.15E-02	9.40E-02	4.12E-01	--	--	9.40E-02	4.12E-01

(a) Maximum of either firing scenario plus the condensate stripper, except for 3-hour and 24-hour SO2 emissions, which are limited to 875 lb/hr and 485 lb/hr, respectively.

Table A-3a. Maximum Emissions for Individual Fuels, No. 4 Combination Boiler, Stone Container, Panama City.

Regulated Pollutant	No. 6 Oil					Wood/Bark					Gas					Coal				
	Emission Factor	Ref.	Activity Factors [a]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors [a,b]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors [a]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors [a]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	0.10 lb/MMBtu	1	473 MMBtu/hr	47.3	207.17	0.30 lb/MMBt	1	474 MMBtu/hr	86.60 [i]	379.31	0.1 lb/MMBtu	1	40 MMBtu/	4.00	17.52	0.1 lb/MMBtu	1	395 MMBtu/h	39.50	173.01
Particulate (PM10)	86 % of PM	10	– –	40.68	178.17	87 % of PM	5	– –	75.34	330.00	0.1 lb/MMBtu	1	40 MMBtu/	4.00	17.52	90 % of PM	7	–	35.55	155.71
Sulfur dioxide: 3-hr	875 lb/hr	9	3.153 Mgal/hr	875.00 [e]		0.075 lb/TWWF	9	60.0 tons/hr	4.50	19.71	0.6 lb/MMscf	6	0.04 MMscf/h	0.024		875 lb/hr [e]	–	–	875.0	
24-hr	575 lb/hr [h]	9		575.00	2,518.50	– –		– –	–	–	0.6 lb/MMscf	6	0.04 MMscf/h	0.024	0.11	575 lb/hr	9	–	575.0	2,518.50
Nitrogen oxides	47 lb/Mgal	2	3.153 Mgal/hr	148.19	649.08	1.5 lb/TWWF	5	60.0 tons/hr	90.00	394.20	280 lb/MMscf	6	0.04 MMscf/h	11.20	49.06	11 lb/ton	7	15.8 TPH	173.8	761.24
Carbon monoxide	5 lb/Mgal	2	3.153 Mgal/hr	15.77	69.05	2.923 lb/TWWF	8	60.0 tons/hr	175.38	768.16	84 lb/MMscf	6	0.04 MMscf/h	3.36	14.72	5 lb/ton	7	15.8 TPH	79.0	346.02
VOC	0.28 lb/Mgal	2	3.153 Mgal/hr	0.88	3.87	0.12 lb/TWWF	3	60.0 tons/hr	7.20	31.54	5.5 lb/MMscf	6	0.04 MMscf/h	0.22	0.96	0.05 lb/ton	3	15.8 TPH	0.79	3.46
Sulfuric acid mist: 24-hr	6.1 % of SO2	4	3.153 Mgal/hr	35.08	153.6	6.1 % of SO2	4	– –	0.27	1.20	6.1 % of SO2	4	–	1.46E-03	6.41E-03	6.1 % of SO2	4	–	35.08	153.63
Total reduced sulfur [c]	– –	–	– –	–	–	– –	–	– –	–	–	–		–	–	–	5 ppmvd [f]	1	164,500 acfm [g]	4.40	19.27
Lead	1.51E-03 lb/Mgal	2	3.153 Mgal/hr	4.8E-03	2.1E-02	4.45E-04 lb/TWWF	5	60.0 tons/hr	2.67E-02	1.17E-01	1.0E-08 lb/MMscf	6	0.04 MMscf/h	4.00E-10	1.75E-09	4.20E-04 lb/ton	7	15.8 TPH	6.64E-03	2.91E-02
Mercury	1.13E-04 lb/Mgal	2	3.153 Mgal/hr	3.6E-04	1.6E-03	5.15E-06 lb/TWWF	5	60.0 tons/hr	3.09E-04	1.35E-03	2.6E-04 lb/MMscf	6	0.04 MMscf/h	1.04E-05	4.56E-05	8.30E-05 lb/ton	7	15.8 TPH	1.31E-03	5.74E-03
Beryllium	2.78E-05 lb/Mgal	2	3.153 Mgal/hr	8.8E-05	3.8E-04	– –		– –	–	–	1.20E-05 lb/MMscf	6	0.04 MMscf/h	4.80E-07	2.10E-06	2.10E-05 lb/ton	7	15.8 TPH	3.32E-04	1.45E-03
Fluorides	3.73E-02 lb/Mgal	2	3.153 Mgal/hr	1.2E-01	5.2E-01	– –		– –	–	–	– –		– –	–	–	0.15 lb/ton	7	15.8 TPH	2.37	10.38

Notes:
TWWF - ton of wet wood residue fuel
All annual emissions based on 8,760 hr/yr operation.
Footnotes
[a] Refer to Attachment SCC-EU9-G1.
[b] Based on 30 tons/hr dry basis and 50% moisture in wood/bark.
[c] TRS gases from digester and MEE system must be incinerated in the Lime Kiln or Bark Boiler at a minumum of 1,200 deg. F for at least 0.5 seconds.
[d] Maximum fuel oil sulfur content = 2.4%
[e] Proposed permit limit, including TRS burning.
[f] All TRS emissions calculated under coal section.
[g] Based on Title V application.
[h] Proposed permit limit for 24 hour average for No. 4 Combination Boiler operating, and with No. 3 Combination Boiler shutdown or operating on bark/natural gas only.
[i] Based on limit in AC03-190964.
References:
1. Based on Florida Rule 62-296.410.
2. Emission Factors based on AP-42 Section 1.3 Table 1.3-1, 1.3-3, 1.3-4 and 1.3-11 for metals (assuming uncontrolled for metals).
3. Emission Factor Based on NCASI TB 646 for an average Spreader Stoker Boilers with Scrubbers Tables1, 2, and 3.
4. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil: 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and sulfur trioxide molecular weights (98/80).
5. Emission Factors based on AP-42 Section 1.6 Table 1.6-1, 1.6-2, 1.6-3, 1.6-5 and 1.6-6 (2/99).
6. Emission Factors based on AP-42 Section 1.4 Table 1.4-1, 1.4-2, and 1.4-4 .
7. Emission Factors based on AP-42 Section 1.1 Tables 1.1-3, 1.1-5, 1.1-9, 1.1-18 and 1.1-19 for spreader stoker boilers.
8. Emission Factor Based on NCASI TB 416, Table 4.
9. Based on proposed permit limit.
10. Based on AP-42 Section 1.3, Table 1.3-5, for industrial boilers firing residual oil with no control.

Table A-3b. Proposed Maximum Emissions For Alternate Fuel Scenarios, No. 4 Combination Boiler, Stone Container, Panama City

Regulated Pollutant	Maximum Wood/Bark and Fuel Oil		Maximum Fuel Oil		Maximum Coal and Wood/Bark		Maximum Any Scenario	
	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	86.60	379.31	47.30	207.17	63.80	279.44	86.60	379.31
Particulate (PM10)	81.45	356.74	40.68	178.17	56.69	248.31	81.45	356.74
Sulfur dioxide: 3-hr	182.73		875.00		875.00		875.00	
24-hr	182.73	800.34	575.00	2,518.50	575.00	2,518.50	575.00	2,518.50
Nitrogen oxides	112.23	491.57	148.19	649.08	189.10	828.26	189.10	828.26
Carbon monoxide	177.75	778.52	15.77	69.05	108.81	476.61	177.75	778.52
VOC	7.33	32.12	0.88	3.87	2.01	8.82	7.33	32.12
Sulfuric acid mist	11.15	48.82	35.08	153.63	35.12	153.83	35.12	153.83
Total reduced sulfur	--	--	--	--	4.4	19.3	4.40	19.27
Lead	2.74E-02	1.20E-01	4.76E-03	2.09E-02	1.12E-02	4.89E-02	2.74E-02	1.20E-01
Mercury	3.62E-04	3.57E+02	3.56E-04	1.56E-03	1.36E-03	5.97E-03	1.36E-03	3.57E+02
Beryllium	1.31E-05	5.76E-05	8.77E-05	3.84E-04	3.32E-04	1.45E-03	3.32E-04	1.45E-03
Fluorides	1.76E-02	7.73E-02	1.18E-01	5.15E-01	2.37	10.38	2.37	10.38

Table A-4. Future Emissions from No. 1 Smelt Dissolving Tank at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	29.71 lb/hr	1	8,760 hr/yr	29.7	130.1
Particulate (PM10)	89.5 % of PM	2	--	26.6	116.5
Sulfur dioxide	0.016 lb/ton BLS	3	61.85 tons BLS/hr	0.99	4.33
Nitrogen oxides	0.033 lb/ton BLS	3	61.85 tons BLS/hr	2.04	8.94
Carbon monoxide	--		--	--	--
VOC	0.062 lb/ton BLS	3	61.85 tons BLS/hr	3.83	16.8
Sulfuric acid mist	5 % of SO2	5	--	0.061	0.27
Total reduced sulfu	0.048 lb/ton BLS	6	61.85 tons BLS/hr	3.0	13.0
Lead	1.7E-05 lb/ton BLS	4	61.85 tons BLS/hr	0.001	0.005
Mercury	1.8E-07 lb/ton BLS	4	61.85 tons BLS/hr	1.1E-05	4.9E-05
Beryllium	1.4E-07 lb/ton BLS	4	61.85 tons BLS/hr	8.7E-06	3.8E-05
Fluorides	--		--	--	--

note:
(a) Based on the currently permitted maximum allowable operating rate of 123,700 lb virgin BLS/hr and 8,760 hr/yr.

References:
1. Currently permitted emission limit.
2. AP-42, Table 10.2-7.
3. Data is averages from NCASI Bulletin No. 646, Tables 16-18, for smelt dissolving tanks with scrubbers.
4. Data is averages from NCASI Bulletin No. 650, Tables 14A and 14B, for smelt dissolving tanks with scrubbers.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on Rule 62-296.404(3)(d)1., F.A.C

Table A-5. Maximum Emissions from No. 2 Smelt Dissolving Tank at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	28.5 lb/hr	1	8,760 hr/yr	28.5	124.9
Particulate (PM10)	89.5 % of PM	2	--	25.5	111.8
Sulfur dioxide	0.016 lb/ton BLS	3	61.85 tons BLS/hr	0.99	4.33
Nitrogen oxides	0.033 lb/ton BLS	3	61.85 tons BLS/hr	2.04	8.94
Carbon monoxide	--		--	--	--
VOC	0.062 lb/ton BLS	3	61.85 tons BLS/hr	3.83	16.8
Sulfuric acid mist	5 % of SO2	5	--	0.061	0.27
Total reduced sulfur	0.048 lb/ton BLS	1	61.85 tons BLS/hr	3.0	13.0
Lead	1.7E-05 lb/ton BLS	4	61.85 tons BLS/hr	0.001	0.005
Mercury	1.8E-07 lb/ton BLS	4	61.85 tons BLS/hr	1.1E-05	4.9E-05
Beryllium	1.4E-07 lb/ton BLS	4	61.85 tons BLS/hr	8.7E-06	3.8E-05
Fluorides	--		--	--	--

note:
(a) Based on the currently permitted maximum allowable operating rate of 123,700 lb virgin BLS/hr and 8,760 hr/yr.

References:
1. Currently permitted emission limit.
2. AP-42, Table 10.2-7.
3. Data is averages from NCASI Bulletin No. 646, Tables 16-18, for smelt dissolving tanks with scrubbers.
4. Data is averages from NCASI Bulletin No. 650, Tables 14A and 14B, for smelt dissolving tanks with scrubbers.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).

Table A-6. Maximum Emissions from the Woodyard at Stone Container, Panama City

SOURCE	Type of Operation (	M Moisture Content (%)	U Wind Speed (MPH)	Uncontrolled Emission Factor	Type of Control	Control Efficienc (%)	Controlled Emission Factor	Activity Factor	Maximum Annua PM Emissions (tons/yr)	PM10 Size Multiplier (c)	Maximum Annual PM10 Emissions (tons/yr)
ROUNDWOOD HANDLING											
Debarker	Debarking	--	--	0.024 lbs/ton (d)	Enclosure	80	0.00480 lbs/ton	1,946,934 TPY (e)	4.673	0.35	1.635
Chipper	Continuous Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	1,946,934 TPY (e)	0.125	0.35	0.044
Chip Surge Bin to Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
BARK HANDLING											
Debarker to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
Bark Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
No. 1 Bark Diverter to Emergency Bark Storage Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	0 TPY (f)	0.0000	0.35	0.00000
Emergency Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Unhogged Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Trucked Bark to Purchased Unhogged Bark Storage Pile	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Front End Loaded to Bark Hopper	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Wastewood Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	316,098 TPY (g)	0.0041	0.35	0.00142
No. 1 Bark Diverter to Disc Screen	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Hog	Hammermill	--	--	0.024 lbs/ton (d)	Enclosed	80	0.00480 lbs/ton	471,853 TPY (h)	1.132	1.0	1.132
Bark Hog to Hogged Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Conveyor to Hogged Bark Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Pile	Wind Erosion	--	--	--	None	0	--	--	0.0023	1.0	0.0023
Bark Bin Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone	0	2.0 lb/hr	8,760 hr/yr	8.76	0.35	3.07
Bark Bin Cyclone to Small Bark Bin and Screw	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Small Bark Bin and Screw to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Conveyor to No. 2 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Storage Pile Maintenance	Vehicular Traffic	--	--	0.74 lbs/VMT	None	0	0.74 lbs/VMT	21,900 VMT (i)	8.103	0.35	2.836
PURCHASED CHIP HANDLING											
Truck Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Railcar Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Truck Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
Railcar Unloading Conveyor to Tower No. 1 Chip Diverte	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
MANUFACTURED AND PURCHASED CHIP PROCESSING											
Tower No. 1 Diverter to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Reclaim Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaim Coveyor to Radial Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Radial Conveyor to Chip Reclaimer Storage Pile (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaimer Storage Pile (2)	Wind Erosion	--	--	--	None	0	--	--	0.048	1.0	0.048
Chip Reclaimer Storage Pile to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Screw (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screw to Primary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screens	Screening										
Softwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone, Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Hardwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Primary Screen to Secondary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Secondary Screen to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,321,045 TPY (l)	0.030	0.35	0.010
Screen Building Rejects Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.066
Screen Building Rejects Cyclone to Chip Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	994,734 TPY (m)	0.026	0.35	0.009
Fines Blowline Emergency Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.00017	1.0	0.00017
Fines Blowline Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.07
Fines Blowline Cyclone to Wastewood/Sludge Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	9,947 TPY (n)	0.000	0.35	0.000
Chip Conveyor to No. 5 Transfer Tower (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,305,772 TPY (o)	0.043	0.35	0.015
TOTAL									44.61		16.39

Notes:

(a) Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (US EPA, 1995) Section 13.2.4-3(1). E = 0.0032 x (U/5) ^ 1.3 / (M/2) ^ 1.4 lb/ton

(b) Wind Erosion Emissions based on AP-42 (US EPA, 1995) Section 13.2.5. Refer to Attachment A for derivation.

(c) PM10 Size Multiplier is based on particles < 10 micrometers.

(d) Debarker emissions are based on Table 28 of NCASI Technical Bulletin No. 424 (March 1984), Fugitive Dust Emission Factors and Control Methods Important to Forest Products Industry Manufacturing Operations.

(e) Roundwood throughput is based on 466,800 cords/yr (softwood) @ 2.7 tons/cord and 178,800 cords/yr (hardwood) @ 2.85 tons/cord, plus 10 percent.

(f) Bark throughput is based on 8 percent of roundwood.

(g) Based on purchased bark.

(h) Total bark throughput is sum of manufactured bark and purchased bark.

(i) Vehicle miles traveled (VMT) was calculated assuming front end loader operating 12 hrs/day, 365 days/yr in the woodyard.

(j) Purchased chip throughput is based on 142,800 cords/yr (softwood) and 411,600 cords/yr (hardwood) @ 2.5 tons/cord, plus 10 percent.

(k) Total chip throughput is based on 92 percent of roundwood throughput plus purchased chip throughput.

(l) Based on 70% of total chip throughput.

(m) Based on 30% of total chip throughput.

(n) Fines separated from wood chip stream.

(o) Total chips minus fines.

Table A-7. Maximum Emissions from Lime Kiln (No. 6 Fuel Oil Fired) at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	29.83 lb/hr	1	8,760 hr/yr	29.83	130.7
Particulate (PM10)	98.3 % of PM	2	--	29.32	128.4
Sulfur dioxide	0.23 lb/ton CaO	4	20.4 ton CaO/hr	4.69	20.6
Nitrogen oxides	2.19 lb/ton CaO	4	20.4 ton CaO/hr	44.68	195.7
Carbon monoxide	0.22 lb/ton CaO	6	20.4 ton CaO/hr	4.49	19.7
VOC	0.24 lb C/ton CaO	4	20.4 ton CaO/hr	4.81	21.1
Sulfuric acid mist	0.014 lb/ton CaO	5	20.4 ton CaO/hr	0.29	1.3
Total reduced sulfur	20 ppmvd (b)	1	68,000 dscfm	7.27	31.9
Lead	3.8E-03 lb/ton CaO	3	20.4 ton CaO/hr	7.8E-02	3.4E-01
Mercury	9.1E-06 lb/ton CaO	3	20.4 ton CaO/hr	1.9E-04	8.1E-04
Beryllium	1.7E-05 lb/ton CaO	3	20.4 ton CaO/hr	3.5E-04	1.5E-03
Fluorides	--		--	--	--

Footnotes
(a) Based on currently permitted operating limit of 18.35 tons CaO/hr plus 10% impurities (20.4 tons/hr), 8,760 hr/yr.
(b) TRS Emission Factor as H2S corrected to 10% O2 as a 12-hour average.

References
1. Currently permitted emission limit.
2. Based on AP-42 Section 10.2 and Tables 10.2-1 and 10.2-4.
3. Based on NCASI Technical Bulletin No. 650, Table 13C.
4. Based on NCASI Technical Bulletin No. 646, Tables 12-14.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on NCASI Technical Bulletin No. 416, Table 6.

Table A-8. Maximum Emissions from Lime Slaker at Stone Container, Panama City

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	4.0 lb/hr	1	8,760 hr/yr	4.0	17.5
Particulate (PM10)	100 % of PM	3	--	4.0	17.5
VOC	4.4E-02 lb/ton CaO	2	28.1 ton CaO/hr (b	1.24	5.4
Total reduced sulfur	ND	2	--	--	--

ND = Non-detectable

Footnotes

(a) Based on ratio of 1997 CaO production and pulp production to proposed pulp production plus 10% (purchased lime) and 8,760 hr/yr.

(b) 10% impurities included

References

1. Proposed emission limit.
2. Based on NCASI Technical Bulletin No. 701,page 237 and Table 17.
3. No data found, assume 100%.

Table A-9. Estimated CO Emissions From the Modified Bleach Plant,
Stone Container Corporation, Panama City, Florida

Source and Pulp Type	Emission Factor (a) (lb/ADTBP)	Production Rate		Maximum Emission Rate (d)	
		Maximum (b) (ADTBP/day)	Annual (c) (ADTBP/yr)	lb/hr	TPY
Bleaching Stages					
Hardwood	0.57	1,115.8	396,109	26.50	112.89
Softwood	1.02	725.3	257,482	30.82	131.32

Notes:
ADTUBP = Air Dried Tons of Unbleached Bleached Pulp
ODTUBP = Oven Dried Tons of Unbleached Bleached Pulp
ADTBP = Air Dried Tons of Bleached Pulp
ODTBP = Oven Dried Tons of Bleached Pulp
lb/hr = pounds per hour
TPY = tons per year
Footnotes:
(a) Emission factors based on data in NCASI Technical Bulletin No. 760: Carbon Monoxide Emissions From Oxygen Delignification and Chlorine Dioxide Bleaching of Wood Pulp.
Bleaching Stages:
Hardwood: Bleach plant design is 35.5 lb ClO2/ODTUBP / 0.94 = 37.8 lb ClO2/ODTBP = 1.9%
Using NCASI equation for hardwood (Figure 11): CO = (-0.03 x %ClO2) + 0.69 lb/ODTBP
CO = 0.63 lb/ODTBP x 0.90 = 0.57 lb/ADTBP
Softwood: Bleach plant design is 69 lb ClO2/ODTUBP / 0.94 = 75.8 lb ClO2/ODTBP = 3.8%
Using NCASI equation for softwood (Figure 8): CO = (0.18 x %ClO2) + 0.45 lb/ODTBP
CO = 1.13 lb/ODTBP x 0.90 = 1.02 lb/ADTBP

(b) Production rates based on following:
Hardwood - 1,187 ADTUBP/day = 1,115.8 ADTBP/day (bleached pulp = 94% of unbleached pulp)
Softwood - 797 ADTUBP/day = 725.3 ADTBP/day (bleached pulp = 91% of unbleached pulp)

(c) 355 day/yr operation.

(d) Bleach plant operates on hardwood or softwood, but not both at the same time.

APPENDIX B

BASELINE EMISSION AND STACK PARAMETERS

Stack Parameters for 1974 Baseline Sources, Stone Container Panama City Mill

Source	Stack Height (ft)	Stack Diameter (ft)	Stack Temp. (°F)	Flow Rate (acfm)	Stack Velocity (ft/s)	Basis
No. 4 Power Boiler	296	12.0	400	75,800	24.83	1/13/78 Stack Test
No. 5 Power Boiler	Common Stack with No. 4 PB		400	92,700	24.83	5/25/78 Stack Test
No. 6 Power Boiler	241	8.0	430	107,500	35.6	1/23/75 Application; 1980 Stack Test
No. 3 Bark Boiler w/ mech. Collectors	150	8.5	440	164,000	48.2	1/21/71 Application
No. 4 Bark Boiler w/ mech. Collectors	150	7.34	470	154,000	60.6	1/21/71 Application
No. 1 Recovery Boiler (2 stacks each)	233	6.46	310	172,900	88.0	12/8/77 Stack Test
No. 2 Recovery Boiler (2 stacks each)	233	6.46	320	159,800	81.3	12/29/77 Stack Test
No. 1 Smelt Dissolving Tank	233	6.0	150	28,700	16.9	12/5/78 Stack Test
No. 2 Smelt Dissolving Tank	233	6.0	140	29,500	17.4	12/30/77 Stack Test
Lime Kiln	61	6.66	160	70,260	33.6	12/11/75 & 1/12/78 Stack Tests
Lime Slaker	56	3.0	155	19,200	44.1	7/31/78 Stack Test

Stone Container- Panama City
PSD 1974 Baseline Emissions

		input	Short-Term Emissions SO2 (lb/hr)	PM (lb/hr)	PM10 (lb/hr)			Input	Annual Average Emissions SO2 (TPY)	PM (TPY)	PM10 (TPY)
BB3	No 6 oil (gal/hr)	910	342.9	23.0		AP-42, 2.4% S; PM10 is 95% of PM	No 6 oil (gal)	6,979,873	1,315.0	88.2	83.8
	Bark (ton/hr)	12.67	1.0	177.4	140.1	AP-42: PM10 is 79% of PM	Bark (ton)	110,960	20.9	776.7	613.6
	Total orMax		343.8	177.4	140.1		Total		1,335.9	864.9	697.4
BB4	No 6 oil (gal/hr)	1,449	546.0	36.6		AP-42, 2.4% S	No 6 oil (gal)	11,114,105	2,093.9	140.5	133.4
	Bark (ton/hr)	12.67	1.0	177.4	140.1	AP-42: 79% of PM	Bark (ton)	110,960	20.9	776.7	613.6
	Natural Gas (10^6 scf/hr)	1.38	0.8	10.5		AP-42	Natural Gas (10^6 scf)	165.936	0.05	0.6	0.6
	Total or Max		547.8	177.4	140.1		Total		2,114.9	917.8	747.7
	* Both Bark Boilers were equipped with mechanical cyclones and had fly ash reinjection in 1974.										
PB4	No 6 oil (gal/hr)	545.3	205.5	13.8	11.9	AP-42, 2.4% S; PM10 is 86% of PM	No 6 oil (gal)*	4,107,544	773.9	51.9	44.6
PB5	No 6 oil (gal/hr)	562.7	212.0	14.2	12.2	AP-42, 2.4% S; PM10 is 86% of PM	No 6 oil (gal)*	4,107,544	773.9	51.9	44.6
PB6	No 6 oil (gal/hr)	1,390.7	524.0	35.2	30.2	AP-42, 2.4% S; PM10 is 86% of PM	No 6 oil (gal)*	10,268,860	1,934.7	129.8	111.6
							* Note: Total BBLS fuel oil = 440,094. (total bbls)*(42 gal/bbls) Each boiler ratio is 1:1:2.5 bassed on heat input.				
RB1	MMBtu/hr	675	121.5			NCASI: 0.18 lb/MMBtu	lbs BLS @ 6,000 Btu/lb	838,500,000	452.8		
	Actuals from 12/08/77 test			59.12	45.88	AP-42: PM10 is 77.6 of PM	Actuals from 12/08/77 test; 350 day/yr			248.3	192.7
RB2	MMBtu/hr	675	121.5			NCASI: 0.18 lb/MMBtu	lbs BLS @ 6,000 Btu/lb	838,500,000	452.8		
	Actuals from 8/28/73 test			67.4	52.30	AP-42: PM10 is 77.6 of PM	Actuals from 8/28/73 test; 350 day/yr			283.1	219.7
SD1	BLS (ton ADUP/hr)	37.5	7.5			AP-42: 0.2 lb/ton ADUP	BLS (ton ADUP)	263,797	26.4		
	Actuals from 12/5/78 test			4.41	3.95	AP-42: PM10 is 89.5% of PM	Actuals from 12/5/78 test; 350 day/yr			18.5	16.6
SD2	BLS (ton ADUP/hr)	37.5	7.5			AP-42: 0.2 lb/ton ADUP	BLS (ton ADUP)	263,797	26.4		
	Actuals from 12/30/77 test			22.05	19.73	AP-42: PM10 is 89.5% of PM	Actuals from 12/30/77 test; 350 day/yr			92.6	82.9
Slaker	Actuals from 10/20/72 application			5.0	5.0	PM10 assumed equal to PM	Actuals from 10/20/72 application; 350 day/yr			21.0	21.0
Kiln	Actuals from 1/8/73 application			24.5	24.08	AP-42: PM10 is 98.3% of PM	Actuals from 1/8/73 application; 350 day/yr			102.9	101.2
	AP-42: 0.028 lb/MMBtu		3.2				AP-42: 0.028 lb/MMBtu		12.0		

Table B-1. 1987-1988 Baseline Emissions, SCC Panama City

Pollutant	No . 1 Smelt Dissolving Tank (TPY)	No . 2 Smelt Dissolving Tank (TPY)	No. 1 Recovery Boiler (TPY)	No. 2 Recovery Boiler (TPY)	No. 3 Bark Boiler (TPY)	No. 4 Bark Boiler (TPY)	No. 5 Power Boiler (TPY)	Lime Kiln (TPY)	Lime Slaker (TPY)	TOTAL (TPY)
Particulate (TSP)	72.13	82.83	61.27	145.00	172.70	133.19	41.41	109.38	35.10	853.02
Particulate (PM10)	64.55	74.14	47.55	112.52	150.25	115.87	41.41	107.52	35.10	748.92
Sulfur dioxide	3.40	3.79	579.65	642.97	861.64	959.75	221.67	14.39	--	3,287.27
Nitrogen oxides	7.02	7.82	276.90	287.38	228.33	484.28	97.50	137.00	--	1,526.22
Carbon monoxide	--	--	2,258.66	2,259.56	318.93	457.22	22.13	13.76	--	5,330.26
Volatile organic comp	13.19	14.68	144.05	145.26	3.84	6.53	1.36	14.76	2.81	346.49
Sulfuric acid mist	0.21	0.23	17.39	19.66	31.01	46.01	6.91	0.88	--	122.31
Total Reduced Sulfur	3.49	7.11	16.37	30.80	--	--	--	0.68	--	58.44
Lead	3.6E-03	4.0E-03	1.9E-02	1.9E-02	1.6E-02	3.1E-02	8.8E-04	0.24	--	3.3E-01
Mercury	3.8E-05	4.3E-05	1.4E-02	1.4E-02	5.8E-04	3.4E-03	1.7E-04	5.7E-04	--	3.2E-02
Beryllium	3.0E-05	3.3E-05	4.9E-04	5.0E-04	1.1E-04	8.1E-04	2.1E-05	1.1E-03	--	3.1E-03
Fluorides	--	--	2.1E-02	2.8E-02	1.5E-01	4.7E-02	2.2E-02	--	--	2.7E-01

Table B-2. 1987-1988 Baseline Emissions from No. 1 Recovery Boiler at Stone Container Corporation, Panama City

Regulated Pollutant	BLS				No. 6 Fuel Oil				Tall Oil Pitch				Gas				TOTAL ANNUAL EMISSIONS
	Emission Factor	Ref.	Activity Factor (a)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (d)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (c)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (e)	Annual Emissions (TPY)	
Particulate (PM)	15.0 lb/hr	1	8,153 hr/yr	61.3	--		–	–	–		–	–	–		--	–	61.3
Particulate (PM10)	77.6 % of PM	6	--	47.5	--		--	--	–		--	--	--		--	--	47.5
Sulfur dioxide	0.18 lb/MMBtu	3	4.96E+06 MMBtu/yr	446.4	157 S (b)	8	820.01 Mgal/yr	133.2	--		–	--	0.6 lb/MMscf	9	19.120 MMscf/yr	0.0037	579.7
Nitrogen oxides	0.10 lb/MMBtu	3	4.96E+06 MMBtu/yr	248.0	47 lb/Mgal	8	820.01 Mgal/yr	19.3	0.31 lb/MMBt	10	44,402 MMBtu/yr	7.0	280 lb/MMscf	9	19.120 MMscf/yr	2.68	276.9
Carbon monoxide	5.3 lb/1,000 lb BLS	7	850,968 1,000 lb BLS/yr	2,255	5 lb/Mgal	8	820.01 Mgal/yr	2.05	0.033 lb/MMBt	10	44,402 MMBtu/yr	0.74	84 lb/MMscf	9	19.120 MMscf/yr	0.80	2258.7
VOC	0.058 lb C/MMBtu	3	4.96E+06 MMBtu/yr	143.8	0.28 lb/Mgal	8	820.01 Mgal/yr	0.11	0.0019 lb/MMBt	10	44,402 MMBtu/yr	0.04	5.5 lb/MMscf	9	19.120 MMscf/yr	0.05	144.0
Sulfuric acid mist	0.005 lb/MMBtu	5	4.96E+06 MMBtu/yr	12.6	5.7 S as SO3 (b)	8	820.01 Mgal/yr	4.84	--		–	–	0.037 lb/MMscf	5	19.120 MMscf/yr	0.00023	17.4
Total reduced sulfur	6.3 ppmvd (f)	1	118,974 dscfm	16.4	--		--	–			–	--	--		--	--	16.4
Lead	7.2E-06 lb/MMBtu	2	4.96E+06 MMBtu/yr	1.8E-02	1.5E-03 lb/Mgal	8	820.01 Mgal/yr	6.2E-04	1.0E-05 lb/MMBt	10	44,402 MMBtu/yr	2.2E-04	1.0E-08 lb/MMscf	9	19.120 MMscf/yr	9.56E-11	1.9E-02
Mercury	5.5E-06 lb/MMBtu	2	4.96E+06 MMBtu/yr	1.4E-02	1.1E-04 lb/Mgal	8	820.01 Mgal/yr	4.6E-05	7.5E-07 lb/MMBt	10	44,402 MMBtu/yr	1.7E-05	2.6E-04 lb/MMscf	9	19.120 MMscf/yr	2.49E-06	1.4E-02
Beryllium	1.9E-07 lb/MMBtu	2	4.96E+06 MMBtu/yr	4.7E-04	2.8E-05 lb/Mgal	8	820.01 Mgal/yr	1.1E-05	1.9E-07 lb/MMBt	10	44,402 MMBtu/yr	4.1E-06	1.20E-05 lb/MMscf	9	19.120 MMscf/yr	1.15E-07	4.9E-04
Fluorides	ND	4	–	–	3.7E-02 lb/Mgal	8	820.01 Mgal/yr	1.5E-02	2.5E-04 lb/MMBt	10	44,402 MMBtu/yr	5.5E-03	--		--	–	2.1E-02

ND = Non-detectable
ton = 2000 lb.
note:
(a) Heat input rate based on 1987-1988 BLS burned and 5,830 Btu/lb BLS
1987: 428,768 tons burned
1988: 422,200 tons burned
(b) Average fuel oil sulfur content = 2.07%
(c) Heat input rate based on 1987-1988 tall oil pitch (TOP) burned and 35.1 MMBtu/ton TOP
1987: 2,530 tons burned
1988: 0.0 tons burned
(d) Based on average 1987-1988 fuel oil usage and 150,000 Btu/gal fuel oil
1987: 1099.48 Mgal/yr @ 2.04% S
1988: 540.54 Mgal/yr @ 2.13% S
(e) Based on average 1987-1988 natural gas usage and 1,000 Btu/scf natural gas.
1987: 38.23 MMscf/yr
1988: 0.0 MMscf/yr
(f) Corrected to 8% O2

References:
1. Based on the average of the 1987 and 1988 compliance tests and operating data:
1987 = 12.32 lb PM/hr for 8,435 hr/yr; 6.31 ppmvd at 123,765 dscfm
1988 = 17.94 lb PM/hr for 7,871 hr/yr; 6.31 ppmvd at 113,839 dscfm
2. Emission factor based on NCASI Bulletin No. 650, Table 11D, direct contact evaporator, average factor used.
3. Emission factor based on NCASI Bulletin No. 646, page 16 and Tables 10 and 11, direct contact evaporator with ESP, average factor used.
4. From "Application of Combustion Modifications to Industrial Combustion Equipment" EPA-600/7-79-015a.
one test from recovery boiler.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on AP-42 Table 10.2-2, and Figure 10.2-2 for Kraft pulping sources.
7. Based on NCASI Bulletin No. 416, Table 5.
8. Emission Factors based on AP-42 Section 1.3 Table 1.3-1, 1.3-3, 1.3-4 and 1.3-11 for metals (assuming uncontrolled).
9. Emission Factors based on AP-42 Section 1.4 Table 1.4-1, 1.4-2, and 1.4-4.
10. Similar to No. 6 Fuel Oil, No. 6 Fuel Oil emission factors converted to lb/MMBtu.

Table B-3. 1987-1988 Baseline Emissions from No. 2 Recovery Boiler at Stone Container Corporation, Panama City

Regulated Pollutant	BLS					No. 6 Fuel Oil					Tall Oil Pitch					Gas					TOTAL ANNUAL EMISSIONS
	Emission Factor		Ref.	Activity Factor (a)	Annual Emissions (TPY)	Emission Factor		Ref.	Activity Factors (d)	Annual Emissions (TPY)	Emission Factor		Ref.	Activity Factors (c)	Annual Emissions (TPY)	Emission Factor		Ref.	Activit y Factors (e)	Annual Emissions (TPY)	
Particulate (PM)	34.4	lb/hr	1	8,423 hr/yr	145.0	–		–	–	–	–		–	–	–	–		–	–	–	145.0
Particulate (PM10)	77.6	% of PM	6	–	112.5	–		–	–	–	–		–	–	–	–		–	–	–	112.5
Sulfur dioxide	0.18	lb/MMBtu	3	5.00E+06 MMBtu/yr	450.0	157	S (b)	8	1,187.53 Mgal/yr	193.0	–		–	–	–	0.6	lb/MMscf	9	19.120 MMscf/y	0.0037	643.0
Nitrogen oxides	0.10	lb/MMBtu	3	5.00E+06 MMBtu/yr	250.0	47	lb/Mgal	8	1,187.53 Mgal/yr	27.9	0.31	lb/MMBt	10	43,366 MMBtu/y	6.8	280	lb/MMscf	9	19.120 MMscf/y	2.68	287.4
Carbon monoxide	5.3	lb/1,000 lb BLS	7	850,968 1,000 lb BLS/yr	2,255	5	lb/Mgal	8	1,187.53 Mgal/yr	2.97	0.033	lb/MMBt	10	43,366 MMBtu/y	0.72	84	lb/MMscf	9	19.120 MMscf/y	0.80	2259.6
VOC	0.058	lb C/MMBtu	3	5.00E+06 MMBtu/yr	145.0	0.28	lb/Mgal	8	1,187.53 Mgal/yr	0.17	0.0019	lb/MMBt	10	43,366 MMBtu/y	0.04	5.5	lb/MMscf	9	19.120 MMscf/y	0.05	145.3
Sulfuric acid mist	0.005	lb/MMBtu	5	5.00E+06 MMBtu/yr	12.7	5.7	S as SO3 (b)	8	1,187.53 Mgal/yr	7.01	–			–	–	0.037	lb/MMscf	5	19.120 MMscf/y	0.00023	19.7
Total reduced sulfu	11.2	ppmvd (f)	1	121,662 dscfm	30.8	–			–	–	–			–	–	–			–	–	30.8
Lead	7.2E-06	lb/MMBtu	2	5.00E+06 MMBtu/yr	1.8E-02	1.5E-03	lb/Mgal	8	1,187.53 Mgal/yr	9.0E-04	1.0E-05	lb/MMBt	10	43,366 MMBtu/y	2.2E-04	1.0E-08	lb/MMscf	9	19.120 MMscf/y	9.56E-11	1.9E-02
Mercury	5.5E-06	lb/MMBtu	2	5.00E+06 MMBtu/yr	1.4E-02	1.1E-04	lb/Mgal	8	1,187.53 Mgal/yr	6.7E-05	7.5E-07	lb/MMBt	10	43,366 MMBtu/y	1.6E-05	2.6E-04	lb/MMscf	9	19.120 MMscf/y	2.49E-06	1.4E-02
Beryllium	1.9E-07	lb/MMBtu	2	5.00E+06 MMBtu/yr	4.8E-04	2.8E-05	lb/Mgal	8	1,187.53 Mgal/yr	1.7E-05	1.9E-07	lb/MMBt	10	43,366 MMBtu/y	4.0E-06	1.20E-05	lb/MMscf	9	19.120 MMscf/y	1.15E-07	5.0E-04
Fluorides	ND		4	–	–	3.7E-02	lb/Mgal	8	1,187.53 Mgal/yr	2.2E-02	2.5E-04	lb/MMBt	10	43,366 MMBtu/y	5.4E-03	–			–	–	2.8E-02

ND = Non-detectable
ton = 2000 lb.
note:
(a) Heat input rate based on 1987-1988 BLS burned and 5,830 Btu/lb BLS
1987: 428,768 tons burned
1988: 428,315 tons burned
(b) Average fuel oil sulfur content = 2.07%
(c) Heat input rate based on 1987-1988 tall oil pitch (TOP) burned and 35.1 MMBtu/ton TOP
1987: 2,147 tons burned
1988: 0.0 tons burned
(d) Based on average 1987-1988 fuel oil usage and 150,000 Btu/gal fuel oil
1987: 1488.02 Mgal/yr @ 2.04% S
1988: 887.04 Mgal/yr @ 2.13% S
(e) Based on average 1987-1988 natural gas usage and 1,000 Btu/scf natural gas.
1987: 38.23 MMscf/yr
1988: 0.0 MMscf/yr

References:
1. Based on the average of the 1987 and 1988 compliance tests and operating data:
1987 = 25.30 lb PM/hr for 8,406 hr/yr; 11.24 ppmvd at 123,620 dscfm
1988 = 43.53 lb PM/hr for 8,440 hr/yr; 11.24 ppmvd at 119,711 dscfm
2. Emission factor based on NCASI Bulletin No. 650, Table 11D, direct contact evaporator, average factor used.
3. Emission factor based on NCASI Bulletin No. 646, page 16 and Tables 10 and 11, direct contact evaporator with ESP, average factor used.
4. From "Application of Combustion Modifications to Industrial Combustion Equipment" EPA-600/7-79-015a.
one test from recovery boiler.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on AP-42 Table 10.2-2, and Figure 10.2-2 for Kraft pulping sources.
7. Based on NCASI Bulletin No. 416, Table 5.
8. Emission Factors based on AP-42 Section 1.3 Table 1.3-1, 1.3-3, 1.3-4 and 1.3-11 for metals (assuming uncontrolled).
9. Emission Factors based on AP-42 Section 1.4 Table 1.4-1, 1.4-2, and 1.4-4.
10. Similar to No. 6 Fuel Oil, No. 6 Fuel Oil emission factors converted to lb/MMBtu.

Table B-4. 1987-1988 Baseline Emissions from Power Boiler No. 5 at Stone Container, Panama City.

Regulated Pollutant	No. 6 Oil				Gas				Turpentine Heads				Total Annual Emissions (TPY)
	Emission Factor	Ref.	ctivity Factors (a	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a)	Annual Emissions (TPY)	
Particulate (PM)	--		--	--	11.9 lb/hr	1	6960 hr/yr	41.4	--		--	--	41.4
Particulate (PM10)	--		--	--	100 % of PM	6	--	41.4	--		--	--	41.4
Sulfur dioxide	157 S (c)	2	1,164 Mgal/yr	190.1	0.6 lb/MMscf	6	433.714 MMscf/yr	0.1301	1.05 lb/MMBt	7	60,149 MMBtu/y	31.5	221.7
Nitrogen oxides	47 lb/Mgal	2	1,164 Mgal/yr	27.4	280 lb/MMscf	6	433.714 MMscf/yr	60.72	0.31 lb/MMBt	7	60,149 MMBtu/y	9.42	97.5
Carbon monoxide	5 lb/Mgal	2	1,164 Mgal/yr	2.91	84 lb/MMscf	6	433.714 MMscf/yr	18.22	0.033 lb/MMBt	7	60,149 MMBtu/y	1.00	22.1
VOC	0.28 lb/Mgal	2	1,164 Mgal/yr	0.16	5.5 lb/MMscf	6	433.714 MMscf/yr	1.19	0.0019 lb/MMBt	7	60,149 MMBtu/y	0.056	1.4
Sulfuric acid mist	5.7 S as SO3 (c)(d)	2	1,164 Mgal/yr	6.90	0.037 lb/MMscf	4	433.714 MMscf/yr	0.0080	--		--	--	6.9
Total reduced sulfu	--		--	--	--		--	--	--		--	--	--
Lead	1.5E-03 lb/Mgal	2	1,164 Mgal/yr	8.8E-04	1.0E-08 lb/MMscf	6	433.714 MMscf/yr	2.17E-09	6.7E-11 lb/MMBt	7	60,149 MMBtu/y	2.0E-09	8.8E-04
Mercury	1.1E-04 lb/Mgal	2	1,164 Mgal/yr	6.6E-05	2.6E-04 lb/MMscf	6	433.714 MMscf/yr	5.64E-05	1.7E-06 lb/MMBt	7	60,149 MMBtu/y	5.2E-05	1.7E-04
Beryllium	2.8E-05 lb/Mgal	2	1,164 Mgal/yr	1.6E-05	1.20E-05 lb/MMscf	6	433.714 MMscf/yr	2.60E-06	8.0E-08 lb/MMBt	7	60,149 MMBtu/y	2.4E-06	2.1E-05
Fluorides	3.7E-02 lb/Mgal	2	1,164 Mgal/yr	2.2E-02	--		--	--	--		--	--	2.2E-02

Footnotes

(a) Based on 1987 and 1988 average fuel usage rates.

1987: 2,022.38 Magl No. 6 Fuel Oil/yr @ 2.04% S; 489.088 MMscf natural gas/yr; and 3,427.28 tons turpentine heads/yr @35.1 MMBtu/ton

1988: 1,505.7 Magl No. 6 Fuel Oil/yr @ 2.13% S; 378.34 MMscf natural gas/yr; and 0.0 tons turpentine heads/yr @35.1 MMBtu/ton

(b) 50% H2O and heat content of 7.9 MMBtu/ton (wet).

(c) S = 2.08%

(d) Adjusted to account for the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).

References

1. Based on the average of the 1987 and 1988 compliance tests and operating data:
   1987 = 11.2 lb PM/hr and 180.4 lb SO2/hr for 8,172 hr/yr
   1988 = 12.92 lb PM/hr and 213.3 lb SO2/hr for 5,747 hr/yr
2. Emission Factors based on AP-42 Section 1.3 Table 1.3-1, 1.3-3, 1.3-4 and 1.3-11 for metals (assuming uncontrolled).
3. Emission Factor Based on NCASI TB 646 for an average Spreader Stoker Boilers with Scrubbers Tables1, 2, and 3.
4. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and sulfur trioxide molecular weights (98/80).
5. Emission Factors based on AP-42 Section 1.6 Table 1.6-1, 1.6-2, 1.6-3, 1.6-5 and 1.6-6 (2/99).
6. Emission Factors based on AP-42 Section 1.4 Table 1.4-1, 1.4-2, and 1.4-4.
7. Similar to No. 6 Fuel Oil, No. 6 Fuel Oil emission factors converted to lb/MMBtu.

Table B-5. 1987-1988 Baseline Emissions from No. 3 Bark Boiler at Stone Container, Panama City.

Regulated Pollutant	No. 6 Oil				Wood/Bark				Gas				Turpentine Residue				Total Annual Emissions (TPY)
	Emission Factor	Ref.	ctivity Factors (a	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a)(b	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a)	Annual Emissions (TPY)	
Particulate (PM)	–		–	–	40.9 lb/hr	1	8,441 hr/yr	172.7	–		–	–	–		–	–	172.7
Particulate (PM10)	–		–	–	87 % of PM	5	–	150.3	–		–	–	–		–	–	150.3
Sulfur dioxide	157 S (c)	2	7,992 Mgal/yr	852.3	0.075 lb/TWWF	5	43,692 TPY	1.1	0.6 lb/MMscf	6	37.624 MMscf/yr	0.0073	1.05 lb/MMBt	7	15,830 MMBtu/y	8.3	861.6
Nitrogen oxides	47 lb/Mgal	2	7,992 Mgal/yr	187.8	1.5 lb/TWWF	5	43,692 TPY	32.8	280 lb/MMscf	6	37.624 MMscf/yr	5.27	0.31 lb/MMBt	7	15,830 MMBtu/y	2.48	228.3
Carbon monoxide	5 lb/Mgal	2	7,992 Mgal/yr	19.98	13.6 lb/TWWF	5	43,692 TPY	297	84 lb/MMscf	6	37.624 MMscf/yr	1.58	0.033 lb/MMBt	7	15,830 MMBtu/y	0.26	318.9
VOC	0.28 lb/Mgal	2	7,992 Mgal/yr	1.12	0.12 lb/TWWF	3	43,692 TPY	2.6	5.5 lb/MMscf	6	37.624 MMscf/yr	0.10	0.0019 lb/MMBt	7	15,830 MMBtu/y	0.015	3.8
Sulfuric acid mist	5.7 S as SO3 (c)(d)	2	7,992 Mgal/yr	30.94	0.005 lb/TWWF	4	43,692 TPY	0.1	0.037 lb/MMscf	4	37.624 MMscf/yr	0.00045	–		–	–	31.0
Total reduced sulfu	–		–	–	–		–	–	–		–	–	–		–	–	–
Lead	1.5E-03 lb/Mgal	2	7,992 Mgal/yr	6.0E-03	4.5E-04 lb/TWWF	5	43,692 TPY	9.7E-03	1.0E-08 lb/MMscf	6	37.624 MMscf/yr	1.88E-10	6.7E-11 lb/MMBt	7	15,830 MMBtu/y	5.3E-10	1.6E-02
Mercury	1.1E-04 lb/Mgal	2	7,992 Mgal/yr	4.5E-04	5.2E-06 lb/TWWF	5	43,692 TPY	1.1E-04	2.6E-04 lb/MMscf	6	37.624 MMscf/yr	4.89E-06	1.7E-06 lb/MMBt	7	15,830 MMBtu/y	1.4E-05	5.8E-04
Beryllium	2.8E-05 lb/Mgal	2	7,992 Mgal/yr	1.1E-04	–		–	–	1.20E-05 lb/MMscf	6	37.624 MMscf/yr	2.26E-07	8.0E-08 lb/MMBt	7	15,830 MMBtu/y	6.3E-07	1.1E-04
Fluorides	3.7E-02 lb/Mgal	2	7,992 Mgal/yr	1.5E-01	–		–	–	–		–	–	–		–	–	1.5E-01

TWWF - ton of wet wood residue fuel

Footnotes

(a) Based on 1987 and 1988 average fuel usage rates.

1987: 7,498.26 Magl No. 6 Fuel Oil/yr @ 2.04% S; 0.0 tons Bark/yr; 75.248 MMscf natural gas/yr; and 0.0 tons turpentine residue/yr @ 35.1 MMBtu/ton

1988: 8,486.02 Magl No. 6 Fuel Oil/yr @ 2.13% S; 87,383 tons Bark/yr; 0.0 MMscf natural gas/yr; and 902 tons turpentine residue/yr @ 35.1 MMBtu/ton

(b) 50% H2O and heat content of 7.9 MMBtu/ton (wet).

(c) S = 2.09% (assume 35% removal in wet scrubber).

(d) Adjusted to account for the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).

References

1. Based on the average of the 1987 and 1988 compliance tests and operating data:
   1987 = 34.84 lb PM/hr and 180.4 lb SO2/hr for 8,443 hr/yr
   1988 = 47.00 lb PM/hr and 213.3 lb SO2/hr for 8,438 hr/yr
2. Emission Factors based on AP-42 Section 1.3 Table 1.3-1, 1.3-3, 1.3-4 and 1.3-11 for metals (assuming uncontrolled).
3. Emission Factor Based on NCASI TB 646 for an average Spreader Stoker Boilers with Scrubbers Tables1, 2, and 3.
4. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and sulfur trioxide molecular weights (98/80) (Assuming 35 % removal by scrubber).
5. Emission Factors based on AP-42 Section 1.6 Table 1.6-1, 1.6-2, 1.6-3, 1.6-5 and 1.6-6 (2/99).
6. Emission Factors based on AP-42 Section 1.4 Table 1.4-1, 1.4-2, and 1.4-4.
7. Similar to No. 6 Fuel Oil, No. 6 Fuel Oil emission factors converted to lb/MMBtu.

Table B-6. 1987-1988 Baseline Emissions from No. 4 Bark Boiler at Stone Container, Panama City.

Regulated Pollutant	No. 6 Oil				Wood/Bark				Gas				Coal				Total Annual Emissions (TPY)
	Emission Factor	Ref.	Activity Factors (a	Annual Emissions (TPY)	Emission Factor	Ref.	ctivity Factors (a)(b	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a)	Annual Emissions (TPY)	
Particulate (PM)	--		--	--	31.55 lb/hr (d)	1	8,443 hr/yr	133.19	--		--	--	--		--	--	133.2
Particulate (PM10)	--		--	--	87 % of PM	5	--	115.87	--		--	--	--		--	--	115.9
Sulfur dioxide	157 S (d)	2	2,544 Mgal/yr	266.1	0.075 lb/TWW	5	63,222 TPY	1.5	0.6 lb/MMscf	6	59.940 MMscf/yr	0.01	38 S (c)	7	73,737 tons/yr	692.1	959.8
Nitrogen oxides	47 lb/Mgal	2	2,544 Mgal/yr	59.78	1.5 lb/TWW	5	63,222 TPY	47.4	280 lb/MMscf	6	59.940 MMscf/yr	8.39	10 lb/ton	7	73,737 tons/yr	368.7	484.3
Carbon monoxide	5 lb/Mgal	2	2,544 Mgal/yr	6.36	13.6 lb/TWW	5	63,222 TPY	430	84 lb/MMscf	6	59.940 MMscf/yr	2.52	0.5 lb/ton	7	73,737 tons/yr	18.4	457.2
VOC	0.28 lb/Mgal	2	2,544 Mgal/yr	0.36	0.12 lb/TWW	3	63,222 TPY	3.8	5.5 lb/MMscf	6	59.940 MMscf/yr	0.16	0.06 lb/ton	3	73,737 tons/yr	2.2	6.5
Sulfuric acid mist	5.7 S	2	2,544 Mgal/yr	9.66	0.005 lb/TWW	4	63,222 TPY	0.1	0.03675 lb/MMscf	4	59.940 MMscf/yr	0.001	1.51 lb/ton	4	73,737 tons/yr	36.3	46.0
Total reduced sulfu	--		--	--	--	1	--	--	--		--	--	--		--	--	--
Lead	1.5E-03 lb/Mgal	2	2,544 Mgal/yr	1.9E-03	4.5E-04 lb/TWW	5	63,222 TPY (a)	1.4E-02	1.0E-08 lb/MMscf	6	59.940 MMscf/yr	3.00E-10	4.2E-04 lb/ton	7	73,737 tons/yr	1.5E-02	3.1E-02
Mercury	1.1E-04 lb/Mgal	2	2,544 Mgal/yr	1.4E-04	5.2E-06 lb/TWW	5	63,222 TPY (a)	1.6E-04	2.6E-04 lb/MMscf	6	59.940 MMscf/yr	7.79E-06	8.3E-05 lb/ton	7	73,737 tons/yr	3.1E-03	3.4E-03
Beryllium	2.8E-05 lb/Mgal	2	2,544 Mgal/yr	3.5E-05	--		--	--	1.20E-05 lb/MMscf	6	59.940 MMscf/yr	3.60E-07	2.1E-05 lb/ton	7	73,737 tons/yr	7.7E-04	8.1E-04
Fluorides	3.7E-02 lb/Mgal	2	2,544 Mgal/yr	4.7E-02	--		--	--	--		--	--	--		--	--	4.7E-02

TWWF - ton of wet wood residue fuel

Footnotes

(a) Based on 1987 and 1988 average fuel usage rates.
1987: 4,571.07 Magl No. 6 Fuel Oil/yr @ 2.04% S; 51,679 tons Bark/yr; 111.871 MMscf natural gas/yr; and 76,571 tons coal/yr @ 0.80% S
1988: 515.97 Magl No. 6 Fuel Oil/yr @ 2.13% S; 74,764 tons Bark/yr; 0.0 MMscf natural gas/yr; and 70,902 tons coal/yr @ 0.71% S

(b) 50% H2O and heat content of 7.9 MMBtu/ton (wet).

(c) Average 1996-1997 coal sulfur content = 0.76% (assume 35% removal in wet scrubber).

(d) S = 2.05% (assume 35% removal in wet scrubber).

References

1. Based on the average of the 1987 and 1988 compliance tests and operating data:
1987 = 36.98 lb PM/hr for 8,451 hr/yr
1988 = 26.1 lb PM/hr for 8,434 hr/yr
2. Emission Factors based on AP-42 Section 1.3 Table 1.3-1, 1.3-3, 1.3-4 and 1.3-11 for metals (assuming uncontrolled).
3. Emission Factor Based on NCASI TB 646 for an average Spreader Stoker Boilers with Scrubbers Tables1, 2, and 3.
4. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and sulfur trioxide molecular weights (98/80) (Assuming 35 % removal by scrubber).
5. Emission Factors based on AP-42 Section 1.6 Table 1.6-1, 1.6-2, 1.6-3, 1.6-5 and 1.6-6 (2/99).
6. Emission Factors based on AP-42 Section 1.4 Table 1.4-1, 1.4-2, and 1.4-4.
7. Emission Factors based on AP-42 Section 1.1 Tables 1.1-3 and 1.1-18 (35% SO2 removal by wet scrubber).

Table B-7. 1987-1988 Baseline Emissions from Lime Kiln (No. 6 Fuel Oil Fired) at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
Particulate (PM)	26.08 lb/hr	1	8,388 hr/yr	109.4
Particulate (PM10)	98.3 % of PM	2	--	107.5
Sulfur dioxide	0.23 lb/ton CaO	4	125,112 ton CaO/yr	14.4
Nitrogen oxides	2.19 lb/ton CaO	4	125,112 ton CaO/yr	137.0
Carbon monoxide	0.22 lb/ton CaO	6	125,112 ton CaO/yr	13.8
VOC	0.24 lb C/ton CaO	4	125,112 ton CaO/yr	14.8
Sulfuric acid mist	0.014 lb/ton CaO	5	125,112 ton CaO/yr	0.9
Total reduced sulfur	0.67 ppmvd (b)	1	45,000 dscfm	0.7
Lead	3.8E-03 lb/ton CaO	3	125,112 ton CaO/yr	2.4E-01
Mercury	9.1E-06 lb/ton CaO	3	125,112 ton CaO/yr	5.7E-04
Beryllium	1.7E-05 lb/ton CaO	3	125,112 ton CaO/yr	1.1E-03
Fluorides	--		--	--

Footnotes
(a) 1987-1988 average operating hours, CaO production and pulp production:
1987 = 115,571 tons CaO (10% impurities)
1988 = 134,652 tons CaO (10% Impurities)
(b) TRS Emission Factor as H2S corrected to 10% O2 as a 12-hour average.

References
1. Compliance testing and operating rates:
1987: 27.07 lb PM/hr, no data for TRS, and 8,328 hr/yr
1988: 25.11 lb PM/hr, 0.67 ppmvd TRS, and 8,448 hr/yr
2. Based on AP-42 Section 10.2 and Tables 10.2-1 and 10.2-4.
3. Based on NCASI Technical Bulletin No. 650, Table 13C.
4. Based on NCASI Technical Bulletin No. 646, Tables 12-14.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on NCASI Technical Bulletin No. 416, Table 6.

Table B-8. 1987-1988 Baseline Emissions from Lime Slaker at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
Particulate (PM)	8.370 lb/hr	1	8,388 hr/yr	35.1
Particulate (PM10)	100 % of PM	3	--	35.1
VOC	4.4E-02 lb /ton CaO	2	127,953 ton CaO/yr	2.8
Total reduced sulfur	ND	2	--	--

ND = Non-detectable

Footnotes

(a) 1987-1988 average operating hours and CaO recovery.
1987 = 115,571 tons CaO (10% impurities)
1988 = 140,335 tons CaO (10% impurities)

References

1. Compliance testing and operating hours:
1987: 5.93 lb PM/hr and 8,328 hr/yr
1988: 10.78 lb PM/hr and 8,448 hr/yr
2. Based on NCASI Technical Bulletin No. 701,page 237 and Table 17.
3. No data found, assume 100%.

Table B-9. 1987-1988 Baseline Emissions from No. 2 Smelt Dissolving Tank at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
Particulate (PM)	20.1 lb/hr	1	8,230 hr/yr	82.8
Particulate (PM10)	89.5 % of PM	2	--	74.1
Sulfur dioxide	0.016 lb/ton BLS	3	473,694 tons BLS/yr	3.79
Nitrogen oxides	0.033 lb/ton BLS	3	473,694 tons BLS/yr	7.82
Carbon monoxide	--		--	--
VOC	0.062 lb/ton BLS	3	473,694 tons BLS/yr	14.68
Sulfuric acid mist	5 % of SO2	5	--	0.23
Total reduced sulfur	0.0300 lb/ton BLS	1	473,694 tons BLS/yr	7.11
Lead	1.7E-05 lb/ton BLS	4	473,694 tons BLS/yr	4.0E-03
Mercury	1.8E-07 lb/ton BLS	4	473,694 tons BLS/yr	4.3E-05
Beryllium	1.4E-07 lb/ton BLS	4	473,694 tons BLS/yr	3.3E-05
Fluorides	--		--	--

ton = 2000 lb.
note:
(a) Average 1987-1988 BLS from No. 1 Recovery Boiler
1987: 428,768 tons burned
1988: 428,315 tons burned

References:
1. Based on the average of the 1987 and 1988 compliance tests and operating data:
1987 = 14.67 lb PM/hr and 0.0461 lbTRS/3000 lb BLS; for 8,406 hr/yr
1988 = 25.57 lb PM/hr and 0.0440 lbTRS/3000 lb BLS; for 8,440 hr/yr
2. AP-42, Table 10.2-7.
3. Data is averages from NCASI Bulletin No. 646, Tables 16-18, for smelt dissolving tanks with scrubbers.
4. Data is averages from NCASI Bulletin No. 650, Tables 14A and 14B, for smelt dissolving tanks with scrubbers.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).

Table B-10. 1987-1988 Baseline Emissions from No. 1 Smelt Dissolving Tank at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
Particulate (PM)	17.13 lb/hr	1	8,421 hr/yr	72.1
Particulate (PM10)	89.5 % of PM	2	--	64.6
Sulfur dioxide	0.016 lb/ton BLS	3	425,484 tons BLS/yr	3.40
Nitrogen oxides	0.033 lb/ton BLS	3	425,484 tons BLS/yr	7.02
Carbon monoxide	--		--	--
VOC	0.062 lb/ton BLS	3	425,484 tons BLS/yr	13.2
Sulfuric acid mist	5 % of SO2	5	--	0.21
Total reduced sulfur	0.0164 lb/ton BLS	1	425,484 tons BLS/yr	3.49
Lead	1.7E-05 lb/ton BLS	4	425,484 tons BLS/yr	3.6E-03
Mercury	1.8E-07 lb/ton BLS	4	425,484 tons BLS/yr	3.8E-05
Beryllium	1.4E-07 lb/ton BLS	4	425,484 tons BLS/yr	3.0E-05
Fluorides	--		--	--

ton = 2000 lb.

note:

(a) Average 1987-1988 BLS from No. 1 Recovery Boiler
1987: 428,768 tons burned
1988: 422,200 tons burned

References:

1. Based on the average of the 1987 and 1988 compliance tests and operating data:
1987 = 14.85 lb PM/hr and 0.02 lbTRS/3000 lb BLS; for 8,435 hr/yr
1988 = 19.42 lb PM/hr and 0.0291 lbTRS/3000 lb BLS; for 8,406 hr/yr
2. AP-42, Table 10.2-7.
3. Data is averages from NCASI Bulletin No. 646, Tables 16-18, for smelt dissolving tanks with scrubbers.
4. Data is averages from NCASI Bulletin No. 650, Tables 14A and 14B, for smelt dissolving tanks with scrubbers.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).

APPENDIX C

BUILDING DOWNWASH PROCESSING

```
' SCC Building Locations, Future, Panama City, M,TN 6/6/99'
'ST'
'METERS' 1.0
'UTMN' 0.
12
'RecovBlr' 1 0
4  60.3504
   19.03            19.84
   45.65            -2.50
   14.79           -39.27
  -11.82           -16.94
'tier #1'  1 0
4  72.8472
    6.96           -20.16
   -1.10           -13.40
    2.43            -9.20
   10.48           -15.96
'tier #2'  1 0
4  72.8472
   13.13           -12.81
    5.07            -6.05
    8.60            -1.84
   16.65            -8.60
'tier #3'  1 0
4  72.8472
   19.89            -4.75
   11.83             2.01
   15.36             6.21
   23.41            -0.55
'tier #4'  1 0
4  72.8472
   25.76             2.25
   17.71             9.01
   21.24            13.22
   29.29             6.46
'BleachPlt' 1 0
4  21.6408
   64.75          -187.43
   82.96          -202.71
   58.87          -231.43
   40.65          -216.15
'Eng. & Maint' 1 0
6  10.668
 -152.07          -220.35
 -115.63          -176.92
 -113.88          -178.39
  -88.60          -148.27
  -77.40          -157.68
 -139.11          -231.22
'Supt OffSt'  1 0
12 10.668
  -193.14           -214.53
  -154.65           -168.65
  -158.85           -165.13
  -138.28           -140.61
  -134.07           -144.14
  -122.32           -130.13
  -109.71           -140.71
  -127.93           -162.42
  -124.08           -165.65
```

```
  -155.52           -203.13
  -159.38           -199.90
  -180.54           -225.11
'CoolTowers'  1 0
5  9.144
  142.97            -46.56
  121.96            -28.92
   89.63            -67.45
   89.87            -81.38
  103.88            -93.14
'Pulp Mill'  1 0
14 25.2984
  -28.39            -68.69
  -63.95           -111.07
  -54.49           -119.00
  -76.83           -145.62
  -86.28           -137.68
  -97.45           -150.99
 -109.71           -140.71
  -98.54           -127.40
 -116.41           -112.41
  -96.72            -88.94
 -102.32            -84.24
  -80.28            -57.97
  -68.02            -68.26
  -51.86            -49.00
'Paper Mill' 1 0
22 12.192
 -311.97           -332.67
  -331.23           -316.51
  -327.12           -311.60
  -334.82           -305.14
  -318.07           -285.18
  -345.39           -262.25
  -302.48           -211.12
  -275.17           -234.04
   -65.33             16.03
   -19.10            -22.77
   -26.45            -31.52
   -17.69            -38.87
   -32.39            -56.38
   -61.81            -31.69
  -104.42            -82.48
   -99.52            -86.59
  -174.46           -175.90
  -172.01           -177.96
  -225.79           -242.05
  -221.23           -245.87
  -234.75           -261.98
  -245.26           -253.17
'Bark Blr'   1 0
4  33.8328
  -23.47             19.69
    0.00              0.00
  -19.10            -22.77
  -42.57             -3.08
11
'LKILN'    0.0     18.6  163.79  -35.97
'LSKR '    0.0     17.1   41.47 -147.60
'RB1  '    0.0     71.0    5.00   -8.97
```

```
'SDT1 '    0.0      71.0     0.80    -5.45
'RB2  '    0.0      71.0    17.93     6.44
'SDT2 '    0.0      71.0    13.73     9.96
'BB3  '    0.0      64.9   -28.16    17.66
'BB4  '    0.0      64.9   -33.45    11.35
'BLEACH'   0.0      26.2    61.52  -209.78
'INCIN '   0.0      36.6   121.0    -17.97
'PB5  '    0.0      90.2   -46.2     12.51
0
```

==========
BPIP PROCESSING INFORMATION:
==========

The ST flag has been set for processing for an ISCST2 run.

Inputs entered in METERS will be converted to meters using a conversion factor of 1.0000. Output will be in meters.

UTMP is set to UTMN. The input is assumed to be in a local X-Y coordinate system as opposed to a UTM coordinate system. True North is in the positive Y direction.

Plant north is set to 0.00 degrees with respect to True North.

SCC Building Locations, Future, Panama City, M,TN 6/6/99

PRELIMINARY* GEP STACK HEIGHT RESULTS TABLE
(Output Units: meters)

Stack Name	Stack Height	Stack-Building Base Elevation Differences	GEP** EQN1	Preliminary* GEP Stack Height Value
LKILN	18.60	0.00	149.24	149.24
LSKR	17.10	0.00	149.23	149.23
RB1	71.00	0.00	149.24	149.24
SDT1	71.00	0.00	149.24	149.24
RB2	71.00	0.00	149.24	149.24
SDT2	71.00	0.00	149.24	149.24
BB3	64.90	0.00	149.24	149.24
BB4	64.90	0.00	149.24	149.24
BLEACH	26.20	0.00	149.23	149.23
INCIN	36.60	0.00	149.24	149.24
PB5	90.20	0.00	149.24	149.24

* Results are based on Determinants 1 & 2 on pages 1 & 2 of the GEP Technical Support Document. Determinant 3 may be investigated for additional stack height credit. Final values result after Determinant 3 has been taken into consideration.

** Results were derived from Equation 1 on page 6 of GEP Technical Support Document. Values have been adjusted for any stack-building base elevation differences.

Note: Criteria for determining stack heights for modeling emission limitations for a source can be found in Table 3.1 of the GEP Technical Support Document.

DATE : 0/ 0/ 0
TIME : 0: 0: 0

SCC Building Locations, Future, Panama City, M,TN 6/6/99

BPIP output is in meters

SO	BUILDHGT	LKILN	0.00	0.00	0.00	0.00	9.14	9.14
SO	BUILDHGT	LKILN	9.14	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	LKILN	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	LKILN	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	LKILN	0.00	60.35	60.35	0.00	0.00	0.00
SO	BUILDHGT	LKILN	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LKILN	0.00	0.00	0.00	0.00	37.57	46.58
SO	BUILDWID	LKILN	54.16	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	LKILN	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LKILN	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LKILN	0.00	57.48	59.11	0.00	0.00	0.00
SO	BUILDWID	LKILN	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LKILN	0.00	0.00	0.00	0.00	63.06	63.40
SO	BUILDLEN	LKILN	61.81	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	LKILN	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LKILN	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LKILN	0.00	59.10	57.47	0.00	0.00	0.00
SO	BUILDLEN	LKILN	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LKILN	0.00	0.00	0.00	0.00	-85.81	-86.72
SO	XBADJ	LKILN	-84.99	-169.64	-175.61	-176.25	-171.53	-161.60
SO	XBADJ	LKILN	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LKILN	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LKILN	0.00	110.53	118.14	0.00	0.00	0.00
SO	XBADJ	LKILN	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LKILN	0.00	0.00	0.00	0.00	13.50	3.73
SO	YBADJ	LKILN	-6.15	51.36	26.25	0.35	-25.56	-50.70
SO	YBADJ	LKILN	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LKILN	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LKILN	0.00	-51.36	-26.25	0.00	0.00	0.00
SO	YBADJ	LKILN	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	LSKR	60.35	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	LSKR	0.00	0.00	25.30	25.30	25.30	25.30
SO	BUILDHGT	LSKR	25.30	25.30	60.35	60.35	60.35	60.35
SO	BUILDHGT	LSKR	60.35	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	LSKR	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	LSKR	0.00	21.64	60.35	60.35	60.35	60.35
SO	BUILDWID	LSKR	54.09	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LSKR	0.00	0.00	101.99	108.36	111.43	111.12
SO	BUILDWID	LSKR	107.44	108.59	56.99	58.94	59.10	57.47
SO	BUILDWID	LSKR	54.09	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LSKR	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LSKR	0.00	41.05	56.99	58.94	59.10	57.47
SO	BUILDLEN	LSKR	58.95	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LSKR	0.00	0.00	88.02	79.09	67.76	58.80
SO	BUILDLEN	LSKR	58.99	69.36	49.07	54.10	57.48	59.11
SO	BUILDLEN	LSKR	58.95	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LSKR	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LSKR	0.00	29.93	49.07	54.10	57.48	59.11
SO	XBADJ	LSKR	102.05	0.00	0.00	0.00	0.00	0.00

SO	XBADJ	LSKR	0.00	0.00	-157.88	-161.59	-160.39	-156.21
SO	XBADJ	LSKR	-150.88	-146.92	-156.23	-165.02	-168.79	-167.44
SO	XBADJ	LSKR	-161.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LSKR	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LSKR	0.00	-75.40	107.16	110.92	111.32	108.33
SO	YBADJ	LSKR	48.12	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LSKR	0.00	0.00	47.60	26.72	5.02	-16.84
SO	YBADJ	LSKR	-38.18	-57.09	47.67	24.08	-0.24	-24.56
SO	YBADJ	LSKR	-48.12	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LSKR	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LSKR	0.00	24.17	-47.67	-24.08	0.24	24.56

SO	BUILDHGT	RB1	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	RB1	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	RB1	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	RB1	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	RB1	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	RB1	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDWID	RB1	54.09	49.07	42.55	34.75	42.56	49.07
SO	BUILDWID	RB1	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	RB1	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDWID	RB1	54.09	49.07	42.55	34.75	42.56	49.07
SO	BUILDWID	RB1	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	RB1	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDLEN	RB1	58.95	57.00	53.31	48.01	53.31	56.99
SO	BUILDLEN	RB1	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	RB1	34.75	42.56	49.07	54.10	57.48	59.11
SO	BUILDLEN	RB1	58.95	57.00	53.31	48.01	53.31	56.99
SO	BUILDLEN	RB1	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	RB1	34.75	42.56	49.07	54.10	57.48	59.11
SO	XBADJ	RB1	-28.14	-25.12	-21.35	-16.92	-18.01	-18.55
SO	XBADJ	RB1	-18.53	-17.95	-16.82	-15.18	-13.08	-10.58
SO	XBADJ	RB1	-7.77	-13.05	-17.94	-22.27	-25.94	-28.81
SO	XBADJ	RB1	-30.81	-31.87	-31.97	-31.09	-35.30	-38.44
SO	XBADJ	RB1	-40.41	-41.16	-40.65	-38.91	-35.99	-31.97
SO	XBADJ	RB1	-26.98	-29.50	-31.14	-31.82	-31.54	-30.30
SO	YBADJ	RB1	-11.86	-11.45	-10.69	-9.60	-8.23	-6.60
SO	YBADJ	RB1	-4.77	-2.80	-0.74	1.33	3.37	5.31
SO	YBADJ	RB1	7.08	8.65	9.94	10.94	11.60	11.92
SO	YBADJ	RB1	11.86	11.45	10.69	9.60	8.23	6.60
SO	YBADJ	RB1	4.77	2.80	0.74	-1.33	-3.37	-5.31
SO	YBADJ	RB1	-7.08	-8.65	-9.94	-10.94	-11.60	-11.92

SO	BUILDHGT	SDT1	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	SDT1	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	SDT1	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	SDT1	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	SDT1	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	SDT1	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDWID	SDT1	54.09	49.07	42.55	34.75	42.56	49.07
SO	BUILDWID	SDT1	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	SDT1	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDWID	SDT1	54.09	49.07	42.55	34.75	42.56	49.07
SO	BUILDWID	SDT1	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	SDT1	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDLEN	SDT1	58.95	57.00	53.31	48.01	53.31	56.99
SO	BUILDLEN	SDT1	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	SDT1	34.75	42.56	49.07	54.10	57.48	59.11

SO	BUILDLEN	SDT1	58.95	57.00	53.31	48.01	53.31	56.99
SO	BUILDLEN	SDT1	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	SDT1	34.75	42.56	49.07	54.10	57.48	59.11
SO	XBADJ	SDT1	-30.88	-27.00	-22.29	-16.92	-17.05	-16.67
SO	XBADJ	SDT1	-15.79	-14.42	-12.62	-10.43	-7.93	-5.18
SO	XBADJ	SDT1	-2.29	-7.66	-12.79	-17.53	-21.74	-25.29
SO	XBADJ	SDT1	-28.07	-30.00	-31.02	-31.09	-36.25	-40.32
SO	XBADJ	SDT1	-43.15	-44.68	-44.85	-43.66	-41.14	-37.37
SO	XBADJ	SDT1	-32.46	-34.90	-36.28	-36.57	-35.74	-33.82
SO	YBADJ	SDT1	-16.61	-16.60	-16.09	-15.08	-13.62	-11.75
SO	YBADJ	SDT1	-9.52	-7.00	-4.26	-1.40	1.50	4.36
SO	YBADJ	SDT1	7.09	9.60	11.82	13.68	15.13	16.12
SO	YBADJ	SDT1	16.61	16.60	16.09	15.08	13.62	11.75
SO	YBADJ	SDT1	9.52	7.00	4.26	1.40	-1.50	-4.36
SO	YBADJ	SDT1	-7.09	-9.60	-11.82	-13.68	-15.13	-16.12

SO	BUILDHGT	RB2	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	RB2	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	RB2	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	RB2	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	RB2	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	RB2	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDWID	RB2	54.09	49.07	42.55	34.75	42.56	49.07
SO	BUILDWID	RB2	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	RB2	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDWID	RB2	54.09	49.07	42.55	34.75	42.56	49.07
SO	BUILDWID	RB2	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	RB2	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDLEN	RB2	58.95	57.00	53.31	48.01	53.31	56.99
SO	BUILDLEN	RB2	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	RB2	34.75	42.56	49.07	54.10	57.48	59.11
SO	BUILDLEN	RB2	58.95	57.00	53.31	48.01	53.31	56.99
SO	BUILDLEN	RB2	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	RB2	34.75	42.56	49.07	54.10	57.48	59.11
SO	XBADJ	RB2	-45.56	-44.03	-41.16	-37.03	-37.82	-37.45
SO	XBADJ	RB2	-35.95	-33.36	-29.75	-25.24	-19.96	-14.07
SO	XBADJ	RB2	-7.77	-9.56	-11.05	-12.22	-13.01	-13.40
SO	XBADJ	RB2	-13.39	-12.97	-12.15	-10.97	-15.49	-19.54
SO	XBADJ	RB2	-22.99	-25.75	-27.72	-28.85	-29.11	-28.48
SO	XBADJ	RB2	-26.98	-33.00	-38.02	-41.88	-44.47	-45.71
SO	YBADJ	RB2	-1.81	-4.57	-7.20	-9.61	-11.72	-13.48
SO	YBADJ	RB2	-14.83	-15.73	-16.15	-16.09	-15.53	-14.50
SO	YBADJ	RB2	-13.03	-11.16	-8.96	-6.48	-3.81	-1.01
SO	YBADJ	RB2	1.81	4.57	7.20	9.61	11.72	13.48
SO	YBADJ	RB2	14.83	15.73	16.16	16.09	15.53	14.50
SO	YBADJ	RB2	13.03	11.16	8.96	6.48	3.81	1.01

SO	BUILDHGT	SDT2	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	SDT2	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	SDT2	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	SDT2	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	SDT2	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	SDT2	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDWID	SDT2	54.09	49.07	42.55	34.75	42.56	49.07
SO	BUILDWID	SDT2	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	SDT2	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDWID	SDT2	54.09	49.07	42.55	34.75	42.56	49.07
SO	BUILDWID	SDT2	54.10	57.48	59.11	58.95	57.00	53.31

SO	BUILDWID	SDT2	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDLEN	SDT2	58.95	57.00	53.31	48.01	53.31	56.99
SO	BUILDLEN	SDT2	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	SDT2	34.75	42.56	49.07	54.10	57.48	59.11
SO	BUILDLEN	SDT2	58.95	57.00	53.31	48.01	53.31	56.99
SO	BUILDLEN	SDT2	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	SDT2	34.75	42.56	49.07	54.10	57.48	59.11
SO	XBADJ	SDT2	-48.30	-45.90	-42.10	-37.03	-36.86	-35.58
SO	XBADJ	SDT2	-33.21	-29.83	-25.55	-20.49	-14.81	-8.68
SO	XBADJ	SDT2	-2.29	-4.16	-5.91	-7.47	-8.81	-9.88
SO	XBADJ	SDT2	-10.65	-11.10	-11.21	-10.98	-16.44	-21.41
SO	XBADJ	SDT2	-25.73	-29.27	-31.92	-33.60	-34.26	-33.87
SO	XBADJ	SDT2	-32.46	-38.39	-43.16	-46.62	-48.67	-49.23
SO	YBADJ	SDT2	-6.55	-9.72	-12.60	-15.09	-17.12	-18.63
SO	YBADJ	SDT2	-19.58	-19.93	-19.67	-18.82	-17.40	-15.45
SO	YBADJ	SDT2	-13.03	-10.21	-7.08	-3.74	-0.28	3.19
SO	YBADJ	SDT2	6.55	9.72	12.60	15.09	17.12	18.63
SO	YBADJ	SDT2	19.58	19.93	19.67	18.82	17.40	15.45
SO	YBADJ	SDT2	13.03	10.21	7.08	3.74	0.28	-3.19
SO	BUILDHGT	BB3	60.35	33.83	33.83	33.83	33.83	60.35
SO	BUILDHGT	BB3	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	BB3	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	BB3	60.35	33.83	33.83	33.83	33.83	60.35
SO	BUILDHGT	BB3	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	BB3	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDWID	BB3	54.09	38.95	35.33	67.21	35.34	49.07
SO	BUILDWID	BB3	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	BB3	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDWID	BB3	54.09	38.95	35.33	67.21	35.34	49.07
SO	BUILDWID	BB3	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	BB3	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDLEN	BB3	58.95	38.40	34.59	57.15	34.59	56.99
SO	BUILDLEN	BB3	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	BB3	34.75	42.56	49.07	54.10	57.48	59.11
SO	BUILDLEN	BB3	58.95	38.40	34.59	57.15	34.59	56.99
SO	BUILDLEN	BB3	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	BB3	34.75	42.56	49.07	54.10	57.48	59.11
SO	XBADJ	BB3	-48.61	-34.89	-30.48	-25.15	-24.37	-3.15
SO	XBADJ	BB3	3.52	10.08	16.34	22.10	27.19	31.45
SO	XBADJ	BB3	34.75	28.66	21.71	14.09	6.05	-2.18
SO	XBADJ	BB3	-10.34	-3.51	-4.10	-32.00	-10.22	-53.84
SO	XBADJ	BB3	-62.46	-69.19	-73.81	-76.19	-76.25	-74.00
SO	XBADJ	BB3	-69.50	-71.22	-70.78	-68.19	-63.52	-56.93
SO	YBADJ	BB3	-49.14	-13.03	-15.55	-35.89	-19.13	-46.24
SO	YBADJ	BB3	-41.14	-34.79	-27.37	-19.13	-10.31	-1.17
SO	YBADJ	BB3	8.00	16.93	25.35	32.99	39.64	45.08
SO	YBADJ	BB3	49.14	13.03	15.55	35.89	19.13	46.24
SO	YBADJ	BB3	41.14	34.79	27.37	19.13	10.31	1.17
SO	YBADJ	BB3	-8.00	-16.93	-25.35	-32.99	-39.64	-45.08
SO	BUILDHGT	BB4	60.35	33.83	33.83	33.83	33.83	60.35
SO	BUILDHGT	BB4	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	BB4	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	BB4	60.35	33.83	33.83	33.83	33.83	60.35
SO	BUILDHGT	BB4	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	BB4	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDWID	BB4	54.09	38.95	35.33	67.21	35.34	49.07

SO	BUILDWID	BB4	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	BB4	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDWID	BB4	54.09	38.95	35.33	67.21	35.34	49.07
SO	BUILDWID	BB4	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	BB4	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDLEN	BB4	58.95	38.40	34.59	57.15	34.59	56.99
SO	BUILDLEN	BB4	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	BB4	34.75	42.56	49.07	54.10	57.48	59.11
SO	BUILDLEN	BB4	58.95	38.40	34.59	57.15	34.59	56.99
SO	BUILDLEN	BB4	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	BB4	34.75	42.56	49.07	54.10	57.48	59.11
SO	XBADJ	BB4	-41.47	-27.15	-22.37	-16.92	-16.26	4.59
SO	XBADJ	BB4	10.65	16.39	21.63	26.21	30.00	32.88
SO	XBADJ	BB4	34.74	27.23	18.89	9.97	0.75	-8.49
SO	XBADJ	BB4	-17.47	-11.25	-12.21	-40.24	-18.33	-61.58
SO	XBADJ	BB4	-69.59	-75.49	-79.10	-80.30	-79.07	-75.43
SO	XBADJ	BB4	-69.50	-69.79	-67.96	-64.07	-58.23	-50.62
SO	YBADJ	BB4	-53.26	-15.84	-16.98	-35.89	-17.69	-43.42
SO	YBADJ	BB4	-37.02	-29.49	-21.06	-12.00	-2.57	6.94
SO	YBADJ	BB4	16.23	25.04	33.08	40.12	45.94	50.37
SO	YBADJ	BB4	53.26	15.84	16.98	35.89	17.69	43.42
SO	YBADJ	BB4	37.02	29.49	21.06	12.00	2.57	-6.94
SO	YBADJ	BB4	-16.23	-25.04	-33.08	-40.12	-45.94	-50.37
SO	BUILDHGT	BLEACH	21.64	21.64	21.64	21.64	21.64	21.64
SO	BUILDHGT	BLEACH	21.64	21.64	21.64	21.64	21.64	21.64
SO	BUILDHGT	BLEACH	21.64	21.64	21.64	60.35	60.35	60.35
SO	BUILDHGT	BLEACH	21.64	21.64	21.64	21.64	21.64	21.64
SO	BUILDHGT	BLEACH	21.64	21.64	21.64	21.64	21.64	21.64
SO	BUILDHGT	BLEACH	21.64	21.64	21.64	21.64	21.64	21.64
SO	BUILDWID	BLEACH	39.33	35.16	29.92	23.78	29.93	35.17
SO	BUILDWID	BLEACH	39.34	42.31	44.00	44.35	43.36	41.05
SO	BUILDWID	BLEACH	37.49	41.05	43.36	58.94	59.10	57.47
SO	BUILDWID	BLEACH	39.33	35.16	29.92	23.78	29.93	35.17
SO	BUILDWID	BLEACH	39.34	42.31	44.00	44.35	43.36	41.05
SO	BUILDWID	BLEACH	37.49	41.05	43.36	44.36	44.00	42.31
SO	BUILDLEN	BLEACH	44.35	43.36	41.05	37.49	41.05	43.36
SO	BUILDLEN	BLEACH	44.36	44.00	42.31	39.33	35.16	29.92
SO	BUILDLEN	BLEACH	23.78	29.93	35.17	54.10	57.48	59.11
SO	BUILDLEN	BLEACH	44.35	43.36	41.05	37.49	41.05	43.36
SO	BUILDLEN	BLEACH	44.36	44.00	42.31	39.33	35.16	29.92
SO	BUILDLEN	BLEACH	23.78	29.93	35.17	39.34	42.31	44.00
SO	XBADJ	BLEACH	-21.78	-21.25	-20.07	-18.29	-20.08	-21.26
SO	XBADJ	BLEACH	-21.79	-21.66	-20.87	-19.45	-17.43	-14.89
SO	XBADJ	BLEACH	-11.89	-15.04	-17.74	-230.30	-233.51	-229.62
SO	XBADJ	BLEACH	-22.57	-22.11	-20.97	-19.20	-20.97	-22.10
SO	XBADJ	BLEACH	-22.57	-22.34	-21.44	-19.89	-17.73	-15.03
SO	XBADJ	BLEACH	-11.89	-14.88	-17.42	-19.44	-20.86	-21.65
SO	YBADJ	BLEACH	-0.22	-0.15	-0.07	0.00	0.08	0.16
SO	YBADJ	BLEACH	0.23	0.29	0.35	0.40	0.43	0.45
SO	YBADJ	BLEACH	0.45	0.44	0.42	26.51	-9.19	-44.61
SO	YBADJ	BLEACH	0.22	0.15	0.07	0.00	-0.08	-0.16
SO	YBADJ	BLEACH	-0.23	-0.29	-0.35	-0.40	-0.43	-0.45
SO	YBADJ	BLEACH	-0.45	-0.44	-0.42	-0.39	-0.34	-0.28
SO	BUILDHGT	INCIN	9.14	9.14	9.14	0.00	0.00	0.00
SO	BUILDHGT	INCIN	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	INCIN	0.00	9.14	9.14	9.14	9.14	9.14

SO	BUILDHGT	INCIN	9.14	9.14	9.14	0.00	0.00	0.00
SO	BUILDHGT	INCIN	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	INCIN	0.00	9.14	9.14	9.14	9.14	9.14
SO	BUILDWID	INCIN	48.90	42.98	35.75	0.00	0.00	0.00
SO	BUILDWID	INCIN	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	INCIN	0.00	63.06	63.40	61.81	58.34	53.34
SO	BUILDWID	INCIN	48.90	42.98	35.75	0.00	0.00	0.00
SO	BUILDWID	INCIN	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	INCIN	0.00	63.06	63.40	61.81	58.34	53.34
SO	BUILDLEN	INCIN	66.38	66.53	64.66	0.00	0.00	0.00
SO	BUILDLEN	INCIN	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	INCIN	0.00	37.57	46.58	54.16	60.10	64.22
SO	BUILDLEN	INCIN	66.38	66.53	64.66	0.00	0.00	0.00
SO	BUILDLEN	INCIN	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	INCIN	0.00	37.57	46.58	54.16	60.10	64.22
SO	XBADJ	INCIN	-77.00	-76.49	-73.66	0.00	0.00	0.00
SO	XBADJ	INCIN	-124.46	-130.62	-132.82	-130.98	-125.16	-115.54
SO	XBADJ	INCIN	0.00	9.01	9.96	10.62	10.95	10.95
SO	XBADJ	INCIN	10.62	9.96	9.00	0.00	0.00	0.00
SO	XBADJ	INCIN	65.51	71.52	75.35	76.89	76.10	72.99
SO	XBADJ	INCIN	0.00	-46.58	-56.54	-64.78	-71.06	-75.17
SO	YBADJ	INCIN	-2.15	-8.93	-15.45	0.00	0.00	0.00
SO	YBADJ	INCIN	43.36	26.20	8.25	-9.95	-27.84	-44.90
SO	YBADJ	INCIN	0.00	-33.08	-26.97	-20.04	-12.50	-4.70
SO	YBADJ	INCIN	2.15	8.93	15.45	0.00	0.00	0.00
SO	YBADJ	INCIN	-43.36	-26.20	-8.25	9.95	27.84	44.90
SO	YBADJ	INCIN	0.00	33.08	26.97	20.04	12.50	4.70
SO	BUILDHGT	PB5	33.83	33.83	33.83	33.83	33.83	33.83
SO	BUILDHGT	PB5	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	PB5	60.35	60.35	60.35	60.35	60.35	33.83
SO	BUILDHGT	PB5	33.83	33.83	33.83	33.83	33.83	33.83
SO	BUILDHGT	PB5	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	PB5	60.35	60.35	60.35	60.35	60.35	33.83
SO	BUILDWID	PB5	41.39	38.95	35.33	67.21	35.34	38.96
SO	BUILDWID	PB5	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	PB5	48.01	53.31	56.99	58.94	59.10	42.57
SO	BUILDWID	PB5	41.39	38.95	35.33	67.21	35.34	38.96
SO	BUILDWID	PB5	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	PB5	48.01	53.31	56.99	58.94	59.10	42.57
SO	BUILDLEN	PB5	41.06	38.40	34.59	57.15	34.59	38.41
SO	BUILDLEN	PB5	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	PB5	34.75	42.56	49.07	54.10	57.48	42.46
SO	BUILDLEN	PB5	41.06	38.40	34.59	57.15	34.59	38.41
SO	BUILDLEN	PB5	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	PB5	34.75	42.56	49.07	54.10	57.48	42.46
SO	XBADJ	PB5	-30.04	-23.88	-17.00	-9.61	-7.24	-4.65
SO	XBADJ	PB5	22.23	28.74	34.38	38.97	42.38	44.50
SO	XBADJ	PB5	45.26	36.31	26.27	15.42	4.11	-7.18
SO	XBADJ	PB5	-11.02	-14.52	-17.58	-47.54	-27.35	-33.76
SO	XBADJ	PB5	-81.18	-87.85	-91.85	-93.06	-91.44	-87.05
SO	XBADJ	PB5	-80.01	-78.87	-75.34	-69.52	-61.58	-35.28
SO	YBADJ	PB5	-26.98	-28.22	-28.60	-46.40	-26.78	-24.63
SO	YBADJ	PB5	-42.47	-32.85	-22.22	-10.93	0.70	12.31
SO	YBADJ	PB5	23.54	34.06	43.54	51.71	58.30	24.92
SO	YBADJ	PB5	26.98	28.22	28.60	46.40	26.78	24.63
SO	YBADJ	PB5	42.47	32.85	22.22	10.93	-0.70	-12.31
SO	YBADJ	PB5	-23.54	-34.06	-43.54	-51.71	-58.30	-24.92

```
' SCC Building Locations, 1974 Baseline Panama City, M,TN 6/6/99'
'ST'
'METERS' 1.0
'UTMN' 0.
13
'RecovBlr' 1 0
4  60.3504
   19.03              19.84
   45.65              -2.50
   14.79             -39.27
  -11.82             -16.94
'PB6 Build' 1 0
4  45.7
   64.35             -12.22
   71.11              -4.16
   58.85              58.85
   52.09              -1.93
'tier #1'  1 0
4  72.8472
    6.96             -20.16
   -1.10             -13.40
    2.43              -9.20
   10.48             -15.96
'tier #2'  1 0
4  72.8472
   13.13             -12.81
    5.07              -6.05
    8.60              -1.84
   16.65              -8.60
'tier #3'  1 0
4  72.8472
   19.89              -4.75
   11.83               2.01
   15.36               6.21
   23.41              -0.55
'tier #4'  1 0
4  72.8472
   25.76               2.25
   17.71               9.01
   21.24              13.22
   29.29               6.46
'BleachPlt' 1 0
4  21.6408
   64.75            -187.43
   82.96            -202.71
   58.87            -231.43
   40.65            -216.15
'Eng. & Maint' 1 0
6  10.668
 -152.07            -220.35
 -115.63            -176.92
 -113.88            -178.39
  -88.60            -148.27
  -77.40            -157.68
 -139.11            -231.22
'Supt OffSt'  1 0
12 10.668
  -193.14             -214.53
  -154.65             -168.65
  -158.85             -165.13
```

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  -138.28           -140.61
  -134.07           -144.14
  -122.32           -130.13
  -109.71           -140.71
  -127.93           -162.42
  -124.08           -165.65
  -155.52           -203.13
  -159.38           -199.90
  -180.54           -225.11
'CoolTowers'  1 0
5  9.144
  142.97            -46.56
  121.96            -28.92
   89.63            -67.45
   89.87            -81.38
  103.88            -93.14
'Pulp Mill'  1 0
14 25.2984
  -28.39            -68.69
  -63.95           -111.07
  -54.49           -119.00
  -76.83           -145.62
  -86.28           -137.68
  -97.45           -150.99
 -109.71           -140.71
  -98.54           -127.40
 -116.41           -112.41
  -96.72            -88.94
 -102.32            -84.24
  -80.28            -57.97
  -68.02            -68.26
  -51.86            -49.00
'Paper Mill' 1 0
22 12.192
 -311.97           -332.67
  -331.23           -316.51
  -327.12           -311.60
  -334.82           -305.14
  -318.07           -285.18
  -345.39           -262.25
  -302.48           -211.12
  -275.17           -234.04
   -65.33             16.03
   -19.10            -22.77
   -26.45            -31.52
   -17.69            -38.87
   -32.39            -56.38
   -61.81            -31.69
  -104.42            -82.48
   -99.52            -86.59
  -174.46           -175.90
  -172.01           -177.96
  -225.79           -242.05
  -221.23           -245.87
  -234.75           -261.98
  -245.26           -253.17
'Bark Blr'   1 0
4  33.8328
  -23.47             19.69
    0.00              0.00
```

```
  -19.10              -22.77
  -42.57               -3.08
11
'LKILN'    0.0      18.6  163.79  -35.97
'LSKR '    0.0      17.1   41.47 -147.60
'RB1  '    0.0      71.0    5.00   -8.97
'SDT1 '    0.0      71.0    0.80   -5.45
'RB2  '    0.0      71.0   17.93    6.44
'SDT2 '    0.0      71.0   13.73    9.96
'BB3  '    0.0      45.7  -28.16   17.66
'BB4  '    0.0      45.7  -33.45   11.35
'BLEACH'   0.0      21.9   61.52 -209.78
'PB4/5 '   0.0      90.2  -46.2    12.51
'PB6  '    0.0      73.5   52.41    5.56
0
```

==========
BPIP PROCESSING INFORMATION:
==========

The ST flag has been set for processing for an ISCST2 run.

Inputs entered in METERS will be converted to meters using a conversion factor of 1.0000. Output will be in meters.

UTMP is set to UTMN. The input is assumed to be in a local X-Y coordinate system as opposed to a UTM coordinate system. True North is in the positive Y direction.

Plant north is set to 0.00 degrees with respect to True North.

SCC Building Locations, 1974 Baseline Panama City, M,TN 6/6/99

PRELIMINARY* GEP STACK HEIGHT RESULTS TABLE
(Output Units: meters)

Stack Name	Stack Height	Stack-Building Base Elevation Differences	GEP** EQN1	Preliminary* GEP Stack Height Value
LKILN	18.60	0.00	149.24	149.24
LSKR	17.10	0.00	149.23	149.23
RB1	71.00	0.00	149.24	149.24
SDT1	71.00	0.00	149.24	149.24
RB2	71.00	0.00	149.24	149.24
SDT2	71.00	0.00	149.24	149.24
BB3	45.70	0.00	149.24	149.24
BB4	45.70	0.00	149.24	149.24
BLEACH	21.90	0.00	149.23	149.23
PB4/5	90.20	0.00	149.24	149.24
PB6	73.50	0.00	149.24	149.24

* Results are based on Determinants 1 & 2 on pages 1 & 2 of the GEP Technical Support Document. Determinant 3 may be investigated for additional stack height credit. Final values result after Determinant 3 has been taken into consideration.

** Results were derived from Equation 1 on page 6 of GEP Technical Support Document. Values have been adjusted for any stack-building base elevation differences.

Note: Criteria for determining stack heights for modeling emission limitations for a source can be found in Table 3.1 of the GEP Technical Support Document.

DATE : 0/ 0/ 0
TIME : 0: 0: 0

SCC Building Locations, 1974 Baseline Panama City, M,TN 6/6/99

BPIP output is in meters

SO	BUILDHGT	LKILNb	0.00	0.00	0.00	0.00	9.14	9.14
SO	BUILDHGT	LKILNb	9.14	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	LKILNb	45.70	45.70	0.00	0.00	0.00	0.00
SO	BUILDHGT	LKILNb	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	LKILNb	0.00	60.35	60.35	0.00	0.00	0.00
SO	BUILDHGT	LKILNb	0.00	45.70	0.00	0.00	0.00	0.00
SO	BUILDWID	LKILNb	0.00	0.00	0.00	0.00	37.57	46.58
SO	BUILDWID	LKILNb	54.16	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	LKILNb	50.91	102.85	0.00	0.00	0.00	0.00
SO	BUILDWID	LKILNb	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LKILNb	0.00	57.48	59.11	0.00	0.00	0.00
SO	BUILDWID	LKILNb	0.00	102.85	0.00	0.00	0.00	0.00
SO	BUILDLEN	LKILNb	0.00	0.00	0.00	0.00	63.06	63.40
SO	BUILDLEN	LKILNb	61.81	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	LKILNb	49.90	57.98	0.00	0.00	0.00	0.00
SO	BUILDLEN	LKILNb	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LKILNb	0.00	59.10	57.47	0.00	0.00	0.00
SO	BUILDLEN	LKILNb	0.00	57.98	0.00	0.00	0.00	0.00
SO	XBADJ	LKILNb	0.00	0.00	0.00	0.00	-85.81	-86.72
SO	XBADJ	LKILNb	-84.99	-169.64	-175.61	-176.25	-171.53	-161.60
SO	XBADJ	LKILNb	-141.34	-140.09	0.00	0.00	0.00	0.00
SO	XBADJ	LKILNb	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LKILNb	0.00	110.53	118.14	0.00	0.00	0.00
SO	XBADJ	LKILNb	0.00	82.11	0.00	0.00	0.00	0.00
SO	YBADJ	LKILNb	0.00	0.00	0.00	0.00	13.50	3.73
SO	YBADJ	LKILNb	-6.15	51.36	26.25	0.35	-25.56	-50.70
SO	YBADJ	LKILNb	-20.27	-70.87	0.00	0.00	0.00	0.00
SO	YBADJ	LKILNb	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LKILNb	0.00	-51.36	-26.25	0.00	0.00	0.00
SO	YBADJ	LKILNb	0.00	70.87	0.00	0.00	0.00	0.00
SO	BUILDHGT	LSKRb	60.35	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	LSKRb	0.00	0.00	25.30	25.30	25.30	25.30
SO	BUILDHGT	LSKRb	25.30	25.30	60.35	60.35	60.35	60.35
SO	BUILDHGT	LSKRb	60.35	45.70	0.00	0.00	0.00	0.00
SO	BUILDHGT	LSKRb	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	LSKRb	0.00	21.64	60.35	60.35	60.35	60.35
SO	BUILDWID	LSKRb	54.09	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LSKRb	0.00	0.00	101.99	108.36	111.43	111.12
SO	BUILDWID	LSKRb	107.44	108.59	56.99	58.94	59.10	57.47
SO	BUILDWID	LSKRb	54.09	73.56	0.00	0.00	0.00	0.00
SO	BUILDWID	LSKRb	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LSKRb	0.00	41.05	56.99	58.94	59.10	57.47
SO	BUILDLEN	LSKRb	58.95	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LSKRb	0.00	0.00	88.02	79.09	67.76	58.80
SO	BUILDLEN	LSKRb	58.99	69.36	49.07	54.10	57.48	59.11
SO	BUILDLEN	LSKRb	58.95	107.27	0.00	0.00	0.00	0.00
SO	BUILDLEN	LSKRb	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LSKRb	0.00	29.93	49.07	54.10	57.48	59.11
SO	XBADJ	LSKRb	102.05	0.00	0.00	0.00	0.00	0.00

SO	XBADJ	LSKRb	0.00	0.00	-157.88	-161.59	-160.39	-156.21
SO	XBADJ	LSKRb	-150.88	-146.92	-156.23	-165.02	-168.79	-167.44
SO	XBADJ	LSKRb	-161.00	-199.94	0.00	0.00	0.00	0.00
SO	XBADJ	LSKRb	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LSKRb	0.00	-75.40	107.16	110.92	111.32	108.33
SO	YBADJ	LSKRb	48.12	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LSKRb	0.00	0.00	47.60	26.72	5.02	-16.84
SO	YBADJ	LSKRb	-38.18	-57.09	47.67	24.08	-0.24	-24.56
SO	YBADJ	LSKRb	-48.12	-57.99	0.00	0.00	0.00	0.00
SO	YBADJ	LSKRb	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LSKRb	0.00	24.17	-47.67	-24.08	0.24	24.56
SO	BUILDHGT	RB1b	60.35	60.35	60.35	45.70	60.35	60.35
SO	BUILDHGT	RB1b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	RB1b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	RB1b	60.35	60.35	60.35	45.70	60.35	60.35
SO	BUILDHGT	RB1b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	RB1b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDWID	RB1b	54.09	49.07	42.55	49.90	42.56	49.07
SO	BUILDWID	RB1b	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	RB1b	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDWID	RB1b	54.09	49.07	42.55	49.90	42.56	49.07
SO	BUILDWID	RB1b	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	RB1b	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDLEN	RB1b	58.95	57.00	53.31	50.91	53.31	56.99
SO	BUILDLEN	RB1b	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	RB1b	34.75	42.56	49.07	54.10	57.48	59.11
SO	BUILDLEN	RB1b	58.95	57.00	53.31	50.91	53.31	56.99
SO	BUILDLEN	RB1b	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	RB1b	34.75	42.56	49.07	54.10	57.48	59.11
SO	XBADJ	RB1b	-28.14	-25.12	-21.35	35.66	-18.01	-18.55
SO	XBADJ	RB1b	-18.53	-17.95	-16.82	-15.18	-13.08	-10.58
SO	XBADJ	RB1b	-7.77	-13.05	-17.94	-22.27	-25.94	-28.81
SO	XBADJ	RB1b	-30.81	-31.87	-31.97	-86.57	-35.30	-38.44
SO	XBADJ	RB1b	-40.41	-41.16	-40.65	-38.91	-35.99	-31.97
SO	XBADJ	RB1b	-26.98	-29.50	-31.14	-31.82	-31.54	-30.30
SO	YBADJ	RB1b	-11.86	-11.45	-10.69	-22.61	-8.23	-6.60
SO	YBADJ	RB1b	-4.77	-2.80	-0.74	1.33	3.37	5.31
SO	YBADJ	RB1b	7.08	8.65	9.94	10.94	11.60	11.92
SO	YBADJ	RB1b	11.86	11.45	10.69	22.61	8.23	6.60
SO	YBADJ	RB1b	4.77	2.80	0.74	-1.33	-3.37	-5.31
SO	YBADJ	RB1b	-7.08	-8.65	-9.94	-10.94	-11.60	-11.92
SO	BUILDHGT	SDT1b	60.35	60.35	60.35	45.70	60.35	60.35
SO	BUILDHGT	SDT1b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	SDT1b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	SDT1b	60.35	60.35	60.35	45.70	60.35	60.35
SO	BUILDHGT	SDT1b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	SDT1b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDWID	SDT1b	54.09	49.07	42.55	49.90	42.56	49.07
SO	BUILDWID	SDT1b	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	SDT1b	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDWID	SDT1b	54.09	49.07	42.55	49.90	42.56	49.07
SO	BUILDWID	SDT1b	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	SDT1b	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDLEN	SDT1b	58.95	57.00	53.31	50.91	53.31	56.99
SO	BUILDLEN	SDT1b	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	SDT1b	34.75	42.56	49.07	54.10	57.48	59.11

SO	BUILDLEN	SDT1b	58.95	57.00	53.31	50.91	53.31	56.99
SO	BUILDLEN	SDT1b	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	SDT1b	34.75	42.56	49.07	54.10	57.48	59.11
SO	XBADJ	SDT1b	-30.88	-27.00	-22.29	35.66	-17.05	-16.67
SO	XBADJ	SDT1b	-15.79	-14.42	-12.62	-10.43	-7.93	-5.18
SO	XBADJ	SDT1b	-2.29	-7.66	-12.79	-17.53	-21.74	-25.29
SO	XBADJ	SDT1b	-28.07	-30.00	-31.02	-86.57	-36.25	-40.32
SO	XBADJ	SDT1b	-43.15	-44.68	-44.85	-43.66	-41.14	-37.37
SO	XBADJ	SDT1b	-32.46	-34.90	-36.28	-36.57	-35.74	-33.82
SO	YBADJ	SDT1b	-16.61	-16.60	-16.09	-28.09	-13.62	-11.75
SO	YBADJ	SDT1b	-9.52	-7.00	-4.26	-1.40	1.50	4.36
SO	YBADJ	SDT1b	7.09	9.60	11.82	13.68	15.13	16.12
SO	YBADJ	SDT1b	16.61	16.60	16.09	28.09	13.62	11.75
SO	YBADJ	SDT1b	9.52	7.00	4.26	1.40	-1.50	-4.36
SO	YBADJ	SDT1b	-7.09	-9.60	-11.82	-13.68	-15.13	-16.12
SO	BUILDHGT	RB2b	60.35	60.35	60.35	45.70	60.35	60.35
SO	BUILDHGT	RB2b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	RB2b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	RB2b	60.35	60.35	60.35	45.70	60.35	60.35
SO	BUILDHGT	RB2b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	RB2b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDWID	RB2b	54.09	49.07	42.55	49.90	42.56	49.07
SO	BUILDWID	RB2b	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	RB2b	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDWID	RB2b	54.09	49.07	42.55	49.90	42.56	49.07
SO	BUILDWID	RB2b	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	RB2b	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDLEN	RB2b	58.95	57.00	53.31	50.91	53.31	56.99
SO	BUILDLEN	RB2b	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	RB2b	34.75	42.56	49.07	54.10	57.48	59.11
SO	BUILDLEN	RB2b	58.95	57.00	53.31	50.91	53.31	56.99
SO	BUILDLEN	RB2b	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	RB2b	34.75	42.56	49.07	54.10	57.48	59.11
SO	XBADJ	RB2b	-45.56	-44.03	-41.16	15.54	-37.82	-37.45
SO	XBADJ	RB2b	-35.95	-33.36	-29.75	-25.24	-19.96	-14.07
SO	XBADJ	RB2b	-7.77	-9.56	-11.05	-12.22	-13.01	-13.40
SO	XBADJ	RB2b	-13.39	-12.97	-12.15	-66.45	-15.49	-19.54
SO	XBADJ	RB2b	-22.99	-25.75	-27.72	-28.85	-29.11	-28.48
SO	XBADJ	RB2b	-26.98	-33.00	-38.02	-41.88	-44.47	-45.71
SO	YBADJ	RB2b	-1.81	-4.57	-7.20	-22.61	-11.72	-13.48
SO	YBADJ	RB2b	-14.83	-15.73	-16.15	-16.09	-15.53	-14.50
SO	YBADJ	RB2b	-13.03	-11.16	-8.96	-6.48	-3.81	-1.01
SO	YBADJ	RB2b	1.81	4.57	7.20	22.61	11.72	13.48
SO	YBADJ	RB2b	14.83	15.73	16.16	16.09	15.53	14.50
SO	YBADJ	RB2b	13.03	11.16	8.96	6.48	3.81	1.01
SO	BUILDHGT	SDT2b	60.35	60.35	60.35	45.70	60.35	60.35
SO	BUILDHGT	SDT2b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	SDT2b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	SDT2b	60.35	60.35	60.35	45.70	60.35	60.35
SO	BUILDHGT	SDT2b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	SDT2b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDWID	SDT2b	54.09	49.07	42.55	49.90	42.56	49.07
SO	BUILDWID	SDT2b	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	SDT2b	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDWID	SDT2b	54.09	49.07	42.55	49.90	42.56	49.07
SO	BUILDWID	SDT2b	54.10	57.48	59.11	58.95	57.00	53.31

SO	BUILDWID	SDT2b	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDLEN	SDT2b	58.95	57.00	53.31	50.91	53.31	56.99
SO	BUILDLEN	SDT2b	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	SDT2b	34.75	42.56	49.07	54.10	57.48	59.11
SO	BUILDLEN	SDT2b	58.95	57.00	53.31	50.91	53.31	56.99
SO	BUILDLEN	SDT2b	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	SDT2b	34.75	42.56	49.07	54.10	57.48	59.11
SO	XBADJ	SDT2b	-48.30	-45.90	-42.10	15.55	-36.86	-35.58
SO	XBADJ	SDT2b	-33.21	-29.83	-25.55	-20.49	-14.81	-8.68
SO	XBADJ	SDT2b	-2.29	-4.16	-5.91	-7.47	-8.81	-9.88
SO	XBADJ	SDT2b	-10.65	-11.10	-11.21	-66.45	-16.44	-21.41
SO	XBADJ	SDT2b	-25.73	-29.27	-31.92	-33.60	-34.26	-33.87
SO	XBADJ	SDT2b	-32.46	-38.39	-43.16	-46.62	-48.67	-49.23
SO	YBADJ	SDT2b	-6.55	-9.72	-12.60	-28.09	-17.12	-18.63
SO	YBADJ	SDT2b	-19.58	-19.93	-19.67	-18.82	-17.40	-15.45
SO	YBADJ	SDT2b	-13.03	-10.21	-7.08	-3.74	-0.28	3.19
SO	YBADJ	SDT2b	6.55	9.72	12.60	28.09	17.12	18.63
SO	YBADJ	SDT2b	19.58	19.93	19.67	18.82	17.40	15.45
SO	YBADJ	SDT2b	13.03	10.21	7.08	3.74	0.28	-3.19
SO	BUILDHGT	BB3b	60.35	33.83	33.83	33.83	33.83	60.35
SO	BUILDHGT	BB3b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	BB3b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	BB3b	60.35	33.83	33.83	33.83	33.83	60.35
SO	BUILDHGT	BB3b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	BB3b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDWID	BB3b	54.09	38.95	35.33	67.21	35.34	49.07
SO	BUILDWID	BB3b	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	BB3b	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDWID	BB3b	54.09	38.95	35.33	67.21	35.34	49.07
SO	BUILDWID	BB3b	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	BB3b	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDLEN	BB3b	58.95	38.40	34.59	57.15	34.59	56.99
SO	BUILDLEN	BB3b	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	BB3b	34.75	42.56	49.07	54.10	57.48	59.11
SO	BUILDLEN	BB3b	58.95	38.40	34.59	57.15	34.59	56.99
SO	BUILDLEN	BB3b	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	BB3b	34.75	42.56	49.07	54.10	57.48	59.11
SO	XBADJ	BB3b	-48.61	-34.89	-30.48	-25.15	-24.37	-3.15
SO	XBADJ	BB3b	3.52	10.08	16.34	22.10	27.19	31.45
SO	XBADJ	BB3b	34.75	28.66	21.71	14.09	6.05	-2.18
SO	XBADJ	BB3b	-10.34	-3.51	-4.10	-32.00	-10.22	-53.84
SO	XBADJ	BB3b	-62.46	-69.19	-73.81	-76.19	-76.25	-74.00
SO	XBADJ	BB3b	-69.50	-71.22	-70.78	-68.19	-63.52	-56.93
SO	YBADJ	BB3b	-49.14	-13.03	-15.55	-35.89	-19.13	-46.24
SO	YBADJ	BB3b	-41.14	-34.79	-27.37	-19.13	-10.31	-1.17
SO	YBADJ	BB3b	8.00	16.93	25.35	32.99	39.64	45.08
SO	YBADJ	BB3b	49.14	13.03	15.55	35.89	19.13	46.24
SO	YBADJ	BB3b	41.14	34.79	27.37	19.13	10.31	1.17
SO	YBADJ	BB3b	-8.00	-16.93	-25.35	-32.99	-39.64	-45.08
SO	BUILDHGT	BB4b	60.35	33.83	33.83	33.83	33.83	60.35
SO	BUILDHGT	BB4b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	BB4b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	BB4b	60.35	33.83	33.83	33.83	33.83	60.35
SO	BUILDHGT	BB4b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	BB4b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDWID	BB4b	54.09	38.95	35.33	67.21	35.34	49.07

SO	BUILDWID	BB4b	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	BB4b	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDWID	BB4b	54.09	38.95	35.33	67.21	35.34	49.07
SO	BUILDWID	BB4b	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	BB4b	48.01	53.31	56.99	58.94	59.10	57.47
SO	BUILDLEN	BB4b	58.95	38.40	34.59	57.15	34.59	56.99
SO	BUILDLEN	BB4b	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	BB4b	34.75	42.56	49.07	54.10	57.48	59.11
SO	BUILDLEN	BB4b	58.95	38.40	34.59	57.15	34.59	56.99
SO	BUILDLEN	BB4b	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	BB4b	34.75	42.56	49.07	54.10	57.48	59.11
SO	XBADJ	BB4b	-41.47	-27.15	-22.37	-16.92	-16.26	4.59
SO	XBADJ	BB4b	10.65	16.39	21.63	26.21	30.00	32.88
SO	XBADJ	BB4b	34.74	27.23	18.89	9.97	0.75	-8.49
SO	XBADJ	BB4b	-17.47	-11.25	-12.21	-40.24	-18.33	-61.58
SO	XBADJ	BB4b	-69.59	-75.49	-79.10	-80.30	-79.07	-75.43
SO	XBADJ	BB4b	-69.50	-69.79	-67.96	-64.07	-58.23	-50.62
SO	YBADJ	BB4b	-53.26	-15.84	-16.98	-35.89	-17.69	-43.42
SO	YBADJ	BB4b	-37.02	-29.49	-21.06	-12.00	-2.57	6.94
SO	YBADJ	BB4b	16.23	25.04	33.08	40.12	45.94	50.37
SO	YBADJ	BB4b	53.26	15.84	16.98	35.89	17.69	43.42
SO	YBADJ	BB4b	37.02	29.49	21.06	12.00	2.57	-6.94
SO	YBADJ	BB4b	-16.23	-25.04	-33.08	-40.12	-45.94	-50.37
SO	BUILDHGT	PB45b	33.83	33.83	33.83	33.83	33.83	45.70
SO	BUILDHGT	PB45b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	PB45b	60.35	60.35	60.35	60.35	60.35	33.83
SO	BUILDHGT	PB45b	33.83	33.83	33.83	33.83	33.83	45.70
SO	BUILDHGT	PB45b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	PB45b	60.35	60.35	60.35	60.35	60.35	33.83
SO	BUILDWID	PB45b	41.39	38.95	35.33	67.21	35.34	64.30
SO	BUILDWID	PB45b	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	PB45b	48.01	53.31	56.99	58.94	59.10	42.57
SO	BUILDWID	PB45b	41.39	38.95	35.33	67.21	35.34	64.30
SO	BUILDWID	PB45b	54.10	57.48	59.11	58.95	57.00	53.31
SO	BUILDWID	PB45b	48.01	53.31	56.99	58.94	59.10	42.57
SO	BUILDLEN	PB45b	41.06	38.40	34.59	57.15	34.59	36.24
SO	BUILDLEN	PB45b	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	PB45b	34.75	42.56	49.07	54.10	57.48	42.46
SO	BUILDLEN	PB45b	41.06	38.40	34.59	57.15	34.59	36.24
SO	BUILDLEN	PB45b	58.94	59.10	57.47	54.09	49.07	42.55
SO	BUILDLEN	PB45b	34.75	42.56	49.07	54.10	57.48	42.46
SO	XBADJ	PB45b	-30.04	-23.88	-17.00	-9.61	-7.24	77.90
SO	XBADJ	PB45b	22.23	28.74	34.38	38.97	42.38	44.50
SO	XBADJ	PB45b	45.26	36.31	26.27	15.42	4.11	-7.18
SO	XBADJ	PB45b	-11.02	-14.52	-17.58	-47.54	-27.35	-114.15
SO	XBADJ	PB45b	-81.18	-87.85	-91.85	-93.06	-91.44	-87.05
SO	XBADJ	PB45b	-80.01	-78.87	-75.34	-69.52	-61.58	-35.28
SO	YBADJ	PB45b	-26.98	-28.22	-28.60	-46.40	-26.78	-44.54
SO	YBADJ	PB45b	-42.47	-32.85	-22.22	-10.93	0.70	12.31
SO	YBADJ	PB45b	23.54	34.06	43.54	51.71	58.30	24.92
SO	YBADJ	PB45b	26.98	28.22	28.60	46.40	26.78	44.54
SO	YBADJ	PB45b	42.47	32.85	22.22	10.93	-0.70	-12.31
SO	YBADJ	PB45b	-23.54	-34.06	-43.54	-51.71	-58.30	-24.92
SO	BUILDHGT	PB6b	60.35	60.35	60.35	45.70	60.35	60.35
SO	BUILDHGT	PB6b	60.35	60.35	60.35	60.35	60.35	60.35
SO	BUILDHGT	PB6b	60.35	60.35	60.35	60.35	60.35	60.35

United States Department of the Interior

FISH AND WILDLIFE SERVICE
1875 Century Boulevard
Atlanta, Georgia 30345

IN REPLY REFER TO:

MAY 12 2000

RECEIVED
MAY 18 2000
BUREAU OF AIR REGULATION

Re: PSD-FL-288

Mr. C. H. Fancy
Chief, Bureau of Air.Regulation
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road, MS 48
Tallahassee, Florida 32399-2400

Dear Mr. Fancy:

Our Air Quality Branch has reviewed the Prevention of Significant Deterioration permit application for Stone Container Corporation's (SCC) proposed increase in pulp production at its Panama City mill. The mill is located 120 km west of St. Marks Wilderness, a Class I area, administered by the Fish and Wildlife Service.

The technical review comments from our Air Quality Branch are enclosed. In summary, SCC's best available control technology analysis is incomplete. We recommend that SCC revise its analysis.

In addition, SCC's Class I increment analysis is incomplete. SCC should evaluate cumulative impacts to the PM-10 Class I increment at Bradwell Bay Wilderness and St. Marks Wilderness because their analysis predicted that PM-10 concentrations would exceed the significant impact level for this increment. Also, SCC should evaluate impacts to the 3-hr and 24-hr SO_2 Class I increments.

Thank you for giving us the opportunity to comment on this permit application. We appreciate your cooperation in notifying us of proposed projects with the potential to impact the air quality and related resources of our Class I air quality areas. If you have any questions, please contact Ms. Ellen Porter of our Air Quality Branch in Denver at 303/969-2617.

Sincerely yours,

Sam D. Hamilton
Regional Director

Enclosure
cc: S. Aiuf, BAR
B. Mitchell, BAR
NWD
C. Holladay, BAR
EPA
NPS
D. Buff, PE

Review of Prevention of Significant Deterioration
Permit Application for Stone Container Corporation
Panama City, Florida
PSD-FL-288

by

Air Quality Branch, U. S. Fish and Wildlife Service – Denver
April 20, 2000

Stone Container Corporation (SCC) has requested a permit to increase pulp production at its Panama City mill. The increased throughput of pulp will increase emissions from recovery boilers 1&2, smelt dissolving tanks 1&2, the lime kiln, the bleach plant, the pulping area, the lime slaker, the chemical recovery area, the paper making process, and combination boiler number 3. The mill is located in Panama City, Florida, 120 km west of St. Marks Wilderness, a Class I area administered by the U.S. Fish and Wildlife Service (FWS).

This project will result in PSD-significant increases in emissions of nitrogen oxides (NO_X), sulfur dioxide (SO_2), volatile organic compounds (VOC), total particulate matter (TSP), fine particulate matter (PM-10), sulfuric acid mist (SAM), total reduced sulfur (TRS), and beryllium (Be). Emissions (in tons per year – TPY) are summarized below.

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Best Available Control Technology (BACT) Review

Recovery Boilers

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The recovery boilers at SCC are of a direct contact type. This type of recovery boiler emits higher concentrations of total reduced sulfur (TRS) than the indirect contact boilers. SCC states that when EPA evaluated control technologies for the Maximum Achievable Control Technology (MACT) standards for the paper and pulp industry, EPA determined that requiring conversion to indirect contact recovery boilers was generally too costly. Therefore, SCC concludes that indirect contact recovery boilers cannot be considered BACT. We do not agree with SCC on this point. The MACT standards are based on industry wide numbers rather than the source specific requirements of BACT. The costs for an entire industry may be significantly different than those for an individual facility. We believe that SCC must provide an economic analysis of conversion to indirect contact recovery boilers for this facility in order to remove the option as too costly in a BACT analysis. Indirect contact recovery boilers have been used successfully by this industry and therefore must be fully investigated as a BACT alternative.

The recovery boilers are a major source of SO_2 at this site. While we realize that SO_2 control on recovery boilers is not an industry practice, we feel that SCC should investigate possible SO_2 control technologies. The 1990 NSR workshop manual in describing the top down BACT analysis states that:

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Bleach Plants

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Conclusion

SCC relies heavily on decisions made under the MACT ruling throughout this analysis. We feel that this is inappropriate and would undermine BACT and PSD. The MACT and BACT standards are based on very different starting points. Additionally, MACT standards are applied to an entire source category while BACT applies on a case-by-case basis to a single source. The MACT standard is established by taking the emissions average of the best performing 12% of existing sources or the emissions average of the

best performing five sources if there are fewer than 30 sources in the source category. [2] BACT is established as the emissions limitation based on the maximum degree of reduction for each pollutant subject to regulation under the Act which would be emitted from any proposed major stationary source or major modification which the reviewing authority, on a case-by-case basis, taking into account energy, environmental and economic impacts and other costs, determines is achievable for such source or modification.[3] Based on the definitions of MACT and BACT we do not agree that meeting the MACT necessarily complies with BACT requirements. We also feel that SCC cannot use the MACT to avoid a complete BACT analysis or to extend the time frame for installation of BACT controls.

Air Quality Related Values Analysis

The permit application contains no discussion of Class I increments. However, Table 3-1, "Maximum predicted concentrations due to the proposed project only at St. Marks and Bradwell Bay Class I areas" indicates that the maximum PM-10 concentration, averaged over 24 hours, is 0.34 micrograms per cubic meter (ug/m^3). This concentration exceeds the significant impact level for the Class I PM-10 increment of 0.3 ug/m^3. SCC should do a cumulative analysis for this increment. In addition, Table 3-1 shows the maximum annual concentration for SO_2, but not the maximum concentrations for the short-term averaging periods. SCC should evaluate consumption of the 3-hr and 24-hr SO_2 increments at the Class I areas.

Contact: Ellen Porter, Air Quality Branch (303) 969-2617.

[2] USC Section 7412 CAA Section 112
[3] 40 CFR 63 subpart A

Department of
Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

May 9, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Jack B. Prescott, General Manager
Stone Container Corporation
One Everitt Avenue
Panama City, Florida 32402

Re: DEP File No. 0050009-005-AC (PSD-FL-288)
Panama City Mill
Pulp Production Increase

Dear Mr. Prescott:

The Department has received the application on April 10, 2000 for an increase in the pulp production from 668,850 tons per year (TPY) ADUP to 781,000 TPY ADUP at the above referenced facility in Bay County. Based on our initial review of the proposed project, we have determined that additional information is needed in order to continue processing this application package. We are enclosing comments submitted by the U.S. Fish and Wildlife Service (USFWS), which also reflects our incompleteness issues concerning this project. Please respond to USFWS concerns along with the information requested below to the Department's Bureau of Air Regulation:

1. Submit cost analysis for using cleaner fuel oil in terms of $/ton of SO_2 removed. The facility presently is burning No. 6 fuel oil with a maximum sulfur content of 2.4 percent, by weight. The cost analysis should focus on fuel oil with sulfur content of 0.5, 1 and 1.5 percent, by weight.
2. Please submit stack test data for the last two years for all the affected PSD pollutants for the Recovery Boilers, Lime Kiln, Smelt Dissolving Tanks, Bleach Plant, Lime Slaker and Combination Boilers.
3. Please indicate the reasons for not using 1999 as one of the years in determining baseline actual emissions.
4. The overall plant flow diagram indicates 228 MMBtu/hr bark input to the No. 3 Combination Boiler while the application indicates 474 MMBtu/hr. Please explain the discrepancy.
5. Since there is no PCP exemption for the collateral pollutant SO_2 generated when burning TRS gases in the No. 3 Combination Boiler, please provide the net SO_2 emissions change when firing the TRS gases from the condensate stripper and any other emissions unit/activity in the No. 3 Combination Boiler. If the net SO_2 change is greater than significant (see Table 400-2, Chapter 62-212, F.A.C.), then the SO_2 emissions are subject to the PSD new source review (NSR) requirements at Rule 62-212.400(5), F.A.C. Also, there were no "Baseline Emissions Tables" for the combination boilers in Appendix B; and, due to the potential PSD NSR requirements, please provide such a table for the No. 3 Combination Boiler.

We have not yet received approval concerning the ISC-PRIME model from the EPA. Please submit the revised ambient impact analysis, which presents the necessary information for approval of the ISC-PRIME model. We are also awaiting any incompleteness comments concerning this project from EPA. Their comments will be forwarded to you as soon as we receive them.

The Department will resume processing this application after receipt of the requested information. If you have any questions regarding this matter, please call Syed Arif, P.E. at (850) 921-9528 or Chris Carlson at (850) 921-9537.

Sincerely,

for A. A. Linero, P.E. Administrator
New Source Review Section

AAL/sa

Enclosure

cc: Gregg Worley, EPA
John Bunyak, NPS
Ellen Porter, USF&WS
Ed Middleswart, P.E., DEP-NWD
Bruce Mitchell, DEP-BAR
David A. Buff, P.E., Golder Associates Inc.

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[2] USC Section 7412 CAA Section 112
[3] 40 CFR 63 subpart A

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse, so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Jack B. Prescott, Gen. Mgr
Stone Container Corp
1 Everitt Ave
Panama City, Fl
32402

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)*

B. Date of Delivery 5/11/

C. Signature

X Rose Matteson ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)* Z 341 355 284

PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789

Z 341 355 284

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Jack Prescott	
Street & Number Stone Container	
Post Office, State, & ZIP Code PC Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 5-9-00	

PS Form **3800**, April 1995

0050009-0005-AC
PSD-Fl-288

EPA - Stan Crowell modeling
Gregg Worley - sent to
Ellen Porter - NPS

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

May 8, 2000

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Stone Container Corporation
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Panama City, Florida 32402

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Conclusion

SCC relies heavily on decisions made under the MACT ruling throughout this analysis. We feel that this is inappropriate and would undermine BACT and PSD. The MACT and BACT standards are based on very different starting points. Additionally, MACT standards are applied to an entire source category while BACT applies on a case-by-case basis to a single source. The MACT standard is established by taking the emissions average of the best performing 12% of existing sources or the emissions average of the

best performing five sources if there are fewer than 30 sources in the source category. [2] BACT is established as the emissions limitation based on the maximum degree of reduction for each pollutant subject to regulation under the Act which would be emitted from any proposed major stationary source or major modification which the reviewing authority, on a case-by-case basis, taking into account energy, environmental and economic impacts and other costs, determines is achievable for such source or modification.[3] Based on the definitions of MACT and BACT we do not agree that meeting the MACT necessarily complies with BACT requirements. We also feel that SCC cannot use the MACT to avoid a complete BACT analysis or to extend the time frame for installation of BACT controls.

Air Quality Related Values Analysis

The permit application contains no discussion of Class I increments. However, Table 3-1, "Maximum predicted concentrations due to the proposed project only at St. Marks and Bradwell Bay Class I areas" indicates that the maximum PM-10 concentration, averaged over 24 hours, is 0.34 micrograms per cubic meter (ug/m^3). This concentration exceeds the significant impact level for the Class I PM-10 increment of 0.3 ug/m^3. SCC should do a cumulative analysis for this increment. In addition, Table 3-1 shows the maximum annual concentration for SO_2, but not the maximum concentrations for the short-term averaging periods. SCC should evaluate consumption of the 3-hr and 24-hr SO_2 increments at the Class I areas.

Contact: Ellen Porter, Air Quality Branch (303) 969-2617.

[2] USC Section 7412 CAA Section 112
[3] 40 CFR 63 subpart A

Department of
Environmental Protection

Jeb Bush
Governor

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

David B. Struhs
Secretary

April 12, 2000

Mr. Gregg Worley, Chief
Air, Radiation Technology Branch
Preconstruction/HAP Section
U.S. EPA – Region IV
61 Forsyth Street
Atlanta, Georgia 30303

Re: Stone Container Corporation – Panama City Mill
0050009-005-AC, PSD-FL-288

Dear Mr. Worley:

Enclosed for your review and comment is an application to increase pulp production at the referenced facility.

Please note that the applicant seeks approval by the Department and EPA to use ISC-PRIME to conduct ambient impact analyses.

Your comments can be forwarded to my attention at the letterhead address or faxed to me at (850)922-6979. If you have any questions, please contact Syed Arif at (850)921-9528 or Chris Carlson at 850/921-9537.

Sincerely,

A. A. Linero, P.E.
Administrator
New Source Review Section

AAL/kt

Enclosures

cc: S. Arif, BAR

Department of Environmental Protection

Jeb Bush
Governor

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

David B. Struhs
Secretary

April 12, 2000

Mr. John Bunyak, Chief
Policy, Planning & Permit Review Branch
NPS-Air Quality Division
Post Office Box 25287
Denver, CO 80225

Re: Stone Container Corporation – Panama City Mill
0050009-005-AC, PSD-FL-288

Dear Mr. Bunyak:

Enclosed for your review and comment is an application to increase pulp production at the referenced facility.

Please note that the applicant seeks approval by the Department and EPA to use ISC-PRIME to conduct ambient impact analyses.

Your comments can be forwarded to my attention at the letterhead address or faxed to the Bureau at (850)922-6979. If you have any questions, please contact Syed Arif at (850)921-9528.

Sincerely,

A. A. Linero, P.E.
Administrator
New Source Review Section

AAL/kt

Enclosures

cc: S. Arif, BAR

Smurfit-Stone

Containerboard Mill Division

April 7, 2000

Mr. A. A. Linero
Florida Dept. of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32999-2400

Dear Mr. Linero:

Enclosed are 6 copies of the supplemental information requested for the Stone Container Corporation's PSD permit application.

Also enclosed is a check in the amount of $7,250.00 for the processing fee. Two hundred fifty dollars was remitted with the initial application for a total of $7,500.00.

If you have any questions or comments, please contact David Buff at (352) 336-5600 or David Riley at (850) 785-4311, Ext. 257.

Yours truly,

L. D. Riley, Jr.
Environmental Superintendent

Cc: Jack Prescott w/o encl.
Ches Fensom w/o encl.
David Buff w/o encl.

Smurfit-Stone Container Corporation
1 Everitt Avenue 32401 P.O. Box 59560 32412-0560 Panama City, FL Phone (850) 785-4311 Fax (850) 763-6290

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

Golder Associates

April 6, 2000

9937518

Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Attention: Mr. A. A. Linero, P.E.

Subject: File No. 0050009-005-AC
Stone Container Corp. Panama City Mill
Pulp Production Increase

PSD-FL-288

Dear Mr. Linero:

This correspondence is in response to the Department's letter dated September 15, 1999, concerning the above referenced pulp production increase for Stone Container Corp.'s (SCC) Panama City mill. The letter states that the Department has determined that the proposed project requires PSD review. The purpose of this letter is to present the additional information required for a PSD permit application. SCC has already submitted the FDEP Long Form air construction permit application form for the pulp production increase. The application form addresses the various emissions units affected by the pulp production increase. Also, a complete air quality impact analysis has been submitted which addresses compliance with ambient air quality standards (AAQS) and PSD Class II and Class I increments.

The remaining PSD new source review requirements are addressed in the attached document entitled "Supplemental Information for PSD Permit Application." This document includes the following information:

1. A revised application form for the condensate stripper, which will be installed for Cluster Rule compliance. This change is due to elimination of the stand-alone thermal oxidizer for the condensate stripper off-gases. These gases will now be destroyed in the No. 3 Combination Boiler.

2. Application forms for the No. 3 Combination Boiler and for the No. 4 Combination Boiler are included. For the No. 3 Combination Boiler, the form updates information to reflect destruction of condensate stripper off-gases, a new SO_2 emissions limit for the boiler, and to clarify maximum heat input and fuel usage rates for the boiler. For the No. 4 Combination Boiler, the form updates information to reflect a new SO_2 emissions limit for the boiler, and to clarify maximum heat input and fuel usage rates for the boiler.

3. A revised PSD applicability determination, along with the calculations, assumptions, etc., for the current actual emissions from the Panama City mill and the future potential emissions. The baseline actual emissions are based on the 2-year period 1996 and 1997. This 2-year period was selected because the mill was shutdown for three months in 1998 due to economic reasons, and therefore 1998 was not representative of normal operation.

4. A Best Available Control Technology (BACT) analysis for each emissions unit for which there is an increase in emissions due to the proposed pulp production increase. Note that SCC believes that this is not the appropriate application of the Florida PSD rules, and that BACT should only apply to those emission units which are being physically modified or for which there is a change in the method of operation (i.e., the batch digester system,), per EPA PSD regulations. This issue is being addressed in a separate letter to the Department. Nevertheless, the BACT analysis addresses all emission units based on the Department's stated interpretation.

5. Additional impacts upon soils, vegetation and visibility, including impacts upon the nearest PSD Class I areas, and a regional haze analysis.

Golder will continue to pursue approval of the ISC-PRIME model with the Department and the EPA. A revised ambient impact analysis for the Panama City mill will be forthcoming shortly, which will present the necessary information for approval of the ISC-PRIME model.

Please call if you have any questions concerning this information.

Sincerely,

Golder Associates Inc.

David A. Buff

David A. Buff, P.E.
Principal Engineer
Florida P.E. # 19011

DAB/jkw

Enclosure

cc: Ed Middleswart, FDEP Pensacola ✓
David Riley
Charlie Ackel
Tom Clements
Steve Hamilton
\\GATORBAIT\DP\Projects\99\9937\9937518Y\F1\WP\#02ltr.doc

S. arif
B. Mitchell
C. Holladay
EPA
NPS

THE FACE OF THIS CHECK HAS A COLORED BACKGROUND — NOT A WHITE BACKGROUND

Stone Container Corporation

62-26
311

9948-09

401 ALTON STREET, P.O. BOX 276
ALTON, IL 62002-2276

CHASE MANHATTAN BANK DELAWARE
1201 Market Street
Wilmington, DE 19801

1361689

date
04/05/2000

amount
*****7,250.00

dollars and cents
**********PAY******SEVEN THOUSAND TWO HUNDRED FIFTY DOLLARS AND 00 CENTS

to the order of

* FLORIDA DEPT OF ENVIRONMENTAL
* PROTECTION
*
* 32412-0560

THIS CHECK NOT VALID UNLESS PRESENTED FOR PAYMENT WITHIN 180 DAYS FROM DATE OF ISSUE.
2nd SIGNATURE REQUIRED IF OVER $5,000.

Stone Container Corporation

[redacted]

SUPPLEMENTAL INFORMATION
FOR
PSD PERMIT APPLICATION

STONE CONTAINER CORPORATION
PANAMA CITY MILL

Prepared For:

STONE CONTAINER CORPORATION
PANAMA CITY, FLORIDA

Prepared By:

Golder Associates Inc.
6241 NW 23rd Street, Suite 500
Gainesville, Florida 32653-1500

April 2000
9937518Y/F1

DRAFT DISTRIBUTION:
6 Copies - FDEP
2 Copies - David Riley
1 Copy - Charlie Ackel
2 Copies - Golder Associates Inc.

PERMIT APPLICATION

Scope of Application

This Application for Air Permit addresses the following emissions units(s) at the facility. An Emissions Unit Information Section (a Section III of the form) must be included for each emissions unit listed.

Unit #	Emissions Unit ID	Description of Emissions Unit	Permit Type
1		Pulping Area General	AC1A
2R		Pulping System – MACT I	AC1A
3R		Condensate Stripper	AC1A
4R	005	Lime Slaker	AC1A
5R		Methanol Storage Tank	AC1A
6		Chemical Recovery Area	AC1A
7		Paper Making/Warehousing	AC1A
8R	015	No. 3 Combination Boiler	AC1A
9R	016	No. 4 Combination Boiler	AC1A

See individual Emissions Unit (EU) sections for more detailed descriptions.
Multiple EU IDs indicated with an asterisk (*). Regulated EU indicated with an "R".

Application Processing Fee

Check one: [X] Attached - Amount: $: 7,500 [ ] Not Applicable

Construction/Modification Information

1. Description of Proposed Project or Alterations:

   This application is for a revision of the maximum pulp production capacity of the mill for PSD purposes from 668,850 TPY ADUP to 781,000 TPY ADUP.

2. Projected or Actual Date of Commencement of Construction: **1 Sep 2000**

3. Projected Date of Completion of Construction: **1 Jan 2001**

Professional Engineer Certification

1. Professional Engineer Name: **David A. Buff**
   Registration Number: **19011**

2. Professional Engineer Mailing Address:
   Organization/Firm: **Golder Associates Inc.**
   Street Address: **6241 NW 23rd Street, Suite 500**
   City: **Gainesville** State: **FL** Zip Code: **32653-1500**

3. Professional Engineer Telephone Numbers:
   Telephone: **(352) 336 - 5600** Fax: **(352) 336 - 6603**

0050009-005-AC
PSD-FL-288
Rec'd April 10, 2000

4. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

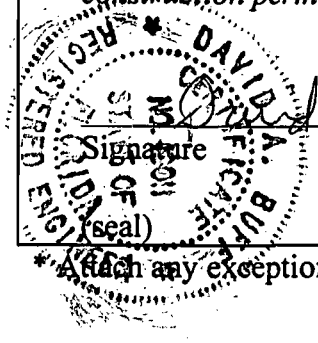
(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [ ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.



David A. Buff
Signature

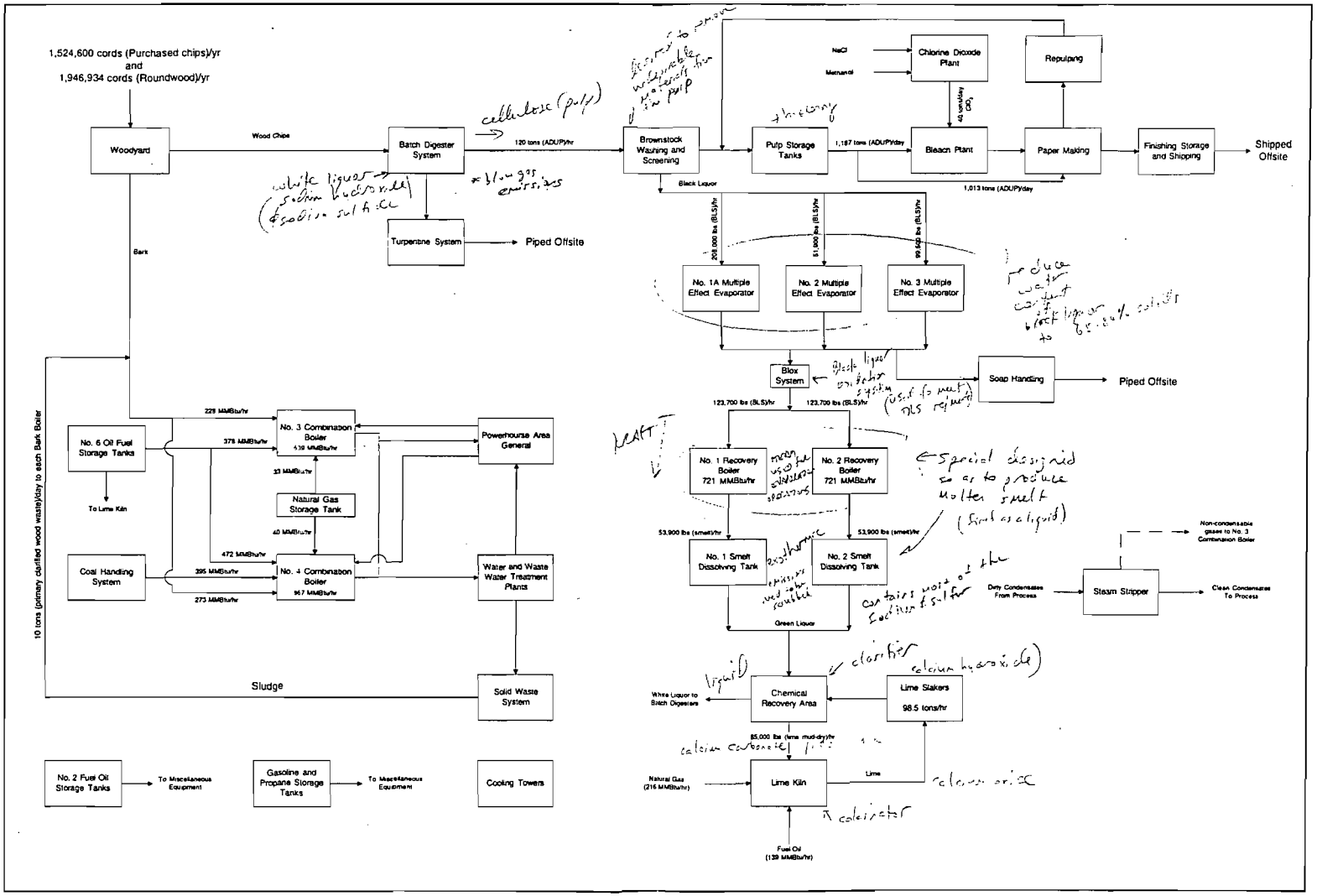
4/6/00
Date

(seal)

* Attach any exception to certification statement.

ATTACHMENT SCC-FI-C3

OVERALL PLANT FLOW DIAGRAM



Stone Container Corporation		Emission Unit: Facility	Golder Associates
SCC-FI-C3	Panama City, FL	Process Area: Overall Plant Flow Diagram	
		Filename: 9937518Y/F1/WP/SCC-FAC.VSD	
		Latest Revision Date: 4/5/00 4:01 PM	

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Regulated or Unregulated Emissions Unit? (Check one)

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
Condensate Stripper System

4. Emissions Unit Identification Number:
ID: **033**
[ ] No ID
[ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
C		**26**	[ ]

9. Emissions Unit Comment: (Limit to 500 Characters)

Emission unit consists of the condensate stripper system, vented to the No. 3 Combination Boiler for TRS and HAP destruction.

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

Destruction in No. 3 Combination Boiler

Process Enclosed

2. Control Device or Method Code(s): **21, 54**

Emissions Unit Details

1. Package Unit: Manufacturer:	Model Number:	
2. Generator Nameplate Rating:	MW	
3. Incinerator Information:		
Dwell Temperature:		°F
Dwell Time:		seconds
Incinerator Afterburner Temperature:		°F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:				mmBtu/hr
2. Maximum Incineration Rate:	lb/hr			tons/day
3. Maximum Process or Throughput Rate:		**781,000**	**TPY**	
4. Maximum Production Rate:				
5. Requested Maximum Operating Schedule:				
	24 hours/day		**7**	days/week
	52 weeks/year		**8,760**	hours/year

6. Operating Capacity/Schedule Comment (limit to 200 characters):

Max production rate in terms pulp production rate for facility (air dried tons of unbleached pulp).

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

40CFR60.11(a) Compliance with standards and maintenance requirements.
40CFR60.11(d) Compliance with standards and maintenance requirements.
40CFR60.11(f) Compliance with standards and maintenance requirements.
40CFR60.12 Circumvention.
40CFR60.13(a) Monitoring requirements.
40CFR60.13(b) Monitoring requirements
40CFR60.13(f) Monitoring requirements
40CFR60.19
40CFR60.283(a)(1)(iii) Standard for Total Reduced Sufur
40CFR60.7 Notification and record keeping.
40CFR60.8 Performance tests.
40CFR63.443(c) MACT Standards – Closed Vent Systems
40CFR63.443(d)(4) MACT Standards – HAP Reduction in a Boiler
40CFR63.443(e) MACT Standards – Excess Emissions
40CFR63.446(b) MACT Standards – Pulping Process Condensates
40CFR63.446(c) MACT Standards – Pulping Process Condensates
40CFR63.446(d) MACT Standards – Pulping Process Condensates
40CFR63.446(e) MACT Standards – Pulping Process Condensates
40CFR63.446(f) MACT Standards – Pulping Process Condensates
40CFR63.446(g) MACT Standards – Pulping Process Condensates
40CFR63.446(h) MACT Standards – Pulping Process Condensates
40CFR63.446(i) MACT Standards – Pulping Process Condensates
40CFR63.450 MACT Standards – Closed Vent Systems
40CFR63.453(g) Monitoring – Steam Stripper
40CFR63.453(h) Monitoring – Steam Stripper
40CFR63.453(i) MACT Standards – Monitoring Condensates
40CFR63.453(k) MACT Standards – Monitoring-Closed Vent Systems
40CFR63.453(l) MACT Standards – Monitoring Condensate Closed Collection
40CFR63.453(m) MACT Standards – CMS for Alternatives
40CFR63.453(n) MACT Standards – Monitoring-Parameter Monitoring
40CFR63.453(o) MACT Standards – Operating Parameter Ranges
40CFR63.454 MACT Standards – Recordkeeping
40CFR63.455 MACT Standards - Reporting
(Continued on Next Page)

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

40CFR63.457 – Test Methods and Procedures
40CFR63.962 MACT Standards – Subpart RR – Individual Drains
40CFR63.964 MACT Standards – Subpart RR – Individual Drains
62-204.800(7)(b)33.
62-296.404(3)(a)1. Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(3)(a)3. Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(3)(f) Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(4)(e) Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(4)(f) Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(6)(a) Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(6)(b) Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(6)(c)3. Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(6)(c)4. Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(6)(d) Kraft (Sulfate) Pulp Mills and Tall Oil Plants

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? **Condensate Stripper**	2. Emission Point Type Code: **2**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **Condensate Stripper off-gases are vented to the No. 3 Combination Boiler**		
5. Discharge Type Code: **V**	6. Stack Height: **213** feet	7. Exit Diameter: **7.8** feet
8. Exit Temperature: **149** °F	9. Actual Volumetric Flow Rate: **221,000** acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):		
14. Emission Point Comment (limit to 200 characters): **Stack parameters are for the No. 3 Combination Boiler**		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **Sulfate (Kraft) Pulping – Other Not Classified**		
2. Source Classification Code (SCC): **3-07-001-99**	3. SCC Units: **Tons Air-Dried Unbleached Pulp Produced**	
4. Maximum Hourly Rate: **120**	5. Maximum Annual Rate: **781,000**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): **Max annual rate based on permit limit for PSD purposes**		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **In-Process Fuel Use, Fuel Recovered Solvent: General**		
2. Source Classification Code (SCC): **3-90-013-99**	3. SCC Units: **1,000 gallons burned**	
4. Maximum Hourly Rate: **0.121**	5. Maximum Annual Rate: **1,062**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **65**
10. Segment Comment (limit to 200 characters): **Recovered solvent represents condensate stripper off gas (methanol) being burned in the No. 3 Combination Boiler.**		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
TRS	021	054	EL
HAPs	021	054	WP

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **TRS**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0** lb/hour **0** tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [X] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **See Attachment A**	7. Emissions Method Code: **5**
8. Calculation of Emissions (limit to 600 characters): **See Attachment A**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **TRS emissions from Condensate Stripper system are combusted in the No. 3 Combination Boiler. These emissions are accounted for in the No. 3 Combination Boiler emission unit.**	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions: **16 Apr 2001**
3. Requested Allowable Emissions and Units: **See Comment**	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters): **See Comment**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **TRS gases will be introduced into the primary flame zone or with the fuel in the No. 3 Combination Boiler per 40CFR63.443(d)(4).**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **HAPs**	2. Total Percent Efficiency of Control:

3. Potential Emissions: **0** lb/hour **0** tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [X] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **See Attachment A**	7. Emissions Method Code: **5**

8. Calculation of Emissions (limit to 600 characters):

See Attachment A

9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):

HAP emissions from the Condensate Stripper system will be combusted in the No. 3 Combination Boiler, per 40 CFR 63.446(e). Resulting emissions are accounted for in the No. 3 Combination Boiler emission unit.

Allowable Emissions Allowable Emissions **1** of **1**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions: **16 Apr 2001**
3. Requested Allowable Emissions and Units: **See Comment**	4. Equivalent Allowable Emissions: **0** lb/hour **0** tons/year

5. Method of Compliance (limit to 60 characters):

See Comment

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):

HAPs will be introduced into the primary flame zone or with the fuel in the No. 3 Combination Boiler per Rule 63.443(d)(4)

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor 1 of 3

1. Parameter Code: **FLOW**	2. Pollutant(s):
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): **Refers to condensate stripper process wastewater feed rate. See Attachment SCC-EU3-I7.**	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor 2 of 3

1. Parameter Code: **FLOW**	2. Pollutant(s):
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): **Refers to condensate stripper steam feed rate. See Attachment SCC-EU3-I7.**	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor 3 of 3

1. Parameter Code: **TEMP**	2. Pollutant(s):
3. CMS Requirement:	[**X**] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): **Refers to condensate stripper wastewater column feed temperature. See Attachment SCC-EU3-I7.**	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: SCC-EU3-J1 [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID: Attachment A [ ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
[ ] Attached, Document ID:_____ [ ] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID:_____ [ ] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:_____ [ ] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [ ] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID:_____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:_____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:_____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:_____

[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID:_____

[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID:_____

[ ] Not Applicable

ATTACHMENT SCC-EU3-I7

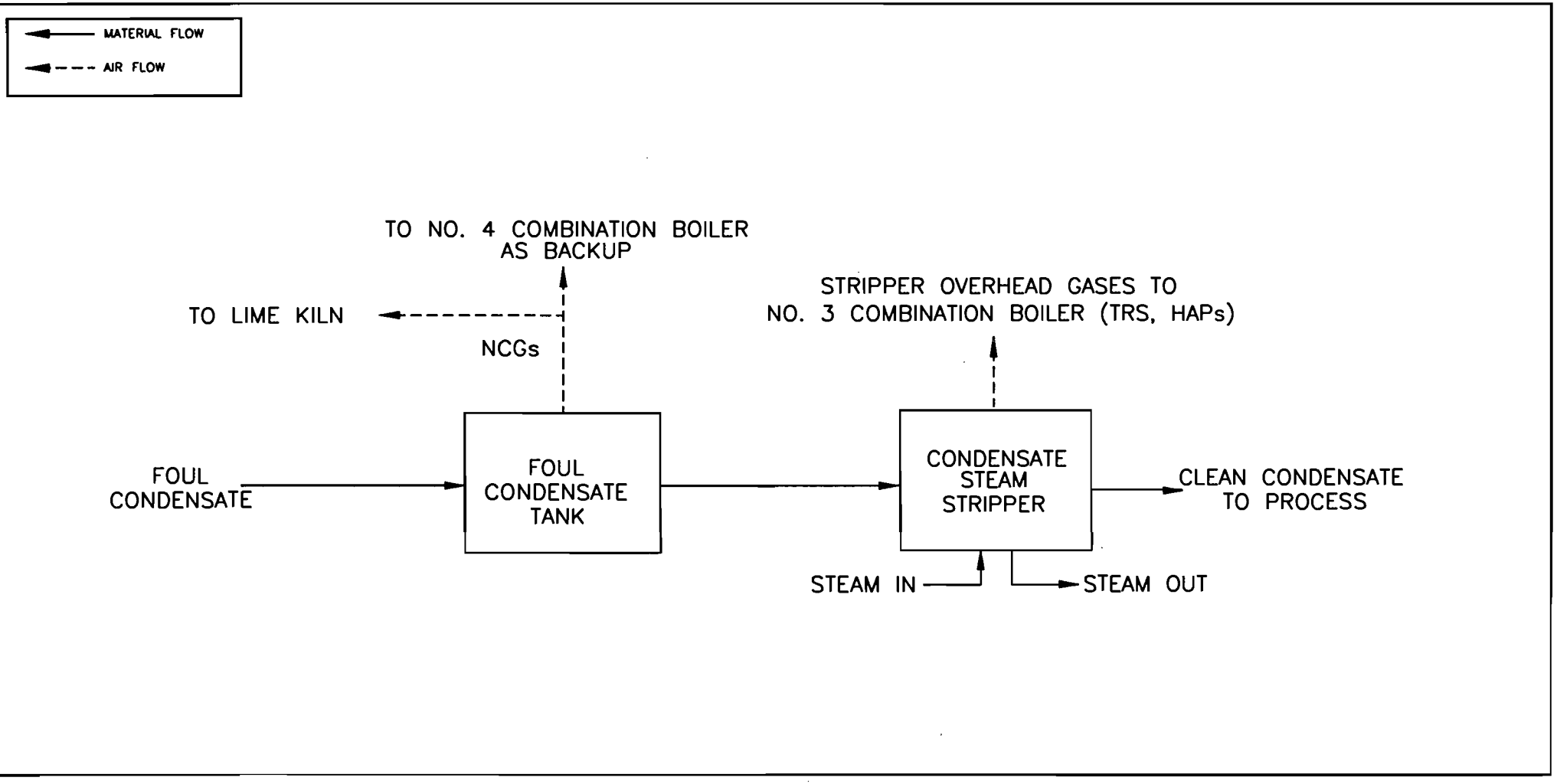
CONTINUOUS MONITOR COMMENT

ATTACHMENT SCC-EU3-I7
CONTINUOUS MONITOR COMMENT

Continuous monitoring requirements for Condensate Stripper process wastewater feed rate are specified in 63.453(g)(1); for Condensate Stripper steam feed rate are specified in 63.453(g)(2); and for Condensate Stripper process wastewater column feed temperature are specified in 63.453(g)(3). As an alternative, SCC may choose to measure methanol outlet concentration per 63.446(e)(4) or (5). Compliance with this requirement will be demonstrated using the condensate collection and treatment compliance demonstration plan approved by the Department on October 14, 1999.

ATTACHMENT SCC-EU3-J1

PROCESS FLOW DIAGRAM



SMURFIT – STONE CONTAINER CORPORATION PANAMA CITY, FL PROCESS FLOW DIAGRAM SCC–EU3–J1	EMISSION UNIT: CONDENSATE STRIPPER PROCESS AREA: FOUL CONDENSATE SYSTEM FILENAME: 9937518Y/F1/WP/SCC–EU3–J1.DWG LATEST REVISION: 3/28/2000 BY PAC	Golder Associates

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Regulated or Unregulated Emissions Unit? (Check one)

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
No. 3 Combination Boiler

4. Emissions Unit Identification Number:
ID: **015**
[ ] No ID
[ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A		**28**	[ ]

9. Emissions Unit Comment: (Limit to 500 Characters)

The proposed Condensate Stripper system will vent to the No. 3 Combination Boiler as a TRS/HAP control device.

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

Venturi Scrubber

Incineration of TRS/HAP gases

2. Control Device or Method Code(s): **53, 21**

Emissions Unit Details

1. Package Unit:
   Manufacturer: Model Number:
2. Generator Nameplate Rating: MW
3. Incinerator Information:
   Dwell Temperature: °F
   Dwell Time: seconds
   Incinerator Afterburner Temperature: °F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:		**503**	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr		tons/day
3. Maximum Process or Throughput Rate:			
4. Maximum Production Rate:		**300,000**	**lb (steam)/hr**
5. Requested Maximum Operating Schedule:			
	24 hours/day	**7**	days/week
	52 weeks/year	**8,760**	hours/year

6. Operating Capacity/Schedule Comment (limit to 200 characters):

Maximum rate based on requested permit limit, when burning combination of fuels: No. 6 fuel oil - 378 MMBtu; Bark - 474 MMBtu/hr; natural gas - 30 MMBtu/hr; and primary clarified wood waste - 0 MMBtu/hr.

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Attachment SCC-EU8-C

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? **EU12**	2. Emission Point Type Code: **1**
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):	
5. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:	

5. Discharge Type Code: **V**	6. Stack Height: **213** feet	7. Exit Diameter: **7.8** feet
8. Exit Temperature: **149** °F	9. Actual Volumetric Flow Rate: **221,100** acfm	10. Water Vapor: %

11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet
13. Emission Point UTM Coordinates: Zone: East (km): North (km):	
14. Emission Point Comment (limit to 200 characters):	

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 1 of 4

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **External combustion boilers; Industrial; Residual Oil: Grade 6 Oil**		
2. Source Classification Code (SCC): **1-02-004-01**	3. SCC Units: **1000 gallons burned**	
4. Maximum Hourly Rate: **2.52**	5. Maximum Annual Rate: **22,075**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **2.4**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **150**
10. Segment Comment (limit to 200 characters):		

Segment Description and Rate: Segment 2 of 4

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **External combustion boilers; Industrial: Wood/Bark Waste**		
2. Source Classification Code (SCC): **1-02-009-01**	3. SCC Units: **tons burned**	
4. Maximum Hourly Rate: **30**	5. Maximum Annual Rate: **262,800**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **9**
10. Segment Comment (limit to 200 characters): **Wood/bark on a dry basis.**		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 3 of 4

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **External combustion boilers; Industrial: Natural Gas**		
2. Source Classification Code (SCC): **1-02-006-01**	3. SCC Units: **million cubic feet burned**	
4. Maximum Hourly Rate: **0.030**	5. Maximum Annual Rate: **262.8**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **1,000**
10. Segment Comment (limit to 200 characters):		

Segment Description and Rate: Segment 4 of 4

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **External combustion boilers; Industrial: Solid Waste**		
2. Source Classification Code (SCC): **1-02-011-01**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **0.417**	5. Maximum Annual Rate: **3,650**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **0**
10. Segment Comment (limit to 200 characters): **Maximum Rate based on 10 tons (primary classified wood waste)/day. Heating value contribution is negligible due to high moisture content (78%).**		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	053		EL
PM_{10}	053		NS
SO_2			EL
NO_X			NS
CO			NS
VOC			NS
TRS	021		EL
PB			NS
HAPS	021		NS
H038			NS
H106			NS
H115			NS

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **109.5** lb/hour **479.61** tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **Permit Limit** Reference: **Permit Limit**	7. Emissions Method Code: **0**
8. Calculation of Emissions (limit to 600 characters): **Current permit limit is a maximum of 109.5 lb/hr. See Attachments SCC-EU8-G1 through G6.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.1 lb(PM)/MMBtu**	4. Equivalent Allowable Emissions: **41.1** lb/hour **180** tons/year
5. Method of Compliance (limit to 60 characters): **Annual test using EPA Test Method 5**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **62-296.410(1)(b)2.; Requested Allowable Emission Factor based on fossil fuel. Allowable emissions are 109.5 lb/hr (480 tons/yr) when any combination of fuel is utilized.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code:
8. Calculation of Emissions (limit to 600 characters):	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.3 lb(PM)/MMBtu**	4. Equivalent Allowable Emissions: **109.5** lb/hour **479.61** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Test Method 5**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **62-296.410(1)(b)2.; Requested Allowable Emission Factor based on carbonaceous fuel. Allowable emissions are 109.5 lb/hr (480 tons/yr) when any combination of fossil fuel is utilized.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **SO_2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **1,190.4** lb/hour **2,124.3** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **485 lb/hr** Reference: **Proposed Limit**	7. Emissions Method Code: **0**

8. Calculation of Emissions (limit to 600 characters):

Proposed 24-hour permit limit is 485 lb/hr. See Attachments SCC-EU8-G1 through G6. When both No. 3 and No. 4 Combination Boilers are burning oil or coal, or burning TRS gases, total SO_2 emissions from both boilers are limited to 525 lb/hr, 24-hr average.

9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):

SO_2 emissions controlled through caustic addition and SO_2 monitor.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions: **16 April 2001**
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: **1,190.4** lb/hour **2,124.3** tons/year

5. Method of Compliance (limit to 60 characters):

Source Test using EPA Method 6

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):

Proposed 24-hour average permit limit is 485 lb/hr.

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **TRS**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **3.81** lb/hour **16.7** tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **5 ppmvd** Reference: **62-296.404(3)(f)1.**	7. Emissions Method Code: **0**
8. Calculation of Emissions (limit to 600 characters): **5 ppmvd x 144,000 ft^3/min x 60 min/hr ÷ 1546 ft·lbf lb·mol °R x 34 lb(H_2S)/lb·mol(H_2S) ÷ 528°R x 2116.8 lbf/ft^2 = 3.81 lbs/hr**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Emission Factor corrected to 10% O_2 as 12-hr average.**	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **5 ppmvd**	4. Equivalent Allowable Emissions: **3.81** lb/hour **16.7** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Test Method 16, 16A or 16B**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **62-296.404(3)(f)1. Emissions corrected to 10% O_2 as a 12-hr avg. Allowable emissions only apply when gases from the Condensate Stripper are vented from the No. 3 Combination Boiler.**	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: **VE30**	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: **30** % Exceptional Conditions: **40** % Maximum Period of Excess Opacity Allowed: **2** min/hour	
4. Method of Compliance: **Annual test using EPA Method 9 while operating under normal mix of fuels.**	
5. Visible Emissions Comment (limit to 200 characters): **Due to interference, the visible emission limiting standard pursuant to 62-296.410(1)(b)1. is not applicable and is deferred to 62-296.404(2)(b).**	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor 1 of 4

1. Parameter Code: **TEMP**	2. Pollutant(s):
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): **TEMP CMS required by 62-296.405(5)(c). Only required to operate when incinerating TRS gases.**	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor 2 of 4

1. Parameter Code: **pH**	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [X] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): **SO_2 control system using the existing scrubber with a continuous SO_2 monitor and alkaline addition control system.**	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor 3 of 4

1. Parameter Code: O_2	2. Pollutant(s):
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): **62-296.404(5)(c).**	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor 4 of 4

1. Parameter Code: SO_2	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [X] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): ***SO_2 monitor will be installed to determine compliance with SO_2 limits.***	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: SCC-EU8-J1 [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [X] Attached, Document ID: SCC-EU8-J2 [ ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [X] Attached, Document ID: SCC-EU8-J3 [ ] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID: Attachment A [ ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
[ ] Attached, Document ID:_____ [ ] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID:_____ [ ] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:_____ [ ] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [ ] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID:_____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:_____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:_____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:_____

[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID:_____

[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID:_____

[ ] Not Applicable

ATTACHMENT SCC-EU8-C

APPLICABLE REGULATIONS

ATTACHMENT SCC-EU8-C

Specific Emissions Unit Name (ID): No. 4 Combination Boiler (Non-NSPS)
Facility Name (ID): Stone Container Corporation (10-PCY-03-0009)

Rule Number	PA/A	Rule Title/Summary	Applicability Comment
62-296.404(2)(b) 62-296	A	Kraft (Sulfate) Pulp Mills and Tall Oil Plants: Visible emission limits for sources equipped with wet scrubbers only apply if plume unaffected by plume mixing or moisture condensation	
62-296.404(3)(a)3 62-296	A	Kraft (Sulfate) Pulp Mills and Tall Oil Plants: TRS emissions shall not be vented to the atmosphere except in emergencies or when control device is shut down. Develop an approved contingency plan. Venting allowed for up to 10 days.	Contingency plan requires only that backup devices be assessed, & contingency plan
62-296.404(3)(f) 62-296	A	Kraft (Sulfate) Pulp Mills and Tall Oil Plants: Other Combustion Devices Used to Incinerate TRS Emissions	
62-296.404(4)(e)2. 62-296	A	Test Methods and Procedures: PM for dry control emissions units: EPA Method 5- minimum sample volume 32 dscf. An acetone wash shall be used	
62-296.404(4)(3)3	A	Test Methods and Procedures: TRS: EPA Method 16 or EPA Method 16A or EPA Method	
62-296 168.		EPA Method 16 or EPA Method 16A shall be required for instrument certification and compliance testing.	
62-296.404(4)(f) 62-296	A	Test Methods and Procedures: Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.	
62-296.404(5)(c) 62-296	A	Continuous Emissions Monitoring Requirements: Incinerators shall be equipped with devices to continuously monitor temperature at the point of combustion and oxygen.	Temperature and 02 CMS
62-296.410(1)(b)1.	A	Carbonaceous Fuel Burning Equipment.: Visible emissions -30x opacity (except 62-296 40x opacity for not more than two minutes in any one hour)	
62-296.410(1)(b)2.	A	Carbonaceous Fuel Burning Equipment: Particulate Matter -0.3 lb/MMBtu of 62-296 carbonaceous fuel plus 0.1 lb/MMBtu of fossil fuel.	
62-296.410(3)	A	Test Methods and Procedures: All emissions tests performed pursuant to the 62-296 requirements of this section shall comply with the following requirements	
62-297.310	A	General Test Requirements: The focal point of a compliance test is the stack 62-297 or duct which vents process and/or combustion gases and air pollutants from an emissions unit into the ambient air.	

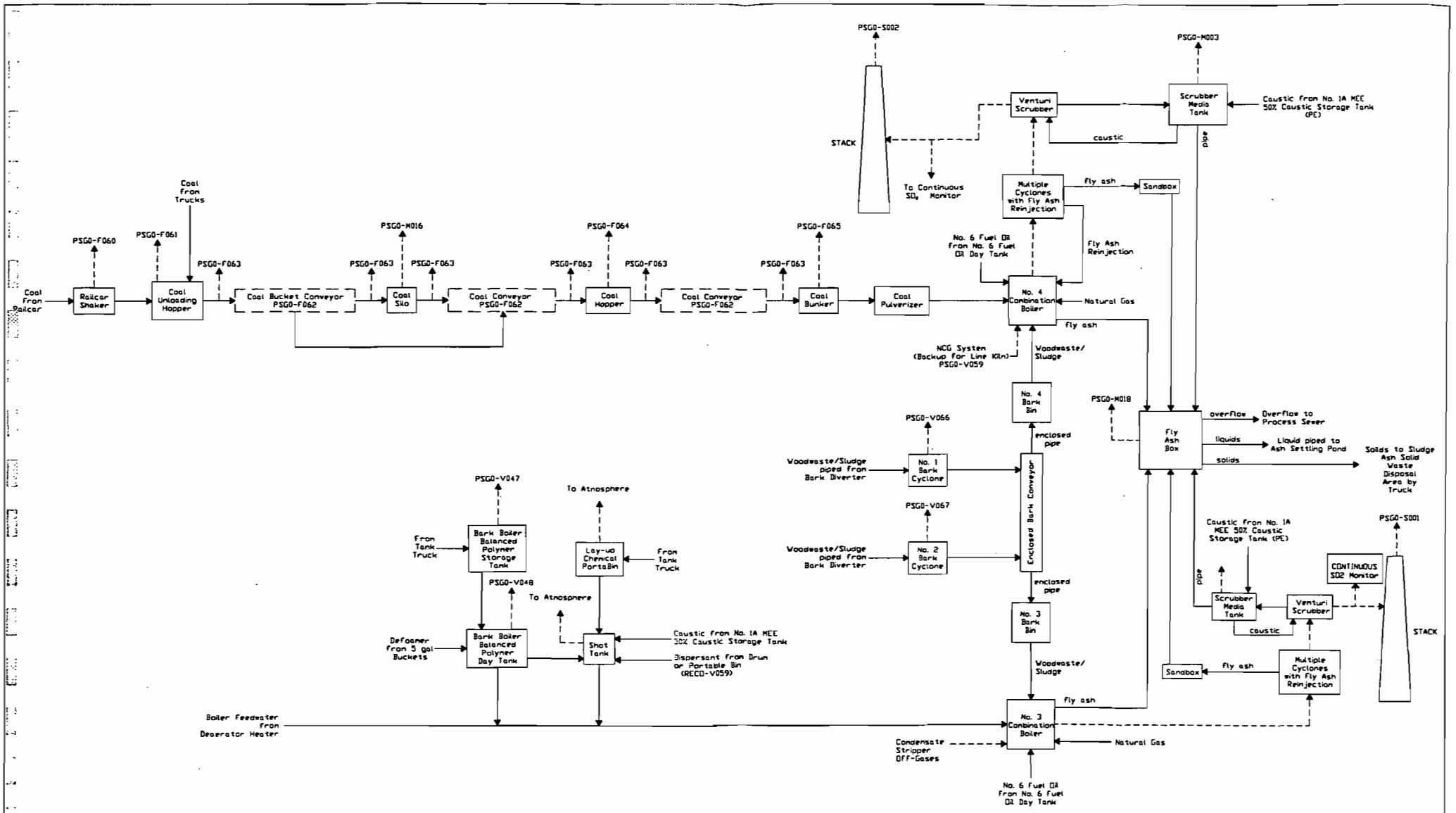
ATTACHMENT SCC-EU8-C

Specific Emissions Unit Name (ID): No. 4 Combination Boiler (Non-NSPS)
Facility Name (ID): Stone Container Corporation (10-PCY-03-0009)

Rule Number	PA/A	Rule Title/Summary	Applicability Comment
62-297.401(1)(a)	A	EPA Method 1 --Sample and Velocity Traverses for Stationary sources --40 CFR 62-297 Test Method 60 Appendix A.	
62-297.401(16)	A	EPA Method 16 --Semicontinuous Determination of Sulfur Emissions from 62-297 Test Method Stationary Sources --40 CFR:	
62-297.401(16)(a)	A	EPA Method 16A --Determination of Total Reduced Sulfur Emissions from 62-297 Test Method Stationary Sources (Impinger)	
62-297.401(16)(b)	A	EPA Method 16B --Determination of Total Reduced Sulfur Emissions from 62-297 Test Method Stationary Sources --40 CFR:	
62-297.401(2)	A	EPA Method 2 --Determination of Stack Gas Velocity and Volumetric Flow Rate -- 62-297 Test Method 40 CFR 60 Appendix A:	
62-297.401(3)	A	EPA Method 3 --Gas Analysis of Carbon Dioxide, Oxygen, Excess Air, and Dry 62-297 Test Method Molecular Weight --40	
62-297.401(4)	A	EPA Method 4 --Determination of Moisture Content in Stack Glases --40 CFR 60-62-297 Test Method Appendix A.:	
62-297.401(5)	A	EPA Method 5 --Determination of Particulate Emissions from Stationary Sources 62-297 Test Method Sources -.40 CFR 60 Appendix:	
62-297.401(6)	A	EPA Method 6 --Determination of Sulfur Dioxide Emissions from Stationary 62-297 Test Method Sources -.40 CFR 60 Appendix:	
62-297.401(9)(c)		DEP Method 9 62-297	
40 CFR 63.443(d)(4)		MACT Standards - HAP reduction in Boiler	
40 CFR 63.443(d)(4)		MACT Standards - Excess Emissions	

ATTACHMENT SCC-EU8-J1

PROCESS FLOW DIAGRAM



Process Flow Legend

Gas ---------->

Steam ----------->

Covered Conveyor

Enclosed Conveyor

Stone Container Corp.
Panama City, FL
Process Flow Diagram
SCC-EU8-J1

Emission Unit:	No. 3 and 4 Combination Boiler
Process Area:	Utilities/Miscellaneous
Filename:	9937518Y/F1/WP/SCC-EU8-J1.dwg
Latest Revision:	04/05/2000 by PAC

Golder Associates

ATTACHMENT SCC-EU8-J2

FUEL ANALYSIS

ATTACHMENT SCC-EU8-J2

No. 3 Combination Boiler
Fuel Analysis

Fuel	Density (lb/gal)	Moisture (%)	Weight % Sulfur	Weight % Nitrogen	Weight % Ash	Heat Capacity
No. 6 Fuel Oil	8.33	--	2.4	0.08	0.1	145,000 - 150,000 Btu/gal
Carbonaceous Fuel *	--	50	--	--	1.2 - 2.7	4,500 Btu/lb
Natural Gas	--	--	0.1	--	--	1,000 Btu/cf

* Includes bark/woodwaste (wet), primary clarified wood waste, bark fly ash, and sludge.

ATTACHMENT SCC-EU8-J3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT SCC-EU8-J3

Control Equipment Parameters (a)

No. 3 Combination Boiler Scrubber (Venturi)

Manufacturer	FMC Link-Belt	
Model No.	200K Dual-Throat	
Date of Installation	1974	
Inlet Gas Flow Rate	220,000-235,000	ACFM
Outlet Gas Temperature	140-150	°F
Outlet Gas Flow Rate	220,000-235,000	ACFM
Pressure Drop Across Device	8	inches of H_2O
Scrubber Media (b)	Water	
Scrubber Liquor Flow Rate	1,500-2,500	gpm
Average Scrubbing liquor pH (c)	Variable	pH units
Control Efficiency - Particulate Matter (d)	90	%
Control Efficiency - Sulfur Dioxide (e)	50-95	%
Maximum Permitted Particulate Matter Emission Rate (f)	109.5	lb (PM)/hr
Maximum Permitted Sulfur Dioxide Emission Rate (g)	485	lb (SO_2)/hr

(a) Control equipment parameters may vary according to process conditions.
(b) pH controlled with caustic
(c) SO_2 monitor with caustic addition.
(d) Based on manufacturer's quote.
(e) Based on caustic scrubbing.
(f) Values obtained from Permit AO03-252353. Based on Carbonaceous fuel firing.
(g) Based on proposed permit limit.

Attachment SCC-EU8-G1. Maximum Fuel Usage and Heat Input Rates, No. 3 Combination Boiler, Stone Container, Panama City

Fuel	Heat Input to Boiler	Heat Transfer Efficiency (%)	Heat Output to Steam	Fuel Firing Rate
		Maximum Individual Fuel Rates		
Wood/Bark	474 MMBtu/hr	72	341 MMBtu/hr	30.0 tons/hr,dry (a)
No. 6 Oil	378 MMBtu/hr	85	321 MMBtu/hr	2,520 gal/hr (b)
Natural Gas	30 MMBtu/hr	80	24 MMBtu/hr	30,000 scf/hr
		Maximum Wood/Bark Firing		
Wood/Bark	474 MMBtu/hr	72	341 MMBtu/hr	30.0 tons/hr,dry (a)
No. 6 Oil	29 MMBtu/hr	85	25 MMBtu/hr	193 gal/hr (b)
Natural Gas	0 MMBtu/hr	80	0 MMBtu/hr	0 scf/hr
TOTAL	503 MMBtu/hr		366 MMBtu/hr	
		Maximum No. 6 Fuel Oil Firing		
Wood/Bark	62 MMBtu/hr	72	45 MMBtu/hr	3.9 tons/hr,dry (a)
No. 6 Oil	378 MMBtu/hr	85	321 MMBtu/hr	2,520 gal/hr (b)
Natural Gas	0 MMBtu/hr	80	0 MMBtu/hr	0 scf/hr
TOTAL	440 MMBtu/hr		366 MMBtu/hr	

Note: Total heat input to steam = 366 MMBtu/hr, derived as follows:
Net enthalpy of steam = 1,219 Btu/lb
Max. steam rate = 300,000 lb/hr
300,000 lb/hr x 1,219 Btu/lb = 366 MMBtu/hr

Fuels may be burned in combination, not to exceed indicated total heat outputs.

(a) Based on heating value for wood waste of 7,900 Btu/lb, dry basis.
(b) Based on heating value for No. 6 fuel oil of 150,000 Btu/gal.

Attachment SCC-EU8-G2. Maximum Emissions for Individual Fuels, No. 3 Combination Boiler Stone Container, Panama City

Regulated Pollutant	No. 6 Oil					Wood/Bark					Natural Gas				
	Emission Factor	Ref.	Activity Factors (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a,b)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	0.10 lb/MMBtu	1	378 MMBtu/hr	37.80	165.56	0.3 lb/MMBtu	1	474 MMBtu/hr	109.50 (e)	479.61	0.1 lb/MMBtu	1	30 MMBtu/hr	3.00	13.14
Particulate (PM10)	86 % of PM	9	–	32.51	142.39	87 % of PM	5	–	95.27	417.26	0.1 lb/MMBtu	1	30 MMBtu/hr	3.00	13.14
Sulfur dioxide: 3-hr	157S lb/Mgal	2	2.52 Mgal/hr	949.54		0.075 lb/TWWF	5	60.0 tons/hr	4.50		0.6 lb/MMscf	6	0.03 MMscf/hr	0.018	
24-hr	485 lb/hr (d)	8	–	485.00	2,124.30	0.075 lb/TWWF	5	60.0 tons/hr	4.50	19.71	0.6 lb/MMscf	6	0.03 MMscf/hr	0.018	0.079
Nitrogen oxides	47 lb/Mgal	2	2.52 Mgal/hr	118.44	518.77	1.5 lb/TWWF	5	60.0 tons/hr	90.00	394.20	280 lb/MMscf	6	0.03 MMscf/hr	8.40	36.79
Carbon monoxide	5 lb/Mgal	2	2.52 Mgal/hr	12.60	55.19	2.923 lb/TWWF	7	60.0 tons/hr	175.38	768.16	84 lb/MMscf	6	0.03 MMscf/hr	2.52	11.04
VOC	0.28 lb/Mgal	2	2.52 Mgal/hr	0.71	3.09	0.12 lb/TWWF	3	60.0 tons/hr	7.20	31.54	5.5 lb/MMscf	6	0.03 MMscf/hr	1.65E-01	7.23E-01
Sulfuric acid mist: 24-hr	5.7S lb/Mgal (c)	2	2.52 Mgal/hr	42.23	184.97	6.1 % of SO2	4	60.0 tons/hr	0.27	1.20	6.1 % of SO2	4	–	0.0011	0.0048
Total reduced sulfur	–		–	–	–	–		–	–	–	–		–	–	–
Lead	1.51E-03 lb/Mgal	2	2.52 Mgal/hr	3.81E-03	1.67E-02	4.45E-04 lb/TWWF	5	60.0 tons/hr	2.67E-02	1.17E-01	1.00E-08 lb/MMscf	6	0.03 MMscf/hr	3.00E-10	1.31E-09
Mercury	1.13E-04 lb/Mgal	2	2.52 Mgal/hr	2.85E-04	1.25E-03	5.15E-06 lb/TWWF	5	60.0 tons/hr	3.09E-04	1.35E-03	2.60E-04 lb/MMscf	6	0.03 MMscf/hr	7.80E-06	3.42E-05
Beryllium	2.78E-05 lb/Mgal	2	2.52 Mgal/hr	7.01E-05	3.07E-04	– –		– –	–	–	1.20E-05 lb/MMscf	6	0.03 MMscf/hr	3.60E-07	1.58E-06
Fluorides	3.73E-02 lb/Mgal	2	2.52 Mgal/hr	9.40E-02	4.12E-01	– –		– –	–	–	– –		– –	–	–

Notes:
TWWF - ton of wet wood residue fuel
All annual emissions based on 8,760 hr/yr operation.
Footnotes:
(a) Refer to Attachment SCC-EU8-G1.
(b) Based on 30 tons/hr dry basis, and 50% moisture in wood/bark.
(c) S = 2.4% max by current permit
(d) Proposed permit limit for 24 hour average for No. 3 Combination Boiler operating, with No. 4 Combination Boiler shutdown or operating on bark/natural gas only .
(e) Based on limit in current operating permit.
References:
1. Based on Florida Rule 62-296.410.
2. Emission Factors based on AP-42 Section 1.3 Table 1.3-1, 1.3-3, 1.3-4 and 1.3-11 for metals (assuming uncontrolled for metals). For sulfuric acid mist, factor shown is for SO3. Convert to HsSO4 by multiplying by 98/80.
3. Emission Factor Based on NCASI TB 646 for an average Spreader Stoker Boilers with Scrubbers Tables1, 2, and 3.
4. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil: 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and sulfur trioxide molecular weights (98/80).
5. Emission Factors based on AP-42 Section 1.6 Table 1.6-1, 1.6-2, 1.6-3, 1.6-5 and 1.6-6 (2/99).
6. Emission Factors based on AP-42 Section 1.4 Table 1.4-1, 1.4-2, and 1.4-4.
7. Emission Factor Based on NCASI TB 416, Table 4.
8. Based on proposed permit limit.
9. Based on AP-42 Section 1.3, Table 1.3-5, for industrial boilers firing residual oil with no control.

Attachment SCC-EU8-G3. Emissions from Maximum Wood/Bark Firing with Supplemental Fuel Oil Firing, No. 3 Combination Boiler, Stone Container, Panama City.

Regulated Pollutant	No. 6 Fuel Oil			Wood/Bark			Total	
	Emission Factor	Activity Factors	Hourly Emissions (lb/hr)	Emission Factor	Activity Factors	Hourly Emissions (lb/hr)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	0.10 lb/MMBtu	29 MMBtu/hr	2.90	0.3 lb/MMBtu	474 MMBtu/hr	109.50 (a)	109.50	479.61
Particulate (PM10)	86 % of PM	-- --	2.49	87 % of PM	-- --	95.27	97.76	428.18
Sulfur dioxide	157S lb/Mgal	0.193 Mgal/hr	72.7	0.075 lb/TWWF	60.0 tons/hr	4.50	77.22	338.23
Nitrogen oxides	47 lb/Mgal	0.193 Mgal/hr	9.07	1.5 lb/TWWF	60.0 tons/hr	90.00	99.07	433.93
Carbon monoxide	5 lb/Mgal	0.193 Mgal/hr	0.97	2.923 lb/TWWF	60.0 tons/hr	175.38	176.35	772.39
VOC	0.28 lb/Mgal	0.193 Mgal/hr	0.05	0.12 lb/TWWF	60.0 tons/hr	7.20	7.25	31.77
Sulfuric acid mist	5.7S lb/Mgal	0.193 Mgal/hr	2.64	6.1 % of SO2	60.0 tons/hr	0.27	2.91	12.77
Total reduced sulfur	--	--	--	--	--	--	--	--
Lead	1.51E-03 lb/Mgal	0.193 Mgal/hr	2.9E-04	4.45E-04 lb/TWWF	60.0 tons/hr	0.027	0.027	0.12
Mercury	1.13E-04 lb/Mgal	0.193 Mgal/hr	2.2E-05	5.15E-06 lb/TWWF	60.0 tons/hr	3.09E-04	3.31E-04	1.45E-03
Beryllium	2.78E-05 lb/Mgal	0.193 Mgal/hr	5.4E-06	-- --	-- --	--	5.37E-06	2.35E-05
Fluorides	3.73E-02 lb/Mgal	0.193 Mgal/hr	7.2E-03	-- --	-- --	--	7.20E-03	3.15E-02

See Attachment SCC-EU8-G2 for emission factors and references.
(a) Based on limit in current operating permit.

Attachment SCC-EU8-G4. Emissions from Maximum Fuel Oil Firing with Supplemental Wood/Bark Firing, No. 3 Combination Boiler, Stone Container, Panama City

Regulated Pollutant	No. 6 Oil			Wood/Bark			Total	
	Emission Factor	Activity Factors	Hourly Emissions (lb/hr)	Emission Factor	Activity Factors	Hourly Emissions (lb/hr)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	0.10 lb/MMBtu	378 MMBtu/hr	37.80	0.3 lb/MMBtu	62 MMBtu/hr	18.60	56.40	247.03
Particulate (PM10)	86 % of PM	--	32.51	87.0 % of PM	--	16.18	48.69	213.26
Sulfur dioxide: 3-hr	157S lb/Mgal	2.52 Mgal/hr	949.54	0.075 lb/TWWF	7.8 tons/hr	0.59	950.12	
24-hr	485 lb/hr	--	485.00	0.075 lb/TWWF	7.8 tons/hr	0.59	485.00	2,124.30
Nitrogen oxides	47 lb/Mgal	2.52 Mgal/hr	118.44	1.5 lb/TWWF	7.8 tons/hr	11.70	130.14	570.01
Carbon monoxide	5 lb/Mgal	2.52 Mgal/hr	12.60	2.923 lb/TWWF	7.8 tons/hr	22.80	35.40	155.05
VOC	0.28 lb/Mgal	2.52 Mgal/hr	0.71	0.120 lb/TWWF	7.8 tons/hr	9.36E-01	1.64	7.19
Sulfuric acid mist	5.7S lb/Mgal	2.52 Mgal/hr	42.23	6.1 % of SO2	7.8 tons/hr	0.04	42.27	185.12
Total reduced sulfur	--	--	--	--	--	--	--	--
Lead	1.51E-03 lb/Mgal	2.52 Mgal/hr	3.81E-03	4.45E-04 lb/TWWF	7.8 tons/hr	3.47E-03	7.28E-03	3.19E-02
Mercury	1.13E-04 lb/Mgal	2.52 Mgal/hr	2.85E-04	5.15E-06 lb/TWWF	7.8 tons/hr	4.02E-05	3.25E-04	1.42E-03
Beryllium	2.78E-05 lb/Mgal	2.52 Mgal/hr	7.01E-05	--	--	--	7.01E-05	3.07E-04
Fluorides	3.73E-02 lb/Mgal	2.52 Mgal/hr	9.40E-02	--	--	--	9.40E-02	4.12E-01

See Attachment SCC-EU8-G2 for emission factors and references.

Attachment SCC-EU8-G5. Emissions from No. 3 Combination Boiler Due to Condensate Stripper Off-Gas Burning, Stone Container, Panama City

Regulated Pollutant	Emission Factor	Ref.	Activity Factors	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	--		--	--	--
Particulate (PM10)	--		--	--	--
Sulfur dioxide: 3-hr	1.43 lb/ton ADUP	1	120 tons ADUP/hr	240.24	--
24-hr	1.43 lb/ton ADUP	1	120 tons ADUP/hr	240.24	1,052.25
Nitrogen oxides: 1-hr	0.25 lb/ODTP	2	108 ODTP/hr (a)	27.00	--
Annual	0.25 lb/ODTP	2	702,900 ODTP/yr (a)	--	87.86
Carbon monoxide	--		--	--	--
VOC	--		--	--	--
Sulfuric acid mist	--		--	--	--
Total reduced sulfur	5 ppmvd	3	144,000 dscfm	3.81	16.69
Lead	--		--	--	--
Mercury	--		--	--	--
Beryllium	--		--	--	--
Fluorides	--		--	--	--

(a) Based on 120 ADTP/hr and 781,000 ADTP/yr. ODTP= oven-dried tons of pulp = ADTP*0.9.
References:
1. Based on NCASI Tech. Bulletin No. 701, Table 6. Factor is for TRS; 70% of TRS is sulfur.
2. Based on NCASI draft bulletin entitled: The Effects of Stripper Off-Gas Burning on NOX Emissions.
3. Based on Florida Rule: 62-296.404(3)(f)1, and gas flow rate for No. 3 Combination Boiler.

Attachment SCC-EU8-G6. Proposed Maximum Emissions For Alternate Fuel Scenarios for No. 3 Combination Boiler, Stone Container, Panama City

Regulated Pollutant	Maximum Wood/Bark plus Fuel Oil		Maximum Fuel Oil plus Wood/Bark		Condensate Stripper		Maximum (a)	
	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	109.50	479.61	56.40	247.03	--	--	109.50	479.61
Particulate (PM10)	97.76	428.18	48.69	213.26	--	--	97.76	428.18
Sulfur dioxide: 3-hr	77.22	--	950.12	--	240.24	--	1,190.36	--
24-hr	77.22	338.23	485.00	2,124.30	240.24	1,052.25	485.00	2,124.30
Nitrogen oxides	99.07	433.93	130.14	570.01	27.00	87.86	157.14	657.88
Carbon monoxide	176.35	772.39	35.40	155.05	--	--	176.35	772.39
VOC	7.25	31.77	1.64	7.19	--	--	7.25	31.77
Sulfuric acid mist	2.91	12.77	42.27	185.12	--	--	42.27	185.12
Total reduced sulfur	--	--	--	--	3.81	16.69	3.81	16.69
Lead	2.70E-02	1.18E-01	7.28E-03	3.19E-02	--	--	2.70E-02	1.18E-01
Mercury	3.31E-04	1.45E-03	3.25E-04	1.42E-03	--	--	3.31E-04	1.45E-03
Beryllium	5.37E-06	2.35E-05	7.01E-05	3.07E-04	--	--	7.01E-05	3.07E-04
Fluorides	7.20E-03	3.15E-02	9.40E-02	4.12E-01	--	--	9.40E-02	4.12E-01

(a) Maximum of either firing scenario plus the condensate stripper, except for 24-hour SO2 emissions, which are limited to 485 lb/hr.

AIR OPERATING AND CONSTRUCTION PERMITS

Department of
Environmental Protection

Lawton Chiles
Governor

Northwest District
160 Governmental Center
Pensacola, Florida 32501-5794

Virginia B. Wetherell
Secretary

PERMITTEE:

Stone Container Corporation

I.D. Number: 10PCY03000915
Permit/Certification Number: AO03-252353
Date of Issue: July 5, 1994
Expiration Date: May 31, 1999
County: Bay
Latitude/Longitude: 30°08'30"N/85°37'25"W
Project: Operation of Bark Boiler No. 3

This permit is issued under the provisions of Section 403.087, Florida Statutes, and Florida Administrative Code Rules 17-296, 17-297 and 17-4. The above named applicant, hereinafter called Permittee, is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Operation of Bark Boiler No. 3, fueled by No. 6 fuel oil, wood waste including bark and pressed sludge/wood fiber from the primary clarifier, and natural gas. The boiler's maximum output capacity is 300,000 pounds of steam per hour. Particulate matter (PM) emissions are controlled by a fly ash arrestor, model MTSA-380-9CVT, followed by a wet scrubber manufactured by FMC Link-Belt, model 200K dual-throat. Sulfur dioxide emissions are controlled by limiting sulfur to 2.4% in the fuel oil.

Operation of this source shall be consistent with the operation permit application dated June 13, 1994.

Located at 1 Everitt Avenue, Panama City.

Specific Condition No. 2 establishes maximum allowable operating and testing rates.

Specific Condition No. 4 establishes maximum allowable fuel utilization rates, heat inputs, and fuel oil sulfur content.

Specific Condition No. 6 establishes maximum allowable emission limits.

Specific Condition No. 7 requires emissions testing.

Specific Condition No. 8 requires submission of an annual operation report.

Specific Condition No. 9 requires submission of a Major Air Pollution Source Annual Operation Fee Form.

Specific Condition No. 10 requires submission of a renewal permit application.

PERMITTEE:

Stone Container Corporation

I.D. Number: 10PCY03000915
Permit/Certification Number: AO03-252353
Date of Issue: July 5, 1994
Expiration Date: May 31, 1999

SPECIFIC CONDITIONS:

General

1. The attached General Conditions are part of this permit (FAC Rule 17-4.160).

Operation

2. The maximum allowable operating rate is 300,000 pounds of steam produced per hour. This is the operating rate at which compliance with standards shall be demonstrated. Testing of emissions shall be conducted with the source operating at capacity. Capacity is defined as 90 to 100% of rated capacity. If it is impracticable to test at capacity, then sources may be tested at less than capacity; if the source is tested at less than capacity, subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacity is allowed for no more than fifteen days for purposes of additional compliance testing to regain the rated capacity in the permit with prior notification to the Department. (FAC Rule 17-4.070)

3. The maximum hours of operation are 24 hours/day, 7 days/week, and 52 weeks/year. (Application dated June 13, 1994)

4. The maximum fuel utilization rates, heat inputs, and percent sulfur content are as follows:

Fuel	Max Utilization Rate	Max Heat Input
No. 6 fuel oil	2,520 gal/hour	378 MMBtu/hr
Bark	50,000 lbs/hr	228 MMBtu/hr
Natural gas	30 MCF/hr	33 MMBtu/hr
Primary clarified wood waste	10 TPD	0 Btu/hr

Fuel oil shall contain a maximum of 2.4% sulfur. The Permittee shall maintain records of fuel utilization and of the fuel oil sulfur content and shall make them available as necessary for Department inspections. (Application dated June 13, 1994)

5. Satisfactory ladders, platforms, and other safety devices as well as necessary parts shall be provided, maintained, and made available as necessary to facilitate compliance inspections. (FAC Rule 17-297.345)

Emissions

6. The maximum allowable emission limit for each pollutant is as follows:

Pollutant	FAC Rule	Allowable Emissions
PM	17-296.410	0.3 lbs/MMBtu from carbonaceous fuels 0.1 lbs/MMBtu from natural gas Max of 109.5 lbs/hr
VE	17-296.410	30% opacity except for up to 2 minutes/hr at up to 40% opacity

PERMITTEE:

Stone Container Corporation

I.D. Number: 10PCY03000915
Permit/Certification Number: AO03-252353
Date of Issue: July 5, 1994
Expiration Date: May 31, 1999

SPECIFIC CONDITIONS:

Testing

7. Emissions tests for the following pollutants shall be performed between October 1 and November 30, in accordance with the test methods and frequency indicated, with notification to the Department 15 days prior to testing. The test results must provide reasonable assurance that the source is capable of compliance at the permitted maximum operating rate. No more than 4% of the heat input shall be supplied by gas during the test. For good cause, the Permittee may request an extension of a compliance test due date. However, inadequate planning of testing does not constitute good cause for an extension of the compliance test due date. The test report documentation must be submitted to the Department within 45 days after completion of testing.

Pollutant	Frequency	Test Method	Reference
PM	annually	EPA 5	FAC Rule 297.330
VE	annually	DEP 9	FAC Rule 297.330

The VE test shall be for a duration of 60 minutes and shall be conducted during one of the P.M. test runs. Test reports shall comply with F.A.C. Rule 17-297.570, Test Reports. The Department can require special compliance tests in accordance with F.A.C. Rule 17-297.340(2).

Administrative

8. An annual operation report [DEP Form 17-210.900(4) attached] shall be submitted by March 1 each year. The attached form shall be reproduced by the Permittee and used for future annual submittals (FAC Rule 17-210.370) .

9. In accordance with F.A.C. Rule 17-213, a Major Air Pollution Source Annual Operation Fee Form [DEP Form 17-213.900(11) attached] must be completed and submitted with appropriate fee between January 15 and March 1 of each year. If the Department has not received the fee payment by March 1, the Department shall impose, in addition to the fee, a penalty of 50 percent of the amount of the fee, plus interest on such amount computed in accordance with s.220.807, Florida Statutes. The Department may revoke any major air pollution source operation permit if it finds that the permit holder has failed to pay timely and required annual operation license fee, penalty or interest. The attached form shall be reproduced by the Permittee and used for future annual submittals. The completed form and appropriate fees must be submitted to the Department of Environmental Protection, Title V (Facility I.D. Number), 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

10. An application to renew this permit shall be submitted as required for a Title V permit (FAC Rule 17-210).

11. The permanent source identification number for this point source is 10PCY03000915. Please cite this number on all test reports and other correspondence specific to this permitted point source. (FAC Rule 17-297.570)

PERMITTEE:

Stone Container Corporation

I.D. Number: 10PCY03000915
Permit/Certification Number: AO03-252353
Date of Issue: July 5, 1994
Expiration Date: May 31, 1999

SPECIFIC CONDITIONS:

12. The Department telephone number for reporting problems, malfunctions or exceedances under this permit is (904) 444-8300, day or night, and for emergencies involving a significant threat to human health or the environment is (904) 488-1320. For routine business, use telephone number (904) 872-4375 during normal working hours. (FAC Rule 17-210.700)

Expiration Date:

May 31, 1999

Issued this 5th day of July, 1994.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Edie Middleswart

for BOBBY A. COOLEY
District Director

PERMITTEE:

Stone Container Corporation

I.D. Number: 10PCY03000915
Permit/Certification Number: AO03-252353
Expiration Date: May 31, 1999

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "permit conditions", and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, Florida Statutes. The Permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the Permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The Permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the Permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The Permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

a. Having access to and copying any records that must be kept under the conditions of this permit;

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and,

GENERAL CONDITIONS:

c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the Permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the Permittee shall immediately provide the Department with the following information:

a. A description of and cause of noncompliance; and

b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The Permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the Permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The Permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the Permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-730.300, as applicable. The Permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. The Permittee shall comply with the following:

a. Upon request, the Permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The Permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous

GENERAL CONDITIONS:

monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurement;
- the person responsible for performing the sampling or measurement;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. When requested by the Department, the Permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the Permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

PERMITTED BY)

NORTHWEST REGION
DEPT. OF POLLUTION CONTROL

PERMIT NO. AC03-2009

DATE 4DEC74

This application and permit

PAID
Ck. 2099
10-23-74

STATE OF FLORIDA
DEPARTMENT OF POLLUTION CONTROL

APPLICATION TO OPERATE/CONSTRUCT POLLUTION SOURCES

SECTION I – GENERAL INFORMATION FOR ALL POLLUTION SOURCES

I TO BE FILLED IN BY APPLICANT

Source Type: Air Pollution
Type application: [ ] Operation [ ] Temporary Operation [X] Construction
Status Source: [ ] New [ ] Existing [ ] Modification

Source Name: International Paper Company County: Bay

Source Location: Street: #1 Everett Avenue City: Panama City
(Water Source Only) Lat: ____ Long: ____
(Air Source Only) UTM: East Lat. 30° 08' 30" North Long. 85° 37' 25"

Appl. Name and Title: Joel R. Baker, Mill Manager
Appl. Address: P. O. Box 2487, Panama City, Fl. 32401

II TO BE FILLED IN BY REGION (*BY BUREAU OF PERMITTING)

Control No: Region ____ County ____ Type ____ *Project ____

Type Permit	Date Rec'd	*Permit No.	*Issue Date	*Compl. Date	*Exp. Date
Const.	10/23/74	AC03-2009	12/4/74	7/1/75	7/1/75

Source Description: No. 3 Bark Boiler
Control Equipment: Present equipment is a dry dust collector. A high energy wet scrubber will be installed following the dry collector.

Water Permits

Receiving Body Code: ____ Surface Water Code: ____
Station No.: Influent: ____ Effluent: ____

Effluent:	Average	Design	% Reduction
Flow rate, MGD			
BOD, lbs/day			
Susp. Sol., lbs/day			
Other:			

Air Permits

Operating Time: [X] Continuous [ ] Intermittent
Fuel: Type Bark, No. 6 Fuel Oil, Tall Oil M-BTU/hr. In Put ____
Incinerator: Capacity, tons/day Plant Residue Type Waste ____
Mfg. & Model ____

Pollutant Emissions, lbs/day	Actual	Design	Allowable
Particulate		0.1#/MMBTU	0.3#/MMBTU Bark 0.1#/MMBTU Oil & Gas
Sulfur Oxides			1.1 #/MMBTU
Other:			

Implementation: Estimated Appl. Filing Date ____
Estimated Start of Const. 11/1/74 Estimated Compliance Date 4/30/75

DESCRIPTION OF PROPOSED PROJECT

A. Describe the nature and extent of the proposed project. Refer to existing pollution control facilities, DPC permits, conditions, orders and notices, expected improvement in performance of the facilities and state whether the proposed project will result in full compliance of the source. Attach additional sheet if necessary.

Our No. 3 bark boiler covered by permit No. AO-03-693 presently has a dry fly ash dust collector. We propose in this project to install a high energy wet scrubber following the dry collector.

This scrubber will be supplied by FMC Corporation and will consist of a model 200K FMC link belt dual throat scrubber with hydraulically actuated throat insert and hydraulic cylinders; a model 200K cyclonic entrainment separator; and a power pack for actuation of the venturi throat.

Installation of this equipment will bring this unit into full compliance with State emissions limiting standards.

B. Schedule of Project Covered in this Application (Construction Permit Application Only).

Federally or State Financed Projects only:

Planning Complete _____

Financing Program Complete _____

Indicate other local, state and/or federal agency approvals and dates _____

All projects:

Start of Construction October 30, 1974

Completion of Construction April 30, 1974

C. Costs of Construction (Show a breakdown of costs for individual components/units of the proposed project serving pollution control purpose only). Information on actual costs shall be furnished with the application for operation permit.

Scrubber	$138,500
Related pumps, fans, soot blowers, etc.	145,000
Piping	17,400
Electrical	123,800
Instruments and controls	22,000
Steel & sundry materials	66,200
Foundations	5,800
Labor, contingencies, construction tools, engineering & craft fringes	275,000
Contingent Expense	35,000

D. Indicate any previous DPC permits, issuance dates, and expiration dates.

Permit No. AO-03-693 issued 9/21/72 had expiration date of 9/15/73, but was extended to 7/1/75 per compliance schedule dated May 29, 1973.

AIR POLLUTION SOURCES & CONTROL DEVICES

A. Identification of Air Contaminants

1) [ ] Particulates
   a) [ ] Dust b) [X] Fly Ash c) [X] Smoke d) [ ] Other (Identify)

2) [X] Sulfur Compounds
   a) [X] SO_x as SO_2 b) [X] Reduced Sulfur as H_2S c) [ ] Other (Identify)

3) [ ] Nitrogen Compounds
   a) [X] NO_x as NO_2 b) [ ] NH_3 c) [ ] Other (Identify)

4) [ ] Flourides 5) [ ] Acid Mist 6) [X] Odor

7) [ ] Hydrocarbons 8) [ ] Volatile Organic Compounds

9) [ ] Other (Specify): _____

B. Raw Materials and Chemicals Used (Be Specific)

Description	Utilization Tons/day, lbs./day, etc.	Approximate Contaminant Content		Relate to Flow Diagram
		Type	% Wt.	
Not Applicable				

C. Process Weight:

1) Total Process Weight Rate _____ lbs./hr. [See Sec. 17-2.04(2)]

2) Product Weight _____ lb./hr. expressed as _____

3) Normal Operating Time Continuous, if seasonal describe: _____

D. Airborne Contaminants Discharged:

Name of Contaminant	Actual Discharge	Discharge Criteria*	Allowable Discharge*	Relate Location to Flow Diagram
Particulate		0.1#/MMBTU	0.3#/MMBTU Bark 0.1#/MMBTU Oil	0
SO2			1.1#/MMBTU	0
Reduced Sulfur				0

* Refer to Chapter 17-2 Florida Administrative Code
(Discharge Criteria: Process Weight Rate, #/ton P_2O_5, #/M BTU/hr etc.)

Control Devices:

Name	Eff.	Conditions of Operation, Particle Size Range, etc.	Relate to Flow Diagram
Fly Ash Dust Collector		Not Applicable	F
Wet Scrubber	90.24	Not Applicable	O

F. Fuels:

Type (Be specific)	Daily Consumption	Heat Input BTU/hr.	Relate to Flow Diagram
No. 6 Fuel Oil	520 BBLS	136,500,000	C
Wood Bark	304 Tons/Day	114,800,000	B
Tall Oil Plant Residue	14 Tons/Day	20,700,000	N

G. Describe briefly, without revealing trade secrets, the unit processes/operations generating the airborne emissions identified in this application:

This is a combination fired steam generating boiler. Airborne emissions are generated by the combustion of fuels listed in section F.

H. Indicate liquid or solid wastes generated and method of disposal.

Sand and boiler slag are solid waste generated. They are sluiced to a settling pond.

STATEMENTS BY APPLICANT AND ENGINEER

A. Applicant

The undersigned owner or authorized representative of * International Paper Company is fully aware that the statements made in this application for a construction permit are true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to maintain and operate the pollution source and pollution control facilities in such a manner as to comply with the provisions of Chapter 403 Florida Statutes and all the rules and regulations of the Department or revisions thereof. He also understands that a permit, if granted by the Department, will be non-transferable and he will promptly notify the Department upon sale or legal transfer of the permitted establishment.

Joel R. Baker
Signature of the Owner or Authorized Representative

Joel R. Baker, Mill Manager
Name and Title (Please Type)

Date: 10/21/74 Telephone No.: 904/785-4311

* Attach a letter of authorization

B. Professional Engineer Registered in Florida:

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the control and discharge of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution source(s) with appropriate control facilities, when properly maintained and operated, will comply with all applicable statutes of the State of Florida and the rules and regulations of the Department. It is also agreed that the undersigned will furnish the applicant a set of instructions for the proper maintenance and operation of the installation covered in this application.

Signature: Philip Franklin Adams

Name: Philip Franklin Adams
(please type)

Florida Registration Number 4643
(Please affix seal)

Mailing Address: International Paper Company
Southern Kraft Division
P. O. Box 2328
Mobile, Alabama 36601

Telephone No.: 205/457-8911

Date: 10/16/74

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Regulated or Unregulated Emissions Unit? (Check one)

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
No. 4 Combination Boiler

4. Emissions Unit Identification Number:
ID: **016**
[ ] No ID
[ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A		**28**	[ ]

9. Emissions Unit Comment: (Limit to 500 Characters)

The Batch Digestor System and Multi Effect Evaporator may vent non-condensable gases (NCGs) to the No. 4 Combination Boiler as a backup control device.

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

Venturi Scrubber

Incineration of TRS gases (as a backup to the lime kiln)

2. Control Device or Method Code(s): **53, 21**

Emissions Unit Details

1. Package Unit: Manufacturer:	Model Number:	
2. Generator Nameplate Rating:	MW	
3. Incinerator Information:		
Dwell Temperature:		°F
Dwell Time:		seconds
Incinerator Afterburner Temperature:		°F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:			**545**	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr			tons/day
3. Maximum Process or Throughput Rate:				
4. Maximum Production Rate:			**330,000**	**lb (steam)/hr**
5. Requested Maximum Operating Schedule:				
	24	hours/day	**7**	days/week
	52	weeks/year	**8,760**	hours/year

6. Operating Capacity/Schedule Comment (limit to 200 characters):

Maximum rate based on requested permit limit when burning combination of fuels: No. 6 fuel oil – 473 MMBtu/hr; Bark – 474 MMBtu/hr; natural gas – 40 MMBtu/hr; and coal – 395 MMBtu/hr.

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Attachment SCC-EU9-C

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? **EU12**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):		
6. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **213** feet	7. Exit Diameter: **7.8** feet
8. Exit Temperature: **149** °F	9. Actual Volumetric Flow Rate: **256,950** acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone:	East (km):	North (km):
14. Emission Point Comment (limit to 200 characters):		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 1 of 4

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **External combustion boilers; Industrial; Residual Oil: Grade 6 Oil**		
2. Source Classification Code (SCC): **1-02-004-01**	3. SCC Units: **1000 gallons burned**	
4. Maximum Hourly Rate: **3.153**	5. Maximum Annual Rate: **27,620**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **2.4**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **150**
10. Segment Comment (limit to 200 characters):		

Segment Description and Rate: Segment 2 of 4

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **External combustion boilers; Industrial: Wood/Bark Waste**		
2. Source Classification Code (SCC): **1-02-009-01**	3. SCC Units: **tons burned**	
4. Maximum Hourly Rate: **30.0**	5. Maximum Annual Rate: **262,800**	6. Estimated Annual Activity Factor:
8. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **9**
10. Segment Comment (limit to 200 characters): **Wood/Bark waste on a dry basis.**		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 3 of 4

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **External combustion boilers; Industrial: Natural Gas**		
2. Source Classification Code (SCC): **1-02-006-01**	3. SCC Units: **million cubic feet burned**	
4. Maximum Hourly Rate: **0.04**	5. Maximum Annual Rate: **350.4**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **1,000**
10. Segment Comment (limit to 200 characters):		

Segment Description and Rate: Segment 4 of 4

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **External combustion boilers; Industrial: Solid Waste**		
2. Source Classification Code (SCC): **1-02-011-01**	3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **0.417**	5. Maximum Annual Rate: **3,650**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **0**
10. Segment Comment (limit to 200 characters): **Maximum Rate based on 10 tons (primary classified wood waste)/day. Heating value contribution is negligible due to high moisture content (78%).**		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	053		EL
PM_{10}	053		NS
SO_2			EL
NO_X			NS
CO			NS
VOC			NS
TRS	021		EL
PB			NS
HAPS	021		NS
H038			NS
H106			NS
H115			NS

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **86.6** lb/hour **379.31** tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **See Comment** Reference: **Permit Limit**	7. Emissions Method Code: **0**
8. Calculation of Emissions (limit to 600 characters): **Based on limit in construction permit. See Attachments SCC-EU9-G1 through G6.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Emission Factor: 0.3 lb(PM)/MMBtu from carbonaceous fuel; 0.1 lb(PM)/MMBtu from fossil fuel.**	

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.3 lb(PM)/MMBtu**	4. Equivalent Allowable Emissions: **86.6** lb/hour **379.31** tons/year
5. Method of Compliance (limit to 60 characters): **Annual test using EPA Test Method 5**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **62-296.410(1)(b)2.; Requested Allowable Emission Factor based on carbonaceous fuel. Allowable emissions are 86.6 lb/hr (379.31 tons/yr) when any combination of fuel is utilized.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code:
8. Calculation of Emissions (limit to 600 characters):	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.1 lb(PM)/MMBtu**	4. Equivalent Allowable Emissions: **47.3** lb/hour **207.2** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Test Method 5**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **62-296.410(1)(b)2.; Requested Allowable Emission Factor based on fossil fuel. Allowable emissions are 86.6 lb/hr (379.31 tons/yr) when any combination of fossil fuel is utilized.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **SO_2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **781** lb/hour **2,518.5** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **Permit Limit**	7. Emissions Method Code: **0**

8. Calculation of Emissions (limit to 600 characters):

Max hourly based on current permit limit. Max 24-hr based on proposed permit limit. See Attachments SCC-EU9-G1 throughG6. When both the No. 3 and No. 4 Combination Boilers are burning oil or coal, or burning TRS gases, total SO_2 emissions from both boilers are limited to 525 lb/hr, 24-hr average.

9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions: **16 April 2001**
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: **575** lb/hour **2,518.5** tons/year

5. Method of Compliance (limit to 60 characters):

Source Test using EPA Method 6

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):

Maximum 24-hr limit.

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **SO_2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code:
8. Calculation of Emissions (limit to 600 characters):	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **781 lb/hr**	4. Equivalent Allowable Emissions: **781** lb/hour **2,518.5** tons/year
5. Method of Compliance (limit to 60 characters): **Annual test using EPA Method 6**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Max hourly permit limit when incinerating TRS gases.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **TRS**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **4.35** lb/hour **19.1** tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **5 ppmvd** Reference: **62-296.404(3)(f)1.**	7. Emissions Method Code: **0**
8. Calculation of Emissions (limit to 600 characters): **5 ppmvd x 164,500 ft^3/min x 60 min/hr ÷ 1546 ft·lbf lb·mol °R x 34 lb(H_2S)/lb·mol(H_2S) ÷ 528°R x 2116.8 lbf/ft^2 = 4.35 lbs/hr**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Emission Factor corrected to 10% O_2 as 12-hr average.**	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **5 ppmvd**	4. Equivalent Allowable Emissions: **4.35** lb/hour **19.1** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Test Method 16, 16A or 16B**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **62-296.404(3)(f)1. Emissions corrected to 10% O_2 as a 12-hr avg. Allowable emissions only apply when NCG gases from the Batch Digestor System and MEE System are vented to the No. 4 Combination Boiler.**	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: **VE30**	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: **30** % Exceptional Conditions: **40** % Maximum Period of Excess Opacity Allowed: **2** min/hour	
4. Method of Compliance: **Annual test using EPA Method 9 while operating under normal mix of fuels.**	
5. Visible Emissions Comment (limit to 200 characters): **Due to interference, the visible emission limiting standard pursuant to 62-296.410(1)(b)1. is not applicable and is deferred to 62-296.404(2)(b).**	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor 1 of 4

1. Parameter Code: **TEMP**	2. Pollutant(s):
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: Manufacturer: **Pulsar II** Model Number: **7000 FM-EH-2** Serial Number: **2250**	
5. Installation Date: **01-JUL-1992**	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): **TEMP CMS required by 62-296.405(5)(c) and AO03-223447. Only required to operate when incinerating TRS gases.**	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor 2 of 4

1. Parameter Code: **pH**	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [X] Other
4. Monitor Information: Manufacturer: **Yokogawa** Model Number: **pH 200G-PU*A/U/2** Serial Number: **B5409**	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): **CMS for pH required by Specific Condition 6 of AO03-223447 and Specific Condition 22 in AC03-190964.**	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor 3 of 4

1. Parameter Code: O_2	2. Pollutant(s):
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date: **22-JUL-1996**	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): **62-296.404(5)(c).**	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor 4 of 4

1. Parameter Code: SO_2	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [X] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): **SO_2 monitor will be installed to determine compliance with SO_2 limit.**	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram
   [X] Attached, Document ID: **SCC-EU9-J1** [ ] Not Applicable [ ] Waiver Requested

2. Fuel Analysis or Specification
   [X] Attached, Document ID: **SCC-EU9-J2** [ ] Not Applicable [ ] Waiver Requested

3. Detailed Description of Control Equipment
   [X] Attached, Document ID: **SCC-EU9-J3** [ ] Not Applicable [ ] Waiver Requested

4. Description of Stack Sampling Facilities
   [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested

5. Compliance Test Report
   [ ] Attached, Document ID:_____
   [ ] Previously submitted, Date:_____
   [X] Not Applicable

6. Procedures for Startup and Shutdown
   [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested

7. Operation and Maintenance Plan
   [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested

8. Supplemental Information for Construction Permit Application
   [X] Attached, Document ID: **Attachment A** [ ] Not Applicable

9. Other Information Required by Rule or Statute
   [ ] Attached, Document ID:_____ [X] Not Applicable

10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
[ ] Attached, Document ID:_____ [ ] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID:_____ [ ] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:_____ [ ] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [ ] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID:_____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:_____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:_____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:_____

[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID:_____

[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID:_____

[X] Not Applicable

ATTACHMENT SCC-EU9-D

APPLICABLE REGULATIONS

ATTACHMENT SCC-EU9-D

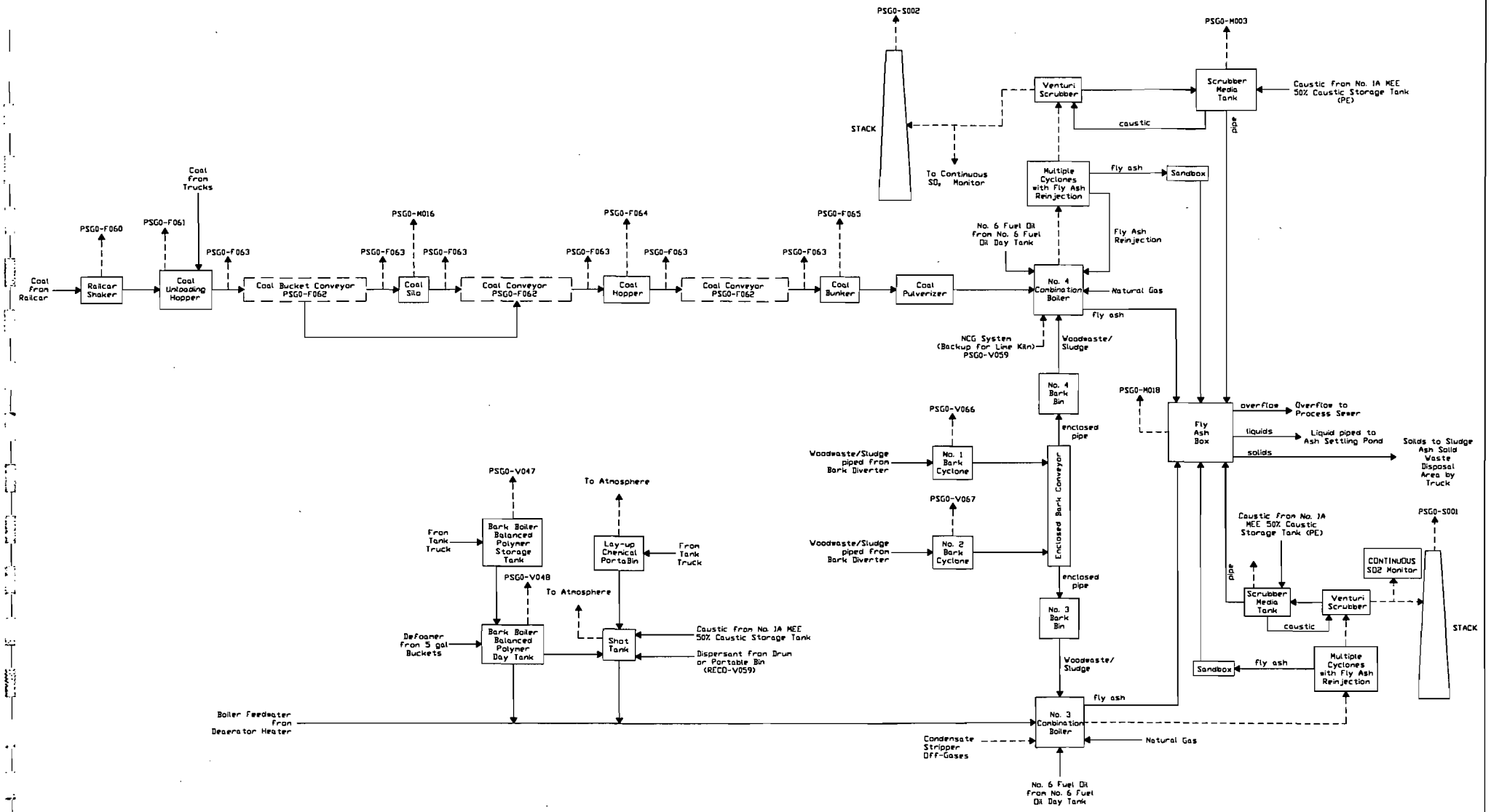
Specific Emissions Unit Name (ID): No. 4 Combination Boiler (Non-NSPS)
Facility Name (ID): Stone Container Corporation (10-PCY-03-0009)

Rule Number	PA/A	Rule Title/Summary	Applicability Comment
62-296.404(2)(b) 62-296	A	Kraft (Sulfate) Pulp Mills and Tall Oil Plants: Visible emission limits for sources equipped with wet scrubbers only apply if plume unaffected by plume mixing or moisture condensation.	
62-296.404(3)(a)3 62-296	A	Kraft (Sulfate) Pulp Mills and Tall Oil Plants: TRS emissions shall not be vented to the atmosphere except in emergencies or when control device is shut down. Develop an approved contingency plan. Venting allowed for up to 10 days.	Contingency plan requires only that backup devices be assessed, & contingency plan
62-296.404(3)(f) 62-296	A	Kraft (Sulfate) Pulp Mills and Tall Oil Plants: Other Combustion Devices Used to Incinerate TRS Emissions	
62-296.404(4)(e)2. 62-296	A	Test Methods and Procedures: PM for dry control emissions units: EPA Method 5- minimum sample volume 32 dscf. An acetone wash shall be used	
62-296.404(4)(3)3	A	Test Methods and Procedures: TRS: EPA Method 16 or EPA Method 16A or EPA Method	
62-296.404(4)(f) 62-296	A	Test Methods and Procedures: Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.	
62-296.404(5)(c) 62-296	A	Continuous Emissions Monitoring Requirements: Incinerators shall be equipped with devices to continuously monitor temperature at the point of combustion and oxygen.	Temperature and 02 CMS
62-296.410(1)(b)1.	A	Carbonaceous Fuel Burning Equipment.: Visible emissions -30x opacity (except 62-296 40x opacity for not more than two minutes in any one hour)	
62-296.410(1)(b)2.	A	Carbonaceous Fuel Burning Equipment: Particulate Matter -0.3 lb/MMBtu of 62-296 carbonaceous fuel plus 0.1 lb/MMBtu of fossil fuel.	
62-296.410(3) 62-296	A	Test Methods and Procedures: All emissions tests performed pursuant to the 62-296 requirements of this section shall comply with the following requirements	
62-297.310 62-297	A	General Test Requirements: The focal point of a compliance test is the stack 62-297 or duct which vents process and/or combustion gases and air pollutants from an emissions unit into the ambient air.	
62-297.401(1)(a) 62-297 Test Method	A	EPA Method 1 --Sample and Velocity Traverses for Stationary sources --40 CFR 62-297 Test Method 60 Appendix A.	

Rule Number	PA/A	Rule Title/Summary	Applicability Comment
62-297.401(16) 62-297 Test Method	A	EPA Method 16 --Semicontinuous Determination of Sulfur Emissions from 62-297 Test Method Stationary Sources --40 CFR:	
62-297.401(16)(a) 62-297 Test Method	A	EPA Method 16A --Determination of Total Reduced Sulfur Emissions from 62-297 Test Method Stationary Sources (Impinger)	
62-297.401(16)(b) 62-297 Test Method	A	EPA Method 16B --Determination of Total Reduced Sulfur Emissions from 62-297 Test Method Stationary Sources --40 CFR:	
62-297.401(2) 62-297 Test Method	A	EPA Method 2 --Determination of Stack Gas Velocity and Volumetric Flow Rate -- 62-297 Test Method 40 CFR 60 Appendix A:	
62-297.401(3) 62-297 Test Method	A	EPA Method 3 --Gas Analysis of Carbon Dioxide, Oxygen, Excess Air, and Dry 62-297 Test Method Molecular Weight --40	
62-297.401(4) 62-297 Test Method	A	EPA Method 4 --Determination of Moisture Content in Stack Glases --40 CFR 60-62-297 Test Method Appendix A.:	
62-297.401(5) 62-297 Test Method	A	EPA Method 5 --Determination of Particulate Emissions from Stationary Sources 62-297 Test Method Sources -.40 CFR 60 Appendix:	
62-297.401(6) 62-297 Test Method	A	EPA Method 6 --Determination of Sulfur Dioxide Emissions from Stationary 62-297 Test Method Sources -.40 CFR 60 Appendix:	
62-297.401(9)(c) 62-297 Test Method	A		DEP Method 9

ATTACHMENT SCC-EU9-J1

PROCESS FLOW DIAGRAM



Process Flow Legend

Gas ---------→ Covered Conveyor

Steam ---·---·---→ Enclosed Conveyor

Stone Container Corp.
Panama City, FL
Process Flow Diagram
SCC-EU9-J1

Emission Unit:	No. 3 and 4 Combination Boiler
Process Area:	Utilities/Miscellaneous
Filename:	9937518Y/F1/WP/SCC-EU9-J1.DWG
Latest Revision:	04/05/2000 by PAC

Golder Associates

ATTACHMENT SCC-EU9-J2

FUEL ANALYSIS

ATTACHMENT SCC-EU9-J2

No. 4 Combination Boiler
Fuel Analysis

Fuel	Density (lb/gal)	Moisture (%)	Weight % Sulfur	Weight % Nitrogen	Weight % Ash	Heat Capacity
No. 6 Fuel Oil	8.33	--	2.4	0.08	0.1	145,000 - 150,000 Btu/gal
Carbonaceous Fuel *	--	50	--	--	1.2 - 2.7	4,500 Btu/lb
Coal	--	4 - 7	1.7	--	6 - 12	12,500-13,500 Btu/lb
Natural Gas	--	--	0.1	--	--	1,000 Btu/cf

* Includes bark/woodwaste (wet), primary clarified wood waste, bark fly ash, and sludge.

ATTACHMENT SCC-EU9-J3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

Attachment SCC-EU9-J3

Control Equipment Parameters (a)

No. 4 Combination Boiler Scrubber (Venturi)

Manufacturer	FMC Link-Belt	
Model No.	200K Dual-Throat	
Date of Installation	1974	
Inlet Gas Flow Rate	220,000-260,000	ACFM
Outlet Gas Temp	140-150	F
Outlet Gas Flow Rate	220,000-260,000	ACFM
Pressure Drop Across Device	8	inches of H20
Scrubber Media (b)	Water	
Scrubber Liquor Flow Rate	1,500-1,600	gpm
Average Scrubbing Liquor pH (c)	variable	pH units
Control Efficiency - Particulate Matter (d)	90	%
- Sulfur Dioxide (e)	50-95	%
Maximum Permitted Particulate Matter Emission Rate (f)	86.6	lb (PM)/hr
Maximum Permitted Sulfur Dioxide Emission Rate (g)	781	lb (SO2)/hr

(a) Control equipment parameters may vary according to process conditions.

(b) pH controlled with caustic

(c) Controlled by caustic addition to wet scrubber and SO_2 monitor

(d) Based on manufacturer's quote.

(e) Based on source test data.

(f) Values obtained from Permit AC03-190964. Based on Carbonaceous fuel firing.

(g) Values obtained from Permit AC03-190964. Based on incinerating NCG gases in the No. 4 Combination Boiler.

Attachment SCC-EU9-G1. Maximum Fuel Usage and Heat Input Rates, No. 4 Combination Boiler, Stone Container, Panama City

Fuel	Heat Input to Boiler	Heat Transfer Efficiency (%)	Heat Output to Steam	Fuel Firing Rate
	Maximum Individual Fuel Rates			
Wood/Bark	474 MMBtu/hr	72	341 MMBtu/hr	30.0 tons/hr,dry [a]
No. 6 Oil	473 MMBtu/hr	85	402 MMBtu/hr	3,153 gal/hr [b]
Coal	395 MMBtu/hr	87	344 MMBtu/hr	15.8 tons/hr [c]
Natural Gas	40 MMBtu/hr	80	32 MMBtu/hr	40,000 scf/hr
	Maximum Wood/Bark Firing			
Wood/Bark	474 MMBtu/hr	72	341 MMBtu/hr	30.0 tons/hr,dry [a]
No. 6 Oil	71 MMBtu/hr	85	60 MMBtu/hr	473 gal/hr [b]
Coal	0 MMBtu/hr	87	0 MMBtu/hr	0 tons/hr [c]
Natural Gas	0 MMBtu/hr	80	0 MMBtu/hr	0 scf/hr
TOTAL	545 MMBtu/hr		402 MMBtu/hr	
	Maximum No. 6 Fuel Oil Firing			
Wood/Bark	0 MMBtu/hr	72	0 MMBtu/hr	0 tons/hr,dry [a]
No. 6 Oil	473 MMBtu/hr	85	402 MMBtu/hr	3,153 gal/hr [b]
Coal	0 MMBtu/hr	87	0 MMBtu/hr	0 tons/hr [c]
Natural Gas	0 MMBtu/hr	80	0 MMBtu/hr	0 scf/hr
TOTAL	473 MMBtu/hr		402 MMBtu/hr	
	Maximum Coal Firing			
Wood/Bark	81 MMBtu/hr	72	58 MMBtu/hr	5.1 tons/hr,dry [a]
No. 6 Oil	0 MMBtu/hr	85	0 MMBtu/hr	0 gal/hr [b]
Coal	395 MMBtu/hr	87	344 MMBtu/hr	15.8 tons/hr [c]
Natural Gas	0 MMBtu/hr	80	0 MMBtu/hr	0 scf/hr
TOTAL	476 MMBtu/hr		402 MMBtu/hr	

Note: Total heat input to steam = 402 MMBtu/hr, derived as follows:
Net enthalpy of steam = 1,219 Btu/lb
Max. steam rate = 330,000 lb/hr
330,000 lb/hr x 1,219 Btu/lb = 402 MMBtu/hr

Fuels may be burned in combination, not to exceed indicated total heat outputs.

[a] Based on heating value for wood waste of 7,900 Btu/lb, dry basis.

[b] Based on heating value for No. 6 fuel oil of 150,000 Btu/gal.

[c] Based on heating value of 12,500 Btu/lb.

Attachment SCC-EU9-G2. Maximum Emissions for Individual Fuels, No. 4 Combination Boiler, Stone Container, Panama City.

Regulated Pollutant	No. 6 Oil					Wood/Bark					Gas					Coal				
	Emission Factor	Ref.	Activity Factors [a]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors [a] [b]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors [a]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors [a]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	0.10 lb/MMBtu	1	473 MMBtu/hr	47.3	207.17	0.30 lb/MMBtu	1	474 MMBtu/hr	86.60 [i]	379.31	0.1 lb/MMBtu	1	40 MMBtu/hr	4.00	17.52	0.1 lb/MMBtu	1	395 MMBtu/hr	39.50	173.01
Particulate (PM10)	86 % of PM	10	--	40.68	178.17	87 % of PM	5	--	75.34	330.00	0.1 lb/MMBtu	1	40 MMBtu/hr	4.00	17.52	90 % of PM	7	--	35.55	155.71
Sulfur dioxide: 3-hr	157S lb/Mgal [d]	2	3.153 Mgal/hr	781.00 [e]		0.075 lb/TWWF	9	60.0 tons/hr	4.50	19.71	0.6 lb/MMscf	6	0.04 MMscf/hr	0.024		781 lb/hr [e]	--	--	781.0	
24-hr	575 lb/hr [h]	9		575.00	2,518.50	--	--	--	--	--	0.6 lb/MMscf	6	0.04 MMscf/hr	0.024	0.11	575 lb/hr	9	--	575.0	2,518.50
Nitrogen oxides	47 lb/Mgal	2	3.153 Mgal/hr	148.19	649.08	1.5 lb/TWWF	5	60.0 tons/hr	90.00	394.20	280 lb/MMscf	6	0.04 MMscf/hr	11.20	49.06	11 lb/ton	7	15.8 TPH	173.8	761.24
Carbon monoxide	5 lb/Mgal	2	3.153 Mgal/hr	15.77	69.05	2.923 lb/TWWF	8	60.0 tons/hr	175.38	768.16	84 lb/MMscf	6	0.04 MMscf/hr	3.36	14.72	5 lb/ton	7	15.8 TPH	79.0	346.02
VOC	0.28 lb/Mgal	2	3.153 Mgal/hr	0.88	3.87	0.12 lb/TWWF	3	60.0 tons/hr	7.20	31.54	5.5 lb/MMscf	6	0.04 MMscf/hr	0.22	0.96	0.05 lb/ton	3	15.8 TPH	0.79	3.46
Sulfuric acid mist: 24-hr	6.1 % of SO2	4	3.153 Mgal/hr	35.08	153.6	6.1 % of SO2	4	--	0.27	1.20	6.1 % of SO2	4	--	1.46E-03	6.41E-03	6.1 % of SO2	4	--	35.08	153.63
Total reduced sulfur [c]	--	--	--	--	--	--	--	--	--	--	--		--	--	--	5 ppmvd [f]	1	164,500 acfm [g]	4.40	19.27
Lead	1.51E-03 lb/Mgal	2	3.153 Mgal/hr	4.8E-03	2.1E-02	4.45E-04 lb/TWWF	5	60.0 tons/hr	2.67E-02	1.17E-01	1.0E-08 lb/MMscf	6	0.04 MMscf/hr	4.00E-10	1.75E-09	4.20E-04 lb/ton	7	15.8 TPH	6.64E-03	2.91E-02
Mercury	1.13E-04 lb/Mgal	2	3.153 Mgal/hr	3.6E-04	1.6E-03	5.15E-06 lb/TWWF	5	60.0 tons/hr	3.09E-04	1.35E-03	2.6E-04 lb/MMscf	6	0.04 MMscf/hr	1.04E-05	4.56E-05	8.30E-05 lb/ton	7	15.8 TPH	1.31E-03	5.74E-03
Beryllium	2.78E-05 lb/Mgal	2	3.153 Mgal/hr	8.8E-05	3.8E-04	--	--	--	--	--	1.20E-05 lb/MMscf	6	0.04 MMscf/hr	4.80E-07	2.10E-06	2.10E-05 lb/ton	7	15.8 TPH	3.32E-04	1.45E-03
Fluorides	3.73E-02 lb/Mgal	2	3.153 Mgal/hr	1.2E-01	5.2E-01	--	--	--	--	--	--	--	--	--	--	0.15 lb/ton	7	15.8 TPH	2.37	10.38

Notes:
TWWF - ton of wet wood residue fuel
All annual emissions baseo on 8,760 hr/yr operation.
Footnotes
[a] Refer to Attachment SCC-EU9-G1.
[b] Based on 30 tons/hr dry basis and 50% moisture in wood/bark.
[c] TRS gases from digester and MEE system must be incinerated in the Lime Kiln or Bark Boiler at a minumum of 1,200 deg. F for at least 0.5 seconds.
[d] Maximum fuel oil sulfur content = 2.4%
[e] Current permit limit, including TRS burning.
[f] All TRS emissions calculated under coal section.
[g] Based on Title V application.
[h] Proposed permit limit for 24 hour average for No. 4 Combination Boiler operating, and with No. 3 Combination Boiler shutdown or operating on bark/natural gas only.
[i] Based on limit in AC03-190964.
References:
1. Based on Florida Rule 62-296.410.
2. Emission Factors based on AP-42 Section 1.3 Table 1.3-1, 1.3-3, 1.3-4 and 1.3-11 for metals (assuming uncontrolled for metals).
3. Emission Factor Based on NCASI TB 646 for an average Spreader Stoker Boilers with Scrubbers Tables1, 2, and 3.
4. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil: 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and sulfur trioxide molecular weights (98/80).
5. Emission Factors based on AP-42 Section 1.6 Table 1.6-1, 1.6-2, 1.6-3, 1.6-5 and 1.6-6 (2/99).
6. Emission Factors based on AP-42 Section 1.4 Table 1.4-1, 1.4-2, and 1.4-4 .
7. Emission Factors based on AP-42 Section 1.1 Tables 1.1-3, 1.1-5, 1.1-9, 1.1-18 and 1.1-19 for spreader stoker boilers.
8. Emission Factor Based on NCASI TB 416, Table 4.
9. Based on proposed permit limit.
10. Based on AP-42 Section 1.3, Table 1.3-5, for industrial boilers firing residual oil with no control.

Attachment SCC-EU9-G3. Emissions from Maximum Wood/Bark Firing with Supplemental Fuel Oil Firing, No. 4 Combination Boiler, Stone Container, Panama City

Regulated Pollutant	No. 6 Oil			Wood/Bark			Total	
	Emission Factor	Activity Factors	Hourly Emissions (lb/hr)	Emission Factor	Activity Factors	Hourly Emissions (lb/hr)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	0.10 lb/MMBtu	71 MMBtu/hr	7.10	0.30 lb/MMBtu	474 MMBtu/hr	86.6 [a]	86.60	379.31
Particulate (PM10)	86 % of PM		6.11	87 % of PM	--	75.3	81.45	356.74
Sulfur dioxide	157S lb/Mgal	0.473 Mgal/hr	178.23	0.075 lb/TWWF	60.0 tons/hr	4.50	182.73	800.34
Nitrogen oxides	47 lb/Mgal	0.473 Mgal/hr	22.23	1.5 lb/TWWF	60.0 tons/hr	90.00	112.23	491.57
Carbon monoxide	5 lb/Mgal	0.473 Mgal/hr	2.37	2.923 lb/TWWF	60.0 tons/hr	175.38	177.75	778.52
VOC	0.28 lb/Mgal	0.473 Mgal/hr	0.13	0.12 lb/TWWF	60.0 tons/hr	7.20	7.33	32.12
Sulfuric acid mist	6.1 % of SO2	--	10.87	6.1 % of SO2	--	0.27	11.15	48.82
Total reduced sulfur	--	--	--	--	--	--	--	--
Lead	1.51E-03 lb/Mgal	0.473 Mgal/hr	7.14E-04	4.45E-04 lb/TWWF	60.0 tons/hr	2.67E-02	2.74E-02	1.20E-01
Mercury	1.13E-04 lb/Mgal	0.473 Mgal/hr	5.34E-05	5.15E-06 lb/TWWF	60.0 tons/hr	3.09E-04	3.62E-04	1.59E-03
Beryllium	2.78E-05 lb/Mgal	0.473 Mgal/hr	1.31E-05	--	--	--	1.31E-05	5.76E-05
Fluorides	3.73E-02 lb/Mgal	0.473 Mgal/hr	1.76E-02	--	--	--	1.76E-02	7.73E-02

See Attachment SCC-EU9-G2 for emission factors and references.

[a] Based on limit in AC03-190964.

Attachment SCC-EU9-G4. Emissions from Maximum Fuel Oil Firing, No. 4 Combination Boiler at Stone Container, Panama City

Regulated Pollutant	No. 6 Oil		Total	
	Emission Factor	Activity Factors	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	0.10 lb/MMBtu	473 MMBtu/hr	47.30	207.17
Particulate (PM10)	86 % of PM	--	40.68	178.17
Sulfur dioxide 3-hr	157S lb/Mgal	3.153 Mgal/hr	781.0	
24-hr	575 lb/hr		575.0	2,518.5
Nitrogen oxides	47 lb/Mgal	3.153 Mgal/hr	148.19	649.08
Carbon monoxide	5 lb/Mgal	3.153 Mgal/hr	15.77	69.05
VOC	0.28 lb/Mgal	3.153 Mgal/hr	0.88	3.87
Sulfuric acid mist	6.1 % of SO2	3.153 Mgal/hr	35.08	153.63
Total reduced sulfur	--	--	--	--
Lead	1.51E-03 lb/Mgal	3.153 Mgal/hr	4.76E-03	2.09E-02
Mercury	1.13E-04 lb/Mgal	3.153 Mgal/hr	3.56E-04	1.56E-03
Beryllium	2.78E-05 lb/Mgal	3.153 Mgal/hr	8.77E-05	3.84E-04
Fluorides	3.73E-02 lb/Mgal	3.153 Mgal/hr	1.18E-01	5.15E-01

See Attachment SCC-EU9-G2 for emission factors and references.

Attachment SCC-EU9-G5. Emissions from Maximum Coal Firing with Supplemental Wood/Bark Firing, No. 4 Combination Boiler, Stone Container, Panama City

Regulated Pollutant	Wood/Bark			Coal			Total	
	Emission Factor	Activity Factors	Hourly Emissions (lb/hr)	Emission Factor	Activity Factors	Hourly Emissions (lb/hr)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	0.30 lb/MMBtu	81 MMBtu/hr	24.30	0.1 lb/MMBtu	395.0 MMBtu/hr	39.50	63.80	279.44
Particulate (PM10)	87 % of PM		21.14	90 % of PM	–	35.55	56.69	248.31
Sulfur dioxide 3-hr	0.075 lb/TWWF	10.2 tons/hr	0.77	781 lb/hr	–	781.00	781.00	
24-hr	–		–	575 lb/hr	–	575.00	575.00	2,518.50
Nitrogen oxides	1.50 lb/TWWF	10.2 tons/hr	15.30	11 lb/ton	15.8 TPH	173.8	189.10	828.26
Carbon monoxide	2.92 lb/TWWF	10.2 tons/hr	29.81	5 lb/ton	15.8 TPH	79.0	108.81	476.61
VOC	0.12 lb/TWWF	10.2 tons/hr	1.22	0.05 lb/ton	15.8 TPH	0.79	2.01	8.82
Sulfuric acid mist (24-hr)	6.1 % of SO2	–	4.67E-02	6.1 % of SO2	–	35.08	35.12	153.83
Total reduced sulfur	–	–	–	5 ppmvd	164,500 dscfm	4.40	4.40	19.27
Lead	4.45E-04 lb/TWWF	10.2 tons/hr	4.54E-03	4.20E-04 lb/ton	15.8 TPH	6.64E-03	1.12E-02	4.89E-02
Mercury	5.15E-06 lb/TWWF	10.2 tons/hr	5.25E-05	8.30E-05 lb/ton	15.8 TPH	1.31E-03	1.36E-03	5.97E-03
Beryllium	–	–	–	2.10E-05 lb/ton	15.8 TPH	3.32E-04	3.32E-04	1.45E-03
Fluorides	–	–	–	0.15 lb/ton	15.8 TPH	2.37	2.37	10.38

See Attachment SCC-EU9-G2 for emission factors and references.

Attachment SCC-EU9-G6. Proposed Maximum Emissions For Alternate Fuel Scenarios, No. 4 Combination Boiler, Stone Container, Panama City

Regulated Pollutant	Maximum Wood/Bark and Fuel Oil		Maximum Fuel Oil		Maximum Coal and Wood/Bark		Maximum Any Scenario	
	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	86.60	379.31	47.30	207.17	63.80	279.44	86.60	379.31
Particulate (PM10)	81.45	356.74	40.68	178.17	56.69	248.31	81.45	356.74
Sulfur dioxide: 3-hr	182.73		781.00		781.00		781.00	
24-hr	182.73	800.34	575.00	2,518.50	575.00	2,518.50	575.00	2,518.50
Nitrogen oxides	112.23	491.57	148.19	649.08	189.10	828.26	189.10	828.26
Carbon monoxide	177.75	778.52	15.77	69.05	108.81	476.61	177.75	778.52
VOC	7.33	32.12	0.88	3.87	2.01	8.82	7.33	32.12
Sulfuric acid mist	11.15	48.82	35.08	153.63	35.12	153.83	35.12	153.83
Total reduced sulfur	--	--	--	--	4.4	19.3	4.40	19.27
Lead	2.74E-02	1.20E-01	4.76E-03	2.09E-02	1.12E-02	4.89E-02	2.74E-02	1.20E-01
Mercury	3.62E-04	3.57E+02	3.56E-04	1.56E-03	1.36E-03	5.97E-03	1.36E-03	3.57E+02
Beryllium	1.31E-05	5.76E-05	8.77E-05	3.84E-04	3.32E-04	1.45E-03	3.32E-04	1.45E-03
Fluorides	1.76E-02	7.73E-02	1.18E-01	5.15E-01	2.37	10.38	2.37	10.38

AIR OPERATING AND CONSTRUCTION PERMITS

Florida Department of Environmental Regulation

Northwest District • 160 Governmental Center • Pensacola, Florida 32501-5794

Lawton Chiles, Governor

PERMITTEE:

Stone Container Corporation

I.D. Number: 10PCY03000916
Permit/Certification Number: AO03-223447
Date of Issue: June 10, 1993
Expiration Date: March 1, 1998
County: Bay
Latitude/Longitude: 30°08'30"N/85°37'25"W
Project: Bark Boiler No. 4

This permit is issued under the provisions of Section 403.087, Florida Statutes, and Florida Administrative Code Rules 17-296, 17-297 and 17-4. The above named applicant, hereinafter called Permittee, is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Operation of Bark Boiler No. 4 fueled by coal, No. 6 fuel oil, turpentine reside, gas and wood waste. Capacity is 300,000 pounds of steam produced per hour. Particulate matter (PM) emissions are controlled by a fly ash arrestor, model MTSA-380-9CVT, followed by a wet scrubber manufactured by FMC Link Belt, model 200K dual throat. Sulfur dioxide emissions are controlled by maintaining a minimum pH of 8.0 on the wet scrubber. Bark Boiler No. 4 serves as the backup control device of non-condensible gases (NCG) from the Multiple Effect Evaporator System and the Batch Digester System. TRS emissions are controlled by subjecting the TRS gases to a minimum of 1200°F for at least 0.5 seconds.

Located: 1 Everitt Avenue, Panama City.

Specific Condition No. 5 requires records of TRS gas incineration temperature to be kept and be available for Department inspection.

Specific Condition No. 6 requires records of venturi scrubber system pH to be kept and be available for Department inspection.

Specific Condition No. 7 requires annual PM, SO_2 and VE testing due before the end of November, and TRS testing in 1997 before the end of November.

Specific Condition No. 8 requires submittal of Annual Operation Fee.

Specific Condition No. 9 requires records of sulfur content in fuels to be kept and be available for Department inspections.

Specific Condition No. 10 requires records of incinerating TRS gases to be kept and be available for Department inspection.

Specific Condition No. 11 requires submittal of annual operation reports.

Specific Condition No. 13 requires submittal of permit renewal application by January 1, 1998.

PERMITTEE:

Stone Container Corporation

I.D. Number: 10PCY03000916
Permit/Certification Number: AO03-223447
Date of Issue: June 10, 1993
Expiration Date: March 1, 1998

SPECIFIC CONDITIONS:

1. The attached General Conditions are part of this permit.

2. The maximum allowable operating rate is 300,000 pounds of steam produced per hour from firing any combination of wood waste, No. 6 fuel oil, coal and turpentine residue fuels. This is the operating rate at which compliance with standards shall be demonstrated.

3. The maximum fuel utilization rates, heat inputs and their maximum percent sulfur content, by weight, are as follows:

No. 6 Fuel Oil	3150 gal/hr	472 MMBtu/hr	2.4%
Coal	15.8 TPH	395 MMBtu/hr	1.7%
Wood Bark	30.0 TPH	273 MMBtu/hr	---
Natural Gas	0.04 MMcf/hr	40 MMBtu/hr	---

4. The maximum allowable emission rate for each pollutant is as follows:

Pollutant	FAC Rule	Allowable Emission Rate	Estimated TPY
PM	17-296.410(1)(b)	0.3lb/MMBtu heat input from wood waste plus	298.2
		0.1lb/MMBtu heat input from fossil fuels (coal, oil and gas)	128.5
TRS	17-296.404(3)(f)1	5.0 ppm by volume on a dry basis at standard conditions corrected to 10% oxygen.	19.7
VE	17-296.410(1)(b)1	30% opacity except for up to two minutes in any one hour at not more than 40% opacity using carbonaceous fuel and 20% opacity except for up to one two-minute period in any one hour at not more than 40% opacity using fossil fuel only	---

5. When the TRS gases from the Nos. 1A, 2 and 3 MEE Systems and the Batch Digesting system are collected and transported to the No. 4 Bark Boiler for incineration, then the TRS gases shall be subjected to a minimum of 1200°F for at least 0.5 seconds. A continuous temperature monitor and recorder shall be properly calibrated and operated in accordance with F.A.C. Rule 170297.500. The TRS gas incineration monitor serves as a surrogate parameter for minimizing TRS emissions. Records of the TRS gas incineration temperature shall be kept and be available for Department inspection.

PERMITTEE:

Stone Container Corporation

I.D. Number: 10PCY03000916
Permit/Certification Number: AO03-223447
Date of Issue: June 10, 1993
Expiration Date: March 1, 1998

SPECIFIC CONDITIONS:

6. The pH of the Venturi Scrubber System shall be maintained above a three-hour average minimum of 8.0 while incinerating TRS gases using wood waste fuel. A continuous pH monitor and recorder shall be properly calibrated and operated to monitor the scrubbing medium pH. The scrubber medium pH monitor serves as a surrogate parameter to minimize SO_2 emissions. Records of the scrubber medium pH shall be kept for a minimum of two years and be available for Department inspection.

7. Emissions test for the following pollutants before November 30, according to the test methods and frequency indicated, notifying the Department 14 days prior to testing. Submit the test report documentation to the Department within 45 days after completion of testing.

Pollutant	Frequency	Test Method
PM	Annual	EPA method 5
SO_2	Annual	EPA method 6
TRS	1997	EPA method 16, 16A or 16B
VE	Annual	DER method 9

The VE test shall be conducted during one of the PM test runs. Test reports shall comply with F.A.C. Rule 17-297.570, Test Reports. The Department can require special compliance tests in accordance with F.A.C. Rule 17-297.340(2).

8. In accordance with F.A.C. Rule 17-213, a Major Air Pollution Source Annual Operation Fee Form [DER Form 17-213.900(11) attached] must be completed and submitted with appropriate fee between January 15 and March 1 of each year. If the Department has not received the fee payment by March 1, the Department shall impose, in addition to the fee, a penalty of 50 percent of the amount of the fee, plus interest on such amount computed in accordance with s.220.807, Florida Statutes. The Department may revoke any major air pollution source operation permit if it finds that the permit holder has failed to pay timely and required annual operation license fee, penalty or interest. The attached form shall be reproduced by the permittee and used for future annual submittals. The completed form and appropriate fees must be submitted to the Department of Environmental Regulation, Title V (Facility I.D. Number), 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

9. The sulfur content of the No. 6 fuel oil and the coal shall be verified using ASTM D1552-83 and ASTM D3177-75, respectively; and, the lab analysis data sheet(s), which are provided by the fuel oil and coal vendors upon delivery, shall be kept on record for at least two years.

10. The Department shall be notified in writing when the boiler is switched to incinerating TRS gases and/or operating at 100% fossil fuel; and, a log book shall be maintained recording, at a minimum, the date(s) and the beginning and ending "clock time(s)" of operation while incinerating TRS gases and/or firing 100% fossil fuel. Records shall be maintained for at least two years.

PERMITTEE:

Stone Container Corporation

I.D. Number: 10PCY03000916
Permit/Certification Number: AO03-223447
Date of Issue: June 10, 1993
Expiration Date: March 1, 1998

SPECIFIC CONDITIONS:

11. An annual operation report [DER Form 17-210.900(4) attached] shall be submitted by March 1 each year. The attached form shall be reproduced by the permittee and used for future annual submittals.

12. All fugitive dust generated at this site shall be adequately controlled.

13. An application to renew this permit shall be submitted prior to January 1, 1998.

14. The permanent source identification number for this point source is 10PCY03000916. Please cite this number on all test reports and other correspondence specific to this permitted point source.

15. The Department telephone number for reporting problems, malfunctions or exceedances under this permit is (904) 436-8300, day or night, and for emergencies involving a significant threat to human health or the environment is (904) 488-1320. For routine business, telephone (904) 872-4375 during normal working hours.

Expiration Date:

March 1, 1998

Issued this 10th day of June, 1993.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Bobby A. Cooley

BOBBY A. COOLEY
District Director

PERMITTEE:

Stone Container Corporation

I.D. Number: 10PCY03000916
Permit/Certification Number: AO03-223447
Date of Issue: June 10, 1993
Expiration Date: March 1, 1998

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "permit conditions", and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

a. Having access to and copying any records that must be kept under the conditions of this permit;

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and,

PERMITTEE:

Stone Container Corporation

I.D. Number: 10PCY03000916
Permit/Certification Number: AO03-223447
Date of Issue: June 10, 1993
Expiration Date: March 1, 1998

GENERAL CONDITIONS:

c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. A description of and cause of noncompliance; and

b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-730.300, as applicable. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous

GENERAL CONDITIONS:

monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurement;
- the person responsible for performing the sampling or measurement;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

D Riley

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

In the matter of an
Application for Permit by:

DER File No. AC 03-190964
Bay County

Mr. L. D. Riley, Jr.
Stone Container Corporation
P. O. Box 2560
Panama City, Florida 32402

/

Enclosed is Permit Number AC 03-190964 for a modification to allow the use of the No. 4 Bark Boiler as the back-up TRS incinerator to the lime kiln on a continuous basis (i.e., 8760 hrs/yr) and to establish emission standards and operation requirements while operating at 100% fossil fuel. The facility is located in Panama City, Bay County, Florida. This permit is issued pursuant to Section(s) 403, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on 12-13-91 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED,
on this date, pursuant to
§120.52(11), Florida Statutes,
with the designated Department
Clerk, receipt of which is hereby
acknowledged.

(Clerk) 12-13-91 (Date)

Copies furnished to:

E. Middleswart, NW District
C. T. Fontaine, P.E., SCC
J. Harper, EPA

Final Determination

Stone Container Corporation
Bay County
Panama City, Florida

Construction Permit No.
AC 03-190964

Department of Environmental Regulation
Division of Air Resources Management
Bureau of Air Regulation

December 4, 1991

Final Determination

The construction permit application package has been reviewed by the Department. Public Notice of the Department's Intent to Issue was published in the News Herald on November 8, 1991. The Technical Evaluation and Preliminary Determination was distributed on August 1, 1991, and available for public inspection at the Department's Northwest District office and the Department's Bureau of Air Regulation office.

There were no comments received during the public notice period. However, the expiration date was changed from December 31, 1991, to June 30, 1992, to allow sufficient time for Stone Container Corporation to apply for and obtain an operation permit. Therefore, it is recommended that the construction permit be issued as drafted.

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:
Stone Container Corporation
Post Office Box 2560
Panama City, Florida 32402

Permit Number: AC 03-190964
Expiration Date: June 30, 1992
County: Bay
Latitude/Longitude: 30°08'30"N
85°37'25"W
Project: No. 4 Bark Boiler Modification.

This permit is issued under the provisions of Chapter 403, Florida Statutes, Florida Administrative Code (F.A.C.) Chapters 17-2 and 17-4, and 40 CFR (July, 1990 version). The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For a modification to the No. 4 Bark Boiler by designating it as the secondary control device (incinerator) of the TRS gases from the TRS noncondensible gas handling and transport system on an as needed basis, with the lime kiln remaining as the primary incinerator. The TRS gases are collected from the Nos. 1A, 2, and 3 Multiple Effect Evaporator (MEE) Systems and the batch digesting blow heat recovery system. The No. 4 Bark Boiler's capacity is 300,000 pounds of steam produced per hour. A venturi scrubber system will use pH control (i.e., pH @ 8.0 minimum) to minimize SO_2 emissions. The UTM coordinates of the existing facility are Zone 16, 632.8 km East and 3355.1 km North.

The Standard Industrial Codes are: 2611-Pulp Mill.
2621-Paper Mill.

The Standard Classification Code is:
o External Combustion Boilers: 1-02-009-02 tons burned
Wood/Bark Waste

The source shall be constructed/modified in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments to be Incorporated:

1. Mr. David Riley's letter received December 21, 1990, via FAX.
2. Application to Construct/Modify Air Pollution Sources, DER Form 17-1.202(1), received May 23, 1991.
3. Interoffice Memorandum by Bruce Mitchell dated July 26, 1991.
4. Mr. C. H. Fancy's letter dated April 5, 1990.
5. Technical Evaluation and Preliminary Determination dated July 31, 1991.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

GENERAL CONDITIONS:

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

a. Have access to and copy any records that must be kept under the conditions of the permit;

b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,

c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. a description of and cause of non-compliance; and,

b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

GENERAL CONDITIONS:

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and,
- the results of such analyses.

GENERAL CONDITIONS:

14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

1. This permit, which is for the No. 4 Bark Boiler, shall supercede previous air permits issued.

2. The No. 4 Bark Boiler may operate continuously, i.e., 8760 hrs/yr, including the incineration of TRS gases.

3. The maximum rated capacity is 300,000 pounds of steam produced per hour from firing any combination of fuels of wood waste, No. 6 fuel oil, coal, and turpentine residue.

4. The maximum fuel utilization rates, heat inputs, and their maximum % sulfur content, by weight, are:

o No. 6 Fuel Oil	3150 gals/hr	472 MMBtu/hr	2.4%
o Coal	15.8 TPH	395 MMBtu/hr	1.7%
o Wood Bark	30.0 TPH	273 MMBtu/hr	-
o Natural Gas	0.04 MMcf/hr	40 MMBtu/hr	-

5. When the TRS gases from the Nos. 1A, 2, and 3 MEE Systems and the batch digesting system are collected and transported to the No. 4 Bark Boiler for incineration, then the TRS gases shall be subjected to a minimum of 1200°F for at least 0.5 seconds.

6. A continuous temperature monitor shall be installed, calibrated, and operated in accordance with F.A.C. Rule 17-2.710. Also, a continuous recorder for the temperature shall be installed, calibrated, and properly operated.

7. The No. 4 Bark Boiler is subject to the provisions of F.A.C. Rule 17-2.600(4)(c)1.c., which includes the requirement of establishing a contingency plan.

8. The No. 4 Bark Boiler is subject to the provisions of F.A.C. Rules 17-4.130: Plant Operation-Problems; 17-2.240: Circumvention, 17-2.250: Excess Emissions; and, 17-2.710(4): Quarterly Reporting Requirements.

9. The project shall comply with all applicable provisions of F.A.C. Chapters 17-2 and 17-4 and 40 CFR (July, 1990 version).

SPECIFIC CONDITIONS:

10. The No. 4 Bark Boiler emissions shall not exceed:

a) TRS: 5 ppmvd at standard conditions, corrected to 10% O_2, 12-hr avg (4.35 lbs/hr; 19.1 TPY)
b) SO_2: 772 lbs/hr; 3381 TPY (No TRS Incineration)
781 lbs/hr; 3420 TPY (TRS Incineration)
c) PM: o carbonaceous fuel: 0.3 lbs/10^6 Btu of heat input
o fossil fuel: 0.1 lbs/10^6 Btu of heat input
(86.6 lbs/hr, 379.3 TPY: combination of fuels)
d) VE:
o carbonaceous fuel: $\leq$ 30% opacity, except $\leq$ 40% opacity for $\leq$ 2 minutes in any 1 hour
o fossil fuel only: $\leq$ 20% opacity, except $\leq$ 40% opacity for one 2-minute period per hour

Note: o Fly ash and SO_2 are controlled by a wet caustic scrubber.
o Projected SO_2 removal efficiency is 35% during operation.
o PSD pollutant evaluation will compare "actual emissions" with "future allowable/potential emissions".

11. Annual compliance tests for PM and visible emissions shall be conducted concurrently, weather permitting, using the following test methods in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A:

a) EPA Method 5, Determination of Particulate Emissions from Stationary Sources.
b) EPA Method 9, Visual Determination of the Opacity of Emissions from Stationary Sources.

12. Initial and annual compliance tests for SO_2 shall be conducted using the following test method in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A:

a) EPA Method 6, Determination of Sulfur Dioxide Emissions from Stationary Sources.

13. Compliance tests for TRS shall be conducted using one of the following test methods in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A:

a) EPA Method 16, 16A or 16B, Determination of TRS Emissions from Stationary Sources.

14. The Department reserves the right to require testing for TRS, in accordance with No. 13 above, for operating permit renewal (see Mr. C. H. Fancy's letter dated April 5, 1990).

SPECIFIC CONDITIONS:

15. Other test methods and alternate compliance procedures may be used only after prior Departmental approval has been obtained in writing in accordance with F.A.C. Rule 17-2.700(3).

16. The control equipment shall be inspected regularly and maintained in good operating condition to minimize fugitive gaseous emissions.

17. Objectionable odors shall not be allowed off plant property in accordance with F.A.C. Rule 17-2.620(2).

18. The sulfur content of the No. 6 fuel oil and the coal shall be verified using ASTM D1552-83 and ASTM D3177-75, respectively; and, the lab analysis data sheet(s), which are provided by the fuel oil and coal vendors upon delivery, shall be kept on record for at least two years.

19. The Department's Northwest District office shall be notified in writing when the boiler is switched to incinerating TRS gases and/or operating at 100% fossil fuel; and, a log book shall be maintained recording, at a minimum, the date(s) and the beginning and ending "clock time(s)" of operation while incinerating TRS gases and/or firing 100% fossil fuel. Records shall be maintained for at least two years.

20. The Department's Northwest District office shall be notified in writing at least 15 days prior to source testing pursuant to F.A.C. Rule 17-2.700(2). Written reports of the tests shall be submitted to the Department's Northwest District office within 45 days of the test completion in accordance with F.A.C. Rule 17-2.700(7).

21. Any change in the method of operation, raw materials, chemicals processed, equipment, or operating hours pursuant to F.A.C. Rule 17-2.100, Definitions-Modification, shall be submitted for approval to the Department's Bureau of Air Regulation office and Northwest District office.

22. The pH of the associated venturi scrubber system shall be maintained at a minimum of 8.0 while incinerating TRS gases and/or firing fossil fuel only. A continuous pH recorder shall be installed, calibrated, and properly operated to monitor the pH of the scrubbing medium. The records shall be maintained for at least two years.

23. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

PERMITTEE:
Stone Container Corporation

Permit Number: AC 03-190964
Expiration Date: June 30, 1992

SPECIFIC CONDITIONS:

24. An application for an operation permit must be submitted to the Department's Northwest District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed while noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this 13th day
of December, 1991

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

STEVE SMALLWOOD, P.E., Director
Division of Air Resources
Management

ATTACHMENT A

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1.0 INTRODUCTION AND PSD APPLICABILITY

1.1 INTRODUCTION

This supplemental information report presents information requested in the Florida Department of Environmental Protection (FDEP) letter dated September 15, 1999, concerning the requested pulp production increase for Stone Container Corp's (SCC) Panama City mill. The letter states that the Department has determined that the proposed project requires prevention of significant deterioration (PSD) review. The purpose of this submittal is to present the additional information required for a PSD permit application.

SCC has previously submitted the FDEP Long Form air construction permit application form for the pulp production increase. The application form addresses the various emissions units affected by the pulp production increase. Also, a complete air quality impact analysis has been submitted which addresses compliance with ambient air quality standards (AAQS) and PSD Class II and Class I increments.

The remaining PSD new source review requirements are addressed in this document entitled "Supplemental Information for PSD Permit Application". This document includes the following information:

1. Revised application section and facility section pages of the application form.
2. A revised application form for the condensate stripper which will be installed for Cluster Rule compliance. This change is due to elimination of the stand-alone thermal oxidizer for the condensate stripper off-gases. These gases will now be destroyed in the No. 3 Combination Boiler.
3. Application forms for the No. 3 Combination Boiler and for the No. 4 Combination Boiler are included. For the No. 3 Combination Boiler, the form updates information to reflect destruction of condensate stripper off-gases, a new SO_2 emissions limit for the boiler, and to clarify maximum heat input and fuel usage rates for the boiler. For the No. 4 Combination Boiler, the form updates

information to reflect a new SO_2 emissions limit for the boiler, and to clarify maximum heat input and fuel usage rates for the boiler .

3. A revised PSD applicability determination, along with the calculations, assumptions, etc., for the current actual emissions from the Panama City mill and the future potential emissions. The baseline actual emissions are based on the 2-year period 1996 and 1997. This 2-year period was selected because the mill was shutdown for 3 months in 1998 due to economic reasons; and therefore, 1998 was not representative of normal operation.
4. A Best Available Control Technology (BACT) analysis for each emissions unit for which there is an increase in emissions due to the proposed pulp production increase. Note that SCC believes that this is not the appropriate application of the Florida PSD rules, and that BACT should only apply to those emission units which are being physically modified or for which there is a change in the method of operation (i.e., the batch digester system), per EPA PSD regulations. This issue is being addressed in a separate letter to the Department. Nevertheless, the BACT analysis addresses all emission units based on the Department's stated interpretation.
5. Additional impacts upon soils, vegetation, and visibility, including impacts upon the nearest PSD Class I areas and a regional haze analysis.

Golder will continue to pursue approval of the ISC-PRIME model with the Department and the EPA. A revised ambient impact analysis for the Panama City mill will be forthcoming shortly, which will present the necessary information for approval of the ISC-PRIME model.

The revised PSD applicability analysis is presented in Section 1.2. The BACT analysis is presented in Section 2.0, and the additional impact analysis on soils, vegetation, growth, and visibility are presented in Section 3.0.

1.2 PSD APPLICABILITY

The PSD applicability analysis for the SCC Panama City mill is presented in Tables 1-1, 1-2, and 1-3. This applicability analysis updates information presented in Golder Associates Inc. letter to the FDEP dated September 3, 1999, regarding the Panama City Mill.

The current baseline emissions for the Panama City mill are based on the 1996-1997 two year period. This time period was selected because the mill was shutdown for 3 months in 1998, and therefore 1998 is not representative of normal plant operation. The baseline emissions are presented in Table 1-1. Supportive calculations, emission factors, operating data, and assumptions for each emissions unit at the mill are presented Appendix B.

Future maximum emissions for the SCC Panama City mill, for the requested pulp production rate of 781,000 TPY, were presented in Golder Associates Inc. letter dated September 3, 1999. The future maximum emissions are shown in Table 1-2, and supportive calculations are repeated in Appendix A for convenience.

As described in the September 3, 1999 submittal, the Bark boilers at the mill (No. 3 and No. 4 Combination Boiler) are not affected by the pulp production increase itself. These boilers already are operated to the extent possible to maximize electrical generation (for internal consumption by the mill). As a result, these emission units are not considered in the PSD applicability analysis, except for NO_x and VOC emissions, due to the proposed condensate stripper being installed to meet Cluster Rule requirements. Due to the pulp production increase, stripper off-gases vented to the No. 3 Combination Boiler will increase, causing an increase in NO_x and VOC emissions. SO_2 emissions will not increase due to lower SO_2 limits proposed for the No. 3 Combination Boiler to address ambient impact concerns (refer to revised ambient impact analysis report).

The revised PSD applicability analysis is presented in Table 1-3. As shown, this analysis indicates PSD review is triggered for the following pollutants:

- Particulate matter (PM)
- PM less than or equal to 10 microns (PM_{10})
- Sulfur dioxide (SO_2)
- Nitrogen oxides (NO_x)
- Carbon monoxide (CO)
- Volatile organic compounds (VOC)
- Total reduced sulfur (TRS)
- Sulfuric acid mist (SAM)
- Beryllium (Be)

Table 1-1. 1996-1997 Baseline Emissions, Stone Container Corp., Panama City

Regulated Pollutant	No. 1 Recovery Boiler (TPY)	No. 2 Recovey Boiler (TPY)	No. 1 Smelt Dissolving Tank (TPY)	No. 2 Smelt Dissolving Tank (TPY)	Lime Kiln (TPY)	Bleach Plant (TPY)	Pulping Area (TPY)	Lime Slaker (TPY)	Woodyard (TPY)	Chemical Recovery Area (TPY)	Paper Making (TPY)	No. 3 Combination Boiler (TPY)	TOTAL BASELINE EMISSIONS (TPY)
Particulate (TSP)	185.2	160.9	69.6	97.4	98.5	--	--	1.7	41.3	--	--	--	654.6
Particulate (PM10)	143.7	124.9	62.3	87.2	96.8	--	--	1.7	15.0	--	--	--	531.5
Sulfur dioxide	490.4	497.1	3.7	3.8	16.4	--	--	--	--	--	--	--	1,011.4
Nitrogen oxides	272.4	276.2	7.7	7.8	156.0	--	--	--	--	--	--	75.25 (a)	795.4
Carbon monoxide	2,476.8	2,510.6	--	--	15.7	119.9	--	--	--	--	--	--	5,122.9
Volatile organic compds.	158.0	160.2	14.5	14.7	16.8	73.5	57.3	3.1	--	159.5	190.9	3.68 (b)	852.2
Sulfuric acid mist	30.0	14.0	0.23	0.23	1.0	--	--	--	--	--	--	--	45.5
Total Reduced Sulfur	28.4	34.6	2.6	3.1	9.4	4.7	70.0	--	--	14.4	--	--	167.3
Lead	0.020	0.020	0.0040	0.0040	0.271	--	--	--	--	--	--	--	0.32
Mercury	0.015	0.015	4.21E-05	4.26E-05	6.48E-04	--	--	--	--	--	--	--	0.0309
Beryllium	5.18E-04	5.25E-04	3.27E-05	3.32E-05	1.21E-03	--	--	--	--	--	--	--	0.0023
Fluorides	--	--	--	--	--	--	--	--	--	--	--	--	--

(a) Represents emissions due to current permitted pulp production limit of 668,850 TPY ADUP.
(b) Represents VOC emissions due to condensate stripper off-gas at current permitted pulp production limit of 668,850 TPY.

Table 1-2. Maximum Future Potential Emissions @ 781,000 TPY Pulp Production, Stone Container Corp., Panama City

Regulated Pollutant	No. 1 Recovery Boiler (TPY)	No. 2 Recovey Boiler (TPY)	No. 1 Smelt Dissolving Tank (TPY)	No. 2 Smelt Dissolving Tank (TPY)	Lime Kiln (TPY)	Bleach Plant (TPY)	Pulping Area (TPY)	Lime Slaker (TPY)	Woodyard (TPY)	Chemical Recovery Area (TPY)	Paper Making (TPY)	No. 3 Combination Boiler (TPY)	TOTAL FUTURE POTENTIAL (TPY)
Particulate (TSP)	492.8	492.8	130.1	124.9	130.7	--	--	17.5	44.6	--	--	--	1,433.4
Particulate (PM10)	382.4	382.4	116.5	111.8	128.4	--	--	17.5	16.4	--	--	--	1,155.4
Sulfur dioxide	568.4	568.4	4.3	4.3	20.6	--	--	--	--	--	--	--	1,166.1
Nitrogen oxides	315.8	315.8	8.9	8.9	195.7	--	--	--	--	--	--	87.86	933.0
Carbon monoxide	2,872.0	2,872.0	--	--	19.7	177.3	--	--	--	--	--	--	5,941.0
Volatile organic compds.	183.2	183.2	16.8	16.8	21.1	96.7	70.3	5.4	--	193.8	234.3	4.30 (a)	1,025.9
Sulfuric acid mist	34.8	34.8	0.27	0.27	1.3	--	--	--	--	--	--	--	71.4
Total Reduced Sulfur	75.9	75.9	13.0	13.0	31.9	6.3	85.9	--	--	16.4	--	--	318.3
Lead	0.023	0.023	0.0050	0.0050	0.34	--	--	--	--	--	--	--	0.40
Mercury	0.017	0.017	4.90E-05	4.90E-05	8.10E-04	--	--	--	--	--	--	--	0.0349
Beryllium	6.00E-04	6.00E-04	3.80E-05	3.80E-05	1.50E-03	--	--	--	--	--	--	--	0.00278
Fluorides	--	--	--	--	--	--	--	--	--	--	--	--	--

(a) Based on baseline VOC emissions (See Table 1-1) times ratio of 781,000 / 668,850 TPY ADUP.

Table 1-3. Net Change in Emissions Due to Proposed Pulp Production of 781,000 TPY
Stone Container Corp., Panama City

Regulated Pollutant	1996-1997 BASELINE EMISSIONS (TPY)	FUTURE POTENTIAL EMISSIONS (TPY)	NET CHANGE (TPY)	SIGNIFICANT EMISSION RATE (TPY)	PSD REVIEW APPLIES ?
Particulate (TSP)	654.6	1,433.4	778.8	25	Yes
Particulate (PM_{10})	531.5	1,155.4	623.9	15	Yes
Sulfur dioxide	1,011.4	1,166.1	154.6	40	Yes
Nitrogen oxides	795.4	933.0	137.6	40	Yes
Carbon monoxide	5,122.9	5,941.0	818.1	100	Yes
Volatile organic compds.	852.2	1,025.9	173.7	40	Yes
Sulfuric acid mist	45.5	71.4	26.0	7	Yes
Total Reduced Sulfur	167.3	318.3	151.0	10	Yes
Lead	0.32	0.40	0.078	0.6	No
Mercury	0.0309	0.0349	0.004	0.1	No
Beryllium	0.0023	0.00278	0.00046	0.00040	Yes
Fluorides	--	--	--	3	No

2.0 BEST AVAILABLE CONTROL TECHNOLOGY

2.1 REQUIREMENTS

The 1977 Clean Air Act Amendments established requirements for the approval of preconstruction permit applications under the PSD program. One of these requirements is that the best available control technology (BACT) be installed for applicable pollutants. BACT determinations must be made on a case-by-case basis considering technical, economic, energy, and environmental impacts for various BACT alternatives.

The first step in the BACT analysis is to determine, for each applicable pollutant, the most stringent control alternative available for a similar source or source category. If it can be shown that this level of control is not feasible on the basis of technical, economic, energy, or environmental impacts for the source in question, then the next most stringent level of control is identified and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any technical, economic, energy, or environmental consideration.

In the case of the proposed pulp production increase at SCC mill, PM, PM_{10}, SO_2, NO_x, CO, VOC, TRS, SAM and Be require BACT analysis. According to the Florida Department of Environmental Protection's (FDEP) stated interpretation of the state PSD rule, each emissions unit for which an increase in emissions results from the proposed modification is subject to BACT. For the proposed modification, this includes the noncondensable gas (NCG) system (i.e., digesters and evaporators), lime kiln, recovery boilers, smelt dissolving tanks, lime slaker, bleach plant, pulping area (brown stock washers), chemical recovery area, paper making area, and the proposed condensate stripper, and No. 3 Combination Boiler.

The following sections present the BACT analysis for each applicable pollutant and emissions unit. Information from EPA's BACT/LAER Clearinghouse is included in Appendix C.

2.2 NCG SYSTEM AND CONDENSATE STRIPPER

The digester and multiple effect evaporator (MEE) system at SCC, as at all kraft pulp mills, produces TRS emissions which must be controlled. The existing digesters were constructed in 1994 and therefore must meet federal new source performance standards (NSPS). The NSPS require that non-condensable TRS gases be combusted in a recovery boiler or lime kiln meeting the NSPS for TRS emissions, or other combustion device designed to achieve 1,200°F for at least 0.5 seconds residence time. As an alternative, a TRS scrubbing device may be selected if it achieves an outlet TRS concentration of 5 ppmvd. Florida's TRS rules impose similar requirements on MEE systems. The condensate stripper being installed for Cluster Rule compliance is subject to the same requirements.

SCC uses the Lime Kiln to incinerator NCGs on the existing digester and MEE system, and uses the No. 4 Combination Boiler as the backup incineration device, both of which are designed to combust the TRS gases from the system at 1,200°F for at least 0.5 seconds. Therefore, the existing digesters meet the NSPS requirement. In addition, the MEE system complies with the State of Florida TRS rule.

SCC will use the No. 3 Combination Boiler to incinerate condensate stripper off-gases. This boiler is designed to meet the Cluster Rule requirements of introduction of the gases into the primary flame zone. Since by definition MACT exceeds BACT requirements, SCC's proposed incineration in the No. 3 Combination boiler satisfies BACT.

The recently promulgated maximum achievable control technology (MACT) standards for pulp and paper mills (40 CFR 63, Subpart S) also requires that NCGs from digesters and MEE systems be incinerated, or an equivalent alternative technology employed. Since by definition MACT exceeds BACT requirements, SCC's current systems satisfy BACT.

2.3 RECOVERY BOILERS

2.3.1 PARTICULATE MATTER AND BERYLLIUM

The two recovery boilers at SCC Panama City are currently equipped with a high-efficiency electrostatic precipitators (ESPs) for PM/PM_{10} control. ESPs have been demonstrated in practice to be the best and most appropriate control device for PM/PM_{10} emissions. Beryllium in the exhaust gases of a recovery boiler will be in the form of particulate matter. In this context, control of PM/PM_{10} emissions will also control Be emissions. Therefore, this discussion for PM/PM_{10} also applies to Be emissions.

Previous BACT determinations for PM emissions from kraft recovery boilers shows that all previous BACT determinations have been based on ESP control (see Appendix C). The proposed BACT for PM/PM_{10} emissions is the existing ESP, which has been determined to represent MACT in the recently proposed MACT II rule for combustion sources in the pulp and paper industry. The MACT II standards, if promulgated as proposed, will also impose a PM emissions limit on the recovery boilers (the currently proposed MACT standard for existing recovery boilers is 0.044 gr/dscf at 8-percent O_2).

Since by definition MACT II is more stringent than BACT, the proposed PM/PM_{10} BACT emissions limit is the promulgated MACT PM emission limit, when such a limit is finalized. Implementation of the limit will be according to the MACT rule schedule (Federal Register, Vol. 63, No. 72, April 15, 1998). Based on these considerations, the existing ESP control technology is considered as BACT for PM/PM_{10} emissions.

2.3.2 NITROGEN OXIDES

Pollutant Formation

NO_x is formed in the recovery boiler during the combustion process. Nitrogen is present in both the fuel and in the combustion air and combines with oxygen in the combustion air to form primarily nitric oxide (NO). A small fraction of the NO is further oxidized to form nitrogen dioxide (NO_2). NO_x formed from the fuel nitrogen is termed "fuel" NO_x, and that formed from the nitrogen in the combustion air is termed "thermal" NO_x.

Black liquor fired in recovery boilers has low nitrogen content, typically less than 0.1 percent. As a result, fuel NO_x is minimal from recovery boilers. Thermal NO_x is the primary mechanism for formation of NO_x emissions in a recovery boiler.

In general, kraft recovery boilers have relatively low NO_x emissions. Low combustion temperatures and staged combustion (creating a reducing atmosphere in the lower portion of the boiler) inhibit the formation of NO_x. The combustion temperature above the primary air injection is approximately 1,800°F. This relatively low combustion temperature is maintained by adjusting the furnace bed height and decreasing the primary air temperature. Emission rates from different recovery boilers vary because of manufacturer differences, differences in firing configurations, and also because of different black liquor fuel qualities.

Alternative NO_x Control Technologies

Combustion control is the only control technology used on recovery boilers to date. Review of BACT/LAER determinations issued within the past 5 years for NO_x shows that all determinations have been based on combustion control and boiler design and operation (see Appendix C).

A potentially applicable combustion technique for recovery boilers is flue gas recirculation (FGR). In FGR, a portion of the combustion gases is recirculated back to the furnace burners or windbox. This has the effect of reducing available oxygen, thereby reducing the amount of oxygen that can combine with nitrogen to form NO_x. It also results in reducing the peak flame temperature by absorption of combustion heat by the essentially inert combustion gases.

FGR has not been applied to recovery boilers because of the high particulate loading in the combustion gases, which presents technical problems associated with erosion of fan blades and ductwork required with the FGR system. Based on these technical problems, and no

demonstrated operating experience of FGR on a recovery boiler, this alternative was not considered further.

In addition to combustion controls, NO_x emissions potentially can be controlled by a post-combustion NO_x reduction system. This includes both selective catalytic reduction (SCR) and selective non-catalytic reduction (SNCR).

Performance of an SCR system downstream of a kraft recovery boiler is difficult to predict. Such a system is not known to have been applied to a recovery boiler. This NO_x reduction system uses a vanadium pentoxide catalyst to promote the reaction of ammonia with the NO_x. The presence of sodium compounds in the gas stream, however, is likely to cause catalyst fouling and plugging problems. In addition, the formation of ammonia bisulfate as a result of sulfur compounds in the gas stream would lead to corrosion and plugging of downstream components, compounding the uncertainty associated with this NO_x reduction system.

An SNCR system does not rely on the use of a catalyst but relies mainly on the chemical/temperature reaction between ammonia and NO_x. However, a large amount of uncertainty is associated with the use of this NO_x reduction technology downstream of a recovery boiler. Ammonia bisulfate deposits downstream of the boiler still are likely with SNCR and would present operational and maintenance problems. In addition, there is serious concern that the catalytic effects in the presence of sodium compounds might have an adverse effect on the reaction efficiency of the chemical reduction process.

SCR and SNCR have not been applied to recovery boilers and are considered technically unproven and infeasible at this time. In addition, applying these technologies to the existing SCC recovery boiler would require extensive and costly retrofitting. NO_x emissions from recovery boilers generally are low. Based on these considerations, post-combustion control techniques for NO_x were not considered further.

Proposed BACT for NO_x

Combustion control is the only feasible NO_x control technique applicable to the existing SCC recovery boiler.

2.3.3 CO AND VOC

CO and VOC emissions are formed in a recovery boiler by incomplete combustion of the black liquor fuel. The black liquor is about 25 percent carbon. Organics in the black liquor that do not completely combust are emitted out the stack as VOC. Increasing combustion temperatures, increasing excess air and oxygen, and better fuel/air mixing during combustion reduce CO and VOC emissions.

Because of the mutually dependent formation characteristics of NO_x and CO/VOC emissions from recovery boilers, it is not possible to consider BACT for these emissions independently. Nitrogen oxides are formed by the oxidation of nitrogen contained in the fuel and in the combustion air. Nitrogen oxide emissions are reduced by lowering combustion temperatures, minimizing excess combustion air and excess oxygen, and by staging the combustion process. Therefore, limiting NO_x emissions by lowering combustion temperatures and excess combustion air are counterproductive relative to control of CO/VOC emissions.

The only feasible control of CO and VOC emissions from kraft recovery furnaces is through good combustion practices. These practices generally are geared towards control of NO_x, SO_2, and TRS, which are the primary pollutants emitted from recovery boilers. The proposed BACT for SCC's recovery boilers is good combustion practices to minimize CO and VOC, while emphasizing control of NO_x, SO_2, and TRS. See Section 2.3.4 for further VOC BACT discussion.

2.3.4 TRS, SO_2 AND SAM

The TRS and SO_2 generated in recovery furnaces are dependent on several variables. These include the amount and distribution of combustion air, black liquor solids feed rate, sulfidity and heating value, spray pattern and droplet size of the black liquor nozzles, turbulence in the oxidation zone, and smelt bed disturbance. TRS and SO_2 control are dependent upon

optimizing these parameters. Generally, TRS and SO_2 emissions act opposite to each other. Operating to minimize TRS may create higher SO_2 emissions. However, emphasis is on TRS control in order to meet the existing TRS standard on the recovery boilers. SAM emissions are a function of the SO_2 emissions.

SCC's recovery boilers are of the direct contact evaporator type, in which the combustion gases from the recovery boiler are used to evaporate water from black liquor prior to the gases being discharged through the ESP and to the atmosphere. In regards to BACT for TRS emissions, the proposed MACT rule can also be examined. In the preamble to the proposed MACT, the EPA evaluated the conversion of direct contact evaporator (DCE) recovery furnaces to low odor non-direct contact evaporator (NDCE) design with a dry ESP for PM control as a means of controlling gaseous organic HAP emissions. The low odor design would also control TRS emissions and VOCs, as well as dictate achievable levels of SO_2, NO_x, and CO. However, EPA ruled out the low odor NDCE design as MACT based on too high capital costs compared to the small additional environmental benefit. Therefore, a low odor furnace design can be ruled out as BACT for TRS, SO_2, NO_x, VOC, and CO.

The proposed BACT for TRS, SO_2 and SAM emissions is continuing to operate the two recovery boilers to minimize TRS emissions to the extent practical to meet the current TRS standard.

2.4 LIME KILN

2.4.1 PARTICULATE MATTER AND BERYLLIUM

The lime kiln at SCC Panama City is currently equipped with a high-efficiency venturi scrubber for PM/PM_{10} control. Wet scrubbers have been in use for many years in the pulp and paper industry and are demonstrated in practice to be an appropriate control device for PM/PM_{10} emissions. Beryllium in the exhaust gases of a lime kiln will be in the form of particulate matter. In this context, control of PM/PM_{10} emissions will also control Be emissions. Therefore, this discussion for PM/PM_{10} also applies to Be emissions.

Previous BACT determinations for PM emissions from kraft recovery boilers, based on the BACT/LAER Clearinghouse, show that all previous BACT determinations have been based on the existing technology (wet scrubber or ESP). Wet scrubbers have been designated as BACT where an existing wet scrubber was employed and it was proposed to retain the wet scrubber. In addition, either a wet scrubber or an ESP have been determined to represent MACT for lime kilns in the recently proposed MACT standards for chemical recovery combustion sources (Federal Register, Vol. 63, No. 72, April 15, 1998).

The proposed BACT for PM/PM_{10} emissions for the lime kiln at SCC is the existing wet scrubber, which has been determined to represent MACT in the recently proposed MACT II rule for combustion sources in the pulp and paper industry. The MACT II standards will, if promulgated as proposed, impose a 0.067 gr/dscf at 10-percent O_2 particulate emission limitation on existing lime kilns. Since (by definition) MACT is more stringent than BACT, the proposed PM/PM_{10} BACT emissions limit is the promulgated MACT PM emission limit, when such a limit is finalized. Implementation of the limit will be according to the MACT rule schedule. Based on this information, the existing wet scrubber control technology is considered as BACT for PM/PM_{10} and beryllium emissions.

2.4.2 NO_x, CO AND VOC

NO_x, CO and VOC are formed in the lime kiln during the combustion process. Nitrogen is present in both the fuel and in the combustion air and combines with oxygen in the combustion air to form primarily nitric oxide (NO). A small fraction of the NO is further oxidized to form nitrogen dioxide (NO_2). NO_x formed from the fuel nitrogen is termed "fuel" NO_x, and that formed from the nitrogen in the combustion air is termed "thermal" NO_x. Both fuel NO_x and thermal NO_x are formed in lime kilns, although the primary formation is thermal NO_x. CO and VOC emissions generally increase as NO_x emissions decrease, and vice versa.

Combustion control is the only known control technology used on lime kilns. All BACT/LAER determinations issued within the past 5 years for NO_x, CO and VOC been based on combustion

control and good combustion practices. As a result, good combustion practices are proposed as BACT for the SCC lime kiln. See Section 2.4.3 for further VOC BACT discussion.

2.4.3 TRS AND SO_2

The TRS generated in lime kilns is dependent on several variables. These include the amount and distribution of combustion air, lime mud feed rate, lime mud washing and sulfidity, and control system. TRS control is dependent upon optimizing these parameters. Generally, SO_2 emissions from lime kilns are very low, due to the alkaline nature of the lime, which absorbs SO_2. As a result, NCG burning in a lime kiln has little effect on SO_2 emissions. Therefore, emphasis is on TRS control in order to meet the existing TRS standard on the lime kiln.

SCC's lime kiln is equipped with an existing wet scrubber to control PM emissions. NCGs are combusted in the lime kiln, and therefore TRS is generated from this source as well. Previous BACT determinations for lime kilns have been based on efficient lime mud washing and efficient kiln operation. In regards to BACT for TRS and VOC, the proposed MACT rule can also be examined.

In the preamble to the proposed MACT, EPA states that gaseous organic HAP emissions are primarily attributable to the use of HAP-contaminated process waters in the lime mud washers and lime kiln scrubbers. Therefore, these emissions can be minimized by reducing the HAP content of the process waters used in the washers and scrubbers. As the Panama City mill uses uncontaminated waters for the mud washers and kiln scrubber, BACT and MACT are already practiced. The proposed BACT for the lime kiln for TRS and VOC emissions is continue the current practice of using uncontaminated waters in the mud washer and kiln scrubber, to meet the current TRS standard.

2.5 SMELT DISSOLVING TANKS

2.5.1 PARTICULATE MATTER AND BERYLLIUM

The smelt dissolving tanks at SCC Panama City are currently equipped with wet scrubbers for PM/PM_{10} control. Wet scrubbers have been in use for many years in the pulp and paper

industry and are demonstrated in practice to be an appropriate control device for PM/PM_{10} emissions. Beryllium in the exhaust gases of a smelt dissolving tank will be in the form of particulate matter. Control of PM/PM_{10} emissions will also control Be emissions. Therefore, this discussion for PM/PM_{10} also applies to Be emissions.

Previous BACT determinations for PM emissions from smelt dissolving tanks, based on the BACT/LAER Clearinghouse, show that all previous BACT determinations have been based on the wet scrubber technology. The proposed BACT for PM/PM_{10} emissions for the smelt dissolving tanks (SDTs) at SCC is a wet scrubber, meeting the MACT II requirements, when promulgated. The proposed MACT II standards, if promulgated as proposed, will impose a PM emissions limit on the existing SDTs of 0.20 lb/ton of black liquor solids fired in the recovery boiler. Since by definition MACT is more stringent than BACT, the proposed PM/PM_{10} BACT emissions limit is the promulgated MACT II PM emission limit, when such a limit is finalized. Implementation of the limit will be according to the MACT rule schedule.

2.5.2 TRS AND SO_2

The TRS and SO_2 generated in smelt dissolving tanks are dependent on several variables. These are the smelt production rate, sulfidity of the smelt, and control system. TRS is typically controlled by caustic wet scrubbing. Generally, both TRS and SO_2 emissions from smelt tanks are very low.

SCC's smelt dissolving tanks are equipped with an existing wet scrubber to control TRS emissions. SO_2 emissions are also controlled as a result. Previous BACT determinations for smelt tanks have been based on wet scrubber technology. In regards to BACT for TRS and VOC emissions from SDTs, the proposed MACT rule can also be examined. In the preamble to the proposed MACT, EPA states that gaseous organic HAP emissions are primarily attributable to the use of HAP-contaminated process waters (i.e., weak wash) in the SDT wet scrubber. Therefore, these emissions can be minimized by reducing the HAP content of the process waters (weak wash) used in the scrubber. The Panama City Mill already uses uncontaminated weak

wash in the existing SDT scrubbers. Therefore, the proposed BACT for the SCC SDTs for TRS and VOC emissions is using uncontaminated weak wash in the scrubbers. Implementation of BACT will be according to the MACT II rule schedule, which requires compliance within 3 years of promulgation.

2.6 BLEACH PLANTS

SCC operates an existing bleach plant, with wet scrubber controls for chlorinated compound emissions. PSD regulated pollutants emitted from the bleach plant consist of CO, VOC and TRS. The wet scrubber system also minimizes emissions of VOC and TRS. CO emissions are a function of the reaction between chlorine or chlorine dioxide and lignin in the pulp.

MACT standards promulgated for the pulp and paper industry will require elimination of elemental chlorine and control of chlorine emissions by wet scrubber technology no later than April 16, 2001. Since the MACT is based on wet scrubber technology, BACT for TRS and VOC are also based on wet scrubber technology.

CO emissions are minimized through efficient bleaching operations. No other control technologies for CO control have been applied to bleach plants. Therefore, efficient bleaching operations is proposed as BACT for the SCC bleach plant.

2.7 LIME SLAKER

The lime slaker at SCC is controlled by an existing wet scrubber system which reduces PM/PM_{10} emissions to 4 lb/hr or less. Based on this low emission rate, BACT for PM/PM_{10} emissions, as well as for VOC emissions, is the existing wet scrubber system.

2.8 PULPING AREA, CHEMICAL RECOVERY AREA, AND PAPER MAKING

The pulping area (brown stock washing), chemical recovery area (black liquor oxidation towers, causticizers, lime mud filter and tanks), and the paper making process area (paper machines) at SCC have the potential to emit VOC and TRS. These sources have not been traditionally

controlled through add-on control equipment, but by efficient operations. Also, the MACT standards will require control of brown stock washing systems, as well as require clean condensates to be utilized throughout the mill. Therefore, BACT for VOC and TRS from brown stock washer systems is compliance with the MACT standards for the pulp and paper industry. BACT for the chemical recovery area and paper machines is efficient operations.

2.9 WOODYARD

Emissions from the woodyard include PM/PM_{10} and VOC emissions. The PM/PM_{10} emissions result from material transfer and screening operations, and are fugitive in nature. Some cyclones are employed, generally as material conveyance devices. Much of the material is wet and PM/PM_{10} emissions are minimal. SCC proposes good housekeeping practices and covered conveyors where practical, as BACT for the woodyard.

2.10 NO. 3 COMBINATION BOILER

The pulp production increase will result in an estimated 12.6 TPY increase in NO_x emissions, due to increased condensate stripper off-gases being vented to the No. 3 Combination Boiler. This small increase does not warrant further control or evaluation.

3.0 ADDITIONAL IMPACT ANALYSIS

3.1 VICINITY OF SCC PANAMA CITY MILL

3.1.1 IMPACTS TO VEGETATION AND SOILS

The area in the vicinity of the SCC Panama City mill is developed and cleared of native vegetation, with the exception of the approximately 10-acre western parcel on SCC property, which is vegetated with a mixture of native trees and shrubs typical of the Gulf coast.

According to the USDA Soil Survey of Bay County, three soil types are found in the vicinity of the plant: Osier fine sand, Foxworth sand, and urban land. Osier fine sand is poorly drained, with moderately high organic matter content in the upper 6 inches. Foxworth sand is moderately well drained soil with low organic matter content. Urban land consists of areas that are ≥75 percent covered with streets, houses, industrial parks, commercial buildings, and other developments. Soils in these areas typically are comprised of undifferentiated soil material, with inclusions of other soil series that are too small to be mapped separately.

As described in the air quality impact analysis submitted in conjunction with the pulp production increase request, the maximum predicted SO_2, NO_2, PM, and CO concentrations in the vicinity of the site as a result of the proposed project are below the AAQS. Since the AAQS are designed to protect the public welfare, including effects on soils and vegetation, no detrimental effects on soils or vegetation should occur in this area due to the proposed project.

3.1.2 GROWTH IMPACTS

Pulp production may increase by a maximum of about 20 percent due to the proposed project, resulting in some increases in truck, train and marine vessel traffic. Although total pulp production at the Panama City mill is expected to increase after approval of the pulp production increase, no new facilities, infrastructure, or support services are expected to be needed. No actual physical construction will be associated with the project, and no new employees are anticipated to be required. As a result, no significant impacts due to associated growth are expected due to the proposed project.

The potential impacts of SO_2, NO_2, PM, and CO on soils, vegetation, and visibility in the Bradwell Bay and St. Marks PSD Class I areas are addressed in the following sections.

3.2 PSD CLASS I AREA

This section focuses on the ecological effects of the proposed facility's impacts on Air Quality Related Values (AQRV), as defined under PSD regulations, in the St. Marks National Wildlife Refuge and Bradwell Bay Wilderness Area. The location of these two Class I areas in relation to the Panama City mill is shown in Figure 3-1.

The AQRVs are defined as being:

> "All those values possessed by an area except those that are not affected by changes in air quality and include all those assets of an area whose vitality, significance, or integrity is dependent in some way on the air environment. These values include visibility and those scenic, cultural, biological, and recreational resources of an area that are affected by air quality. Important attributes of an area are those values or assets that make an area significant as a monument, preserve, or primitive area. They are the assets that are to be preserved if the area is to achieve the purposes for which it was set aside" (Federal Register, 1978).

The AQRVs include freshwater and coastal wetlands, dominant plant communities, unique and rare plant communities, soils and associated periphyton, and the wildlife dependent on these communities for habitat. Rare, endemic, threatened, and endangered species of the wilderness areas and bioindicators of air pollution (e.g., lichens) are also evaluated.

The predicted increase in ambient concentrations due to the proposed project are presented in Table 3-1. The increase in emissions used in the modeling analysis are shown in Tables 3-2 and 3-3. Note that there is no increase in short term emission rates due to the proposed project, except for particulate matter (PM) emissions. Annual emission rates increase as a result of the

project, as shown in Table 3-2. These increases were modeled according to the same methodology as presented in the ambient impact analysis report for the Panama City Mill.

3.2.1 IMPACTS TO SOILS

For soils, the potential and hypothesized effects of atmospheric deposition include:

- Increased soil acidification,
- Alteration in cation exchange,
- Loss of base cations, and
- Mobilization of trace metals.

The potential sensitivity of specific soils to atmospheric inputs is related to two factors. First, the physical ability of a soil to conduct water vertically through the soil profile is important in influencing the interaction with deposition. Second, the ability of the soil to resist chemical changes, as measured in terms of pH and soil cation exchange capacity (CEC), is important in determining how a soil responds to atmospheric inputs.

According to the USDA Soil Survey of Wakulla County, the soils of Bradwell Bay Wilderness Area are primarily Croatan-Dorovan mucks, while the primarily soil types in the St. Marks National Wildlife Refuge are Bayvi, Isles, and Estero soils. The Croatan-Dorovan mucks are very poorly drained with very high organic matter content. The Bayvi, Isles, and Estero soils are found in tidal marsh areas, are flooded daily by high tides, and have moderate organic matter content. The soils of both Bradwell Bay and St. Marks are generally classified as histosols. Histosols (peat soils) are organic and have extremely high buffering capacities based on their CEC, base saturation, and bulk density. Therefore, they would be relatively insensitive to atmospheric inputs.

The relatively low sensitivity of the soils to atmospheric inputs coupled with the extremely low ground-level concentrations of contaminants projected for the Bradwell Bay and St. Marks areas due to the Panama City facility modification precludes any significant impact on soils.

3.2.2 IMPACTS TO VEGETATION

The maximum predicted gaseous concentrations ($\mu g/m^3$) of SO_2, NO_2, PM, and CO were used in the determination of impacts on vegetation. These compounds are believed to interact predominantly with foliage and this is considered the major route of entry into plants. In this assessment, 100 percent of the compound of interest was assumed to interact with the vegetation.

Sulfur Dioxide

Sulfur is an essential plant nutrient usually taken up as sulfate ions by the roots from the soil solution. When sulfur dioxide in the atmosphere enters the foliage through pores in the leaves, it reacts with water in the leaf interior to form sulfite ions. Sulfite ions are highly toxic. They interact with enzymes, compete with normal metabolites, and interfere with a variety of cellular functions (Horsman and Wellburn, 1976). However, within the leaf, sulfite is oxidized to sulfate ions, which can then be used by the plant as a nutrient. Small amounts of sulfite may be oxidized before they prove harmful.

SO_2 gas at elevated levels has long been known to cause injury to plants. Acute SO_2 injury usually develops within a few hours or days of exposure, and symptoms include marginal, flecked, and/or intercostal necrotic areas that appear water-soaked and dullish green initially. This injury generally occurs to younger leaves. Chronic injury usually is evident by signs of chlorosis, bronzing, premature senescence, reduced growth, and possible tissue necrosis (EPA, 1982). Background levels of SO_2 range from 2.5 to 25 $\mu g/m^3$. Observed SO_2 effect levels for several plant species and plant sensitivity groupings are presented in Tables 3-4 and 3-5, respectively.

Many studies have been conducted to determine the effects of high-concentration, short-term SO_2 exposure on natural community vegetation. Sensitive plants include ragweed, legumes, blackberry, southern pine, and red and black oak. These species are injured by exposure to 3-hour SO_2 concentrations of 790 to 1,570 $\mu g/m^3$. Intermediate plants include locust and sweetgum. These species are injured by exposure to 3-hour SO_2 concentrations of 1,570 to

2,100 $\mu g/m^3$. Resistant species (injured at concentrations above 2,100 $\mu g/m^3$ for 3 hours) include white oak and dogwood (EPA, 1982).

A study of native Floridian species (Woltz and Howe, 1981) demonstrated that cypress, slash pine, live oak, and mangrove exposed to 1,300 $\mu g/m^3$ SO_2 for 8 hours were not visibly damaged. This finding support the levels cited by other researchers on the effects of SO_2 on vegetation. A corroborative study (McLaughlin and Lee, 1974) demonstrated that approximately 20 percent of a cross-section of plants ranging from sensitive to tolerant was visibly injured at 3-hour SO_2 concentrations of 920 $\mu g/m^3$.

Two lichen species indigenous to Florida exhibited signs of SO_2 damage in the form of decreased biomass gain and photosynthetic rate as well as membrane leakage when exposed to concentrations of 200 to 400 $\mu g/m^3$ for 6 hours/week for 10 weeks (Hart et al., 1988).

No short-term increase in SO_2 emissions are expected as a result of the project, therefore the maximum predicted SO_2 concentrations were modeled using only the annual averaging time. The maximum increase in annual SO_2 concentrations predicted within the Class I areas due to the project is only 0.006 $\mu g/m^3$. Regardless of the existing concentrations within the Class I areas, the predicted additional impacts caused by the proposed modification are predicted to be insignificant for SO_2. The modeled annual incremental increase in SO_2 (0.006 $\mu g/m^3$) adds only slightly to background levels of this gas and poses no threat to area vegetation.

Nitrogen Dioxide

Nitrogen dioxide (NO_2) in the atmosphere can injure plant tissue, with symptoms usually appearing as irregular white to brown collapsed lesions between the leaf veins and near the margins. Conversely, non-injurious levels of NO_2 can be absorbed by plants, enzymatically transformed into ammonia, and incorporated into plant constituents such as amino acids (Matsumaru et al., 1979).

Plant damage can occur through either acute (short-term, high concentration) or chronic (long-term, relatively low concentration) exposure. For plants that have been determined to be more sensitive to NO_2 exposure than others, acute (1, 4, 8 hours) exposure caused 5 percent predicted foliar injury at concentrations ranging from 3,800 to 15,000 $\mu g/m^3$ (Heck and Tingey, 1979). Chronic exposure of selected plants (some considered NO_2-sensitive) to NO_2 concentrations of 2,000 to 4,000 $\mu g/m^3$ for 213 to 1,900 hours caused reductions in yield of up to 37 percent and some chlorosis (Zahn, 1975).

No short-term increases in NO_2 emissions are expected due to the project, therefore only annual averaging times were modeled. By comparison of published toxicity values for NO_2 exposure to long-term (annual averaging time) modeled concentrations, the possibility of plant damage in the Class I areas can be examined for chronic exposure situations. For a chronic exposure, the annual estimated NO_2 concentration due to the project only at the point of maximum impact in the Class I areas (0.0044 $\mu g/m^3$) is 0.00011 to 0.00022 percent of the levels that caused minimal yield loss and chlorosis in plant tissue.

Although it has been shown that simultaneous exposure to SO_2 and NO_2 results in synergistic plant injury (Ashenden and Williams, 1980), the magnitude of this response is generally only 3 to 4 times greater than either gas alone and usually occurs at unnaturally high levels of each gas. Therefore, the predicted increase in concentrations within the Class I areas are still far below the levels that potentially cause plant injury for either acute or chronic exposure.

Particulate Matter

Although information pertaining to the effects of PM on plants is scarce, baseline concentrations are available (Mandoli and Dubey, 1988). Ten species of native Indian plants were exposed to levels of PM that ranged from 210 to 366 $\mu g/m^3$ for an 8-hour averaging period. Damage in the form of a higher leaf area/dry weight ratio was observed at varying degrees for most plants tested. Concentrations of PM lower than 163 $\mu g/m^3$ did not appear to be injurious to the tested plants.

The predicted increase in maximum 1-hour, 3-hour, 8-hour, 24-hour, and annual PM_{10} concentrations in the Class I areas due to the proposed project are 1.7, 1.1, 0.7, 0.34, and 0.03 $\mu g/m^3$, respectively (see Table 3-1). By comparison of published toxicity values for PM exposure (i.e., 8-hour averaging time) concentrations, the possibility of plant damage in the PSD Class I areas due to the project can be estimated. The increase in the estimated 8-hour PM concentrations due to the project only at the point of maximum impact in the PSD Class I areas (0.7 $\mu g/m^3$) is less than 0.5 percent of the values that affected plant foliage. Therefore, no adverse affects upon vegetation in the Class I areas due to the additional PM emissions is predicted.

Carbon Monoxide

As with PM, information pertaining to the effects of CO on plants is scarce. The main effect of high concentrations of CO is the inhibition of cytochrome *c* oxidase, the terminal oxidase in the mitochondrial electron transfer chain. Inhibition of cytochrome *c* oxidase depletes the supply of ATP, the principal donor of free energy required for cell functions. However, this inhibition only occurs at extremely high concentrations of CO. Pollok et al. (1989) reported that exposure to $CO:O_2$ ratio of 25 (equivalent to an ambient CO concentration of $6.85 \times 10^6 \mu g/m^3$) resulted in stomatal closure in the leaves of the sunflower (*Helianthus annuus*). Naik et al. (1992) reported cytochrome *c* oxidase inhibition in corn, sorghum, millet, and Guinea grass at $CO:O_2$ ratios of 2.5 (equivalent to an ambient CO concentration of $6.85 \times 10^5 \mu g/m^3$). These plants were considered the species most sensitive to CO-induced inhibition of cytochrome *c* oxidase.

By comparison of published effect values for CO exposure, the possibility of plant damage in the Class I areas can be determined. No short term increase in CO emissions will occur as a result of the proposed project. The predicted maximum increase in annual concentration due to the project only in the Class I area is 0.041 $\mu g/m^3$. This concentration is less than 0.0002 percent of the value that caused inhibition in laboratory studies. Therefore, no adverse impacts due to the increase in CO emissions are expected.

Summary

In summary, the phytotoxic effects from the increase in emissions due to the proposed project are predicted to be minimal. It is important to note that the concentrations were conservatively modeled with the assumption that 100 percent was available for plant uptake. This is rarely the case in a natural ecosystem.

3.2.3 IMPACTS TO WILDLIFE

A wide range of physiological and ecological effects to fauna has been reported for gaseous and particulate pollutants (Newman, 1981; Newman and Schreiber, 1988). The most severe of these effects have been observed at concentrations above the secondary ambient air quality standards. Physiological and behavioral effects have been observed in experimental animals at or below these standards. No observable effects to fauna are expected at concentrations below the values reported in Table 3-6.

The major air quality risk to wildlife in the United States is from continuous exposure to pollutants above the National Ambient Air Quality Standards. This occurs in non-attainment areas, e.g., Los Angeles Basin. Risks to wildlife also may occur for wildlife living in the vicinity of an emission source that experiences frequent upsets or episodic conditions resulting from malfunctioning equipment, unique meteorological conditions, or startup operations (Newman and Schreiber, 1988). Under these conditions, chronic effects (e.g., particulate contamination) and acute effects (e.g., injury to health) have been observed (Newman, 1981).

For impacts on wildlife, the lowest threshold values of SO_2, NO_x, and particulates which are reported to cause physiological changes are shown in Table 3-6. These values are up to orders of magnitude larger than the maximum predicted increase in concentrations for the Class I area. No effects on wildlife AQRVs from SO_2, NO_x, CO and particulates are expected. These results are considered indications of the risk of other air pollutant emissions predicted from the facility.

3.2.4 IMPACTS ON VISIBILITY

Introduction

A change in visibility is characterized by either a change in the visual range, defined as the greatest distance that a large dark object can be seen, or by a change in the light-extinction coefficient (b_{ext}). The b_{ext} is the attenuation of light per unit distance due to the scattering and absorption by gases and particles in the atmosphere. A change in the extinction coefficient produces a perceived visual change that is measured by a visibility index called the deciview. The deciview (dv) is defined as:

$$dv = 10 \ln (1 + b_{exts} / b_{extb})$$

where b_{exts} is the extinction coefficient calculated for the source, and

b_{extb} is the background extinction coefficient

The source extinction coefficient is determined from NO_x, SO_2, and PM_{10} emission increases from the proposed project. The background extinction coefficient s for each area evaluated are based on existing ambient monitoring data. Based on predicted short-term increases in SO_4, NO_3, and PM_{10} concentrations, the increase in the project's emissions were compared with a 5 percent change in light extinction of the background levels.

The modeling analysis determined the deciview change along a circle of radius of 95.4 km. This is the closest distance to either the Bradwell Bay or St. Marks PSD Class I areas from the SCC Panama City Mill.

Analysis Methodology

Following the recommendations of the Interagency Workgroup on Air Quality Modeling (IWAQM) Phase II report, a level II screening analysis was performed using the California Puff (CALPUFF) long-range transport model, along with an enhanced ISC meteorological data record. The CALPUFF postprocessor model CALPOST was used to summarize the maximum concentrations of SO_4, NO_3, and PM_{10} that were predicted with the CALPUFF model.

CALPUFF was used in a manner recommended by the IWAQM Phase 2 Summary Report (EPA, 12/98). A summary of the parameter settings that were used in the CALPUFF model is presented in Table D-1 along with the IWAQM Phase 2 recommended parameter settings. The recommended parameter settings are presented in Appendix B of the IWAQM Phase II Summary Report. The CALPUFF model was used in an ISC screening mode with an "enhanced" ISCST3 meteorological data set.

The following CALPUFF settings/values were implemented in the Level II screening analysis:

- Use of six pollutant species of SO_2, SO_4, NO_x, HNO_3, NO_3, and PM_{10};
- Use of MESOPUFF II scheme for chemical transformation with CALPUFF default background concentrations;
- Include both dry and wet deposition and plume depletion;
- Use agricultural, unirrigated land use; minimum mixing height of 50 m;
- Use transitional plume rise, stack-tip downwash, and partial plume penetration;
- Use puff plume element dispersion, PG/MP coefficients, rural mode, and ISC building downwash scheme;
- Use of partial plume path adjustment terrain effects; and
- Use highest predicted concentration 5 years for comparison to percent degradation criteria.

Emission Inventory

Based on recommendations of the IWAQM Phase II Report, the regional haze analysis considered only the maximum 24-hour increase in emissions due to the SCC Mill's proposed project. Only PM_{10} emissions will increase on a short-term basis. Emissions of both SO_2 and NO_x will increase only on an annual basis. Therefore, only the short-term increase in PM10 emissions was included in the regional haze analysis. A summary of the PM_{10} emission increase for each source is presented in Table 3-3.

Building Wake Effects

The air modeling analysis included the SCC Mill's building dimensions to account for the effects of building-induced downwash on the emission sources. Dimensions for all significant building structures were processed with the Building Profile Input Program (BPIP), Version 95086, and were included in the CALPUFF model.

Receptor Locations

Receptors were located along a circle that was centered over the SCC Mill and with a radius equal to the minimum distance between the Mill and Bradwell Bay PSD Class I Area (i.e., 95.4 km). The circle was comprised of 180 polar receptors, spaced at 2-degree intervals. Because the area's terrain is flat, all receptors were assumed to be at zero elevation.

Background Visual Ranges And Relative Humidity Factors

Because PM_{10} is the only pollutant and is non-hydroscopic, relative humidity factors were not required to calculate the change in visibility due to the proposed project. The background extinction coefficient was based on data representative of the mean of the top 20-percentile air quality days. For Bradwell Bay and St. Marks NWR, a background extinction coefficient of 0.0602 km^{-1} was used, equating to a background visual range of 65 km.

Meteorological Data

A 5-year data record was used from 1986 through 1991. The data for years 1986 and 1987 consisted of hourly surface observations from Pensacola and twice-daily mixing height data obtained from Apalachicola National Weather Service (NWS) offices. The data for years 1988, 1989 and 1990 consisted of hourly surface observations and twice-daily mixing height data obtained from Apalachicola. The surface and upper data were preprocessed into an ASCII modeling format by EPA 's PCRAMMET meteorological preprocessing program. Anemometer heights of 22 and 30 ft were used for the Pensacola and Apalachicola surface data, respectively.

Additional meteorological parameters were added to the meteorological data records for use with the CALPUFF model. The addition parameters include friction velocity, Monin-Obukhov

length, and surface roughness used for calculating dry deposition; precipitation type code and precipitation rate used for calculating wet deposition, and short-wave solar radiation and relative humidity use for calculating chemical transformation rates. The dry deposition parameters were added to the meteorological data records using the PCRAMMET model in dry deposition mode. Using the guidance provided in Section 3.1 of the PCRAMMET User's Manual (8/98), the following input values were selected:

1. Surface roughness at both application and measurement sites: 0.15 m
2. Noontime Albedo: 0.14
3. Bowen Ratio: 0.8
4. Anthropogenic Heat flux: 0
5. Minimum Monin-Obukhov Length: 2 m
6. Fraction of Net Radiation Absorbed by Ground: 0.15

Hourly precipitation amounts, relative humidity and short-wave radiation values were added separately to the meteorological data set. These parameters were obtained from Mobile, Alabama surface data available from Solar and Meteorological Surface Observation Network (SAMSON) data.

Based on the precipitation classification scheme provided in the CALPUFF Users Manual (Table 2-11) (7/95), each hour's precipitation code was set to 0 or 2. An hour in which no precipitation occurred received a code of 0. If precipitation occurred the code was set to 2. All precipitation was assumed to be in the form of rain.

Chemical Transformation

As emissions of hydroscopic species SO_2 and NO_x were not included in the visibility modeling analysis, chemical transformation of these compounds was not evaluated.

Results

The results of the Level II screening analysis are summarized in Table 3-7. The predicted change in visibility is 1.68 percent. This change is below the criteria of 5 percent. Therefore, it

is concluded that the proposed project will not pose a significant impact on the visibility at the Bradwell Bay or St. Marks NWR PSD Class I areas.

Table 3-1. Maximum Predicted Concentrations Due to the Proposed Project Only at St. Marks and Bradwell Bay Class I Areas

Pollutant	Maximum Concentration[a] ($\mu g/m^3$)				
	Annual	24-Hour	8-Hour	3-Hour	1-Hour
Sulfur Dioxide (SO_2)	0.006	NA	NA	NA	NA
Nitrogen Dioxide (NO_2)	0.0033	NA	NA	NA	NA
Particulates (PM_{10})	0.0296	0.34	0.69	1.07	1.74
Carbon Monoxide (CO)	0.041	NA	NA	NA	NA

[a] Highest predicted concentration from the CALPUFF model Level 2 Screening analysis with 5-years of hourly ISC meteorological data from Pensacola/Apalachicola, 1986 - 1990. NA = Not applicable - No short-term increase in emissions.

Table 3-2. Annual Average Emissions Increase for the Class I Impact Analysis

Regulated Pollutant	Net Increase in Emissions (TPY)												TOTAL NET CHANGE IN EMISSIONS (TPY)
	No . 1 Recovery Boiler	No . 2 Recovey Boiler	No. 1 Smelt Dissolving Tank	No. 2 Smelt Dissolving Tank	Lime Kiln	Bleach Plant	Pulping Area	Lime Slaker	Woodyard	Chemical Recovery Area	Paper Making	No. 3 Combination Boiler	
Particulate (TSP)	307.6	331.9	60.5	27.5	32.2	--	--	15.8	3.3	--	--	--	778.8
Particulate (PM_{10})	238.7	257.5	54.2	24.6	31.6	--	--	15.8	1.4	--	--	--	623.9
Sulfur dioxide	78.0	71.3	0.6	0.5	4.2	--	--	--	--	--	--	--	154.6
Nitrogen oxides	43.4	39.6	1.2	1.1	39.7	--	--	--	--	--	--	12.6	137.6
Carbon monoxide	395.2	361.4	--	--	4.0	57.4	--	--	--	--	--	--	818.1

Note: Refer to Tables 1-1 through 1-3 for emission rates.

Table 3-3. Short-term PM_{10} Emission Increase for the Class I Impact Analysis

Source	Model ID	Short-Term Emissions (lb/hr)		
		Current	Future	Change
No. 1 Recovery Boiler	RB1	45.8	87.3	41.5
No. 2 Recovery Boiler	RB2	39.1	87.3	48.2
No. 1 Smelt Tank	SDT1	17.5	29.7	12.2
No. 2 Smelt Tank	SDT2	23.6	28.5	4.9
Lime Kiln	LK	24.1	29.8	5.7
Slaker	Slaker	0.5	4.0	3.6

Note: There is no increase in short-term emissions of SO_2 or NO_x due to the proposed project.

Table 3-4. SO_2 Effects Levels for Various Plant Species

Plant Species	Observed Effect Level ($\mu g/m^3$)	Exposure (Time)	Reference
Sensitive to tolerant	920 (20 percent displayed visible injury)	3 hours	McLaughlin and Lee, 1974
Lichens	200-400	6 hr/wk for 10 weeks	Hart *et al.*, 1988
Cypress, slash pine, live oak, mangrove	1,300	8 hours	Woltz and Howe, 1981
Jack pine seedlings	470-520	24 hours	Malhotra and Kahn, 1978
Black oak	1,310	Continuously for 1 week	Carlson, 1979

Table 3-5. Sensitivity Groupings of Vegetation Based on Visible Injury at Different SO_2 Exposures[a]

Sensitivity Grouping	SO_2 Concentration		Plants
	1-Hour	3-Hour	
Sensitive	1,310 - 2,620 $\mu g/m^3$ (0.5 - 1.0 ppm)	790 - 1,570 $\mu g/m^3$ (0.3 - 0.6 ppm)	Ragweeds Legumes Blackberry Southern pines Red and black oaks White ash Sumacs
Intermediate	2,620 - 5,240 $\mu g/m^3$ (1.0 - 2.0 ppm)	1,570 - 2,100 $\mu g/m^3$ (0.6 - 0.8 ppm)	Maples Locust Sweetgum Cherry Elms Tuliptree Many crop and garden species
Resistant	>5,240 $\mu g/m^3$ (>2.0 ppm)	>2,100 $\mu g/m^3$ (>0.8 ppm)	White oaks Potato Upland cotton Corn Dogwood Peach

[a] Based on observations over a 20-year period of visible injury occurring on over 120 species growing in the vicinities of coal-fired power plants in the southeastern United States.

Source: EPA, 1982a.

Table 3-6. Examples of Reported Effects of Air Pollutants at Concentrations Below National Secondary Ambient Air Quality Standards

Pollutant	Reported Effect	Concentration ($\mu g/m^3$)	Exposure
Sulfur Dioxide[1]	Respiratory stress in guinea pigs	427 to 854	1 hour
	Respiratory stress in rats	267	7 hours/day; 5 day/week for 10 weeks
	Decreased abundance in deer mice	13 to 157	continually for 5 months
Nitrogen Dioxide[2,3]	Respiratory stress in mice	1,917	3 hours
	Respiratory stress in guinea pigs	96 to 958	8 hours/day for 122 days
Particulates[1]	Respiratory stress, reduced respiratory disease defenses	120 PbO_3	continually for 2 months
	Decreased respiratory disease defenses in rats, same with hamsters	100 $NiCl_2$	2 hours

Source: [1]Newman and Schreiber, 1988.
[2]Gardner and Graham, 1976.
[3]Trzeciak et al., 1977.

Table 3-7. Level II Screening Regional Haze Analyses Results, Stone Container PC Mill

Item	Units	Values
Maximum Predicted Concentration[a]	ug/m^3	
PM_{10}		0.3409
SO_4[b]		0.0000
NO_3[b]		0.0000
Computed Concentrations	ug/m^3	
$(NH_4)_2SO_4$		0.000000
NH_4NO_3		0.0000
Average Relative Humidity Factor		0.00
Background Visual Range[c], Vr		65
Background Extinction Coeff.(bext)	km^{-1}	0.0602
Source Extinction Coeff (bexts)	km^{-1}	
$(NH_4)_2SO_4$		0.000000
NH_4NO_3		0.000000
PM10		0.001023
Total bexts	km^{-1}	0.001023
Percent Change (%)		1.68

[a] Highest predicted with Calpuff model and 5-year meteorological data from Pensacola and Apalachicola for 1986 - 1990

[b] Pollutant species do not increase short-term

[c] Provided by U.S. Fish and Wildlife Service

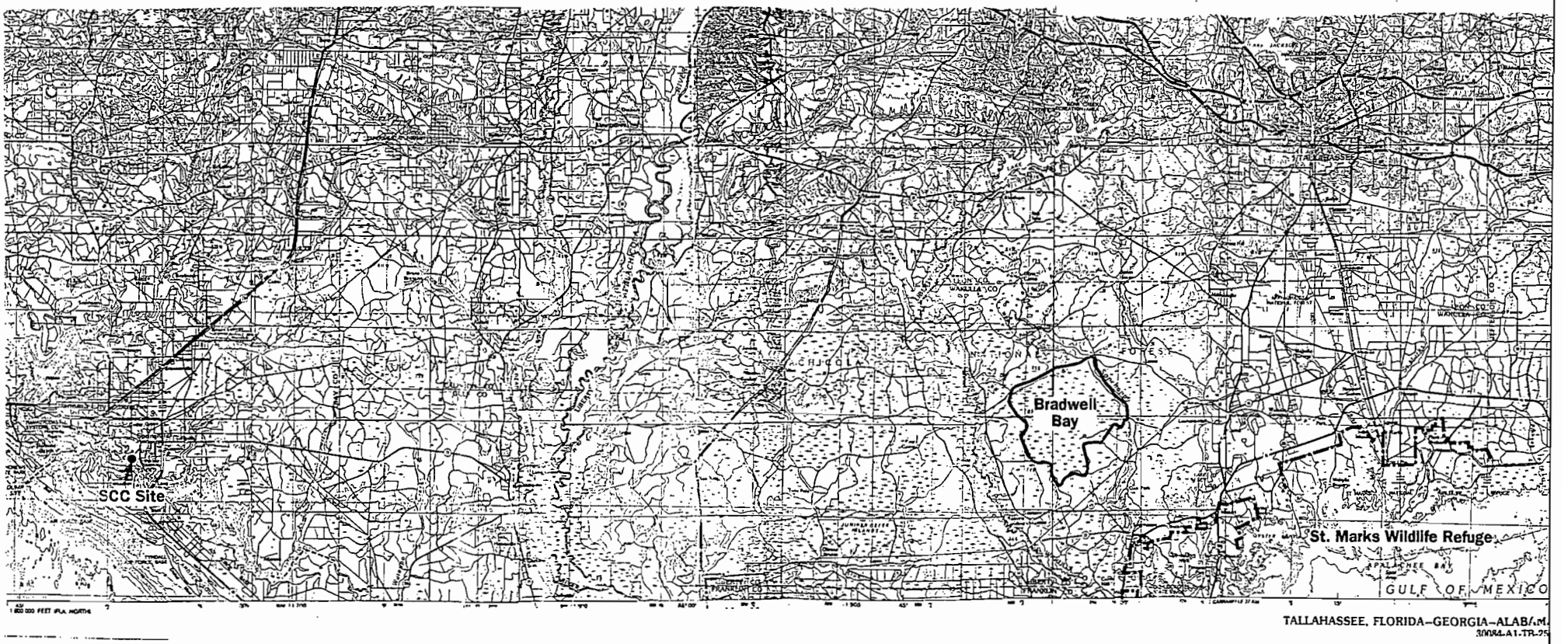

Figure 3-1
Class I Areas in Relation to Panama City Mill

Sources: USGS, 1998; Golder Associates Inc., 1999.

Golder Associates

APPENDIX A

MAXIMUM FUTURE EMISSIONS @ 781,000 TPY ADUP
STONE CONTAINER CORPORATION
PANAMA CITY MILL

Table A-1. Maximum Emissions from Each Recovery Boiler Nos. 1 and 2 , Stone Container Corporation, Panama City

	Each Recovery Boiler					
Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)		Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	112.5 lb/hr	1	8,760	hr/yr	112.5	492.8
Particulate (PM10)	77.6 % of PM	6	--		87.30	382.4
Sulfur dioxide	0.18 lb/MMBtu	3	721	MMBtu/hr	129.78	568.4
Nitrogen oxides	0.10 lb/MMBtu	3	721	MMBtu/hr	72.10	315.8
Carbon monoxide	20 lb/1,000 lb BLS	7	123.7	1,000 lb BLS/hr	2,474	2,872
VOC	0.058 lb C /MMBtu	3	721	MMBtu/hr	41.82	183.2
Sulfuric acid mist	0.011 lb/MMBtu	5	721	MMBtu/hr	7.95	34.8
Total reduced sulfur	17.5 ppmvd	1	187,100	dscfm (g)	17.3	75.9
Lead	7.2E-06 lb/MMBtu	2	721	MMBtu/hr	5.2E-03	2.3E-02
Mercury	5.5E-06 lb/MMBtu	2	721	MMBtu/hr	4.0E-03	1.7E-02
Beryllium	1.9E-07 lb/MMBtu	2	721	MMBtu/hr	1.4E-04	6.0E-04
Fluorides	ND	4	--		--	--

note:
(a) Based on currently permitted maximum operating rate of 123,700 lb virgin BLS/hr, 5,830 Btu/lb BLS, and 8,760 hr/yr.
(b) Based on currentlt permitted maximum heat input of 721 MMBtu/hr, average No. 6 Fuel Oil heat content of 150,000 Btu/gal, and 8,760 hr/yr.
(c) Maximum S = 2.5%.
(d) Based on maximum heat input of 721 MMBtu/hr, average natural gas heat content of 1,000 Btu/scf, and 8,760 hr/yr.
(e) Based on 3,570,000 gallons of No. 6 Fuel Oil per year.
(f) Based on 535 MMscf of natural gas per year.
(g) Based on firing with No. 6 Fuel Oil (only) for 742 hr/yr and BLS for the remaining 8,018 hr/yr.
(h) Based on firing with No. 6 Fuel Oil for 742 hr/yr (only), natural gas for 742 hr/yr, and BLS for the remaining 7,276 hr/yr.
(g) Based on 1997 compliance testing and 8% salt cake content of BLS throughput, Ie. 92% virgin BLS.

References:
1. Currently permitted emission limit.
2. Emission factor based on NCASI Bulletin No. 650, Table 11D, direct contact evaporator, average factor used.
3. Emission factor based on NCASI Bulletin No. 646, Tables 8-11, direct contact evaporator with ESP, average factor used.
4. From "Application of Combustion Modifications to Industrial Combustion Equipment" EPA-600/7-79-015a. one test from recovery boiler.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on AP-42 Tables 10.2-1, 10.2-2, and Figure 10.2-2 for Kraft pulping sources.
7. Based on NCASI Bulletin No. 416, Table 5 and Figure 17 (20 lb/1,000 lb BLS for hourly emissions and 5.3 lb/1,000 lb BLS for annual average).

Table A-2. Maximum Emissions From the Existing Bleach Plant, Smurfit-Stone Container, Panama City, Florida

Pollutant Name	Average Emission Factor (lb/tons ADBP)		Activity Factor (a) (tons ADBP/yr)	Annual Emissions (TPY)
Carbon Monoxide				
Hardwood	0.72	(b)	402,960	--
Softwood	0.88	(b)	402,960	177.30
Volatile Organic Compounds (measured as total hydrocarbons)	4.80E-01	(c)	402,960	96.71
Total Reduced Sulfur	3.10E-02	(d)	402,960	6.25

Notes:
ADBP = Air Dried Bleached Pulp
lb/hr = pounds per hour
TPY = tons per year
Footnotes:
(a) Based on the maximum rate of 1,104 tons ADBP/day and 365 days/yr of operation.
(b) Emission factors based on data in NCASI Technical Bulletin No. 760, Carbon Monoxide Emissions from Oxygen Delignification and Chlorine Dioxide Bleaching of Wood Pulp, July 1998.
Bleaching Stages:
Hardwood: Existing bleach plant design is 25.78 lb ClO2/ODTUBP / 0.94 = 27.4 lb ClO2/ODTBP = 1.4%
Using NCASI equation for hardwood (Figure 11): CO = (-0.03 x %ClO2) + 0.69 lb/ODTBP
CO = 0.65 lb/ODTBP x 0.90 = 0.72 lb/ADTBP
Softwood: Existing bleach plant design is 35.5 lb ClO2/ODTUBP / 0.94 = 37.8 lb ClO2/ODTBP = 1.9%
Using NCASI equation for softwood (Figure 9): CO = (0.27 x %ClO2) + 0.38 lb/ODTBP
CO = 0.79 lb/ODTBP x 0.90 = 0.88 lb/ADTBP
Maximum emissions based on 100% softwood.
(c) NCASI Technical Bulletin No. 701, Compilation of Air Toxic and Total Hydrocarbon Emissions Data for Sources at Chemical Wood Pulp Mills, Volume 1, October 1995, Table 3, for Mill BPII2.
(d) NCASI Technical Bulletin No. 701, Compilation of Air Toxic and Total Hydrocarbon Emissions Data for Sources at Chemical Wood Pulp Mills, Volume 1, October 1995, Table 3, for Mill BPIF2.

Table A-3. Maximum Emissions from Pulping Area (Brown Stock Washing) at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor	Annual Emissions (TPY)
VOC	0.18 lb C/ton ADUP	2	781,000 ton ADUP/yr	70.3
Total reduced sulfur	0.22 lb/ton ADUP	1	781,000 ton ADUP/yr	85.9

References

1. Based on NCASI Technical Bulletin No. 701, page 77, 79, and 81 (Table 5).
2. Based on NCASI Technical Bulletin No. 701, page 89 (Table 5).

Table A-4. Maximum Emissions from No. 1 Smelt Dissolving Tank at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	29.71 lb/hr	1	8,760 hr/yr	29.7	130.1
Particulate (PM10)	89.5 % of PM	2	--	26.6	116.5
Sulfur dioxide	0.016 lb/ton BLS	3	61.85 tons BLS/hr	0.99	4.33
Nitrogen oxides	0.033 lb/ton BLS	3	61.85 tons BLS/hr	2.04	8.94
Carbon monoxide	--		--	--	--
VOC	0.062 lb/ton BLS	3	61.85 tons BLS/hr	3.83	16.8
Sulfuric acid mist	5 % of SO2	5	--	0.061	0.27
Total reduced sulfur	0.048 lb/ton BLS	6	61.85 tons BLS/hr	3.0	13.0
Lead	1.7E-05 lb/ton BLS	4	61.85 tons BLS/hr	0.001	0.005
Mercury	1.8E-07 lb/ton BLS	4	61.85 tons BLS/hr	1.1E-05	4.9E-05
Beryllium	1.4E-07 lb/ton BLS	4	61.85 tons BLS/hr	8.7E-06	3.8E-05
Fluorides	--		--	--	--

note:
(a) Based on the currently permitted maximum allowable operating rate of 123,700 lb virgin BLS/hr and 8,760 hr/yr.

References:
1. Currently permitted emission limit.
2. AP-42, Table 10.2-7.
3. Data is averages from NCASI Bulletin No. 646, Tables 16-18, for smelt dissolving tanks with scrubbers.
4. Data is averages from NCASI Bulletin No. 650, Tables 14A and 14B, for smelt dissolving tanks with scrubbers.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on Rule 62-296.404(3)(d)1., F.A.C

Table A-5. Maximum Emissions from No. 2 Smelt Dissolving Tank at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	28.5 lb/hr	1	8,760 hr/yr	28.5	124.9
Particulate (PM10)	89.5 % of PM	2	--	25.5	111.8
Sulfur dioxide	0.016 lb/ton BLS	3	61.85 tons BLS/hr	0.99	4.33
Nitrogen oxides	0.033 lb/ton BLS	3	61.85 tons BLS/hr	2.04	8.94
Carbon monoxide	--		--	--	--
VOC	0.062 lb/ton BLS	3	61.85 tons BLS/hr	3.83	16.8
Sulfuric acid mist	5 % of SO2	5	--	0.061	0.27
Total reduced sulfur	0.048 lb/ton BLS	1	61.85 tons BLS/hr	3.0	13.0
Lead	1.7E-05 lb/ton BLS	4	61.85 tons BLS/hr	0.001	0.005
Mercury	1.8E-07 lb/ton BLS	4	61.85 tons BLS/hr	1.1E-05	4.9E-05
Beryllium	1.4E-07 lb/ton BLS	4	61.85 tons BLS/hr	8.7E-06	3.8E-05
Fluorides	--		--	--	--

note:
(a) Based on the currently permitted maximum allowable operating rate of 123,700 lb virgin BLS/hr and 8,760 hr/yr.

References:
1. Currently permitted emission limit.
2. AP-42, Table 10.2-7.
3. Data is averages from NCASI Bulletin No. 646, Tables 16-18, for smelt dissolving tanks with scrubbers.
4. Data is averages from NCASI Bulletin No. 650, Tables 14A and 14B, for smelt dissolving tanks with scrubbers.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).

Table A-6. Maximum Emissions from the Woodyard at Stone Container, Panama City

SOURCE	Type of Operation (a)	M Moisture Content (%)	U Wind Speed (MPH)	Uncontrolled Emission Factor	Type of Control	Control Efficiency (%)	Controlled Emission Factor	Activity Factor	Maximum Annual PM Emissions (tons/yr)	PM10 Size Multiplier (c)	Maximum Annual PM10 Emissions (tons/yr)
ROUNDWOOD HANDLING											
Debarker	Debarking	--	--	0.024 lbs/ton (d)	Enclosure	80	0.00480 lbs/ton	1,946,934 TPY (e)	4.673	0.35	1.635
Chipper	Continuous Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	1,946,934 TPY (e)	0.125	0.35	0.044
Chip Surge Bin to Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
BARK HANDLING											
Debarker to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
Bark Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
No. 1 Bark Diverter to Emergency Bark Storage Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	0 TPY (f)	0.0000	0.35	0.00000
Emergency Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Unhogged Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Trucked Bark to Purchased Unhogged Bark Storage Pile	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Front End Loaded to Bark Hopper	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Wastewood Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	316,098 TPY (g)	0.0041	0.35	0.00142
No. 1 Bark Diverter to Disc Screen	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Hog	Hammermill	--	--	0.024 lbs/ton (d)	Enclosed	80	0.00480 lbs/ton	471,853 TPY (h)	1.132	1.0	1.132
Bark Hog to Hogged Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Conveyor to Hogged Bark Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Pile	Wind Erosion	--	--	--	None	0	--	--	0.0023	1.0	0.0023
Bark Bin Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone	0	2.0 lb/hr	8,760 hr/yr	8.78	0.35	3.07
Bark Bin Cyclone to Small Bark Bin and Screw	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Small Bark Bin and Screw to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Conveyor to No. 2 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Storage Pile Maintenance	Vehicular Traffic	--	--	0.74 lbs/VMT	None	0	0.74 lbs/VMT	21,900 VMT (i)	8.103	0.35	2.836
PURCHASED CHIP HANDLING											
Truck Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Railcar Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Truck Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
Railcar Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
MANUFACTURED AND PURCHASED CHIP PROCESSING											
Tower No. 1 Diverter to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Reclaim Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaim Conveyor to Radial Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Radial Conveyor to Chip Reclaimer Storage Pile (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaimer Storage Pile (2)	Wind Erosion	--	--	--	None	0	--	--	0.048	1.0	0.048
Chip Reclaimer Storage Pile to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Screw (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screw to Primary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screens	Screening										
Softwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone, Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Hardwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Primary Screen to Secondary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Secondary Screen to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,321,045 TPY (l)	0.030	0.35	0.010
Screen Building Rejects Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.066
Screen Building Rejects Cyclone to Chip Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	994,734 TPY (m)	0.026	0.35	0.009
Fines Blowline Emergency Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.00017	1.0	0.00017
Fines Blowline Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.07
Fines Blowline Cyclone to Wastewood/Sludge Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	9,847 TPY (n)	0.000	0.35	0.000
Chip Conveyor to No. 5 Transfer Tower (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,305,772 TPY (o)	0.043	0.35	0.015
TOTAL									44.61		18.39

Notes:

(a) Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (US EPA, 1995) Section 13.2.4-3(1). E = 0.0032 x (U/5)^1.3 / (M/2)^1.4 lb/ton

(b) Wind Erosion Emissions based on AP-42 (US EPA, 1995) Section 13.2.5. Refer to Attachment A for derivation.

(c) PM10 Size Multiplier is based on particles < 10 micrometers.

(d) Debarker emissions are based on Table 26 of NCASI Technical Bulletin No. 424 (March 1984), Fugitive Dust Emission Factors and Control Methods Important to Forest Products Industry Manufacturing Operations.

(e) Roundwood throughput is based on 466,800 cords/yr (softwood) @ 2.7 tons/cord and 178,800 cords/yr (hardwood) @ 2.85 tons/cord, plus 10 percent.

(f) Bark throughput is based on 8 percent of roundwood.

(g) Based on purchased bark.

(h) Total bark throughput is sum of manufactured bark and purchased bark.

(i) Vehicle miles traveled (VMT) was calculated assuming front end loader operating 12 hrs/day, 365 days/yr in the woodyard.

(j) Purchased chip throughput is based on 142,800 cords/yr (softwood) and 411,600 cords/yr (hardwood) @ 2.5 tons/cord, plus 10 percent.

(k) Total chip throughput is based on 92 percent of roundwood throughput plus purchased chip throughput.

(l) Based on 70% of total chip throughput.

(m) Based on 30% of total chip throughput.

(n) Fines separated from wood chip stream.

(o) Total chips minus fines.

Table A-7. Maximum Emissions from Lime Kiln (No. 6 Fuel Oil Fired) at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	29.83 lb/hr	1	8,760 hr/yr	29.83	130.7
Particulate (PM10)	98.3 % of PM	2	--	29.32	128.4
Sulfur dioxide	0.23 lb/ton CaO	4	20.4 ton CaO/hr	4.69	20.6
Nitrogen oxides	2.19 lb/ton CaO	4	20.4 ton CaO/hr	44.68	195.7
Carbon monoxide	0.22 lb/ton CaO	6	20.4 ton CaO/hr	4.49	19.7
VOC	0.24 lb C/ton CaO	4	20.4 ton CaO/hr	4.81	21.1
Sulfuric acid mist	0.014 lb/ton CaO	5	20.4 ton CaO/hr	0.29	1.3
Total reduced sulfur	20 ppmvd (b)	1	68,000 dscfm	7.27	31.9
Lead	3.8E-03 lb/ton CaO	3	20.4 ton CaO/hr	7.8E-02	3.4E-01
Mercury	9.1E-06 lb/ton CaO	3	20.4 ton CaO/hr	1.9E-04	8.1E-04
Beryllium	1.7E-05 lb/ton CaO	3	20.4 ton CaO/hr	3.5E-04	1.5E-03
Fluorides	--		--	--	--

Footnotes
(a) Based on currently permitted operating limit of 18.35 tons CaO/hr plus 10% impurities (20.4 tons/hr), 8,760 hr/yr.
(b) TRS Emission Factor as H2S corrected to 10% O2 as a 12-hour average.

References
1. Currently permitted emission limit.
2. Based on AP-42 Section 10.2 and Tables 10.2-1 and 10.2-4.
3. Based on NCASI Technical Bulletin No. 650, Table 13C.
4. Based on NCASI Technical Bulletin No. 646, Tables 12-14.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on NCASI Technical Bulletin No. 416, Table 6.

Table A-8. Maximum Emissions from Lime Slaker at Stone Container, Panama City

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	4.0 lb/hr	1	8,760 hr/yr	4.0	17.5
Particulate (PM10)	100 % of PM	3	--	4.0	17.5
VOC	4.4E-02 lb/ton CaO	2	28.1 ton CaO/hr (b)	1.24	5.4
Total reduced sulfur	ND	2	--	--	--

ND = Non-detectable

Footnotes

(a) Based on ratio of 1997 CaO production and pulp production to proposed pulp production plus 10% (purchased lime) and 8,760 hr/yr.

(b) 10% impurities included

References

1. Currently permitted emission limit.
2. Based on NCASI Technical Bulletin No. 701,page 237 and Table 17.
3. No data found, assume 100%.

Table A-9. Maximum Emissions from Chemical Recovery Area at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
VOC				
Black Liquor Oxidation Towers	0.34 lb C/ton ADUP	1	781,000 ton ADUP/hr	132.8
Causticizers	0.044 lb C/ton CaO	4	246,156 ton CaO/yr	5.4
Lime Mud Filters/Associated Equipment	0.0041 lb C/ton CaO	4	246,156 ton CaO/yr	0.5
Black Liquor Tanks (2)	0.091 lb/tank/hr	2	2 tanks	0.8
Black Liquor Oxidation Tank	0.1 lb/ton BLS	3	1,083,612 ton BLS/yr	54.2
Green Liquor Clarifiers and Tanks	0.0014 lb C/ton CaO	4	246,156 ton CaO/yr	0.2
			TOTAL VOC's	193.8
Total Reduced Sulfur				
Black Liquor Oxidation Towers	ND	1	--	--
Causticizers	ND	4	--	--
Lime Mud Filters/Associated Equipment	0.0005 lb /ton CaO	4	246,156 ton CaO/yr	0.1
Black Liquor Tanks (2)	0.18 lb/tank/hr	2	2 tanks	1.6
Black Liquor Oxidation Tank	0.0271 lb/ton BLS	3	1,083,612 ton BLS/yr	14.7
Green Liquor Clarifiers and Tanks	7.011E-04 lb C/ton CaO	4	246,156 ton CaO/yr	0.1
			TOTAL TRS	16.4

ND = Non-detectable

Footnotes

(a) Based on proposed maximum hourly lime slaker rate (28.1 tons/hr CaO), proposed pulp production rate, and currently permitted recovery boiler rates.

References

1. Based on NCASI Technical Bulletin No. 646, pages 27 and 28.
2. Based on NCASI Technical Bulletin No. 701, pages 111-115 (Table 7).
3. Based on NCASI Technical Bulletin No. 701, pages 145-154 (Table 11).
4. Based on NCASI Technical Bulletin No. 701, pages 237-240 (Table 17).

Table A-10. Maximum Emissions from Paper Making Area at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor	Annual Emissions (TPY)
VOC	0.60 lb C/ton ADUP	1	781,000 ton ADUP/yr	234.3
Total reduced sulfur	ND	1	--	--

ND = Non-detectable

References

1. Based on NCASI Technical Bulletin No. 701,page 3, Table 18 (pages 243 and 244).

APPENDIX B

BASELINE 1996-1997 EMISSIONS
STONE CONTAINER CORPORATION
PANAMA CITY MILL

Table B-1. 1996-1997 Baseline Emissions from No. 1 Recovery Boiler at Stone Container Corporation, Panama City

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
Particulate (PM)	46.1 lb/hr	1	8,045 hr/yr	185.2
Particulate (PM10)	77.6 % of PM	6	--	143.7
Sulfur dioxide	0.18 lb/MMBtu	3	5.45E+06 MMBtu/yr	490.4
Nitrogen oxides	0.10 lb/MMBtu	3	5.45E+06 MMBtu/yr	272.4
Carbon monoxide	5.3 lb/1,000 lb BLS	7	934,633 1,000 lb BLS/yr	2,476.8
VOC	0.058 lb C/MMBtu	3	5.45E+06 MMBtu/yr	158.0
Sulfuric acid mist	0.011 lb/MMBtu	5	5.45E+06 MMBtu/yr	30.0
Total reduced sulfur	9.4 ppmvd	1	142,000 dscfm	28.42
Lead	7.2E-06 lb/MMBtu	2	5.45E+06 MMBtu/yr	2.0E-02
Mercury	5.5E-06 lb/MMBtu	2	5.45E+06 MMBtu/yr	1.5E-02
Beryllium	1.9E-07 lb/MMBtu	2	5.45E+06 MMBtu/yr	5.2E-04
Fluorides	ND	4	--	--

ND = Non-detectable
ton = 2000 lb.
note:
(a) Heat input rate based on 1996 and 1997 BLS burned and 5,830 Btu/lb BLS
1996: 438,755 tons burned
1997: 495,878 tons burned

References:
1. Based on the average of the 1997 and 1999 compliance tests and operating data:
1996 = 51.3 lb PM/hr; 10.6 ppmvd TRS at 142,000 dscfm for 7,573 hr/yr
1997 = 40.8 lb PM/hr; 8.2 ppmvd TRS at 142,000 dscfm for 8,516 hr/yr
2. Emission factor based on NCASI Bulletin No. 650, Table 11D, direct contact evaporator, average factor used.
3. Emission factor based on NCASI Bulletin No. 646, page 16 and Tables 10 and 11, direct contact evaporator with ESP, average factor used.
4. From "Application of Combustion Modifications to Industrial Combustion Equipment" EPA-600/7-79-015a. one test from recovery boiler.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. Five percent (5%) of SO2 becomes SO3, then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on AP-42 Table 10.2-2, and Figure 10.2-2 for Kraft pulping sources.
7. Based on NCASI Bulletin No. 416, Table 5.

Table B-2. 1996-1997 Baseline Emissions from No. 2 Recovery Boiler at Stone Container Corporation, Panama City

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
Particulate (PM)	39.1 lb/hr	1	8,230 hr/yr	160.9
Particulate (PM10)	77.6 % of PM	6	--	124.9
Sulfur dioxide	0.18 lb/MMBtu	3	5.52E+06 MMBtu/yr	497.1
Nitrogen oxides	0.10 lb/MMBtu	3	5.52E+06 MMBtu/yr	276.2
Carbon monoxide	5.3 lb/1,000 lb BLS	7	947,387 1,000 lb BLS/yr	2,510.6
VOC	0.058 lb C/MMBtu	3	5.52E+06 MMBtu/yr	160.2
Sulfuric acid mist	0.005 lb/MMBtu	5	5.52E+06 MMBtu/yr	14.0
Total reduced sulfur	11.2 ppmvd	1	142,000 dscfm	34.64
Lead	7.2E-06 lb/MMBtu	2	5.52E+06 MMBtu/yr	2.0E-02
Mercury	5.5E-06 lb/MMBtu	2	5.52E+06 MMBtu/yr	1.5E-02
Beryllium	1.9E-07 lb/MMBtu	2	5.52E+06 MMBtu/yr	5.2E-04
Fluorides	ND	4	--	--

ND = Non-detectable
ton = 2000 lb.
note:
(a) Heat input rate based on 1996 and 1997 BLS burned and 5,830 Btu/lb BLS:
1996: 460,334 tons burned
1997: 487,053 tons burned

References:
1. Based on the average of the 1997 and 1999 compliance tests and operating data:
1996 = 37.2 lb PM/hr; 12.0 ppmvd TRS at 142,000 dscfm for 8,010 hr/yr
1997 = 40.9 lb PM/hr; 10.4 ppmvd TRS at 142,000 dscfm for 8,449 hr/yr
2. Emission factor based on NCASI Bulletin No. 650, Table 11D, direct contact evaporator, average factor used.
3. Emission factor based on NCASI Bulletin No. 646, page 16 and Tables 10 and 11, direct contact evaporator with ESP, average factor used.
4. From "Application of Combustion Modifications to Industrial Combustion Equipment" EPA-600/7-79-015a. one test from recovery boiler.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. Five percent (5%) of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on AP-42 Table 10.2-2, and Figure 10.2-2 for Kraft pulping sources.
7. Based on NCASI Bulletin No. 416, Table 5.

Table B-3. 1996-1997 Baseline Emissions from Lime Kiln at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
Particulate (PM)	24.1 lb/hr	1	8,175 hr/yr	98.5
Particulate (PM10)	98.3 % of PM	2	--	96.8
Sulfur dioxide	0.23 lb/ton CaO	4	142,503 ton CaO/yr	16.4
Nitrogen oxides	2.19 lb/ton CaO	4	142,503 ton CaO/yr	156.0
Carbon monoxide	0.22 lb/ton CaO	6	142,503 ton CaO/yr	15.7
VOC	0.24 lb C/ton CaO	4	142,503 ton CaO/yr	16.8
Sulfuric acid mist	0.014 lb/ton CaO	5	142,503 ton CaO/yr	1.0
Total reduced sulfur	9.64 ppmvd (b)	1	45,000 dscfm	9.39
Lead	3.8E-03 lb/ton CaO	3	142,503 ton CaO/yr	0.27
Mercury	9.1E-06 lb/ton CaO	3	142,503 ton CaO/yr	6.5E-04
Beryllium	1.7E-05 lb/ton CaO	3	142,503 ton CaO/yr	1.2E-03
Fluorides	--		--	--

Footnotes

(a) 1996 and 1997 CaO production and pulp production:

1996 = 606,445 ton ADUP; 148,220 tons CaO (10% impurities)

1997 = 666,002 ton ADUP; 168,454 tons CaO (10% Impurities)

(b) TRS Emission Factor as H2S corrected to 10% O2 as a 12-hour average.

References

1. Compliance testing and operating rates:
   1996: 26.7 lb PM/hr, 8.7 ppmvd TRS, and 7,961 hr/yr
   1997: 21.6 lb PM/hr, 10.6 ppmvd TRS, and 8,388 hr/yr
2. Based on AP-42 Section 10.2 and Tables 10.2-1 and 10.2-4.
3. Based on NCASI Technical Bulletin No. 650, Table 13C.
4. Based on NCASI Technical Bulletin No. 646, Tables 12-14.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. Five percent (5%) of SO2 becomes SO3, then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on NCASI Technical Bulletin No. 416, Table 6.

Table B-4. 1996-1997 Baseline Emissions From the Existing Bleach Plant, Smurfit-Stone Container, Panama City

Pollutant Name	Average Emission Factor (lb/ADTBP)	1996/1997 Average Process Rate (a) (ADTBP/yr)	Emission Rate (TPY)
Carbon Monoxide			
Hardwood	0.72 (b)	186,931	67.30
Softwood	0.88 (b)	119,513	52.59
TOTAL		306,444	119.88
Volatile Organic Compounds (measured as total hydrocarbons)	0.48 (c)	306,444	73.55
Total Reduced Sulfur	0.031 (d)	306,444	4.75

Notes:
ADTUBP = Air Dried Tons of Unbleached Bleached Pulp
ODTUBP = Oven Dried Tons of Unbleached Bleached Pulp
ADTBP = Air Dried Tons of Bleached Pulp
ODTBP = Oven Dried Tons of Bleached Pulp
lb/hr = pounds per hour
TPY = tons per year
Footnotes:
(a) Based on the average of 1996 (278,091 ADTBP) and 1997 (334,797 ADTBP) annual production and a hardwood/softwood split of 61%/39%.
(b) Emission factors based on data in NCASI Technical Bulletin No. 760, Carbon Monoxide Emissions from Oxygen Delignification and Chlorine Dioxide Bleaching of Wood Pulp, July 1998.
Bleaching Stages:
Hardwood: Existing bleach plant design is 25.78 lb ClO2/ODTUBP / 0.94 = 27.4 lb ClO2/ODTBP = 1.4%
Using NCASI equation for hardwood (Figure 11): CO = (-0.03 x %ClO2) + 0.69 lb/ODTBP
CO = 0.65 lb/ODTBP x 0.90 = 0.72 lb/ADTBP
Softwood: Existing bleach plant design is 35.5 lb ClO2/ODTUBP / 0.94 = 37.8 lb ClO2/ODTBP = 1.9%
Using NCASI equation for softwood (Figure 9): CO = (0.27 x %ClO2) + 0.38 lb/ODTBP
CO = 0.79 lb/ODTBP x 0.90 = 0.88 lb/ADTBP
(c) NCASI Technical Bulletin No. 701, Compilation of Air Toxic and Total Hydrocarbon Emissions Data for Sources at Chemical Wood Pulp Mills, Volume 1, October 1995, Table 3, for Mill BPII2.
(d) NCASI Technical Bulletin No. 701, Compilation of Air Toxic and Total Hydrocarbon Emissions Data for Sources at Chemical Wood Pulp Mills, Volume 1, October 1995, Table 3, for Mill BPIF2.

Table B-5. 1996-1997 Baseline Emissions from Pulping Area (Brown Stock Washing) at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
VOC	0.18 lb C/ton ADUP	1	636,224 ton ADUP/yr	57.3
Total reduced sulfur	0.22 lb/ton ADUP	2	636,224 ton ADUP/yr	70.0

Footnotes
(a) 1997 and 1996 average pulp production:
1996 = 606,445 ton ADUP
1997 = 666,002 ton ADUP
References:
1. Based on NCASI Technical Bulletin No. 701, page 89 (Table 5).
2. Based on NCASI Technical Bulletin No. 701, page 77, 79, and 81 (Table 5).

Table B-6. 1996-1997 Baseline Emissions from Lime Slaker at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
Particulate (PM)	0.41 lb/hr	1	8,177 hr/yr	1.7
Particulate (PM10)	100 % of PM	2	--	1.7
VOC	0.044 lb /ton CaO	3	142,503 ton CaO/yr	3.1
Total reduced sulfur	ND	3	--	--

ND = Non-detectable

Footnotes

(a) 1997 and 1996 CaO production:

1996 = 148,220 tons CaO (10% impurities)

1997 = 168,454 tons CaO (10% impurities)

References

1. Compliance testing and operating hours:
   1996: 0.44 lb PM/hr and 7,961 hr/yr
   1997: 0.37 lb PM/hr and 8,392 hr/yr
2. No data found, assume 100% of PM.
3. Based on NCASI Technical Bulletin No. 701,page 237 and Table 17.

Table B-7. 1996-1997 Baseline Emissions from the Woodyard at Stone Container, Panama City

SOURCE	Type of Operation (a)	M Moisture Content (%)	U Wind Speed (MPH)	Uncontrolled Emission Factor	Type of Control	Control Efficiency (%)	Controlled Emission Factor	Activity Factor	Maximum Annual PM Emissions (tons/yr)	PM10 Size Multiplier (c)	Maximum Annual PM10 Emissions (tons/yr)
ROUNDWOOD HANDLING											
Debarker	Debarking	--	--	0.024 lbs/ton (d)	Enclosure	80	0.00480 lbs/ton	1,243,926 TPY (e)	2.985	0.35	1.045
Chipper	Continuous Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	1,243,926 TPY (e)	0.080	0.35	0.028
Chip Surge Bin to Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,243,926 TPY (e)	0.018	0.35	0.0056
Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,243,926 TPY (e)	0.016	0.35	0.0056
BARK HANDLING											
Debarker to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	99,514 TPY (f)	0.0013	0.35	0.00045
Bark Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	99,514 TPY (f)	0.0013	0.35	0.00045
No. 1 Bark Diverter to Emergency Bark Storage Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	0 TPY (f)	0.0000	0.35	0.00000
Emergency Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Unhogged Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Trucked Bark to Purchased Unhogged Bark Storage Pile	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	221,087 TPY (g) (r)	0.0142	0.35	0.00498
Front End Loaded to Bark Hopper	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	221,087 TPY (g) (r)	0.0142	0.35	0.00498
Wastewood Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	221,087 TPY (g) (r)	0.0028	0.35	0.00100
No. 1 Bark Diverter to Disc Screen	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	320,601 TPY (h)	0.0041	0.35	0.00144
Bark Hog	Hammermill	--	--	0.024 lbs/ton (d)	Enclosed	80	0.00480 lbs/ton	320,601 TPY (h)	0.769	1.0	0.769
Bark Hog to Hogged Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	320,601 TPY (h)	0.0041	0.35	0.00144
Hogged Bark Conveyor to Hogged Bark Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	320,601 TPY (h)	0.0041	0.35	0.00144
Hogged Bark Pile	Wind Erosion	--	--	--	None	0	--	--	0.0023	1.0	0.0023
Bark Bin Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone	0	2.0 lb/hr	8,485 hr/yr	8.49	0.35	2.97
Bark Bin Cyclone to Small Bark Bin and Screw	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	320,601 TPY (h)	0.0041	0.35	0.00144
Small Bark Bin and Screw to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	320,601 TPY (h)	0.0041	0.35	0.00144
Bark Conveyor to No. 2 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	320,601 TPY (h)	0.0041	0.35	0.00144
Bark Storage Pile Maintenance	Vehicular Traffic	--	--	0.74 lbs/VMT	None	0	0.74 lbs/VMT	21,900 VMT (i)	8.103	0.35	2.836
PURCHASED CHIP HANDLING											
Truck Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	529,214 TPY (j) (p)	0.014	0.35	0.0048
Railcar Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	529,214 TPY (j) (p)	0.014	0.35	0.0048
Truck Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	529,214 TPY (j)	0.007	0.35	0.0024
Railcar Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	529,214 TPY (j)	0.007	0.35	0.0024
MANUFACTURED AND PURCHASED CHIP PROCESSING											
Tower No. 1 Diverter to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,202,841 TPY (k)	0.028	0.35	0.010
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,202,841 TPY (k)	0.028	0.35	0.010
Tower No. 2 Diverter to Chip Reclaim Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,202,841 TPY (k)	0.028	0.35	0.010
Chip Reclaim Coveyor to Radial Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,202,841 TPY (k)	0.028	0.35	0.010
Radial Conveyor to Chip Reclaimer Storage Pile (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,202,841 TPY (k)	0.028	0.35	0.010
Chip Reclaimer Storage Pile (2)	Wind Erosion	--	--	--	None	0	--	--	0.048	1.0	0.048
Chip Reclaimer Storage Pile to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,202,841 TPY (k)	0.028	0.35	0.010
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,202,841 TPY (k)	0.028	0.35	0.010
Tower No. 2 Diverter to Chip Screw (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,202,841 TPY (k)	0.028	0.35	0.010
Chip Screw to Primary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,202,841 TPY (k)	0.028	0.35	0.010
Chip Screens	Screening										
Softwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone, Enclosure	80	0.40 lb/hr	8,485 hr/yr	1.697	0.35	0.594
Hardwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Enclosure	80	0.40 lb/hr	8,485 hr/yr	1.697	0.35	0.594
Primary Screen to Secondary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,202,841 TPY (k)	0.028	0.35	0.010
Secondary Screen to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	1,541,989 TPY (l)	0.020	0.35	0.007
Screen Building Rejects Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,485 hr/yr	8.485	0.35	2.970
Screen Building Rejects Cyclone to Chip Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	660,852 TPY (m)	0.017	0.35	0.006
Fines Blowline Emergency Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.00017	1.0	0.00017
Fines Blowline Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,485 hr/yr	8.485	0.35	2.97
Fines Blowline Cyclone to Wastewood/Sludge Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	44,057 TPY (n) (q)	0.001	0.35	0.000
Chip Conveyor to No. 5 Transfer Tower (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,158,784 TPY (o)	0.028	0.35	0.010
TOTAL									41.34		15.01

Notes:

(a) Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (US EPA, 1995) Section 13.2.4-3(1). E = 0.0032 x (U/5)^1.3 / (M/2)^1.4 lb/ton

(b) Wind Erosion Emissions based on AP-42 (US EPA, 1995) Section 13.2.5. Refer to Attachment A for derivation.

(c) PM10 Size Multiplier is based on particles < 10 micrometers.

(d) Debarker emissions are based on Table 26 of NCASI Technical Bulletin No. 424 (March 1984), Fugitive Dust Emission Factors and Control Methods Important to Forest Products Industry Manufacturing Operations.

(e) Average roundwood throughput is based on 2.7 tons/cord for softwood and 2.85 tons/cord hardwood.
1997: 337,335 cords/yr (softwood) and 126,410 cords/yr (hardwood)
1996: 321,192 cords/yr (softwood) and 122,653 cords/yr (hardwood)

(f) Bark throughput is based on 8 percent of roundwood.

(g) Based on purchased bark.

(h) Total bark throughput is sum of manufactured and purchased bark.

(i) Vehicle miles traveled (VMT) was calculated assuming front end loader operating 12 hrs/day, 365 days/yr in the woodyard.

(j) Purchased chip throughput is based on 2.5 tons/cord.
1997: 94,746 cords/yr (softwood) and 370,474 cords/yr (hardwood)
1996: 98,124 cords/yr (softwood) and 283,399 cords/yr (hardwood)

(k) Total chip throughput is based on 92 percent of roundwood throughput plus purchased chip throughput.

(l) Based on 70% of total chip throughput.

(m) Based on 30% of total chip throughput.

(n) Fines separated from wood chip stream.

(o) Total chips minus fines.

(p) Assume 50% of chips transported by railcar and 50% by truck.

(q) Assume 2% fines.

(r) Bark burned in Nos. 3 and 4 Bark Boilers minus bark from roundwood.

Table B-8. 1996-1997 Baseline Emissions from Chemical Recovery Area at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor	Annual Emissions (TPY)
VOC				
Black Liquor Oxidation Towers	0.34 lb C/ton ADUP	1	636,224 ton ADUP/yr (a)	108.2
Causticizers	0.044 lb C/ton CaO	4	142,503 ton CaO/yr (b)	3.1
Lime Mud Filters/Associated Equipment	0.0041 lb C/ton CaO	4	142,503 ton CaO/yr (b)	0.3
Black Liquor Tanks (2)	0.091 lb/tank/hr	2	8,760 hr/yr (d)	0.8
Black Liquor Oxidation Tank	0.1 lb/ton BLS	3	941,010 ton BLS/yr (c)	47.1
Green Liquor Clarifiers and Tanks	0.0014 lb C/ton CaO	4	142,503 ton CaO/yr (b)	0.1
			TOTAL VOC's	159.5
Total Reduced Sulfur				
Black Liquor Oxidation Towers	ND	1	--	--
Causticizers	ND	4	--	--
Lime Mud Filters/Associated Equipment	0.0005 lb /ton CaO	4	142,503 ton CaO/yr (b)	0.036
Black Liquor Tanks (2)	0.18 lb/tank/hr	2	8,760 hr/yr (d)	1.6
Black Liquor Oxidation Tank	0.0271 lb/ton BLS	3	941,010 ton BLS/yr (c)	12.8
Green Liquor Clarifiers and Tanks	7.01E-04 lb C/ton CaO	4	142,503 ton CaO/yr (b)	0.050
			TOTAL TRS	14.4

ND = Non-detectable

Footnotes

(a) 1996-1997 pulp production:
1996 = 606,445 ton ADUP
1997 = 666,002 ton ADUP

(b) 1996-1997 CaO production:
1996 = 148,220 tons CaO (10% impurities)
1997 = 168,454 tons CaO (10% impurities)

(c) Based on 1996-1997 BLS processed:
1996: 899,089 tons burned
1997: 982,931 tons burned

(d) Two tanks operating 8,760 hr/yr.

References

1. Based on NCASI Technical Bulletin No. 646, pages 27 and 28.
2. Based on NCASI Technical Bulletin No. 701, pages 111-115 (Table 7).
3. Based on NCASI Technical Bulletin No. 701, pages 145-154 (Table 11).
4. Based on NCASI Technical Bulletin No. 701, pages 237-240 (Table 17).

Table B-9. 1996-1997 Baseline Emissions from Paper Making Area at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
VOC	0.60 lb C/ton ADUP	1	636,224 ton ADUP/yr	190.9
Total reduced sulfur	ND	1	--	--

Footnotes
(a) 1996-1997 pulp production:
1996 = 606,445 ton ADUP
1997 = 666,002 ton ADUP

References
1. Based on NCASI Technical Bulletin No. 701,page 3 and Table 18.

Table B-10. 1996-1997 Baseline Emissions from No. 1 Smelt Dissolving Tank at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
Particulate (PM)	17.31 lb/hr	1	8,044 hr/yr	69.6
Particulate (PM10)	89.5 % of PM	2	--	62.3
Sulfur dioxide	0.016 lb/ton BLS	3	467,317 tons BLS/yr	3.74
Nitrogen oxides	0.033 lb/ton BLS	3	467,317 tons BLS/yr	7.71
Carbon monoxide	--		--	--
VOC	0.062 lb/ton BLS	3	467,317 tons BLS/yr	14.5
Sulfuric acid mist	5 % of SO2	5	--	0.23
Total reduced sulfur	0.65 lb/hr	1	8,044 hr/yr	2.61
Lead	1.7E-05 lb/ton BLS	4	467,317 tons BLS/yr	4.0E-03
Mercury	1.8E-07 lb/ton BLS	4	467,317 tons BLS/yr	4.2E-05
Beryllium	1.4E-07 lb/ton BLS	4	467,317 tons BLS/yr	3.3E-05
Fluorides	--		--	--

ton = 2000 lb.

note:

(a) BLS input rate based on 1997 and1996 BLS burned in No. 1 Recovery Boiler:
1996: 438,755 tons burned
1997: 495,878 tons burned

References:

1. Based on the 1996 and 1997 compliance tests and operating data:
1996 = 14.79 lb PM/hr and 0.5 lbTRS/hr; for 7,573 hr/yr
1997 = 19.82 lb PM/hr and 0.8 lbTRS/hr; for 8,515 hr/yr
2. AP-42, Table 10.2-7.
3. Data is averages from NCASI Bulletin No. 646, Tables 16-18, for smelt dissolving tanks with scrubbers.
4. Data is averages from NCASI Bulletin No. 650, Tables 14A and 14B, for smelt dissolving tanks with scrubbers.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. Five percent (5%) of SO2 becomes SO3, then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).

Table B-11. 1996-1997 Baseline Emissions from No. 2 Smelt Dissolving Tank at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
Particulate (PM)	23.7 lb/hr	1	8,230 hr/yr	97.4
Particulate (PM10)	89.5 % of PM	2	--	87.2
Sulfur dioxide	0.016 lb/ton BLS	3	473,694 tons BLS/yr	3.79
Nitrogen oxides	0.033 lb/ton BLS	3	473,694 tons BLS/yr	7.82
Carbon monoxide	--		--	--
VOC	0.062 lb/ton BLS	3	473,694 tons BLS/yr	14.68
Sulfuric acid mist	5 % of SO2	5	--	0.23
Total reduced sulfur	0.76 lb/hr	1	8,230 hr/yr	3.13
Lead	1.7E-05 lb/ton BLS	4	473,694 tons BLS/yr	4.0E-03
Mercury	1.8E-07 lb/ton BLS	4	473,694 tons BLS/yr	4.3E-05
Beryllium	1.4E-07 lb/ton BLS	4	473,694 tons BLS/yr	3.3E-05
Fluorides	--		--	--

ton = 2000 lb.
note:
(a) BLS input rate based on 1996-1997 BLS burned in No. 2 Recovery Boiler:
1996: 460,334 tons burned
1997: 487,053 tons burned

References:
1. Based on the 1997 and 1996 compliance tests and operating data:
1996 = 26.04 lb PM/hr and 0.62 lb TRS/hr; for 8,010 hr/yr
1997 = 21.3 lb PM/hr and 0.9 lb TRS/hr; for 8,449 hr/yr
2. AP-42, Table 10.2-7.
3. Data is averages from NCASI Bulletin No. 646, Tables 16-18, for smelt dissolving tanks with scrubbers.
4. Data is averages from NCASI Bulletin No. 650, Tables 14A and 14B, for smelt dissolving tanks with scrubbers.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. Five precent (5%) of SO2 becomes SO3, then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).

APPENDIX C

BACT/LAER CLEARINGHOUSE INFORMATION

DIGESTER SYSTEMS

Summary of BACT Determinations for TRS Emissions From Digester Systems in Pulp Mills

Company	State	Permit Issue date	Throughput	Emission Limit	Control Equipment
Georgia-Pacific	FL	9/21/95	1,850 TPD ADUP(mth avg.)	5 ppmvd @ 8% O2	Incineration
Alabama River Pulp	AL	1/22/90	5.5 MM lb BLS/day	None	Incineration
Union Camp	SC	5/1/89	1,463 ADTP/day	None	Incineration
Mead Coated Board	AL	10/1/88	--	None	Incineration

Source: BACT/RACT/LAER Clearinghouse Database, July 1999

Summary of BACT Determinations for VOC Emissions From Digester Systems in Pulp Mills

Company	State	Permit Issue date	Throughput	Emission Limit	Control Equipment
RIVERWOOD INTERNATIONAL CORP	GA	7/11/96	1,000 TPD PULP	--	INCINERATOR

Source: BACT/RACT/LAER Clearinghouse Database, July 1999

RECOVERY BOILERS

Summary of BACT Determinations for PM/PM10 Emissions from Recovery Boilers

Company	State	Permit Issue Date	Throughput	Emission Limit	Control Equipment	Percent Control
GULF STATES PAPER CORP	AL	12/10/1997	3.94 MM lb BLS/day	0.021 gr/dscf @ 8% O2	ESP	99.700
MEAD COATED BOARD, INC.	AL	10/9/1996	2.7 MM lb BLS/day	0.036 gr/dscf @ 8% O2	ESP	99.450
WEYERHAEUSER COMPANY	MS	9/10/1996	7 MM lb BLS/day	0.023 gr/dscf @ 8% O2	ESP	99.750
WILLAMETTE INDUSTRIES - MARLBORO MILL	SC	4/17/1996	4 MM lb BLS/day	0.021 gr/dscf	ESP	--
GEORGIA-PACIFIC CORP	FL	9/21/1995	5.04 MM lb BLS/day	0.030 gr/dscf @ 8% O2	ESP	--
PENNTECH PAPERS INC.	PA	12/9/1992	630 ADT/day	0.027 gr/dscf @ 8% O2	ESP	99.700
Leaf River Forest	MS	7/14/1992	6.4 MM lb BLS/day	0.040 gr/dscf @ 8% O2	--	--
BOISE CASCADE CORP	AL	4/1/1992	32,600 MM lb BLS/hr	0.021 gr/dscf @ 8% O2	ESP	99.700
James River Corp	WA	9/26/1991	523 MMBtu/hr	0.033 gr/dscf @ 8% O2	ESP + H/R scrubber	99.5
GEORGIA-PACIFIC CORP	FL	6/12/1991	5.04 MM lb BLS/day	0.033 gr/dscf @ 8% O2	ESP	--
Gulf States Paper	AL	3/12/1991	3.3 MM lb BLS/day	0.025 gr/dscf @ 8% O2	ESP	99.7
Chesapeake Corp	VA	3/1/1991	3.0 MM lb BLS/day	0.030 gr/dscf @ 8% O2	ESP	99.8
Riverwood International	GA	12/21/1990	3.5 MM lb BLS/day	0.027 gr/dscf @ 8% O2	ESP	99.9
Longview Fibre	WA	7/27/1990	1,100 ADP t/day	0.027 gr/dscf @ 8% O2	ESP	99.8
Alabama River Pulp	AL	1/22/1990	5.5 MM lb BLS/day	0.025 gr/dscf @ 8% O2	ESP	99.6
Great Southern Paper	GA	12/8/1989	3.05 MM lb BLS/day	46.000 lb/hr	ESP	99.6

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

Summary of BACT Determinations for SO2 Emissions from Recovery Boilers

Company	State	Permit Issue Date	Throughput	Emission Limit	Control Equipment
GULF STATES PAPER CORPORATION	AL	12/10/1997	3.94 MM lb BLS/day	100 ppmvd @ 8% O2	PROPER DESIGN/OPERATON
MEAD COATED BOARD, INC.	AL	10/9/1996	2.7 MM lb BLS/day	144 ppmvd @ 8% O2	BOILER DESIGN/COMBUSTION CONTROL
WEYERHAEUSER COMPANY	MS	9/10/1996	7 MM lb BLS/day	220 ppmvd @ 8% O2	FURNACE DESIGN/EFFICIENT OPERATION
WILLAMETTE INDUSTRIES - MARLBORO MILL	SC	4/17/1996	4 MM lb BLS/day	75 ppm	GOOD COMBUSTION CONTROL
PENNTECH PAPERS INC.	PA	12/9/1992	630 ADT/day	110 ppm @ 8% O2	PROPER DESIGN
Leaf River Forest	MS	7/14/1992	6.4 MM lb BLS/day	300 ppm @ 8% O2	Combustion Control
Potlatch Corporation	ID	12/3/1984	--	79 lb/hr	--

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

Summary of BACT Determinations for NOx Emissions from Recovery Boilers

Company	State	Permit Issue Date	Throughput	Emission Limit	Control Equipment
GULF STATES PAPER CORP.	AL	12/10/1997	3.94 MM lb BLS/day	90 ppmvd @ 8% O2	PROPER DESIGN AND OPERATION
MEAD COATED BOARD, INC.	AL	10/9/1996	2.7 MM lb BLS/day	112 ppmvd @ 8% O2	COMBUSTION CONTROL
WEYERHAEUSER COMPANY	MS	9/10/1996	7 MM lb BLS/day	80 ppmvd @ 8% O2	STAGED COMBUSTION
WILLAMETTE INDUSTRIES - MARLBORO MILL	SC	4/17/1996	4 MM lb BLS/day	100 ppm	GOOD COMBUSTION CONTROL
GEORGIA-PACIFIC CORP.	FL	9/21/1995	5.04 MM lb BLS/day	80 ppmvd @ 8% O2	COMBUSTION CONTROL TECHNOLOGY
PENNTECH PAPERS INC.	PA	12/9/1992	630 ADTP/day	110 ppm AT 8% O2	GOOD DESIGN AND OPERATION
Leaf River Forest	MS	7/14/1992	6.4 MM lb BLS/day	110 ppmvd @ 8% O2	Combustion Control
BOISE CASCADE CORP.	AL	4/1/1992	32,600 lb BLS/day	115 ppmvd @ 8% O2	NOT DESIGNED
James River Corp	WA	9/26/1991	523 MMBtu/hr	2 lb/ ADUT	--
GEORGIA-PACIFIC CORP.	FL	6/12/1991	5.04 MM lb BLS/day	100 ppmvd @ 8% O2	COMBUSTION CONTROL
Leaf River Forest	MS	4/9/1991	6.0 MM lb BLS/day	80 ppmvd @ 8% O2	--
Gulf States Paper	AL	3/12/1991	3.3 MM lb BLS/day	90 ppmvd @ 8% O2	--
Chesapeake Corp	VA	3/1/1991	3.0 MM lb BLS/day	112 ppmvd @ 8% O2	--
International Paper	LA	2/24/1991	1,117 ADP tons/day	100 ppmvd @ 8% O2	--
Williamette Industries	LA	2/4/1991	1,400 ADP tons/day	206 lb/hr	--
Riverwood International	GA	12/21/1990	3.5 MM lb BLS/day	120 ppm	--
James River Pennington	AL	8/16/1990	5.4 MM lb BLS/day	115 ppmvd @ 8% O2	--
Longview Fibre	WA	7/27/1990	1,100 ADP tons/day	95 ppmvd @ 8% O2	--
Alabama River Pulp	AL	1/22/1990	5.5 MM lb BLS/day	75 ppmvd @ 8% O2	--
Great Southern Paper	GA	12/8/1989	3.05 MM lb BLS/day	120 lb/MMBtu	--
Consolidated Papers, Inc	WI	1/1/1987	1.4 MM lb BLS/day	80 ppmvd	Proper Combustion

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

Summary of BACT Determinations for CO Emissions from Recovery Boilers

Company	State	Permit Issue Date	Throughput	Emission Limit	Control Equipment
U S ALLIANCE	AL	9/25/1998	--	200 ppm	--
GULF STATES PAPER CORP	AL	12/10/1997	3.94 MM lb BLS/day	250 ppmvd @ 8% O2	PROPER DESIGN AND OPERATION
MEAD COATED BOARD, INC.	AL	10/9/1996	2.7 MM lb BLS/day	300 ppmvd @ 8% O2	BOILER DESIGN/COMBUSTION CONTROL
WEYERHAEUSER COMPANY	MS	9/10/1996	7 MM lb BLS/day	300 ppmvd @ 8% O2	EFFICIENT OPERATION
WILLAMETTE INDUSTRIES - MARLBORO MILL	SC	4/17/1996	4 MM lb BLS/day	200 ppm	GOOD COMBUSTION CONTROL
GEORGIA-PACIFIC CORP	FL	9/21/1995	5.04 MM lb BLS/day	800 ppm @ 8% O2 (3-hr) 400 ppm @ 8% O2 (24-hr)	GOOD COMBUSTION/COMBUSTION CONTROL
PENNTECH PAPERS INC.	PA	12/9/1992	630 ADT/day	300 ppm @ 8% O2	GOOD COMBUSTION
Leaf River Forest	MS	7/14/1992	6.4 MM lb BLS/day	300 ppmvd @ 8% O2	Combustion Control
James River Corp	WA	9/26/1991	523 MMBtu/hr	2755 TPY	--
GEORGIA-PACIFIC CORP	FL	6/12/1991	5.04 MM lb BLS/day	400 ppmvd @ 8% O2	COMBUSTION CONTROL
Leaf River Forest	MS	4/9/1991	6.0 MM lb BLS/day	300 ppmvd @ 8% O2	--
Gulf States Paper	AL	3/12/1991	3.3 MM lb BLS/day	300 ppmvd @ 8% O2	--
Chesapeake Corp	VA	3/1/1991	3.0 MM lb BLS/day	250 ppmvd @ 8% O2	--
International Paper	LA	2/24/1991	1,117 ADP tons/day	250 ppmvd	--
Williamette Industries	LA	2/4/1991	1,400 ADP tons/day	350 lb/hr	--
Riverwood International	GA	12/21/1990	3.5 MM lb BLS/day	146.5 lb/hr	--
Longview Fibre	WA	7/27/1990	1,100 ADP tons/day	300 ppmvd @ 8% O2	--
Alabama River Pulp	AL	1/22/1990	5.5 MM lb BLS/day	200 ppmvd @ 8% O2	--
Great Southern Paper	GA	12/8/1989	3.05 MM lb BLS/day	11 lb/ton ADP	--

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

Summary of BACT Determinations for TRS Emissions from Recovery Boilers

Company	State	Permit Issue Date	Throughput	Emission Limit	Control Equipment
GULF STATES PAPER CORP	AL	12/10/1997	3.94 MM lb BLS/day	5 ppmvd @ 8% O2	PROPER DESIGN AND OPERATION
WEYERHAEUSER COMPANY	MS	9/10/1996	7 MM lb BLS/day	5 ppmvd @ 8% O2	EFFECTIVE OPERATION
WILLAMETTE INDUSTRIES - MARLBORO MILL	SC	4/17/1996	4 MM lb BLS/day	5 ppmvd @ 8% O2	GOOD COMBUSTION CONTROL
Georgia-Pacific	FL	9/21/1995	5.04 MM lb BLS/day	7 ppmvd @ 8% O2 (annual) 11.2 ppmvd @ 8% O2 (12 hour)	GOOD COMBUSTION CONTROL GOOD COMBUSTION CONTROL
Louisiana-Pacific	CA	10/18/1993	–	5.0 ppm	Process Design
PENNTECH PAPERS INC.	PA	12/9/1992	630 ADT/day	5 ppmvd @ 8% O2	CONTROLLED BY DESIGN
Leaf River Forest	MS	7/14/1992	6 MM lb BLS/day	5.0 ppm @ 8% O2	Combustion Control
James River Corp	WA	9/26/1991	523 MMBtu/hr	5.0 ppm @ 8% O2	Caustic Liqour Scrubber
Gulf States Paper	AL	3/12/1991	3 MM lb BLS/day	5.0 ppm @ 8% O2	–
Chesapeake Corp	VA	3/1/1991	3 MM lb BLS/day	5.0 ppm @ 8% O2	–
International Paper	LA	2/24/1991	1,117 ADP t/day	5.0 ppm @ 8% O2	–
Riverwood International	GA	12/21/1990	3.5 MM lb BLS/day	5.0 ppm	–
Longview Fibre	WA	7/27/1990	1,100 ADP t/day	3.0 ppm @ 8% O2	–
Alabama River Pulp	AL	1/22/1990	5.5 MM lb BLS/day	5.0 ppm @ 8% O2	–
Great Southern Paper	GA	12/8/1989	3.05 MM lb BLS/day	4.74 lb/hr	–

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

Summary of BACT Determinations for VOC Emissions from Recovery Boilers

Company	State	Permit Issue Date	Throughput	Emission Limit	Control Equipment
GULF STATES PAPER CORP	AL	12/10/1997	3.94 MM lbs BLS/day	0.03 lbs/MMBTU	PROPER DESIGN AND OPERATION
MEAD COATED BOARD, INC.	AL	10/9/1996	2.7 MM lbs BLS/day	0.048 lbs/MMBTU	BOILER DESIGN/COMBUSTION CONTROL
WEYERHAEUSER COMPANY	MS	9/10/1996	7 MM lbs/DAY	0.60 lbs/short ton BLS	EFFICIENT OPERATION
WILLAMETTE INDUSTRIES - MARLBORO MILL	SC	4/17/1996	4 MM lbs BLS/day	40 ppm	GOOD COMBUSTION CONTROL
GEORGIA-PACIFIC CORP	FL	9/21/1995	5.04 MM lbs BLS/day	0.30 lbs/ton BLS	GOOD COMBUSTION/COMBUSTION CONTROL
BOISE CASCADE CORP.	MN	6/30/1994	571 MMBTU/hr	0.60 lbs/BDT of BLS	COMBUSTION CONTROL
Penntech Papers Inc.	PA	12/9/1992	630 ADP tons/day	18.2 lb/hr	--
James River Corp	WA	9/26/1991	523 MMBtu/hr	219 TPY	--
GEORGIA-PACIFIC CORP	FL	6/12/1991	5.04 MM lbs BLS/day	0.52 lbs/ton BLS	COMBUSTION CONTROL
Gulf States Paper	AL	3/12/1991	3.3 MM lb BLS/day	0.048 lb/MMBtu	--
Chesapeake Corp	VA	3/1/1991	3.0 MM lb BLS/day	0.048 lb/MMBtu	--
International Paper	LA	2/24/1991	1,117 ADP tons/day	50.0 ppmv	--
Williamette Industries	LA	2/4/1991	1,400 ADP tons/day	116.6 lb/hr	--
Longview Fibre	WA	7/27/1990	1,100 ADP tons/day	1 tons/day	--
Alabama River Pulp	AL	1/22/1990	5.5 MM lb BLS/day	0.048 lb/MMBtu	--

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

Summary of BACT Determinations for Sulfuric Acid Mist Emissions from Recovery Boilers

Company	State	Permit Issue Date	Throughput	Emission Limit	Control Equipment
GULF STATES PAPER CORP	AL	12/10/1997	3.94 MM lbs BLS/day	0.04 lb/ton BLS	--
MEAD COATED BOARD, INC.	AL	10/9/1996	2.7 MM lbs BLS/day	12.20 lbs/hr	BOILER DESIGN
GEORGIA-PACIFIC	FL	9/21/1995	5.04 MM lbs BLS/day	0.81 ppmvd	ESP

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

SMELT DISSOLVING TANKS

Summary of BACT Determinations for PM/PM10 Emissions from Smelt Dissolving Tanks

Company	State	Permit Issue Date	Throughput	Emission Limit	Control Equipment	Percent Control
GULF STATES PAPER CORPORATION	AL	12/10/1997	3.94 MM lbs BLS/day	0.12 lb/ton BLS	WET SCRUBBER	98.0
PENNTECH PAPERS INC.	PA	12/9/1992	630 ADT/day	0.20 lb/ton BLS	VENTURI SCRUBBER	92.9
GEORGIA-PACIFIC CORPORATION	FL	6/12/1991	70 TPY	0.12 lb/ton BLS	WET SCRUBBER	95.0
BOISE CASCADE CORPORATION	AL	4/1/1992	32,600 lbs BLS/hr	0.12 lb/ton BLS	WET SCRUBBER	97.6
WEYERHAEUSER COMPANY	MS	9/10/1996	7 MM lbs BLS/day	0.12 lb/ short ton BLS	WET SCRUBBER	100.0

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

Summary of BACT Determinations for TRS Emissions from Smelt Dissolving Tanks

Company	State	Permit Issue Date	Throughput	Emission Limit	Control Equipment	Percent Control
INTERNATIONAL PAPER CO. - RIVERDALE	AL	4/15/1997	- -	0.033 lb/ton BLS	–	–
GULF STATES PAPER CORPORATION	AL	12/10/1997	3.94 MM lbs BLS/day	0.033 lb/ton BLS	–	85
PENNTECH PAPERS INC.	PA	12/9/1992	630 ADT/DAY	18.5 ppmvd AT 10% O2	–	–
WEYERHAEUSER COMPANY	MS	9/10/1996	7 MM lbs BLS/day	0.033 lb/ton BLS	OPERATIONAL CONTROL	–

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

Summary of BACT Determinations for SO2 Emissions from Smelt Dissolving Tanks

Company	State	Permit Issue Date	Throughput	Emission Limit	Control Equipment	Percent Control
GULF STATES PAPER CORPORATION	AL	12/10/1997	3.94 MM lbs BLS/day	0.05 lb/ton BLS	WET SCRUBBER AND LOW SULFIDE WATER	70
PENNTECH PAPERS INC.	PA	12/9/1992	630 ADT/day	61 ppmvd AT 8% O2	FUEL SPEC: LOW SULFUR COAL	--
WEYERHAEUSER COMPANY	MS	9/10/1996	7 MM lbs BLS/day	0.1 lb/ton BLS	WET SCRUBBER	--

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

LIME KILNS

Summary of BACT Determinations for PM/PM10 Emissions from Lime Kilns

Company	State	Permit Issue Date	Throughput	Emission Limit	Control Equipment	Percent Control
GEORGIA-PACIFIC CORPORATION	FL	6/12/1991	750 tons CaO/day	0.081 GR/DSCF AT 10% O2	WET SCRUBBER	99
RIVERWOOD INTERNATIONAL CORPORATION	GA	7/11/1996	8.4 tons CaO/day/kiln	0.13 GR/DSCF	VENTURI SCRUBBER	--
WILLAMETTE INDUSTRIES - MARLBORO MILL	SC	4/17/1996	450 tons CaO/day	0.033 GR/DSCF	ESP	99
WEYERHAEUSER COMPANY	MS	9/10/1996	504 tons CaO/day	0.033 GR/DSCF @10% O2	ESP	--
BUCKEYE FLORIDA, L.P.	FL	8/13/1996	750 tons CaO/day	20 lb/hr	ESP	--

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

Summary of BACT Determinations for SO2 Emissions from Lime Kilns

Company	State	Permit Issue Date	Throughput	Emission Limit	Control Equipment
WEYERHAEUSER COMPANY	MS	9/10/1996	504 tons CaO/day	50 ppmvd @10% O2	CONTINUED USE OF LOW-SULFUR FUELS
WILLAMETTE INDUSTRIES - MARLBORO MILL	SC	4/17/1996	450 tons CaO/day	30 ppm	KILN OPERATION

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

Summary of BACT Determinations for NOx Emissions from Lime Kilns

Company	State	Permit Issue Date	Throughput	Emission Limit	Control Equipment
GEORGIA-PACIFIC CORPORATION	FL	6/12/1991	750 tons CaO/day	290 ppmvd AT 10% O2	COMBUSTION CONTROL
RIVERWOOD INTERNATIONAL CORP	GA	7/11/1996	8.4 tons CaO/day/kiln	3.5 lb/ton CaO	LOW NOX BURNERS
WEYERHAEUSER COMPANY	MS	9/10/1996	504 tons CaO/day	300 ppmvd @3.6% O2	EFFECTIVE OPERATION OF THE KILN
CHAMPION INTERNATIONAL CORP	FL	3/25/1994	--	200 ppm	GOOD COMBUSTION
WILLAMETTE INDUSTRIES - MARLBORO MILL	SC	4/17/1996	450 tons CaO/day	175 ppm	GOOD COMBUSTION CONTROL
BUCKEYE FLORIDA, L.P.	FL	8/13/1996	750 tons CaO/day	68.44 lb/hr	GOOD COMBUSTION/BURNER MODIFICATIONS

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

Summary of BACT Determinations for CO Emissions from Lime Kilns

Company	State	Permit Issue Date	Throughput	Emission Limit	Control Equipment
GEORGIA-PACIFIC CORPORATION	FL	6/12/1991	750 tons CaO/day	69 ppmvd AT 10% O2	COMBUSTION CONTROL
WEYERHAEUSER COMPANY	MS	9/10/1996	504 tons CaO/day	50 lbs/hr	EFFICIENT OPERATION OF THE KILN
WILLAMETTE INDUSTRIES - MARLBORO MILL	SC	4/17/1996	450 tons CaO/day	75 ppm	GOOD COMBUSTION CONTROL

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

Summary of BACT Determinations for VOC Emissions from Lime Kilns

Company	State	Permit Issue Date	Throughput	Emission Limit	Control Equipment
GEORGIA-PACIFIC CORPORATION	FL	6/12/1991	750 tons CaO/day	185 ppmvd AT 10% O2	COMBUSTION CONTROL
WEYERHAEUSER COMPANY	MS	9/10/1996	504 tons CaO/day	1 lbs/ton of CAO	EFFICIENT OPERATION OF KILN
WILLAMETTE INDUSTRIES - MARLBORO MILL	SC	4/17/1996	450 tons CaO/day	50 ppm	GOOD COMBUSTION CONTROL

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

Summary of BACT Determinations for TRS Emissions from Lime Kilns

Company	State	Permit Issue Date	Throughput	Emission Limit	Control Equipment
WEYERHAEUSER COMPANY	MS	9/10/1996	504 tons CaO/day	8 ppmvd @10% O2	EFFICIENT LIME MUD WASHING AND EFFICIENT KILN OPERATION
WILLAMETTE INDUSTRIES - MARLBORO MILL	SC	4/17/1996	450 tons CaO/day	8 ppm @ 8% O2	--

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

BLEACH PLANTS

Summary of BACT Determinations for from Bleach Plants

Company/Pollutant	State	Permit Issue Date	Throughput	Emission Limit	Control Equipment	Percent Control
PM/PM10						
WEYERHAEUSER COMPANY	MS	9/10/1996	--	0.55 lbs/hr	VENTURI SCRUBBER	--
CO						
WEYERHAEUSER COMPANY	MS	9/10/1996	--	69 lbs/hr	EFFICIENT OPERATION	--
GEORGIA-PACIFIC	FL	6/20/1999	1,350 TPD ADBP	46 lb/hr; 201 TPY		
VOC						
WEYERHAEUSER COMPANY	MS	9/10/1996	--	--	--	--
CHLOROFORM						
JAMES RIVER PAPER CO., INC.	NH	5/18/1993	750 ADT/day	30.25 lbs/hr	--	--
CL						
JAMES RIVER PAPER CO., INC.	NH	5/18/1993	750 ADT/day	2.5 lbs/hr	SCRUBBER	93.9
CL2						
JAMES RIVER PAPER CO., INC.	NH	5/18/1993	750 ADT/day	0.73 lbs/hr	SCRUBBER	99

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

PAPER MACHINES

Summary of BACT Determinations for NOx Emissions from Paper Machines

Company	State	Permit Issue Date	Throughput	Emission Limit	Control Equipment
GULF STATES PAPER CORPORATION	AL	12/10/97	–	–	LOW NOX BURNERS ON DRYERS

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

Summary of BACT Determinations for VOC Emissions from Paper Machines

Company	State	Permit Issue Date	Throughput	Emission Limit	Control Equipment
MEAD COATED BOARD, INC.	AL	10/9/96	150,000 MDTPD	--	USE OF MILL SUPPLY WATER, NON-DIRECT CONTACT CONDENSATES, CLEAN CONDENSATES, WELL WATER, OR WHITE WATER
MEAD COATED BOARD, INC.	AL	10/9/96	150,000 MDTPD	--	USE OF MILL SUPPLY WATER, NON-DIRECT CONTACT CONDENSATES, CLEAN CONDENSATES, WELL WATER, OR WHITE WATER
GULF STATES PAPER CORPORATION	AL	12/10/97	--	--	WATERBORNE COATING TECHNOLOGY

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

MISCELLANEOUS SOURCES

Summary of BACT Determinations from Miscellaneous Paper Mill Sources

Company/Pollutant	State	Source	Permit Issue Date	Throughput	Emission Limit	Control Equipment	Percent Control
CO							
WEYERHAEUSER COMPANY	MS	OXYGEN DELIGNIFICATION	9/10/96	--	0.5 lbs/BDMT	EFFICIENT OPERATION	--
PM							
RIVERWOOD INTERNATIONAL CORP	GA	WOOD CHIP HANDLING SYSTEM	7/11/96	--	--	--	--
SO2							
LOUISIANA PACIFIC	CA	FOUL CONDENSATE STRIPPER	10/18/93	--	12.3 lbs/hr	CAUSTIC SCRUBBING	99
TRS							
LOUISIANA PACIFIC	CA	FOUL CONDENSATE STRIPPER	10/18/93	--	< 5 ppm	INCINERATOR	--
VOC							
RIVERWOOD INTERNATIONAL CORP	GA	BROWNSTOCK WASHING	7/11/96	1,000 TPD PULP	--	MACT	--
LEAF RIVER FOREST PRODUCTS	MS	ATMOSPHERIC DIFFUSION WASHER	9/26/95	--	8.1 lbs/hr	--	--
LEAF RIVER FOREST PRODUCTS	MS	OXYGEN REACTOR BLOWTUBE	9/26/95	--	37.8 lbs/hr	--	--
INTERNATIONAL PAPER	LA	REPULPERS	2/24/94	1,810 BDT PULP/DAY	4.6 lbs/hr CONTINUOUS	--	--
INTERNATIONAL PAPER CO	MS	PRESS SECTION	12/17/96	--	--		--

Source: EPA's RACT/BACT/LAER Clearinghouse, July 1999

APPENDIX D

IWAQM PHASE II CALPUFF PARAMETER SETTINGS

Table D-1. IWAQM Phase II Calpuff Parameter Settings Used in the CALPUFF- Lite Regional Haze Analysis						
	SSC Panama City Mill,					
	Input Group					Modeled
Number	Description	Variable	Seq	Description	Default Value	Value
1	Run Control	METRUN	1	Do we run all periods (1) or a subset (0)?	0	0
1		IBYR	2	Beginning year	User Defined	90
1		IBMO	3	Beginning month	User Defined	1
1		IBDY	4	Beginning day	User Defined	6
1		IBHR	5	Beginning hour	User Defined	0
1		IRLG	5	Length of run (hours)	User Defined	8760
1		NSPEC	6	Number of species modeled (for MESOPUFF II chemistry)	5	6
1		NSE	7	Number of species emitted	3	3
1		ITEST	8		2	2
1		MRESTART	9	Restart options (0 = no restart) allows splitting runs into smaller segments	0	0
1		NRESPD	10		0	0
1		METFM	11	Format of input meteorology (1 = CALMET, 2 = ISC)	1	1
1		AVET	12	Averaging time lateral dispersion parameters (minutes)	60	60
2	Tech Options	MGAUSS	1	Near-field vertical distribution (1 = Gaussian)	1	1
2		MCTADJ	2	Terrain adjustments to plume path (3 = Plume path)	3	3
2		MCTSG	3	Do we have subgrid hills? (0 = No) allows CTDM-like treatment for subgrid scale hills	0	0
2		MSLUG	4	Near-field puff treatment (0 = No slugs)	0	0
2		MTRANS	5	Model transitional plume rise? (1 = Yes)	1	1
2		MTIP	6	Treat stack tip downwash? (1 = Yes)	1	1
2		MSHEAR	7	Treat vertical wind shear? (0 = No)	0	1
2		MSPLIT	8	Allow puffs to split? (0 = No)	0	0
2		MCHEM	9	MESOPUFF-II Chemistry? (1 = Yes)	1	1
2		MWET	10	Model wet deposition? (1 = Yes)	1	1
2		MDRY	11	Model dry deposition? (1 = Yes)	1	1
2		MDISP	12	Method for dispersion coefficients (3 = PG & MP)	3	3
2		MTURBVW	13	Turbulence characterization? (Only if MDISP = 1 or 5)	3	0
2		MDISP2	14	Backup coefficients (Only if MDISP = 1 or 5)	3	4
2		MROUGH	15	Adjust PG for surface roughness? (0 = No)	0	0
2		MPARTL	16	Model partial plume penetration? (0 = No)	1	1
2		MTINV	17	Elevated inversion strength (0 = compute from data)	0	0
2		MPDF	18	Use PDF for convective dispersion? (0 = No)	0	0
2		MSGTIBL	19	Use TIBL module? (0 = No) allows treatment of subgrid scale coastal areas	0	0
2		MREG	20	Regulatory default checks? (1 = Yes)	1	0
3	Species List	CSPECn		Names of species modeled (for MESOPUFF II must be SO2-SO4-NOX-HNO3-NO3, PM10	User Defined	ALL 6
3		Specie Groups		Grouping of species if any	User Defined	NA
3		Specie Names		Manner species will be modeled	User Defined	
4	Grid Control	NX	1	Number of east-west grids of input meteorology	User Defined	2
4		NY	2	Number of north-south grids of input meteorology	User Defined	2
4		NZ	3	Number of vertical layers of input meteorology	User Defined	1

Table D-1. IWAQM Phase II Calpuff Parameter Settings Used in the CALPUFF- Lite Regional Haze Analysis						
	SSC Panama City Mill,					
	Input Group					Modeled
Number	Description	Variable	Seq	Description	Default Value	Value
4		DGRIDKM	4	Meteorology grid spacing (km)	User Defined	175
4		ZFACE	5	Vertical cell face heights of input meteorology	User Defined	0., 5000
4		XORIGKM	6	Southwest corner (east-west) of input User	Defined meteorology	-175
4		YORIGIM	7	Southwest corner (north-south) of input User	Defined meteorology	-175
4		IUTMZN	8	UTM zone	User Defined	na
4		XLAT	9	Latitude of center of meteorology domain	User Defined	30.14
4		XLONG	10	Longitude of center of meteorology domain	User Defined	85.62
4		XTZ	11	Base time zone of input meteorology	User Defined	6
4		IBCOMP	12	Southwest X-index of computational domain	User Defined	1
4		JBCOMP	13	Southwest Y-index of computational domain	User Defined	1
4		IECOMP	14	Northeast X-index of computational domain	User Defined	2
4		JECOMP	15	Northeast Y-index of computational domain	User Defined	2
4		LSAMP	16	Use gridded receptors? (T = Yes)	F	F
4		IBSAMP	17	Southwest X-index of receptor grid	User Defined	0
4		JBSAMP	18	Southwest Y-index of receptor grid	User Defined	0
4		IESAMP	19	Northeast X-index of receptor grid	User Defined	0
4		JESAMP	20	Northeast Y-index of receptor grid	User Defined	0
4		MESHDN	21	Gridded recpetor spacing = DGRIDKM/MESHDN	1	1
5	Output Options	ICON	1	Output concentrations? (1 = Yes)	1	1
5		IDRY	2	Output dry deposition flux? (1 = Yes)	1	0
5		IWET	3	Output west deposition flux? (1 = Yes)	1	0
5		IVIS	4	Output RH for visibility calculations (1 = Yes)	1	0
5		LCOMPRS	5	Use compression option in output? (T = Yes)	T	T
5		ICPRT	6	Print concentrations? (0 = No)	0	0
5		IDPRT	7	Print dry deposition fluxes (0 = No)	0	0
5		IWPRT	8	Print wet deposition fluxes (0 = No)	0	0
5		ICFRQ	9	Concentration print interval (1 = hourly)	1	24
5		IDFRQ	10	Dry deposition flux print interval (1 = hourly)	1	1
5		IWFRQ	11	West deposition flux print interval (1 = hourly)	1	1
5		IPRTU	12	Print output units (1 = g/m**3; g/m**2/s; 3 = ug/m3, ug/m2/s)	1	3
5		IMESG	13	Status messages to screen? (1 = Yes)	1	1
5		LDEBUG	14	Turn on debug tracking? (F = No)	F	F
5		NPFDEB	15	(Number of puffs to track)	(1)	1
5		NN1	16	(Met. Period to start output)	(1)	1
5		NN2	17	(Met. Period to end output)	(10)	10
7	Dry Dep Chem	Dry Gas Dep		Chemical parameters of gaseous deposition species	User Defined	NOX,HNO3
						SO4,NO3
8	Dry Dep Size	Dry Part. Dep		Chemical parameters of particulate deposition species	User Defined	PM10
9	Dry Dep Misc	RCUTR	1	Reference cuticle resistance (s/cm)	30	30

Table D-1. IWAQM Phase II Calpuff Parameter Settings Used in the CALPUFF- Lite Regional Haze Analysis						
	SSC Panama City Mill,					
Number	Input Group Description	Variable	Seq	Description	Default Value	Modeled Value
9		RGR	2	Reference ground resistance (s/cm)	10	10
9		REACTR	3	Reference reactivity	8	8
9		NINT	4	Number of particle-size intervals	9	9
9		IVEG	5	Vegetative state (1 = active and unstressed)	1	1
10	Wet Dep	Wet Dep		Wet deposition parameters	User Defined	Var
11	Chemistry	MOZ	1	Ozone background? (0 = constant background value; 1 = read from ozone.dat)	1	0
11		BCKO3	2	Ozone default (ppb) (Use only for missing data)	80	80
11		BCKNH3	3	Ammonia background (ppb)	10	10
11		RNITE1	4	Nighttime SO2 loss rate (%/hr)	0.2	0.2
11		RNITE2	5	Nighttime NOx loss rate (%/hr)	2	2
11		RNITE3	6	Nighttime HNO3 loss rate (%/hr)	2	2
12	Dispersion	SYTDEP	1	Horizontal size (m) to switch to time dependence	550	550
12		MHFTSZ	2	Use Heffter for vertical dispersion? (0 = No)	0	0
12		JSUP	3	PG Stability class above mixed layer	5	5
12		CONK1	4	Stable dispersion constant (Eq 2.7-3)	0.01	0.01
12		CONK2	5	Neutral dispersion constant (Eq 2.7-4)	0.1	0.1
12		TBD	6	Transition for downwash algorithms (0.5 = ISC)	0.5	0.5
12		IURB1	7	Beginning urban landuse type	10	10
12		IURB2	8	Ending urban landuse type	19	19
12		ILANDUIN	9	Land use type (20 = Unirrigated agricultural land)	(20)	20
12		ZOIN	10	Roughness length (m)	(0.25)	0.25
12		XLAIIN	11	Leaf area index	(3)	3
12		ELEVIN	12	Met. Station elevation (m above MSL)	(0)	0
12		XLATIN	13	Met. Station North latitude (degrees)	(-999)	-999
12		XLONIN	14	Met. Station West longitude (degrees)	(-999)	-999
12		ANEMHT	15	Anemometer height of ISC meteorological data (m)	(10)	6.7/10.1
12		ISIGMAV	16	Lateral turbulence (Not used with ISC meteorology)	(1)	NA
12		IMIXCTDM	17	Mixing heights (Not used with ISC meteorology)	(1)	NA
12		XMXLEN	18	Maximum slug length in units of DGRIDKM	1	1
12		XSAMLEN	19	Maximum puff travel distance per sampling step (units of DGRIDKM)	1	1
12		MXNEW	20	Maximum number of puffs per hour	99	99
12		MXSAM	21	Maximum sampling steps per hour	99	99
12		NCOUNT	22	Iterations when computing Transport Wind (Calmet & Profile Winds)	(2)	2
12		SYMIN	23	Minimum lateral dispersion of new puff (m)	1	1
12		SZMIN	24	Minimum vertical dispersion of new puff (m)	1	1
12		SVMIN	25	Array of minimum lateral turbulence (m/s)	6 * 0.50	6*0.50
12		SWMIN	26	Array of minimum vertical turbulence (m/s)	0.20,0.12,0.08,0.06,0.03,0.016	SAME
12		CDIV (1), (2)	27	Divergence criterion for dw/dz (1/s)	0.01 (0.0,0.0)	0.0,0.0
12		WSCALM	28	Minimum non-calm wind speed (m/s)	0.5	0.5

Table D-1. IWAQM Phase II Calpuff Parameter Settings Used in the CALPUFF- Lite Regional Haze Analysis						
SSC Panama City Mill,						
	Input Group					Modeled
Number	Description	Variable	Seq	Description	Default Value	Value
12		XMAXZI	29	Maximum mixing height (m)	3000	3000
12		XMINZI	30	Minimum mixing height (m)	50	50
12		WSCAT	31	Upper bounds 1st 5 wind speed classes (m/s)	1.54,3.09,5.14,8. 23,10.8	SAME
12		PLX0	32	Wind speed power-law exponents	0.07,0.07,0.10,0.15,0.35,0.55	SAME
12		PTGO	33	Potential temperature gradients PG E and F (deg/km)	0.020,0.035	SAME
12		PPC	34	Plume path coefficients (only if MCTADJ = 3)	0.5,0.5,0.5,0.5,0.35,0.35	SAME
12		SL2PF	35	Maximum Sy/puff length	10	10
12		NSPLIT	36	Number of puffs when puffs split	3	3
12		IRESPLIT	37	Hours when puff are eligible to split	User Defined	HR 17=1
12		ZISPLIT	38	Previous hour's mixing height(minimum)(m)	100	100
12		ROLDMAX	39	Previous Max mix ht/current mix ht ratio must be less then this value for puff to split	0.25	0.25
12		EPSSLUG	40	Convergence criterion for slug sampling integration	1.00E-04	1.0E-04
12		EPSAREA	41	Convergence criterion for area source integration	1.00E-06	1.0E-06
13	Point Source	NPT1	1	Number of point sources	User Defined	6
13		IPTU	2	Units of emission rates (1 = g/s)	1	1
13		NSPT1	3	Number of point source-species combinations	0	0
13		NPT2	4	Number of point sources with fully variable emission rates	0	0
13		Point Sources		Point sources characteristics	User Defined	VAR
14	Area Source	Area Sources		Area sources characteristics	User Defined	NA
15	Volume Source	Volume		Volume sources characteristics	User Defined Sources	NA
16	Line Source	Line Sources		Buoyant lines source characteristics	User Defined	NA
17	Receptors	NREC		Number of user defined receptors	User Defined	180
17		Receptor Data		Location and elevation (MSL) of receptors	User Defined	VAR
Legend						
	DEPOS.	With Deposition				
	DEFAULT	Uses defaults				
	VAR	Variable Input				
	NA	Not Applicable				
	SAME	Same as recommended				

1999 and prior

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

September 15, 1999

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Jack B. Prescott, General Manager
Stone Container Corporation
One Everitt Avenue
Panama City, Florida 32402

Re: DEP File No. 0050009-005-AC
Stone Container Corp., Panama City Mill
Pulp Production Increase

Dear Mr. Prescott:

The Department has received the response to our initial incompleteness letter of August 17, 1999 on September 7, 1999, for an increase in the pulp production of the above referenced facility in Bay County. Based on our review of the response submitted and our meeting of September 7, 1999, we have determined that the project should undergo PSD New Source Review. Therefore, please submit an appropriate PSD application along with an additional $7,250 processing fees to the Tallahassee Office. The $250 submitted to the Pensacola Office with the minor source application will be transferred to Tallahassee. The two amounts will make up the $7,500 required by Rule 62-4.050(4)(a)1, F.A.C., for PSD application review. The processing clock is stopped for this project and will resume for initial review after receipt of the PSD application and the deficient fees.

The Department will resume processing after receipt of the requested information. If you have any questions regarding this matter, please call Syed Arif, P.E. at (850) 921-9528.

Sincerely,

A. A. Linero, P.E. Administrator
New Source Review Section

AAL/sa

cc: Ed Middleswart, P.E., NWD
David A. Buff, P.E., Golder Associates Inc.

Fold at line over top of envelope to

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Jack Prescott, Gen. Mgr.
Stone Container
1 Everitt Ave
Panama City, Fl
32402

4a. Article Number
Z 333 618 143

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

5. Received By: *(Print Name)* JG Willey

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*
X JG Willey

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

PS Form **3811,** December 1994 102595-98-B-0229 Domestic Return Receipt

Z 333 618 143

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Jack Prescott	
Street & Number Stone Cont.	
Post Office, State, & ZIP Code Panama City Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 0050069-005-AE 9-15-99	

PS Form **3800,** April 1995

Syed,

There were no AC's issued on the RBs' SDTs regarding the TRS rule, because the ECs were already meeting the TRS SIP limitations (March '72 SIP) established for them.

Ben

4-9-99 Meeting

Smurfit-Stone : Panama City mill

Bruce Mitchell	FDEP	850/921-9506
SYED ARIF	FDEP	850/921-9529
DAVID RILEY	SMURFIT-STONE	850/785-4311 EXT. 257
Tom Clements	" "	850 785-4311 x 470
Charles Ackel	Smurfit-Stone	904-714-7120
David A. Buff	Golder Associates	352-336-5600

Northwest District

Ed Middleswart

Rick Bradburn

MITCHELL

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

Golder Associates

September 3, 1999

9937518

RECEIVED

SEP 07 1999

BUREAU OF AIR REGULATION

Florida Department of Environmental Protection
Northwest District
160 Governmental Center
Pensacola, Florida 32501-5794

Attention: Mr. Ed Middleswart, P.E.

Subject: File No. 0050009-005-AC
Stone Container Corp. Panama City Mill
Pulp Production Increase

Dear Mr. Middleswart:

This correspondence is in response to the Department's letter dated August 17, 1999, concerning the above referenced pulp production increase for Stone Container Corp.'s (SCC) Panama City mill. Responses to the Department's two comments are presented below:

1. Attached is the requested calculations, assumptions, etc., for the current actual emissions from the Panama City mill and the future potential emissions. These emissions are summarized and compared for PSD applicability in the attached Tables 1 through 4. Supportive calculations, assumptions etc., are provided for in Attachments A and B.

   The baseline actual emissions (Table 1 and Attachment B) are based on the two year period 1997 and 1999. This two year period was selected because the mill was shutdown for three months in 1998 due to economic reasons, and therefore 1998 was not representative of normal operation. For 1999 actual operation, the mill is on track to reach the current permitted capacity of 668,850 TPY ADUP, therefore actual operation through August was prorated to agree with this pulp production rate.

   The future potential emissions based on a pulp production rate of 781,000 TPY air-dried unbleached pulp (ADUP) are presented in Table 2 and Attachment A. The 781,000 TPY production rate is based on a maximum of 2,200 TPD ADUP for 365 days per year. Since the mill normally does not operate 365 days per year, this is an upper limit figure.

   If Tables 1 and 2 are used as the basis for assessing PSD review applicability, then PSD review is triggered for nearly all PSD regulated pollutants (refer to Table 3). This would be true even if the future potential emissions were based on the current permitted pulp production rate of 668,850 TPY pulp, since the permitted rates of

most operating units remain unchanged regardless of the pulp production limit (i.e., recovery boilers, smelt tanks and lime kiln).

As a truer indication of the actual increase in emissions that would occur with the proposed pulp production increase, a comparison of current actual and future actual emissions is presented in Table 4. The future actual emissions are based on increasing the current actuals by the ratio of current to future production (667,426 TPY/781,000 TPY = 1.17). However, if this calculation resulted in future emissions greater than the potential emissions shown in Table 3, then the potential emissions from Table 3 were used.

For the reasons stated in the application, we still believe that the increase can be permitted as a permit amendment, not requiring PSD review. Note that the Nos. 3 and 4 Combination Boilers were not included in the analysis, since these units are already operating at maximum to produce electricity for internal consumption. Therefore, the pulp production increase does not affect these units. All other units at the mill for which emissions can be quantified are included in the analysis.

2. Golder is currently working with EPA Region IV to obtain approval of the ISC-PRIME model for the Panama City mill. However, if it appears that EPA will not issue such approval in time for FDEP to issue a draft permit by the first of November, then SCC will submit model results based on the currently approved ISCST3 model.

Please call if you have any questions concerning this information. We stand ready to do everything necessary to obtain a final permit by November 1 of this year.

Sincerely,

GOLDER ASSOCIATES INC.

David A. Buff

David A. Buff, P.E.
Principal Engineer
Florida P.E. # 19011

DB/arz

cc: Bruce Mitchell, FDEP Tallahassee
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Table 1. 1997/1999 Baseline Emissions, Stone Container Corp., Panama City

Regulated Pollutant	No . 1 Recovery Boiler (TPY)	No . 2 Recovey Boiler (TPY)	No. 1 Smelt Dissolving Tank (TPY)	No. 2 Smelt Dissolving Tank (TPY)	Lime Kiln (TPY)	Bleach Plant (TPY)	Pulping Area (TPY)	Lime Slaker (TPY)	Woodyard (TPY)	Chemical Recovery Area (TPY)	Paper Making (TPY)	TOTAL BASELINE EMISSIONS (TPY)
Particulate (TSP)	147.1	128.4	89.6	97.0	104.8	--	--	1.9	41.5	--	--	610.3
Particulate (PM10)	114.2	99.6	80.2	86.8	103.0	--	--	1.9	15.1	--	--	500.8
Sulfur dioxide	515.7	509.3	3.9	3.9	16.2	--	--	--	--	--	--	1,048.9
Nitrogen oxides	286.5	282.9	8.1	8.0	153.8	--	--	--	--	--	--	739.4
Carbon monoxide	2,604.6	2,572.0	--	--	15.5	131.0	--	--	--	--	--	5,323.1
Volatile organic compds.	166.2	164.1	15.2	15.0	16.6	80.4	60.1	3.1	--	166.6	200.2	887.4
Sulfuric acid mist	31.6	14.3	0.24	0.24	1.0	--	--	--	--	--	--	47.4
Total Reduced Sulfur	25.6	32.5	2.8	3.23	7.8	5.2	73.4	--	--	14.9	--	165.5
Lead	0.021	0.020	0.0042	0.0041	0.27	--	--	--	--	--	--	0.32
Mercury	0.016	0.016	0.000044	0.000044	0.00064	--	--	--	--	--	--	0.032
Beryllium	0.00054	0.00054	0.000034	0.000034	0.0012	--	--	--	--	--	--	0.0023
Fluorides	--	--	--	--	--	--	--	--	--	--	--	--

Table 2. Maximum Future Potential Emissions @ 781,000 TPY Pulp Production, Stone Container Corp., Panama City

Regulated Pollutant	No . 1 Recovery Boiler (TPY)	No . 2 Recovey Boiler (TPY)	No. 1 Smelt Dissolving Tank (TPY)	No. 2 Smelt Dissolving Tank (TPY)	Lime Kiln (TPY)	Bleach Plant (TPY)	Pulping Area (TPY)	Lime Slaker (TPY)	Woodyard (TPY)	Chemical Recovery Area (TPY)	Paper Making (TPY)	TOTAL FUTURE POTENTIAL (TPY)
Particulate (TSP)	492.8	492.8	130.1	124.9	130.7	--	--	17.5	44.6	--	--	1,433.4
Particulate (PM10)	382.4	382.4	116.5	111.8	128.4	--	--	17.5	16.4	--	--	1,155.4
Sulfur dioxide	568.4	568.4	4.3	4.3	20.6	--	--	--	--	--	--	1,166.1
Nitrogen oxides	315.8	315.8	8.9	8.9	195.7	--	--	--	--	--	--	845.2
Carbon monoxide	2,872.0	2,872.0	--	--	19.7	177.3	--	--	--	--	--	5,941.0
Volatile organic compds.	183.2	183.2	16.8	16.8	21.1	96.7	70.3	5.4	--	193.8	234.3	1,021.6
Sulfuric acid mist	34.8	34.8	0.27	0.27	1.3	--	--	--	--	--	--	71.4
Total Reduced Sulfur	75.9	75.9	13.0	13.0	31.9	6.3	85.9	--	--	16.4	--	318.3
Lead	0.023	0.023	0.0050	0.0050	0.34	--	--	--	--	--	--	0.40
Mercury	0.017	0.017	0.000049	0.000049	0.00081	--	--	--	--	--	--	0.035
Beryllium	0.00060	0.00060	0.000038	0.000038	0.0015	--	--	--	--	--	--	0.0028
Fluorides	--	--	--	--	--	--	--	--	--	--	--	--

Table 3. Current Actual and Future Potential Emissions for Proposed Pulp Production of 781,000 TPY
Stone Container Corp., Panama City

Regulated Pollutant	BASELINE EMISSIONS (TPY)	FUTURE POTENTIAL EMISSIONS (TPY)	NET CHANGE (TPY)	Significant Emission Rate (TPY)	PSD Review Applies ?
Particulate (TSP)	610.3	1,433.4	823.1	25	Yes
Particulate (PM10)	500.8	1,155.4	654.6	15	Yes
Sulfur dioxide	1,048.9	1,166.1	117.1	40	Yes
Nitrogen oxides	739.4	845.2	105.8	40	Yes
Carbon monoxide	5,323.1	5,941.0	617.9	100	Yes
Volatile organic compds.	887.4	1,021.6	134.2	40	Yes
Sulfuric acid mist	47.4	71.4	24.1	7	Yes
Total Reduced Sulfur	165.5	318.3	152.8	10	Yes
Lead	0.32	0.40	0.080	0.6	No
Mercury	0.032	0.035	0.003	0.1	No
Beryllium	0.0023	0.0028	0.00043	0.00040	Yes
Fluorides	--	--	--	3	No

Table 4. Comparison of Current Actual and Future Actual Emissions for Proposed Pulp Production of 781,000 TPY
Stone Container Corp., Panama City

Regulated Pollutant	BASELINE EMISSIONS (TPY)	TOTAL FUTURE ACTUAL (a) (TPY)	NET CHANGE (TPY)	Significant Emission Rate (TPY)	PSD Review Applies ?
Particulate (TSP)	610.3	714.0	103.7	25	Yes
Particulate (PM10)	500.8	585.9	85.1	15	Yes
Sulfur dioxide	1,048.9	1,166.1 (b)	117.2	40	Yes
Nitrogen oxides	739.4	845.2 (b)	105.8	40	Yes
Carbon monoxide	5,323.1	5,941.0 (b)	617.9	100	Yes
Volatile organic compds.	887.4	1,021.6 (b)	134.2	40	Yes
Sulfuric acid mist	47.4	55.4	8.1	7	Yes
Total Reduced Sulfur	165.5	193.6	28.1	10	Yes
Lead	0.32	0.37	0.054	0.6	No
Mercury	0.032	0.037	0.005	0.1	No
Beryllium	0.0023	0.0027	0.00040	0.00040	Yes
Fluorides	--	--	--	3	No

(a) Based on increasing current actual emissions by the ratio of current actual to future potential pulp production (667,426 TPY ADUP current and 781,000 TPY ADUP future potential) = ratio of 1.17

(b) Based on future potential emissions from Table 3, since applying ratio of 1.17 resulted in emissions greater than shown in Table 3.

ATTACHMENT A

Table A-1. Maximum Emissions from Each Recovery Boiler Nos. 1 and 2 , Stone Container Corporation, Panama City

Regulated Pollutant	Each Recovery Boiler: Emission Factor	Reference	Activity Factor (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	112.5 lb/hr	1	8,760 hr/yr	112.5	492.8, OK
Particulate (PM10)	77.6 % of PM	6	--	87.30	382.4
Sulfur dioxide	0.18 lb/MMBtu	3	721 MMBtu/hr	129.78	568.4
Nitrogen oxides	0.10 lb/MMBtu	3	721 MMBtu/hr	72.10	315.8
Carbon monoxide	20 lb/1,000 lb BLS	7	123.7 1,000 lb BLS/hr	2,474	2,872
VOC	0.058 lb C /MMBtu	3	721 MMBtu/hr	41.82	183.2
Sulfuric acid mist	0.011 lb/MMBtu	5	721 MMBtu/hr	7.95	34.8
Total reduced sulfur	17.5 ppmvd	1	187,100 dscfm (g)	17.3	75.9
Lead	7.2E-06 lb/MMBtu	2	721 MMBtu/hr	5.2E-03	2.3E-02
Mercury	5.5E-06 lb/MMBtu	2	721 MMBtu/hr	4.0E-03	1.7E-02
Beryllium	1.9E-07 lb/MMBtu	2	721 MMBtu/hr	1.4E-04	6.0E-04
Fluorides	ND	4	--	--	--

note:
(a) Based on currently permitted maximum operating rate of 123,700 lb virgin BLS/hr, 5,830 Btu/lb BLS, and 8,760 hr/yr.
(b) Based on currentlt permitted maximum heat input of 721 MMBtu/hr, average No. 6 Fuel Oil heat content of 150,000 Btu/gal, and 8,760 hr/yr.
(c) Maximum S = 2.5%.
(d) Based on maximum heat input of 721 MMBtu/hr, average natural gas heat content of 1,000 Btu/scf, and 8,760 hr/yr.
(e) Based on 3,570,000 gallons of No. 6 Fuel Oil per year.
(f) Based on 535 MMscf of natural gas per year.
(g) Based on firing with No. 6 Fuel Oil (only) for 742 hr/yr and BLS for the remaining 8,018 hr/yr.
(h) Based on firing with No. 6 Fuel Oil for 742 hr/yr (only), natural gas for 742 hr/yr, and BLS for the remaining 7,276 hr/yr.
(g) Based on 1997 compliance testing and 8% salt cake content of BLS throughput, ie. 92% virgin BLS.

References:
1. Currently permitted emission limit.
2. Emission factor based on NCASI Bulletin No. 650, Table 11D, direct contact evaporator, average factor used.
3. Emission factor based on NCASI Bulletin No. 646, Tables 8-11, direct contact evaporator with ESP, average factor used.
4. From "Application of Combustion Modifications to Industrial Combustion Equipment" EPA-600/7-79-015a. one test from recovery boiler.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on AP-42 Tables 10.2-1, 10.2-2, and Figure 10.2-2 for Kraft pulping sources.
7. Based on NCASI Bulletin No. 416, Table 5 and Figure 17 (20 lb/1,000 lb BLS for hourly emissions and 5.3 lb/1,000 lb BLS for annual average).

Table A-2. Maximum Emissions From the Existing Bleach Plant, Smurfit-Stone Container, Panama City, Florida

Pollutant Name	Average Emission Factor (lb/tons ADBP)		Activity Factor (a) (tons ADBP/yr)	Annual Emissions (TPY)
Carbon Monoxide				
Hardwood	0.72	(b)	402,960	--
Softwood	0.88	(b)	402,960	177.30
Volatile Organic Compounds (measured as total hydrocarbons)	4.80E-01	(c)	402,960	96.71
Total Reduced Sulfur	3.10E-02	(d)	402,960	6.25

Notes:
ADBP = Air Dried Bleached Pulp
lb/hr = pounds per hour
TPY = tons per year
Footnotes:
(a) Based on the maximum rate of 1,104 tons ADBP/day and 365 days/yr of operation.
(b) Emission factors based on data in NCASI Technical Bulletin No. 760, Carbon Monoxide Emissions from Oxygen Delignification and Chlorine Dioxide Bleaching of Wood Pulp, July 1998.
Bleaching Stages:
Hardwood: Existing bleach plant design is 25.78 lb ClO2/ODTUBP / 0.94 = 27.4 lb ClO2/ODTBP = 1.4%
Using NCASI equation for hardwood (Figure 11): CO = (-0.03 x %ClO2) + 0.69 lb/ODTBP
CO = 0.65 lb/ODTBP x 0.90 = 0.72 lb/ADTBP
Softwood: Existing bleach plant design is 35.5 lb ClO2/ODTUBP / 0.94 = 37.8 lb ClO2/ODTBP = 1.9%
Using NCASI equation for softwood (Figure 9): CO = (0.27 x %ClO2) + 0.38 lb/ODTBP
CO = 0.79 lb/ODTBP x 0.90 = 0.88 lb/ADTBP
Maximum emissions based on 100% softwood.
(c) NCASI Technical Bulletin No. 701, Compilation of Air Toxic and Total Hydrocarbon Emissions Data for Sources at Chemical Wood Pulp Mills, Volume 1, October 1995, Table 3, for Mill BPII2.
(d) NCASI Technical Bulletin No. 701, Compilation of Air Toxic and Total Hydrocarbon Emissions Data for Sources at Chemical Wood Pulp Mills, Volume 1, October 1995, Table 3, for Mill BPIF2.

Table A-3. Maximum Emissions from Pulping Area (Brown Stock Washing) at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor	Annual Emissions (TPY)
VOC	0.18 lb C/ton ADUP	2	781,000 ton ADUP/yr	70.3
Total reduced sulfur	0.22 lb/ton ADUP	1	781,000 ton ADUP/yr	85.9

References

1. Based on NCASI Technical Bulletin No. 701, page 77, 79, and 81 (Table 5).
2. Based on NCASI Technical Bulletin No. 701, page 89 (Table 5).

Table A-4. Maximum Emissions from No. 1 Smelt Dissolving Tank at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	29.71 lb/hr	1	8,760 hr/yr	29.7	130.1
Particulate (PM10)	89.5 % of PM	2	--	26.6	116.5
Sulfur dioxide	0.016 lb/ton BLS	3	61.85 tons BLS/hr	0.99	4.33
Nitrogen oxides	0.033 lb/ton BLS	3	61.85 tons BLS/hr	2.04	8.94
Carbon monoxide	--		--	--	--
VOC	0.062 lb/ton BLS	3	61.85 tons BLS/hr	3.83	16.8
Sulfuric acid mist	5 % of SO2	5	--	0.061	0.27
Total reduced sulfur	0.048 lb/ton BLS	6	61.85 tons BLS/hr	3.0	13.0
Lead	1.7E-05 lb/ton BLS	4	61.85 tons BLS/hr	0.001	0.005
Mercury	1.8E-07 lb/ton BLS	4	61.85 tons BLS/hr	1.1E-05	4.9E-05
Beryllium	1.4E-07 lb/ton BLS	4	61.85 tons BLS/hr	8.7E-06	3.8E-05
Fluorides	--		--	--	--

note:
(a) Based on the currently permitted maximum allowable operating rate of 123,700 lb virgin BLS/hr and 8,760 hr/yr.

References:
1. Currently permitted emission limit.
2. AP-42, Table 10.2-7.
3. Data is averages from NCASI Bulletin No. 646, Tables 16-18, for smelt dissolving tanks with scrubbers.
4. Data is averages from NCASI Bulletin No. 650, Tables 14A and 14B, for smelt dissolving tanks with scrubbers.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on Rule 62-296.404(3)(d)1., F.A.C

Table A-5. Maximum Emissions from No. 2 Smelt Dissolving Tank at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	28.5 lb/hr	1	8,760 hr/yr	28.5	124.9
Particulate (PM10)	89.5 % of PM	2	--	25.5	111.8
Sulfur dioxide	0.016 lb/ton BLS	3	61.85 tons BLS/hr	0.99	4.33
Nitrogen oxides	0.033 lb/ton BLS	3	61.85 tons BLS/hr	2.04	8.94
Carbon monoxide	--		--	--	--
VOC	0.062 lb/ton BLS	3	61.85 tons BLS/hr	3.83	16.8
Sulfuric acid mist	5 % of SO2	5	--	0.061	0.27
Total reduced sulfur	0.048 lb/ton BLS	1	61.85 tons BLS/hr	3.0	13.0
Lead	1.7E-05 lb/ton BLS	4	61.85 tons BLS/hr	0.001	0.005
Mercury	1.8E-07 lb/ton BLS	4	61.85 tons BLS/hr	1.1E-05	4.9E-05
Beryllium	1.4E-07 lb/ton BLS	4	61.85 tons BLS/hr	8.7E-06	3.8E-05
Fluorides	--		--	--	--

note:
(a) Based on the currently permitted maximum allowable operating rate of 123,700 lb virgin BLS/hr and 8,760 hr/yr.

References:
1. Currently permitted emission limit.
2. AP-42, Table 10.2-7.
3. Data is averages from NCASI Bulletin No. 646, Tables 16-18, for smelt dissolving tanks with scrubbers.
4. Data is averages from NCASI Bulletin No. 650, Tables 14A and 14B, for smelt dissolving tanks with scrubbers.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).

Table A-6. Maximum Emissions from the Woodyard at Stone Container, Panama City

SOURCE	Type of Operation (a)	M Moisture Content (%)	U Wind Speed (MPH)	Uncontrolled Emission Factor	Type of Control	Control Efficiency (%)	Controlled Emission Factor	Activity Factor	Maximum Annual PM Emissions (tons/yr)	PM10 Size Multiplier (c)	Maximum Annual PM10 Emissions (tons/yr)
ROUNDWOOD HANDLING											
Debarker	Debarking	--	--	0.024 lbs/ton (d)	Enclosure	80	0.00480 lbs/ton	1,946,934 TPY (e)	4.673	0.35	1.635
Chipper	Continuous Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	1,946,934 TPY (e)	0.125	0.35	0.044
Chip Surge Bin to Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
BARK HANDLING											
Debarker to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
Bark Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
No. 1 Bark Diverter to Emergency Bark Storage Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	0 TPY (f)	0.0000	0.35	0.00000
Emergency Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Unhogged Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Trucked Bark to Purchased Unhogged Bark Storage Pile	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Front End Loaded to Bark Hopper	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Wastewood Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	316,098 TPY (g)	0.0041	0.35	0.00142
No. 1 Bark Diverter to Disc Screen	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Hog	Hammermill	--	--	0.024 lbs/ton (d)	Enclosed	80	0.00480 lbs/ton	471,853 TPY (h)	1.132	1.0	1.132
Bark Hog to Hogged Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Conveyor to Hogged Bark Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Pile	Wind Erosion	--	--	--	None	0	--	--	0.0023	1.0	0.0023
Bark Bin Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone	0	2.0 lb/hr	8,760 hr/yr	8.76	0.35	3.07
Bark Bin Cyclone to Small Bark Bin and Screw	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Small Bark Bin and Screw to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Conveyor to No. 2 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Storage Pile Maintenance	Vehicular Traffic	--	--	0.74 lbs/VMT	None	0	0.74 lbs/VMT	21,900 VMT (i)	8.103	0.35	2.836
PURCHASED CHIP HANDLING											
Truck Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Railcar Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Truck Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
Railcar Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
MANUFACTURED AND PURCHASED CHIP PROCESSING											
Tower No. 1 Diverter to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Reclaim Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaim Coveyor to Radial Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Radial Conveyor to Chip Reclaimer Storage Pile (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaimer Storage Pile (2)	Wind Erosion	--	--	--	None	0	--	--	0.048	1.0	0.048
Chip Reclaimer Storage Pile to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Screw (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screw to Primary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screens	Screening										
Softwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone, Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Hardwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Primary Screen to Secondary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Secondary Screen to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,321,045 TPY (l)	0.030	0.35	0.010
Screen Building Rejects Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.066
Screen Building Rejects Cyclone to Chip Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	994,734 TPY (m)	0.026	0.35	0.009
Fines Blowline Emergency Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.00017	1.0	0.00017
Fines Blowline Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.07
Fines Blowline Cyclone to Wastewood/Sludge Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	9,947 TPY (n)	0.000	0.35	0.000
Chip Conveyor to No. 5 Transfer Tower (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,305,772 TPY (o)	0.043	0.35	0.015
TOTAL									44.61		16.39

Notes:

(a) Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (US EPA, 1995) Section 13.2.4-3(1). $E = 0.0032 \times (U/5)^{1.3} / (M/2)^{1.4}$ lb/ton

(b) Wind Erosion Emissions based on AP-42 (US EPA, 1995) Section 13.2.5. Refer to Attachment A for derivation.

(c) PM10 Size Multiplier is based on particles < 10 micrometers.

(d) Debarker emissions are based on Table 28 of NCASI Technical Bulletin No. 424 (March 1984), Fugitive Dust Emission Factors and Control Methods Important to Forest Products Industry Manufacturing Operations.

(e) Roundwood throughput is based on 466,800 cords/yr (softwood) @ 2.7 tons/cord and 178,800 cords/yr (hardwood) @ 2.85 tons/cord, plus 10 percent.

(f) Bark throughput is based on 8 percent of roundwood.

(g) Based on purchased bark.

(h) Total bark throughput is sum of manufactured bark and purchased bark.

(i) Vehicle miles traveled (VMT) was calculated assuming front end loader operating 12 hrs/day, 365 days/yr in the woodyard.

(j) Purchased chip throughput is based on 142,800 cords/yr (softwood) and 411,600 cords/yr (hardwood) @ 2.5 tons/cord, plus 10 percent.

(k) Total chip throughput is based on 92 percent of roundwood throughput plus purchased chip throughput.

(l) Based on 70% of total chip throughput

(m) Based on 30% of total chip throughput.

(n) Fines separated from wood chip stream.

(o) Total chips minus fines.

Table A-7. Maximum Emissions from Lime Kiln (No. 6 Fuel Oil Fired) at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	29.83 lb/hr	1	8,760 hr/yr	29.83	130.7
Particulate (PM10)	98.3 % of PM	2	--	29.32	128.4
Sulfur dioxide	0.23 lb/ton CaO	4	20.4 ton CaO/hr	4.69	20.6
Nitrogen oxides	2.19 lb/ton CaO	4	20.4 ton CaO/hr	44.68	195.7
Carbon monoxide	0.22 lb/ton CaO	6	20.4 ton CaO/hr	4.49	19.7
VOC	0.24 lb C/ton CaO	4	20.4 ton CaO/hr	4.81	21.1
Sulfuric acid mist	0.014 lb/ton CaO	5	20.4 ton CaO/hr	0.29	1.3
Total reduced sulfur	20 ppmvd (b)	1	68,000 dscfm	7.27	31.9
Lead	3.8E-03 lb/ton CaO	3	20.4 ton CaO/hr	7.8E-02	3.4E-01
Mercury	9.1E-06 lb/ton CaO	3	20.4 ton CaO/hr	1.9E-04	8.1E-04
Beryllium	1.7E-05 lb/ton CaO	3	20.4 ton CaO/hr	3.5E-04	1.5E-03
Fluorides	--		--	--	--

Footnotes
(a) Based on currently permitted operating limit of 18.35 tons CaO/hr plus 10% impurities (20.4 tons/hr), 8,760 hr/yr.
(b) TRS Emission Factor as H2S corrected to 10% O2 as a 12-hour average.

References
1. Currently permitted emission limit.
2. Based on AP-42 Section 10.2 and Tables 10.2-1 and 10.2-4.
3. Based on NCASI Technical Bulletin No. 650, Table 13C.
4. Based on NCASI Technical Bulletin No. 646, Tables 12-14.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on NCASI Technical Bulletin No. 416, Table 6.

Table A-8. Maximum Emissions from Lime Slaker at Stone Container, Panama City

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	4.0 lb/hr	1	8,760 hr/yr	4.0	17.5
Particulate (PM10)	100 % of PM	3	--	4.0	17.5
VOC	4.4E-02 lb/ton CaO	2	28.1 ton CaO/hr (b)	1.24	5.4
Total reduced sulfur	ND	2	--	--	--

ND = Non-detectable

Footnotes

(a) Based on ratio of 1997 CaO production and pulp production to proposed pulp production plus 10% (purchased lime) and 8,760 hr/yr.

(b) 10% impurities included

References

1. Currently permitted emission limit.
2. Based on NCASI Technical Bulletin No. 701,page 237 and Table 17.
3. No data found, assume 100%.

Table A-9. Maximum Emissions from Chemical Recovery Area at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
VOC				
Black Liquor Oxidation Towers	0.34 lb C/ton ADUP	1	781,000 ton ADUP/hr	132.8
Causticizers	0.044 lb C/ton CaO	4	246,156 ton CaO/yr	5.4
Lime Mud Filters/Associated Equipment	0.0041 lb C/ton CaO	4	246,156 ton CaO/yr	0.5
Black Liquor Tanks (2)	0.091 lb/tank/hr	2	2 tanks	0.8
Black Liquor Oxidation Tank	0.1 lb/ton BLS	3	1,083,612 ton BLS/yr	54.2
Green Liquor Clarifiers and Tanks	0.0014 lb C/ton CaO	4	246,156 ton CaO/yr	0.2
			TOTAL VOC's	193.8
Total Reduced Sulfur				
Black Liquor Oxidation Towers	ND	1	--	--
Causticizers	ND	4	--	--
Lime Mud Filters/Associated Equipment	0.0005 lb /ton CaO	4	246,156 ton CaO/yr	0.1
Black Liquor Tanks (2)	0.18 lb/tank/hr	2	2 tanks	1.6
Black Liquor Oxidation Tank	0.0271 lb/ton BLS	3	1,083,612 ton BLS/yr	14.7
Green Liquor Clarifiers and Tanks	7.011E-04 lb C/ton CaO	4	246,156 ton CaO/yr	0.1
			TOTAL TRS	16.4

ND = Non-detectable

Footnotes

(a) Based on proposed maximum hourly lime slaker rate (28.1 tons/hr CaO), proposed pulp production rate, and currently permitted recovery boiler rates.

References

1. Based on NCASI Technical Bulletin No. 646, pages 27 and 28.
2. Based on NCASI Technical Bulletin No. 701, pages 111-115 (Table 7).
3. Based on NCASI Technical Bulletin No. 701, pages 145-154 (Table 11).
4. Based on NCASI Technical Bulletin No. 701, pages 237-240 (Table 17).

Table A-10. Maximum Emissions from Paper Making Area at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor	Annual Emissions (TPY)
VOC	0.60 lb C/ton ADUP	1	781,000 ton ADUP/yr	234.3
Total reduced sulfur	ND	1	--	--

ND = Non-detectable

References

1. Based on NCASI Technical Bulletin No. 701,page 3, Table 18 (pages 243 and 244).

ATTACHMENT B

Table B-1. 1997/1999 Baseline Emissions from No. 1 Recovery Boiler at Stone Container Corporation, Panama City

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
Particulate (PM)	34.5 lb/hr	1	8,530 hr/yr	147.1
Particulate (PM10)	77.6 % of PM	6	--	114.2
Sulfur dioxide	0.18 lb/MMBtu	3	5.73E+06 MMBtu/yr	515.7
Nitrogen oxides	0.10 lb/MMBtu	3	5.73E+06 MMBtu/yr	286.5
Carbon monoxide	5.3 lb/1,000 lb BLS	7	982,878 1,000 lb BLS/yr	2,604.6
VOC	0.058 lb C/MMBtu	3	5.73E+06 MMBtu/yr	166.2
Sulfuric acid mist	0.011 lb/MMBtu	5	5.73E+06 MMBtu/yr	31.6
Total reduced sulfur	8.0 ppmvd	1	142,000 dscfm	25.65
Lead	7.2E-06 lb/MMBtu	2	5.73E+06 MMBtu/yr	2.1E-02
Mercury	5.5E-06 lb/MMBtu	2	5.73E+06 MMBtu/yr	1.6E-02
Beryllium	1.9E-07 lb/MMBtu	2	5.73E+06 MMBtu/yr	5.4E-04
Fluorides	ND	4	--	--

ND = Non-detectable
ton = 2000 lb.
note:
(a) Heat input rate based on 1997 and projected 1999 BLS burned and 5,830 Btu/lb BLS
1999 (projected): 487,000 tons burned
1997: 495,878 tons burned

References:
1. Based on the average of the 1997 and 1999 compliance tests and operating data:
1999 = 28.2 lb PM/hr; 7.8 ppmvd TRS at 142,000 dscfm for 8,544 hr/yr (tests conducted Dec. '98)
1997 = 40.8 lb PM/hr; 8.2 ppmvd TRS at 142,000 dscfm for 8,516 hr/yr
2. Emission factor based on NCASI Bulletin No. 650, Table 11D, direct contact evaporator, average factor used.
3. Emission factor based on NCASI Bulletin No. 646, page 16 and Tables 10 and 11, direct contact evaporator with ESP, average factor used.
4. From "Application of Combustion Modifications to Industrial Combustion Equipment" EPA-600/7-79-015a. one test from recovery boiler.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. Five percent (5%) of SO2 becomes SO3, then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on AP-42 Table 10.2-2, and Figure 10.2-2 for Kraft pulping sources.
7. Based on NCASI Bulletin No. 416, Table 5.

Table B-2. 1997/1999 Baseline Emissions from No. 2 Recovery Boiler at Stone Container Corporation, Panama City

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
Particulate (PM)	30.3 lb/hr	1	8,488 hr/yr	128.4
Particulate (PM10)	77.6 % of PM	6	--	99.6
Sulfur dioxide	0.18 lb/MMBtu	3	5.66E+06 MMBtu/yr	509.3
Nitrogen oxides	0.10 lb/MMBtu	3	5.66E+06 MMBtu/yr	282.9
Carbon monoxide	5.3 lb/1,000 lb BLS	7	970,562 1,000 lb BLS/yr	2,572.0
VOC	0.058 lb C/MMBtu	3	5.66E+06 MMBtu/yr	164.1
Sulfuric acid mist	0.005 lb/MMBtu	5	5.66E+06 MMBtu/yr	14.3
Total reduced sulfur	10.2 ppmvd	1	142,000 dscfm	32.54
Lead	7.2E-06 lb/MMBtu	2	5.66E+06 MMBtu/yr	2.0E-02
Mercury	5.5E-06 lb/MMBtu	2	5.66E+06 MMBtu/yr	1.6E-02
Beryllium	1.9E-07 lb/MMBtu	2	5.66E+06 MMBtu/yr	5.4E-04
Fluorides	ND	4	--	--

ND = Non-detectable
ton = 2000 lb.
note:
(a) Heat input rate based on 1997 and 1999 (projected) BLS burned and 5,830 Btu/lb BLS:
1999 (projected): 483,509 tons burned
1997: 487,053 tons burned

References:
1. Based on the average of the 1997 and 1999 compliance tests and operating data:
1999 = 19.6 lb PM/hr; 10.0 ppmvd TRS at 142,000 dscfm for 8,526 hr/yr (tests conducted Dec. '98)
1997 = 40.9 lb PM/hr; 10.4 ppmvd TRS at 142,000 dscfm for 8,449 hr/yr
2. Emission factor based on NCASI Bulletin No. 650, Table 11D, direct contact evaporator, average factor used.
3. Emission factor based on NCASI Bulletin No. 646, page 16 and Tables 10 and 11, direct contact evaporator with ESP, average factor used.
4. From "Application of Combustion Modifications to Industrial Combustion Equipment" EPA-600/7-79-015a. one test from recovery boiler.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. Five percent (5%) of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on AP-42 Table 10.2-2, and Figure 10.2-2 for Kraft pulping sources.
7. Based on NCASI Bulletin No. 416, Table 5.

Table B-3. 1997/1999 Baseline Emissions from Lime Kiln (No. 6 Fuel Oil Fired) at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
Particulate (PM)	25.1 lb/hr	1	8,368 hr/yr	104.8
Particulate (PM10)	98.3 % of PM	2	--	103.0
Sulfur dioxide	0.23 lb/ton CaO	4	140,485 ton CaO/yr	16.2
Nitrogen oxides	2.19 lb/ton CaO	4	140,485 ton CaO/yr	153.8
Carbon monoxide	0.22 lb/ton CaO	6	140,485 ton CaO/yr	15.5
VOC	0.24 lb C/ton CaO	4	140,485 ton CaO/yr	16.6
Sulfuric acid mist	0.014 lb/ton CaO	5	140,485 ton CaO/yr	1.0
Total reduced sulfur	7.85 ppmvd (b)	1	45,000 dscfm	7.82
Lead	3.8E-03 lb/ton CaO	3	140,485 ton CaO/yr	0.27
Mercury	9.1E-06 lb/ton CaO	3	140,485 ton CaO/yr	6.4E-04
Beryllium	1.7E-05 lb/ton CaO	3	140,485 ton CaO/yr	1.2E-03
Fluorides	--		--	--

Footnotes

(a) 1997 and 1999 CaO production and pulp production:

1999 = 668,850 ton ADUP; 143,735 tons CaO (10% impurities)

1997 = 666,002 ton ADUP; 168,454 tons CaO (10% Impurities)

(b) TRS Emission Factor as H2S corrected to 10% O2 as a 12-hour average.

References

1. Compliance testing and operating rates:
   1999: 28.5 lb PM/hr, 5.1 ppmvd TRS, and 8,348 hr/yr
   1997: 21.6 lb PM/hr, 10.6 ppmvd TRS, and 8,388 hr/yr
2. Based on AP-42 Section 10.2 and Tables 10.2-1 and 10.2-4.
3. Based on NCASI Technical Bulletin No. 650, Table 13C.
4. Based on NCASI Technical Bulletin No. 646, Tables 12-14.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. Five percent (5%) of SO2 becomes SO3, then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on NCASI Technical Bulletin No. 416, Table 6.

Table B-4. 1997/1999 Baseline Emissions From the Existing Bleach Plant, Smurfit-Stone Container, Panama City

Pollutant Name	Average Emission Factor (lb/ADTBP)	1997/1999 Average Process Rate (a) (ADTBP/yr)	Emission Rate (TPY)
Carbon Monoxide			
Hardwood	0.72 (b)	204,246	73.53
Softwood	0.88 (b)	130,584	57.46
TOTAL		334,830	130.99
Volatile Organic Compounds (measured as total hydrocarbons)	0.48 (c)	334,830	80.36
Total Reduced Sulfur	0.031 (d)	334,830	5.19

Notes:
ADTUBP = Air Dried Tons of Unbleached Bleached Pulp
ODTUBP = Oven Dried Tons of Unbleached Bleached Pulp
ADTBP = Air Dried Tons of Bleached Pulp
ODTBP = Oven Dried Tons of Bleached Pulp
lb/hr = pounds per hour
TPY = tons per year
Footnotes:
(a) Based on the average of 1999 (projected 334,862 ADTBP) and 1997 (334,797 ADTBP) annual production and a hardwood/softwood split of 61%/39%.
(b) Emission factors based on data in NCASI Technical Bulletin No. 760, Carbon Monoxide Emissions from Oxygen Delignification and Chlorine Dioxide Bleaching of Wood Pulp, July 1998.
Bleaching Stages:
Hardwood: Existing bleach plant design is 25.78 lb ClO2/ODTUBP / 0.94 = 27.4 lb ClO2/ODTBP = 1.4%
Using NCASI equation for hardwood (Figure 11): CO = (-0.03 x %ClO2) + 0.69 lb/ODTBP
CO = 0.65 lb/ODTBP x 0.90 = 0.72 lb/ADTBP
Softwood: Existing bleach plant design is 35.5 lb ClO2/ODTUBP / 0.94 = 37.8 lb ClO2/ODTBP = 1.9%
Using NCASI equation for softwood (Figure 9): CO = (0.27 x %ClO2) + 0.38 lb/ODTBP
CO = 0.79 lb/ODTBP x 0.90 = 0.88 lb/ADTBP
(c) NCASI Technical Bulletin No. 701, Compilation of Air Toxic and Total Hydrocarbon Emissions Data for Sources at Chemical Wood Pulp Mills, Volume 1, October 1995, Table 3, for Mill BPII2.
(d) NCASI Technical Bulletin No. 701, Compilation of Air Toxic and Total Hydrocarbon Emissions Data for Sources at Chemical Wood Pulp Mills, Volume 1, October 1995, Table 3, for Mill BPIF2.

Table B-5. 1997/1999 Baseline Emissions from Pulping Area (Brown Stock Washing) at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
VOC	0.18 lb C/ton ADUP	1	667,426 ton ADUP/yr	60.1
Total reduced sulfur	0.22 lb/ton ADUP	2	667,426 ton ADUP/yr	73.4

Footnotes
(a) 1997 and 1999 average pulp production:
1999 = 668,850 ton ADUP
1997 = 666,002 ton ADUP

References:
1. Based on NCASI Technical Bulletin No. 701, page 89 (Table 5).
2. Based on NCASI Technical Bulletin No. 701, page 77, 79, and 81 (Table 5).

Table B-6. 1997/1999 Baseline Emissions from Lime Slaker at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
Particulate (PM)	0.45 lb/hr	1	8,370 hr/yr	1.9
Particulate (PM10)	100 % of PM	2	--	1.9
VOC	0.044 lb /ton CaO	3	140,485 ton CaO/yr	3.1
Total reduced sulfur	ND	3	--	--

ND = Non-detectable

Footnotes

(a) 1997 and 1999 CaO production:

1999 = 143,735 tons CaO (10% impurities)

1997 = 168,454 tons CaO (10% impurities)

References

1. Compliance testing and operating hours:
   1999: 0.53 lb PM/hr and 8,348 hr/yr
   1997: 0.37 lb PM/hr and 8,392 hr/yr
2. No data found, assume 100% of PM.
3. Based on NCASI Technical Bulletin No. 701,page 237 and Table 17.

Table B-7. 1997/1999 Baseline Emissions from the Woodyard at Stone Container, Panama City

OURCE	Type of Operation (a)	M Moisture Content (%)	U Wind Speed (MPH)	Uncontrolled Emission Factor	Type of Control	Control Efficiency (%)	Controlled Emission Factor	Activity Factor	Maximum Annual PM Emissions (tons/yr)	PM10 Size Multiplier (c)	Maximum Annual PM10 Emissions (tons/yr)
ROUNDWOOD HANDLING											
Debarker	Debarking	--	--	0.024 lbs/ton (d)	Enclosure	80	0.00480 lbs/ton	1,298,492 TPY (e)	3.118	0.35	1.091
Chipper	Continuous Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	1,298,492 TPY (e)	0.084	0.35	0.029
Chip Surge Bin to Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,298,492 TPY (e)	0.017	0.35	0.0059
Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,298,492 TPY (e)	0.017	0.35	0.0059
BARK HANDLING											
Debarker to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	103,879 TPY (f)	0.0013	0.35	0.00047
Bark Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	103,879 TPY (f)	0.0013	0.35	0.00047
No. 1 Bark Diverter to Emergency Bark Storage Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	0 TPY (f)	0.0000	0.35	0.00000
Emergency Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Unhogged Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Trucked Bark to Purchased Unhogged Bark Storage Pile	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	216,722 TPY (g) (r)	0.0139	0.35	0.00488
Front End Loaded to Bark Hopper	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	216,722 TPY (g) (r)	0.0139	0.35	0.00488
Wastewood Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000028 lbs/ton	216,722 TPY (g) (r)	0.0028	0.35	0.00098
No. 1 Bark Diverter to Disc Screen	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	320,601 TPY (h)	0.0041	0.35	0.00144
Bark Hog	Hammermill	--	--	0.024 lbs/ton (d)	Enclosed	80	0.00480 lbs/ton	320,601 TPY (h)	0.769	1.0	0.769
Bark Hog to Hogged Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	320,601 TPY (h)	0.0041	0.35	0.00144
Hogged Bark Conveyor to Hogged Bark Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	320,601 TPY (h)	0.0041	0.35	0.00144
Hogged Bark Pile	Wind Erosion	--	--	--	None	0	--	--	0.0023	1.0	0.0023
Bark Bin Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone	0	2.0 lb/hr	8,485 hr/yr	8.49	0.35	2.97
Bark Bin Cyclone to Small Bark Bin and Screw	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	320,601 TPY (h)	0.0041	0.35	0.00144
Small Bark Bin and Screw to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	320,601 TPY (h)	0.0041	0.35	0.00144
Bark Conveyor to No. 2 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	320,601 TPY (h)	0.0041	0.35	0.00144
Bark Storage Pile Maintenance	Vehicular Traffic	--	--	0.74 lbs/VMT	None	0	0.74 lbs/VMT	21,900 VMT (i)	8.103	0.35	2.836
PURCHASED CHIP HANDLING											
Truck Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	578,294 TPY (j) (p)	0.015	0.35	0.0052
Railcar Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	578,294 TPY (j) (p)	0.015	0.35	0.0052
Truck Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	578,294 TPY (j)	0.007	0.35	0.0026
Railcar Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	578,294 TPY (j)	0.007	0.35	0.0026
MANUFACTURED AND PURCHASED CHIP PROCESSING											
Tower No. 1 Diverter to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,351,201 TPY (k)	0.030	0.35	0.011
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,351,201 TPY (k)	0.030	0.35	0.011
Tower No. 2 Diverter to Chip Reclaim Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,351,201 TPY (k)	0.030	0.35	0.011
Chip Reclaim Coveyor to Radial Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,351,201 TPY (k)	0.030	0.35	0.011
Radial Conveyor to Chip Reclaimer Storage Pile (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,351,201 TPY (k)	0.030	0.35	0.011
Chip Reclaimer Storage Pile (2)	Wind Erosion	--	--	--	None	0	--	--	0.048	1.0	0.048
Chip Reclaimer Storage Pile to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,351,201 TPY (k)	0.030	0.35	0.011
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,351,201 TPY (k)	0.030	0.35	0.011
Tower No. 2 Diverter to Chip Screw (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,351,201 TPY (k)	0.030	0.35	0.011
Chip Screw to Primary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,351,201 TPY (k)	0.030	0.35	0.011
Chip Screens	Screening										
Softwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone, Enclosure	80	0.40 lb/hr	8,485 hr/yr	1.697	0.35	0.594
Hardwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Enclosure	80	0.40 lb/hr	8,485 hr/yr	1.697	0.35	0.594
Primary Screen to Secondary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,351,201 TPY (k)	0.030	0.35	0.011
Secondary Screen to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	1,645,841 TPY (l)	0.021	0.35	0.007
Screen Building Rejects Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,485 hr/yr	8.485	0.35	2.970
Screen Building Rejects Cyclone to Chip Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	705,360 TPY (m)	0.018	0.35	0.006
Fines Blowline Emergency Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.00017	1.0	0.00017
Fines Blowline Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,485 hr/yr	8.485	0.35	2.97
Fines Blowline Cyclone to Wastewood/Sludge Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	47,024 TPY (n) (q)	0.001	0.35	0.000
Chip Conveyor to No. 5 Transfer Tower (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,304,177 TPY (o)	0.030	0.35	0.010
TOTAL									41.50		15.07

Notes:

(a) Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (US EPA, 1995) Section 13.2.4-3(1). E = 0.0032 x (U/5)^1.3 / (M/2)^1.4 lb/ton

(b) Wind Erosion Emissions based on AP-42 (US EPA, 1995) Section 13.2.5. Refer to Attachment A for derivation.

(c) PM10 Size Multiplier is based on particles < 10 micrometers.

(d) Debarker emissions are based on Table 28 of NCASI Technical Bulletin No. 424 (March 1984), Fugitive Dust Emission Factors and Control Methods Important to Forest Products Industry Manufacturing Operations.

(e) Average roundwood throughput is based on 2.7 tons/cord for softwood and 2.85 tons/cord hardwood.
1997: 337,335 cords/yr (softwood) and 126,410 cords/yr (hardwood)
1999 (projected): 307,576 cords/yr (softwood) and 173,844 cords/yr (hardwood)

(f) Bark throughput is based on 8 percent of roundwood.

(g) Based on purchased bark.

(h) Total bark throughput is sum of manufactured and purchased bark.

(i) Vehicle miles traveled (VMT) was calculated assuming front end loader operating 12 hrs/day, 365 days/yr in the woodyard.

(j) Purchased chip throughput is based on 2.5 tons/cord.
1997: 94,746 cords/yr (softwood) and 370,474 cords/yr (hardwood)
1999 (projected): 116,262 cords/yr (softwood) and 343,789 cords/yr (hardwood)

(k) Total chip throughput is based on 92 percent of roundwood throughput plus purchased chip throughput.

(l) Based on 70% of total chip throughput.

(m) Based on 30% of total chip throughput.

(n) Fines separated from wood chip stream.

(o) Total chips minus fines.

(p) Assume 50% of chips transported by railcar and 50% by truck.

(q) Assume 2% fines.

(r) Bark burned in Nos. 3 and 4 Bark Boilers minus bark from roundwood.

Table B-8. 1997/1999 Baseline Emissions from Chemical Recovery Area at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor	Annual Emissions (TPY)
VOC				
Black Liquor Oxidation Towers	0.34 lb C/ton ADUP	1	667,426 ton ADUP/yr (a)	113.5
Causticizers	0.044 lb C/ton CaO	4	140,485 ton CaO/yr (b)	3.1
Lime Mud Filters/Associated Equipment	0.0041 lb C/ton CaO	4	140,485 ton CaO/yr (b)	0.3
Black Liquor Tanks (2)	0.091 lb/tank/hr	2	8,760 hr/yr (d)	0.8
Black Liquor Oxidation Tank	0.1 lb/ton BLS	3	976,720 ton BLS/yr (c)	48.8
Green Liquor Clarifiers and Tanks	0.0014 lb C/ton CaO	4	140,485 ton CaO/yr (b)	0.1
			TOTAL VOC's	166.6
Total Reduced Sulfur				
Black Liquor Oxidation Towers	ND	1	--	--
Causticizers	ND	4	--	--
Lime Mud Filters/Associated Equipment	0.0005 lb /ton CaO	4	140,485 ton CaO/yr (b)	0.035
Black Liquor Tanks (2)	0.18 lb/tank/hr	2	8,760 hr/yr (d)	1.6
Black Liquor Oxidation Tank	0.0271 lb/ton BLS	3	976,720 ton BLS/yr (c)	13.2
Green Liquor Clarifiers and Tanks	7.01E-04 lb C/ton CaO	4	140,485 ton CaO/yr (b)	0.049
			TOTAL TRS	14.9

ND = Non-detectable

Footnotes

(a) 1997-1999 pulp production:
1999 = 668,850 ton ADUP
1997 = 666,002 ton ADUP

(b) 1997-1999 CaO production:
1999 = 143,735 tons CaO (10% impurities)
1997 = 168,454 tons CaO (10% Impurities)

(c) Based on 1997-1999 BLS processed:
1999: 970,509 tons burned
1997: 982,931 tons burned

(d) Two tanks operating 8,760 hr/yr.

References

1. Based on NCASI Technical Bulletin No. 646, pages 27 and 28.
2. Based on NCASI Technical Bulletin No. 701, pages 111-115 (Table 7).
3. Based on NCASI Technical Bulletin No. 701, pages 145-154 (Table 11).
4. Based on NCASI Technical Bulletin No. 701, pages 237-240 (Table 17).

Table B-9. 1997-1999 Baseline Emissions from Paper Making Area at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
VOC	0.60 lb C/ton ADUP	1	667,426 ton ADUP/yr	200.2
Total reduced sulfur	ND	1	--	--

Footnotes
(a) 1997-1999 pulp production:
1999 = 668,850 ton ADUP
1997 = 606,445 ton ADUP

References
1. Based on NCASI Technical Bulletin No. 701,page 3 and Table 18.

Table B-10. 1997/1999 Baseline Emissions from No. 1 Smelt Dissolving Tank at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
Particulate (PM)	21.01 lb/hr	1	8,530 hr/yr	89.6
Particulate (PM10)	89.5 % of PM	2	--	80.2
Sulfur dioxide	0.016 lb/ton BLS	3	491,439 tons BLS/yr	3.93
Nitrogen oxides	0.033 lb/ton BLS	3	491,439 tons BLS/yr	8.11
Carbon monoxide	--		--	--
VOC	0.062 lb/ton BLS	3	491,439 tons BLS/yr	15.2
Sulfuric acid mist	5 % of SO2	5	--	0.24
Total reduced sulfur	0.65 lb/hr	1	8,530 hr/yr	2.77
Lead	1.7E-05 lb/ton BLS	4	491,439 tons BLS/yr	4.2E-03
Mercury	1.8E-07 lb/ton BLS	4	491,439 tons BLS/yr	4.4E-05
Beryllium	1.4E-07 lb/ton BLS	4	491,439 tons BLS/yr	3.4E-05
Fluorides	--		--	--

ton = 2000 lb.
note:
(a) BLS input rate based on 1997 and1999 BLS burned in No. 1 Recovery Boiler:
1999: 487,000 tons burned
1997: 495,878 tons burned

References:
1. Based on the 1997 and 1999 compliance tests and operating data:
1999 = 22.2 lb PM/hr and 1.0 lbTRS/hr; for 8,544 hr/yr
1997 = 19.82 lb PM/hr and 0.8 lbTRS/hr; for 8,515 hr/yr
2. AP-42, Table 10.2-7.
3. Data is averages from NCASI Bulletin No. 646, Tables 16-18, for smelt dissolving tanks with scrubbers.
4. Data is averages from NCASI Bulletin No. 650, Tables 14A and 14B, for smelt dissolving tanks with scrubbers.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. Five percent (5%) of SO2 becomes SO3, then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).

Table B-11. 1997-1999 Baseline Emissions from No. 2 Smelt Dissolving Tank at Stone Container, Panama City.

Regulated Pollutant	Emission Factor	Reference	Activity Factor (a)	Annual Emissions (TPY)
Particulate (PM)	22.9 lb/hr	1	8,488 hr/yr	97.0
Particulate (PM10)	89.5 % of PM	2	--	86.8
Sulfur dioxide	0.016 lb/ton BLS	3	485,281 tons BLS/yr	3.88
Nitrogen oxides	0.033 lb/ton BLS	3	485,281 tons BLS/yr	8.01
Carbon monoxide	--		--	--
VOC	0.062 lb/ton BLS	3	485,281 tons BLS/yr	15.04
Sulfuric acid mist	5 % of SO2	5	--	0.24
Total reduced sulfur	0.76 lb/hr	1	8,488 hr/yr	3.23
Lead	1.7E-05 lb/ton BLS	4	485,281 tons BLS/yr	4.1E-03
Mercury	1.8E-07 lb/ton BLS	4	485,281 tons BLS/yr	4.4E-05
Beryllium	1.4E-07 lb/ton BLS	4	485,281 tons BLS/yr	3.4E-05
Fluorides	--		--	--

ton = 2000 lb.
note:
(a) BLS input rate based on 1997-1999 BLS burned in No. 2 Recovery Boiler:
1999: 483,509 tons burned
1997: 487,053 tons burned

References:
1. Based on the 1997 and 1999 compliance tests and operating data:
1999 = 24.4 lb PM/hr and 0.86 lb TRS/hr; for 8,526 hr/yr
1997 = 21.3 lb PM/hr and 0.9 lb TRS/hr; for 8,449 hr/yr
2. AP-42, Table 10.2-7.
3. Data is averages from NCASI Bulletin No. 646, Tables 16-18, for smelt dissolving tanks with scrubbers.
4. Data is averages from NCASI Bulletin No. 650, Tables 14A and 14B, for smelt dissolving tanks with scrubbers.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. Five precent (5%) of SO2 becomes SO3, then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

Golder Associates

September 1, 1999

9937503-0100

Florida Department of Environmental Protection
Northwest District
160 Governmental Center
Pensacola, Florida 32501-5794

Attention: Mr. Rick Bradburn

Subject: Stone Container Corp. Panama City Mill
Cluster Rule Permit Application

Dear Mr. Bradburn:

As we discussed this week, Stone Container Corporation (SCC) is proposing a change to its Cluster Rule Compliance Project, for which an application was made to the Department in June 1999. Specifically, SCC is eliminating the oxygen delignification stage being proposed for the Bleach Plant. SCC was proposing the oxygen delignification stage prior to the bleaching stages within the Bleach Plant. This change will not affect other changes being proposed for the Bleach Plant or other changes being proposed at the Panama City mill, in order to comply with the cluster rule.

The elimination of the oxygen delignification stage eliminates the estimated emissions increase due to this processing step. These emissions were presented in Table 3-5 of the application. Emission estimates for the bleaching stages, presented in Tables 3-6 and 3-7, are not affected by this change, since to be conservative they did not account for the oxygen delignification process. On this basis, Table 3-15 has been revised. This table presented the estimated net change in emissions due to the proposed cluster rule project. As shown, eliminating the oxygen delignification stage reduces total project emissions of CO, TRS, VOC, and HAPs. A revised Table 3-15 is attached.

The steam requirements for the Cluster Rule Project have also changed due to the elimination of oxygen delignification, and since the new condensate steam stripper will no longer be integrated into the multiple effect evaporator system. The current steam balance indicates a net reduction in steam usage as a result of the cluster rule project.

Please call if you have any questions concerning this information. We stand ready to do everything necessary to obtain a draft permit within the next week or so.

Sincerely,

GOLDER ASSOCIATES INC.

David A. Buff

David A. Buff, P.E.
Principal Engineer
Florida P.E. # 19011
SEAL

DB/jkk
Enclosure
cc: Bruce Mitchell, FDEP Tallahassee
David Riley
Charlie Ackel
Bill Heatley

Table 3-15. Summary of PSD Analysis, MACT I Compliance Project, Stone Container Corporation, Panama City (revised 9/2/99)

Source Description	Pollutant Emission Rate (TPY)							
	SO2	NOx	CO	PM	TRS	VOC	HAP	Sulfuric Acid Mist
FUTURE FACILITY WITH 3-YR MACT I MODIFICATIONS								
I. Bleach Plant								
A. ClO2 Substitution			135.6		7.45	37.23	70.1	
B. Methanol Storage Tank						1.26	1.26	
Sub-total Bleach System:	0.00	0.00	135.60	0.00	7.45	38.49	71.36	0.00
II. Lime Kiln (a)								
A. Turpentine Storage Tank	0.016				0.000023	0.0026	0.0032	
B. New Foul Condensate Tank	0.016				0.000023	0.0026	0.0032	
Sub-total LVHC System:	0.032	0.00	0.00	0.00	0.000046	0.0052	0.0064	0.00
III. Condensate Stripper/Thermal Oxidizer	100.89	13.11	1.92	0.36	0.53	3.70	5.0	4.94
IV. Brown Stock Washing System	0.00	0.00	0.00	0.00	48.25	41.54	180.0	0.00
Grand Total Proposed Modifications	100.92	13.11	137.52	0.36	56.23	83.74	256.37	4.94
EXISTING FACILITY								
I. Bleach Plant								
A. ClO2 Substitution			119.98		4.75	73.55	61.44	
B. Methanol Storage Tank						0.85	0.85	
Sub-total Bleach System:	0.00	0.00	119.98	0.00	4.75	74.40	62.29	0.00
II. LVHC System								
A. No. 4 Power Boiler	238.79	0.00	0.00	0.00	0.53	0.00	0.00	12.0
III. Pulping Area General								
A. Turpentine Storage Tank	0.00	0.00	0.00	0.00	0.23	2.58	3.23	0.00
IV. Brown Stock Washing System	0.00	0.00	0.00	0.00	66.51	57.26	242.98	0.00
Grand Total Existing Facility	238.79	0.00	119.98	0.00	72.02	134.24	308.50	12.0
ESTIMATED PROJECT CHANGE	-138	13	18	0.4	-16	-51	-52	-7

(a) Represents increase in lime kiln emissions assuming TRS, HAP and VOC destruction efficiency of 99.9%.

Department of Environmental Protection

Jeb Bush
Governor

Northwest District
160 Governmental Center
Pensacola, Florida 32501-5794

David B. Struhs
Secretary

August 17, 1999

Jack B. Prescott, General Manager
Stone Container Corporation
One Everitt Ave
Panama City FL 32402

Dear Mr. Prescott:

This is to acknowledge receipt of your application, file number 0050009-005-AC, for a construction permit to increase the pulp production at the Panama City Mill. This letter constitutes notice that a permit will be required for your project pursuant to Chapter 403, Florida Statutes.

Your application is incomplete and evaluation of your proposed project will be delayed until the following information has been received.

- The application submitted does not provide the necessary information to the Department in determining PSD applicability pursuant to Rule 62-212.400, F.A.C., due to the requested relaxation of the PSD production rate/capacity of 668,850 TPY of ADUP from the digester system to 781,000 TPY ADUP. Since the limit in the production rate/capacity was developed in an air construction permit, the relaxation of this limit is considered a modification. Therefore, for the affected emissions units, please provide all reference material (i.e., test results), any assumptions, and the calculations for the current actual pollutant emissions (within the last five years in TPY) and the future allowable/potential pollutant emissions.

- In the air quality analysis, an unapproved EPA model was used. Please resubmit the analysis using an approved EPA model. This comment was forwarded by Bruce Mitchell at the Division of Air Resources Management in Tallahassee (850/488-1344). If you want information regarding appropriate models, please contact him or the EPA modelling section.

When referring to this project, please use the file number indicated above. If you have any questions, please contact Rick Bradburn at (850) 595-8364, extension 1233.

Sincerely,

Ed K. Middleswart

Ed K. Middleswart, P.E.
Air Program Administrator

EKM:rbc
cc: David A. Buff, P.E., Golder & Associates
Bruce Mitchell, DEP Division of Air Resources Management, Tallahassee

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

Golder Associates

TRANSMITTAL LETTER

To:
Mr. Bruce Mitchell
FDEP - Tallahassee

Date: 7/29/99
Project No.: 9937518-0100

Sent by:

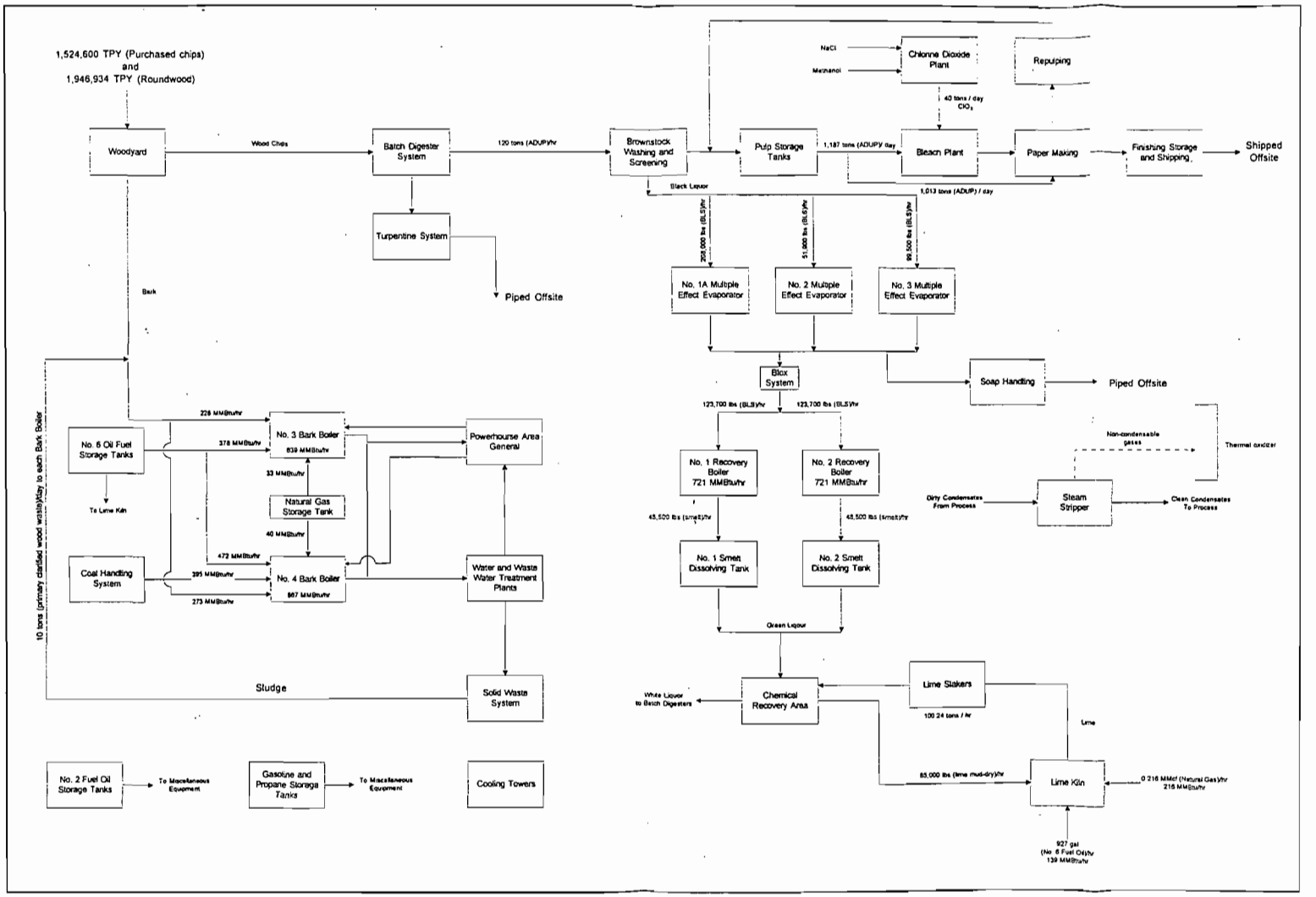
- ☐ Mail
- ☐ Air Freight
- ☐ Hand Carried
- ☐ UPS
- ☒ Federal Express

Per:

Quantity	Item	Description
1	Stone Container Corp. - Permit Application for Pulp Production Capacity Revision	GBC bound

Remarks:

Please find attached, a copy as requested by Rick Blackburn, FDEP/Pensacola.



Stone Container Corporation		Emission Unit:	Overall Plant	
		Process Area:	Overall Plant	
SCC-FI-E3	Panama City, FL	Filename:	SCC-FAC2.VSD	
		Latest Revision Date:	7/21/99	10:36 AM

Golder Associates

PERMIT APPLICATION FOR
PULP PRODUCTION CAPACITY REVISION
STONE CONTAINER CORPORATION
PANAMA CITY, FLORIDA

Prepared for:

Stone Container Corporation

One Everitt Avenue

Panama City, Florida 32402

Prepared by:

Golder Associates Inc.

6241 NW 23rd Street, Suite 500

Gainesville, Florida 32653

July 1999

9937518

DISTRIBUTION:

7 Copies - Stone Container Corporation

2 Copies - Golder Associates

Department of
Environmental Protection

DIVISION OF AIR RESOURCES MANAGEMENT

APPLICATION FOR AIR PERMIT - LONG FORM

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

This section of the Application for Air Permit form identifies the facility and provides general information on the scope and purpose of this application. This section also includes information on the owner or authorized representative of the facility (or the responsible official in the case of a Title V source) and the necessary statements for the applicant and professional engineer, where required, to sign and date for formal submittal of the Application for Air Permit to the Department. If the application form is submitted to the Department using ELSA, this section of the Application for Air Permit must also be submitted in hard-copy.

Identification of Facility Addressed in This Application

Enter the name of the corporation, business, governmental entity, or individual that has ownership or control of the facility; the facility site name, if any; and the facility's physical location. If known, also enter the facility identification number.

1. Facility Owner/Company Name: **Stone Container Corporation**	
2. Site Name: **Panama City Mill**	
3. Facility Identification Number: **0050009**	[ ] Unknown
4. Facility Location Information: Street Address or Other Locator: **One Everitt Avenue** City: **Panama City** County: **Bay** Zip Code: **32402**	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [X] Yes [ ] No

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	
2. Permit Number:	
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:

Jack B. Prescott, General Manager

2. Owner/Authorized Representative or Responsible Official Mailing Address:

Organization/Firm: **Stone Container Corporation**
Street Address: **One Everitt Avenue**
City: **Panama City** State: **FL** Zip Code: **32402**

3. Owner/Authorized Representative or Responsible Official Telephone Numbers:

Telephone: **(850) 785-4311** Fax: **(850) 763-6290**

4. Owner/Authorized Representative or Responsible Official Statement:

I, the undersigned, am the owner or authorized representative of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.*

Signature Date

* Attach letter of authorization if not currently on file.

Scope of Application

This Application for Air Permit addresses the following emissions unit(s) at the facility. An Emissions Unit Information Section (a Section III of the form) must be included for each emissions unit listed.

Emissions Unit ID		Description of Emissions Unit	Permit Type
Unit #	Unit ID		
1		Pulping Area General	AC1A
2R		Pulping System - MACT I	AC1A
3R		Condensate Stripper/Thermal Oxidizer	AC1A
4R	005	Lime Slaker	AC1A
5R		Methanol Storage Tank	AC1A
6		Chemical Recovery Area	AC1A
7		Paper Making/Warehousing	AC1A

See individual Emissions Unit (EU) sections for more detailed descriptions.
Multiple EU IDs indicated with an asterisk (*). Regulated EU indicated with an "R".

Purpose of Application and Category

Check one (except as otherwise indicated):

Category I: All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This Application for Air Permit is submitted to obtain:

[ ] Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

[ ] Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number: _____

[ ] Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed: _____

[ ] Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: _____

Operation permit to be renewed: _____

[ ] Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. Also check Category III.

Operation permit to be revised/corrected: _____

_____

[ ] Air operation permit revision for a Title V source for reasons other than construction or modification of an emissions unit. Give reason for the revision e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit to be revised: _____

Reason for revision: _____

_____

Category II: All Air Construction Permit Applications Subject to Processing Under Rule 62-210.300(2)(b),F.A.C.

This Application for Air Permit is submitted to obtain:

[ ] Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s): _____

_____

[ ] Renewal air operation permit under Rule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed: _____

[ ] Air operation permit revision for a synthetic non-Title V source. Give reason for revision; e.g.; to address one or more newly constructed or modified emissions units.

Operation permit to be revised: _____

Reason for revision: _____

_____

Category III: All Air Construction Permit Applications for All Facilities and Emissions Units.

This Application for Air Permit is submitted to obtain:

[X] Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any: _____

See Attachment A

[ ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

Current operation permit number(s): _____

_____

[ ] Air construction permit for one or more existing, but unpermitted, emissions units.

Application Processing Fee

Check one:

[X] Attached - Amount: $ **$ 250.00** [ ] Not Applicable.

Construction/Modification Information

1. Description of Proposed Project or Alterations:

This application is for a revision of the maximum pulp production capacity of the mill for PSD purposes from 668,850 TPY ADUP to 781,000 TPY ADUP.

2. Projected or Actual Date of Commencement of Construction :

1 Sep 1999

3. Projected Date of Completion of Construction :

1 Sep 1999

Professional Engineer Certification

1. Professional Engineer Name: **David A. Buff**
   Registration Number: **19011**

2. Professional Engineer Mailing Address:
   Organization/Firm: **Golder Associates, Inc.**
   Street Address: **6241 NW 23rd Street, Suite 500**
   City: **Gainesville** State: **FL** Zip Code: **32653-1500**

3. Professional Engineer Telephone Numbers:
   Telephone: **(352) 336-5600** Fax: **(352) 336-6603**

4. Professional Engineer's Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [ ] if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X] if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

David A. Buff — Signature (seal)

7/21/99 — Date

* Attach any exception to certification statement.

Application Contact

1. Name and Title of Application Contact:
   L. David Riley, Jr., Environmental Superintendent

2. Application Contact Mailing Address:

   Organization/Firm: **Stone Container Corporation**
   Street Address: **One Everitt Avenue**
   City: **Panama City** State: **FL** Zip Code: **32402**

3. Application Contact Telephone Numbers:

   Telephone: **(850) 785-4311** Fax: **(850) 785-4311**

Application Comment

Telephone Ext. = 257; Fax Ext. = 259.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates:
   Zone: **16** East (km): **632.8** North (km): **3335.1**

2. Facility Latitude/Longitude:
   Latitude (DD/MM/SS): **30 / 8 / 30** Longitude: (DD/MM/SS): **85 / 37 / 25**

3. Governmental Facility Code:	4. Facility Status Code:	5. Facility Major Group SIC Code:	6. Facility SIC(s):
0	**A**	**26**	**2611, 2621**

7. Facility Comment (limit to 500 characters):
   This facility is in the kraft paper and bleached paper grade subcategories of pulp and paper industry.

Facility Contact

1. Name and Title of Facility Contact:
   L. David Riley, Environmental Superintendent

2. Facility Contact Mailing Address:
   Organization/Firm: **Stone Container Corporation**
   Street Address: **One Everitt Avenue**
   City: **Panama City** State: **FL** Zip Code: **32402**

3. Facility Contact Telephone Numbers:
   Telephone: **(850) 785-4311** Fax: **(850) 763-6290**

Facility Regulatory Classifications

1. Small Business Stationary Source? [ ] Yes [x] No [ ] Unknown
2. Title V Source? [x] Yes [ ] No
3. Synthetic Non-Title V Source? [ ] Yes, [x] No
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)? [x] Yes [ ] No
5. Synthetic Minor Source of Pollutants Other than HAPs? [ ] Yes [x] No
6. Major Source of Hazardous Air Pollutants (HAPs)? [x] Yes [ ] No
7. Synthetic Minor Source of HAPs? [ ] Yes [x] No
8. One or More Emissions Units Subject to NSPS? [x] Yes [ ] No
9. One or More Emissions Units Subject to NESHAP? [x] Yes [ ] No
10. Title V Source by EPA Designation? [ ] Yes [x] No
11. Facility Regulatory Classifications Comment (limit to 200 characters):

B. FACILITY REGULATIONS

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

Not Applicable

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

62-210.700(1) - Excess Emissions
62-210.700(4) - Excess Emissions
62-210.700(5) - Excess Emissions
62-210.700(6) - Excess Emissions
62-296.320(4)(b) - General VE limit
62-296.404(2)(b) - VE Wet Scrubber Exception
See Attachment SCC-FI-B, Title V Core List, Effective 3/25/97

ATTACHMENT SCC-FI-B

TITLE V CORE LIST

Title V Core List

Effective:03/25/97

[Note: The Title V Core List is intended to simplify the completion of the "List of Applicable Regulations" that apply facility-wide (see Subsection II.B. of DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.

Requirements that apply to emissions units must be identified in Subsection III.B. of DEP Form No. 62-210.900(1), Application for Air Permit - Long Form.

Applicants must identify all "applicable requirements" in order to claim the "permit shield" described at Rule 62-213.460, F.A.C.]

Federal: ***(description)***

~~40 CFR 61: National Emission Standards for Hazardous Air Pollutants (NESHAP)~~
40 CFR 61, Subpart M: NESHAP for Asbestos.
40 CFR 64; Compliance Assurance Monitoring
~~40 CFR 82: Protection of Stratospheric Ozone.~~
~~40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC).~~
40 CFR 82, Subpart F: Recycling and Emissions Reduction.

State: ***(description)***

CHAPTER 62-4, F.A.C.: PERMITS, effective 10-16-95

62-4.030, F.A.C.: General Prohibition.
62-4.040, F.A.C.: Exemptions.
62-4.050, F.A.C.: Procedure to Obtain Permits; Application
62-4.060, F.A.C.: Consultation.
62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial.
62-4.080, F.A.C.: Modification of Permit Conditions.
62-4.090, F.A.C.: Renewals.
62-4.100, F.A.C.: Suspension and Revocation.
62-4.110, F.A.C.: Financial Responsibility.
62-4.120, F.A.C.: Transfer of Permits.
62-4.130, F.A.C.: Plant Operation - Problems.
62-4.150, F.A.C.: Review
62-4.160, F.A.C.: Permit Conditions.
62-4.210, F.A.C.: Construction Permits.
62-4.220, F.A.C.: Operation Permit for New Sources.

CHAPTER 62-103, F.A.C.: RULES OF ADMINISTRATIVE PROCEDURE, effective 12-31-95

62-103.150, F.A.C.: Public Notice of Application and Proposed Agency Action.
62-103.155, F.A.C.: Petition for Administrative Hearing; Waiver of Right to Administrative Proceeding

CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS,

effective 03-21-96

62-210.300, F.A.C.: Permits Required.
62-210.300(1), F.A.C.: Air Construction Permits.
62-210.300(2), F.A.C.: Air Operation Permits.
62-210.300(3), F.A.C.: Exemptions.
62-210.300(3)(a), F.A.C.: Full Exemptions.
62-210.300(3)(b), F.A.C.: Temporary Exemption.

62-210.300(5), F.A.C.: Notification of Startup.
62-210.300(6), F.A.C.: Emissions Unit Reclassification.

62-210.350, F.A.C.: Public Notice and Comment.
62-210.350(3), F.A.C.: Additional Public Notice Requirements for Sources Subject to Operation Permits for Title V Sources.

62-210.360, F.A.C.: Administrative Permit Corrections.

62-210.370(3), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility.

62-210.650, F.A.C.: Circumvention.

62-210.900, F.A.C.: Forms and Instructions.
62-210.900(1) Application for Air Permit - Long Form, Form and Instructions.
62-210.900(5) Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions.

CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective 03-20-96

62-213.205, F.A.C.: Annual Emissions Fee.
62-213.400, F.A.C.: Permits and Permit Revisions Required.
62-213.410, F.A.C.: Changes Without Permit Revision.
62-213.412, F.A.C.: Immediate Implementation Pending Revision Process.
62-213.420, F.A.C.: Permit Applications.
62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision.
62-213.440, F.A.C.: Permit Content.
62-213.460, F.A.C.: Permit Shield.

62-213.900, F.A.C.: Forms and Instructions.
62-213.900(1) Major Air Pollution Source Annual Emissions Fee Form, Form and Instructions.

~~**CHAPTER 62-256, F.A.C.: OPEN BURNING AND FROST PROTECTION FIRES,** effective~~

~~11-30-94~~

CHAPTER 62-257, F.A.C: ASBESTOS NOTIFICATION AND FEE, effective 03/24/96

CHAPTER 62-281, F.A.C: MOTOR VEHICLE AIR CONDITIONING REFRIGERANT RECOVERY AND RECYCLING, effective 03-07-96

CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 03-13-96

62-296.320(2), F.A.C.: Objectionable Odor Prohibited.
62-296.320(3), F.A.C.: Industrial, Commercial, and Municipal Open Burning Prohibited
62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter

9937503Y/F1/WP/core.lst

C. FACILITY POLLUTANTS

Facility Pollutant Information

1. Pollutant Emitted		2. Pollutant Classification
PM	Particulate Matter - Total	A
PM10	Particulate Matter - PM10	A
SO2	Sulfur Dioxide	A
NOx	Nitrogen Oxides	A
CO	Carbon Monoxide	A
VOC	Volatile Organic Compounds	A
TRS	Total Reduced Sulfur	A
SAM	Sulfuric Acid Mist	A
H038	Chlorine	A
HAPS	Total Hazardous Air Pollutants	A
H001	Acetaldehyde	A
H043	Chloroform	A
H118	Methyl chloride [Chloromethane]	A
H106	Hydrochloric acid	A
H115	Methanol	A

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Detail Information:

1. Pollutant Emitted:		
2. Requested Emissions Cap:	(lb/hr)	(tons/yr)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters):		

Facility Pollutant Detail Information:

1. Pollutant Emitted:		
2. Requested Emissions Cap:	(lb/hr)	(tons/yr)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters):		

E. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements for All Applications

1. Area Map Showing Facility Location:
   [X] Attached, Document ID: SCC-FI-E1
   [ ] Not Applicable [ ] Waiver Requested

2. Facility Plot Plan:
   [X] Attached, Document ID: SCC-FI-E2
   [ ] Not Applicable [ ] Waiver Requested

3. Process Flow Diagram(s):
   [X] Attached, Document ID(s): SCC-FI-E3
   [ ] Not Applicable [ ] Waiver Requested

4. Precautions to Prevent Emissions of Unconfined Particulate Matter:
   [ ] Attached, Document ID: _____
   [X] Not Applicable [ ] Waiver Requested

5. Fugitive Emissions Identification:
   [ ] Attached, Document ID: _____
   [X] Not Applicable [ ] Waiver Requested

6. Supplemental Information for Construction Permit Application:
   [X] Attached, Document ID: Attachment A
   [ ] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities:
   [ ] Attached, Document ID: _____
   [ ] Not Applicable

8. List of Equipment/Activities Regulated under Title VI:
   [ ] Attached, Document ID: _____
   [ ] Equipment/Activities On site but Not Required to be Individually Listed
   [ ] Not Applicable

9. Alternative Methods of Operation:
   [ ] Attached, Document ID: _____
   [ ] Not Applicable

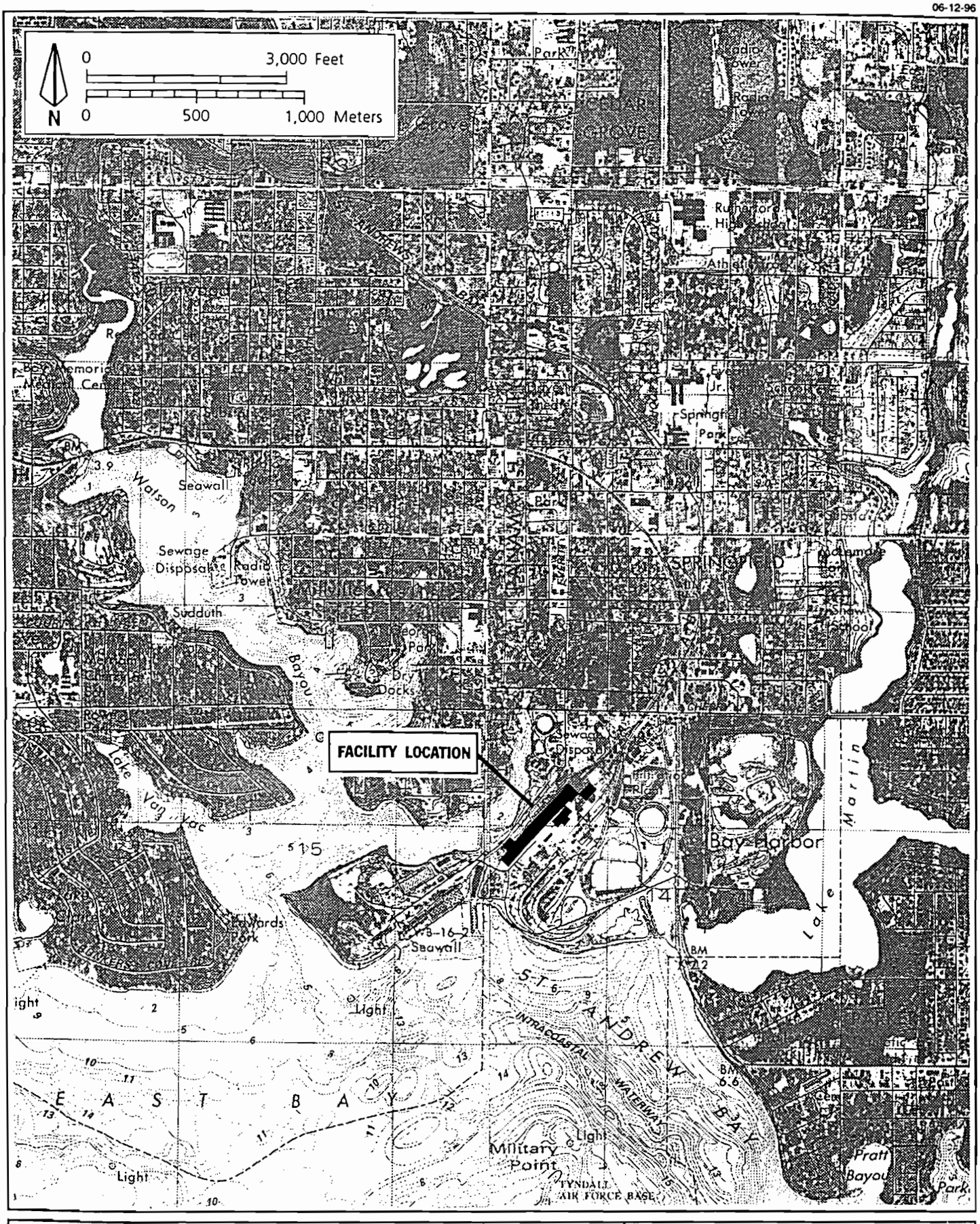
10. Alternative Modes of Operation (Emissions Trading):
    [ ] Attached, Document ID: _____
    [ ] Not Applicable

11. Identification of Additional Applicable Requirements: [ ] Attached, Document ID: _____ [ ] Not Applicable
12. Compliance Assurance Monitoring Plan: [ ] Attached, Document ID: _____ [ ] Not Applicable
13. Risk Management Plan Verification: [ ] Plan Submitted to Implementing Agency - Verification Attached Document ID: _____ [ ] Plan to be Submitted to Implementing Agency by Required Date [ ] Not Applicable
14. Compliance Report and Plan [ ] Attached, Document ID: _____ [ ] Not Applicable
15. Compliance Statement (Hard-copy Required) [ ] Attached, Document ID: _____ [ ] Not Applicable

ATTACHMENT SCC-FI-E1

AREA MAP

06-12-96

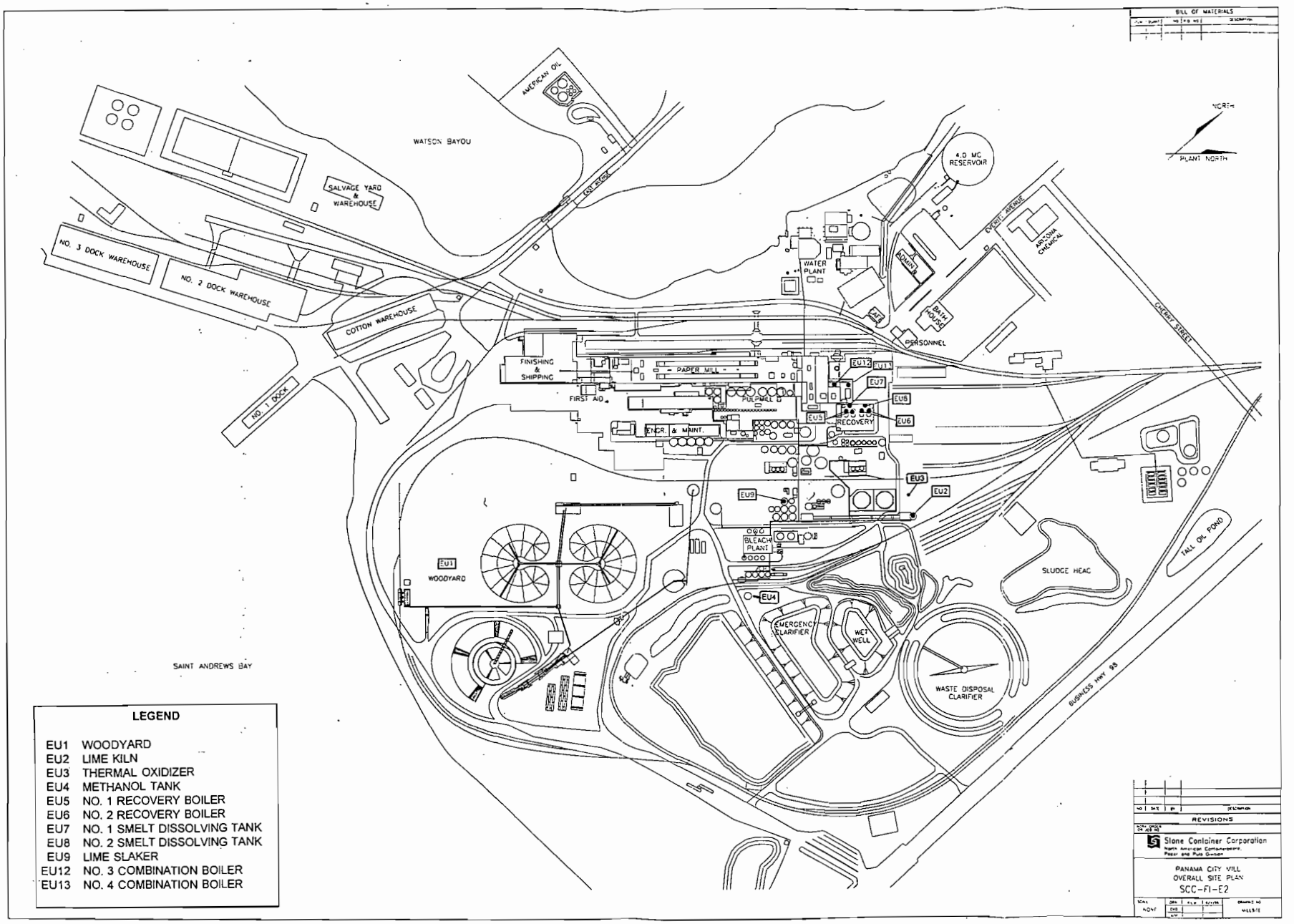


Attachment SCC-FI-E1
Area Map
Stone Container Corporation
Panama City Mill

Golder Associates

ATTACHMENT SCC-FI-E2

FACILITY PLOT PLAN



LEGEND

EU1	WOODYARD
EU2	LIME KILN
EU3	THERMAL OXIDIZER
EU4	METHANOL TANK
EU5	NO. 1 RECOVERY BOILER
EU6	NO. 2 RECOVERY BOILER
EU7	NO. 1 SMELT DISSOLVING TANK
EU8	NO. 2 SMELT DISSOLVING TANK
EU9	LIME SLAKER
EU12	NO. 3 COMBINATION BOILER
EU13	NO. 4 COMBINATION BOILER

BILL OF MATERIALS

REVISIONS

Stone Container Corporation

PANAMA CITY MILL
OVERALL SITE PLAN
SCC-FI-E2

ATTACHMENT SCC-FI-E3

PROCESS FLOW DIAGRAM

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one:

[ ] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[X] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

[ ] This Emissions Unit information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Pulping Area General**		
2. Emissions Unit Identification Number: [X] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code: **A**	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: **26**
6. Emissions Unit Comment (limit to 500 characters): **See Attachment SCC-EU1-B6**		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Pulp and Paper and Wood Products, Sulfate (Kraft) Pulping Washer/Screens**
2. Source Classification Code (SCC): **3-07-001-02**
3. SCC Units: **Tons Air-Dried Unbleached Pulp Produced**

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
120	**781,000**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	

10. Segment Comment (limit to 200 characters): **Based on proposed maximum permitted batch digester rates.**

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):	
2. Source Classification Code (SCC):	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
VOC			NS
HAPS			NS
H001			NS
H115			NS
TRS			NS

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [ ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [X] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:			
	PM	[ ] C	[ ] E	[X] Unknown
	SO_2	[ ] C	[ ] E	[ ] Unknown
	NO_2	[ ] C	[ ] E	[ ] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO_2	lb/hour		tons/year
	NO_2			tons/year
5.	PSD Comment (limit to 200 characters):			
	This emission unit is not expected to emit SO2 or NO2.			

ATTACHMENT SCC-EU1-B6

EMISSION UNIT COMMENT

ATTACHMENT SCC-EU1-B6
EMISSION UNIT COMMENT

Pulping Area General
Digesting Area:
- Uncapping digesters
- Chip and liquor loading systems
- Chemical additive tanks
- Liquor tanks
- Drains

Brownstock Washing:
- Brownstock washlines with associated filtrate tanks, foam tanks, and hydraulic systems
- Reject Tanks
- Chemical additive tanks

Brownstock Screening:
- Brownstock screening systems with associated tanks
- White water tanks
- Deckers
- Brownstock storage chests
- Washed stock storage chests
- Chemical additive tanks

Pulp Storage Tanks:
- Unbleached low density pulp storage tanks
- Unbleached high density pulp storage tanks
- Bleached low density pulp storage tanks
- Bleached high density pulp storage tanks

Building ventilation

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one:

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

[X] This Emissions Unit information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Pulping System - MACT I**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code: **C**	4. Acid Rain Unit? [ ] Yes [**X**] No	5. Emissions Unit Major Group SIC Code: **26**
6. Emissions Unit Comment (limit to 500 characters): **See Attachment SCC-EU2-B6**		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):

Process Enclosed

2. Control Device or Method Code: **54**

B.

1. Description (limit to 200 characters):

Direct Flame Afterburner - TRS/HAP/VOC destruction in the Lime Kiln or Thermal Oxidizer.

2. Control Device or Method Code: **21**

C.

1. Description (limit to 200 characters):

2. Control Device or Method Code:

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Details

1. Initial Startup Date:	
2. Long-term Reserve Shutdown Date:	
3. Package Unit: Manufacturer:	Model Number:
4. Generator Nameplate Rating:	MW
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:	 °F seconds °F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:			mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr		tons/day
3. Maximum Process or Throughput Rate:			
4. Maximum Production Rate:	120	TPH ADUP	
5. Operating Capacity Comment (limit to 200 characters): **NCGs from the Pulping System - MACT I sources are combusted in the lime kiln or thermal oxidizer. Max annual production = 781,000 TPY ADUP.**			

Emissions Unit Operating Schedule

1. Requested Maximum Operating Schedule:			
	24 hours/day	7	days/week
	52 weeks/yr	8,760	hours/yr

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

62-296.404(3)(a)1. Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(3)(a)3. Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(6)(a) Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(6)(b) Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(6)(c)3. Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(6)(c)4. Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(6)(d) Kraft (Sulfate) Pulp Mills and Tall Oil Plants
63.443(a)(1)(i) MACT Standards - LVHC system
63.443(c) MACT Standards - Closed Vent Systems
63.443(d)(3) MACT Standards - HAP Reduction in Thermal Oxidizer
63.443(d)(4) MACT Standards - HAP Reduction in Lime Kiln
63.443(e) MACT Standards - Excess Emissions
63.443(m) MACT Standards - Monitoring
63.446(b) MACT Standards - Pulping Process Condensates
63.446(c) MACT Standards - Pulping Process Condensates
63.446(d) MACT Standards - Pulping Process Condensates
63.446(e)(5) MACT Standards - Pulping Process Condensates
63.446(h) MACT Standards - Pulping Process Condensates
63.450 MACT Standards - Closed Vent Systems
63.453(b) MACT Standards - Monitoring-Thermal Oxidizers
63.453(i) MACT Standards - Monitoring Condensates
63.453(k) MACT Standards - Monitoring-Closed Vent Systems
63.453(l) MACT Standards - Monitoring-Condensate Closed Collection
63.453(m) MACT Standards - CMS for Alternatives
63.453(n) MACT Standards - Monitoring-Parameter Monitoring
63.453(o) MACT Standards - Operating Parameter Ranges
63.454 MACT Standards - Recordkeeping
63.454(a) MACT Standards - Recordkeeping
63.454(b) MACT Standards - Inspection Plan
63.455 MACT Standards - Reporting
63.455(a) MACT Standards - Reporting
63.457 - Test Methods and Procedures
63.962 MACT Standards - Subpart RR - Individual Drains
63.964 MACT Standards - Subpart RR - Individual Drains
See Attachment SCC-EU2-D

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **EU3**	
2. Emission Point Type Code: [ ] 1 [x] 2 [ ] 3 [ ] 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **This Emissions Unit vents to both the Lime Kiln and the Condensate Stripper/Thermal Oxidizer.**	
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [x] V [ ] W	
6. Stack Height:	**61** feet
7. Exit Diameter:	**8** feet
8. Exit Temperature:	**167** °F

9. Actual Volumetric Flow Rate:	**117,112** acfm
10. Percent Water Vapor:	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates: Zone: East (km): North (km):	
14. Emission Point Comment (limit to 200 characters): **Stack Height = 60.5 ft (rounded to 61 ft). Stack parameters presented are for the lime kiln stack. Emissions may also be exhausted through the thermal oxidizer stack as a backup to the Kiln.**	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Pulp and Paper and Wood Products, Sulfate (Kraft) Pulping, Digester Relief and Blow Tank: General**
2. Source Classification Code (SCC): **3-07-001-01**
3. SCC Units: **Tons Air-Dried Unbleached Pulp Produced**

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
120	**781,000**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	

10. Segment Comment (limit to 200 characters): **Max annual rate based on proposed permit limit.**

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Pulp and Paper and Wood Products, Sulfate (Kraft) Pulping, Multiple Effect Evaporator: General**
2. Source Classification Code (SCC): **3-07-001-03**
3. SCC Units: **Tons Air-Dried Unbleached Pulp Produced**

4. Maximum Hourly Rate: **112.3**	5. Maximum Annual Rate: **983,858**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	

10. Segment Comment (limit to 200 characters): **See Attachment SCC-EU2-F10**

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
TRS	054	021	EL
HAPS	054	021	WP

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **TRS**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **0** lb/hour **0** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [**X**] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: Reference:
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See comment**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **TRS emissions from Pulping System-MACT I sources arecombusted in the Lime Kiln or the proposed Thermal Oxidizer. These emissions are accounted for in other emission units(Condensate Stripper/Thermal Oxidizer & Lime Kiln).**

Emissions Unit Information Section 2 **of** 7

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **RULE**		
2. Future Effective Date of Allowable Emissions: **15 Apr 2001**		
3. Requested Allowable Emissions and Units: **See Comment**		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters): **Thermal Oxidizer operating parameters.**		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Combustion in lime kiln or thermal oxidizer per 40 CFR 63.443(d)(3) and (4).**		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **HAPS**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **0** lb/hour **0** tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: [X] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: Reference:
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See comment**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **HAP emissions from Pulping System-MACT I sources are combusted in the Lime Kiln or the proposed Thermal Oxidizer. These emissions are accounted for in other emission units(Steam Stripper & Lime Kiln)**

Emissions Unit Information Section 2 of 7

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **RULE**		
2. Future Effective Date of Allowable Emissions: **15 Apr 2001**		
3. Requested Allowable Emissions and Units: **See Comment**		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters): **Thermal Oxidizer operating parameters.**		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Combustion in lime kiln or thermal oxidizer per 40 CFR 63.443(d)(3) and (4).**		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation _____ of _____

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: [ ] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

Visible Emissions Limitations: Visible Emissions Limitation _____ of _____

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: [ ] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 1 of 1

1. Parameter Code: TEMP	2. Pollutant(s):
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): **For Thermal Oxidizer: Temperature of the firebox or the duct work immediately following the firebox as specified in 63.453(b).**	

Continuous Monitoring System Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [ ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:			
	PM	[ ] C	[ ] E	[ ] Unknown
	SO_2	[ ] C	[ ] E	[ ] Unknown
	NO_2	[ ] C	[ ] E	[ ] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO_2	lb/hour		tons/year
	NO_2			tons/year
5.	PSD Comment (limit to 200 characters):			
	All emissions vented through Lime Kiln or Thermal Oxidizer.			

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements for All Applications

1.	Process Flow Diagram	
	[X] Attached, Document ID: SCC-EU2-L1	
	[ ] Not Applicable	[ ] Waiver Requested
2.	Fuel Analysis or Specification	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
3.	Detailed Description of Control Equipment	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
4.	Description of Stack Sampling Facilities	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
5.	Compliance Test Report	
	[ ] Attached, Document ID: _____	[X] Not Applicable
	[ ] Previously Submitted, Date: _____	
6.	Procedures for Startup and Shutdown	
	[ ] Attached, Document ID: _____	[X] Not Applicable
7.	Operation and Maintenance Plan	
	[ ] Attached, Document ID: _____	[X] Not Applicable
8.	Supplemental Information for Construction Permit Application	
	[X] Attached, Document ID: Attachment A	[ ] Not Applicable
9.	Other Information Required by Rule or Statute	
	[ ] Attached, Document ID: _____	[X] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10.	Alternative Methods of Operation [ ] Attached, Document ID: _____ [ ] Not Applicable
11.	Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: _____ [ ] Not Applicable
12.	Identification of Additional Applicable Requirements [ ] Attached, Document ID: _____ [ ] Not Applicable
13.	Compliance Assurance Monitoring Plan [ ] Attached, Document ID: _____ [ ] Not Applicable
14.	Acid Rain Permit Application (Hard Copy Required) [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ [ ] Not Applicable

ATTACHMENT SCC-E2-B6

EMISSION UNIT COMMENT

ATTACHMENT SCC-EU2-B6
EMISSIONS UNIT COMMENT

This emissions unit consists of the Batch Digester System (ARMS No. 027) and the Nos. 1A, 2, and 3 MEE systems (ARMS No. 026). These are vented to the Lime Kiln (ARMS No. 004) for incineration. The batch digester system consists of 22 batch digesters, 5 blow tanks, primary and secondary condensers, an accumulator tank, and a turpentine recovery system (decanter, condenser, and storage tank). Nos. 1A, 2, and 3 MEE systems include three four-stage MEEs and the associated condensers, Nos. 1A, 2, 3 hot wells, and concentrators. A new foul condensate tank will be added.

All of these sources will be collected in the low volume high concentration (LVHC) noncondensable gas (NCG) collection system and sent to the lime kiln (ARMS No. 004) as the primary destruction device, or the thermal oxidizer as the backup destruction device.

ATTACHMENT SCC-EU2-C5

OPERATING CAPACITY COMMENT

ATTACHMENT SCC-EU2-C5
OPERATING CAPACITY COMMENT

MAXIMUM PROCESS/THROUGHPUT RATE

Total MEE System: 359,400 lbs (BLS)/hr*

No. 1A MEE System: 208,000 lbs (BLS)/hr*

No. 2 MEE System: 51,900 lbs (BLS)/hr*

No. 3 MEE System: 99,500 lbs (BLS)/hr*

MAXIMUM PRODUCTION RATE

Batch Digester System:

120 tons (ADUP)/hr and 781,000 tons (ADUP)/yr

* Maximum Rates for PSD, NSPS, and testing purposes.

ATTACHMENT SCC-EU2-D

LIST OF APPLICABLE REGULATIONS

Specific Emissions Unit Name (ID): Batch Digesting Process Area-Permitted (NS (Digester))
Facility Name(ID): Stone Container Corporation (10-PCY-03-0009)

Rule Number	PA/A	Rule Title/Summary	Applicability Comment
40CFR60.11(a) 62-296	A	Compliance with standards and maintenance requirements.: Compliance with standards in this part, other than opacity standards, shall be	
40CFR60.11(d) 62-296	A	Compliance with standards and maintenance requirements.: At all times, including periods of startup, shutdown, and malfunction, owners	
40CFR60.11(f) 62-296	A	Compliance with standards and maintenance requirements.: Special provisions set forth under an applicable subpart of this part shall	
40CFR60.12 62-296	A	Circumvention.: No owner or operator subject to the provisions of this part shall	
40CFR60.13(a) 62-296	A	Monitoring requirements.: For the purposes of this section, all continuous monitoring systems required	
40CFR60.13(b) 62-296	A	Monitoring requirements.: All continuous monitoring systems and monitoring devices shall be installed and	
40CFR60.13(f) 62-296	A	Monitoring requirements.: All CMS or monitoring devices shall be installed such that representative	
40CFR60.19 62-296	A		

Specific Emissions Unit Name (ID): Batch Digesting Process Area-Permitted (NS (Digester)) Page: 2
Facility Name(ID): Stone Container Corporation (10-PCY-03-0009) Date: 06/11/1996

Rule Number	PA/A	Rule Title/Summary	Applicability Comment
40CFR60.283(a)(1)(iii) 62-296 Applicability Date: 9/24/76	A	Standard for total reduced sulfur (TRS).: Combustion in an incinerator or other device, or combusted in a lime kiln or recovery furnace not subject to the provisions of this subpart, and are subjected to a minimum temperature to	
40CFR60.7 62-296	A	Notification and record keeping.:	
40CFR60.8 62-296	A	Performance tests.:	
62-204.800(7)(b)33. 62-296	A		
62-296.404(3)(a)1. 62-296	A	Kraft (Sulfate) Pulp Mills and Tall Oil Plants: TRS emissions shall be collected and incinerated in a lime kiln, or calciner, or a kraft recovery furnace, or a combustion device, or	
62-296.404(3)(a)3. 62-296	A	Kraft (Sulfate) Pulp Mills and Tall Oil Plants: TRS emissions shall not be vented to the atmosphere except in emergencies or when control device is shut down. Develop an approved contingency plan. Venting allowed for up to 10 days.	

ATTACHMENT SCC-EU2-F10

SEGMENT COMMENT

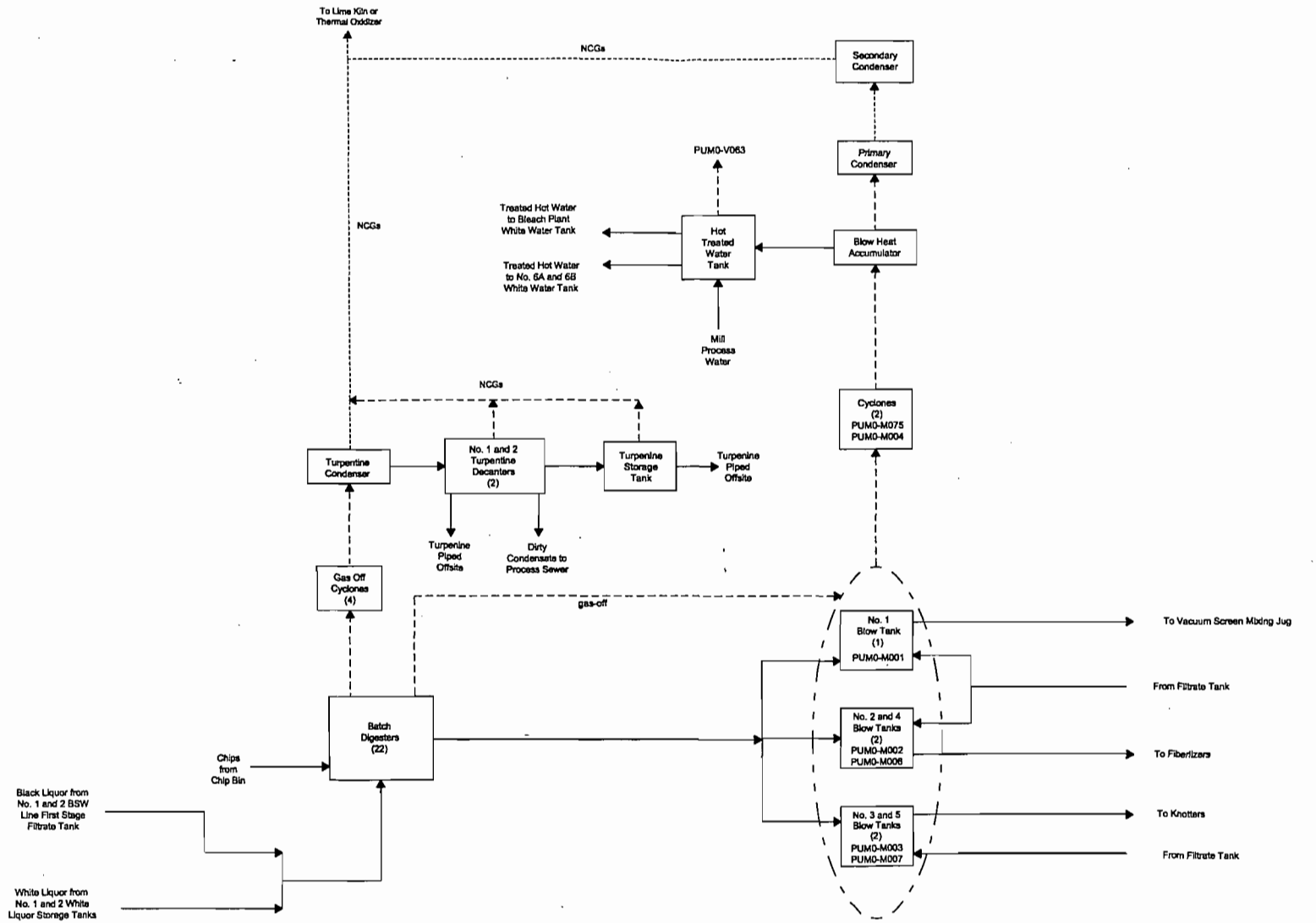
ATTACHMENT SCC-EU2-F10
SEGMENT COMMENT

SEGMENT 2

Maximum Hourly Rate is the sum of the maximum hourly rates of 208,000 lbs (BLS)/hr to the No. 1A MEE System, 51,900 lbs (BLS)/hr to the No. 2 MEE System, and 99,500 lbs (BLS)/hr to the No. 3 MEE System, divided by the conversion factor of 3,200 lbs (BLS)/ton (ADUP). Conversion factor may vary depending on grades of pulp being produced and process conditions. Maximum rates for PSD, NSPS, and testing purposes.

ATTACHMENT SCC-EU2-L1

PROCESS FLOW DIAGRAM



Process Flow Legend			
Solid/Liquid ——→	Stone Container Corp. Panama City, FL Process Flow Diagram SCC-EU2-L1	Emission Unit:	Pulping System MACT I
Gas ----------•		Process Area:	Pulping Area
		Filename:	9937518Y/F1/WP/PAGMACTI.DWG
		Latest Revision:	July 21, 1999

Golder Associates

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one:

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

[X] This Emissions Unit information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Condensate Stripper/Thermal Oxidizer**		
2. Emissions Unit Identification Number: [X] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code: C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: 26
6. Emissions Unit Comment (limit to 500 characters): **Emission unit consists of a Condensate Stripper to be used to treat foul condensate and condensate from the turpentine and NCG system. Stripper overhead gases will be combusted in the Thermal Oxidizer which will also be available as a backup to combust NCGs from Pulping System-MACT I sources.**		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):

Thermal Oxidizer

2. Control Device or Method Code: **21**

B.

1. Description (limit to 200 characters):

Enclosure

2. Control Device or Method Code: **54**

C.

1. Description (limit to 200 characters):

Gas Scrubber

2. Control Device or Method Code: **13**

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Details

1. Initial Startup Date:	
2. Long-term Reserve Shutdown Date:	
3. Package Unit: Manufacturer:	Model Number:
4. Generator Nameplate Rating:	MW
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:	**1,600** °F **0.75** seconds °F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:			mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr		tons/day
3. Maximum Process or Throughput Rate:		**500**	**GPM**
4. Maximum Production Rate:	**500**	**GPM**	
5. Operating Capacity Comment (limit to 200 characters):			

Emissions Unit Operating Schedule

1. Requested Maximum Operating Schedule:			
	24 hours/day	**7**	days/week
	52 weeks/yr	**8,760**	hours/yr

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

40CFR60.283(a)(1)iii NSPS for Total Reduced Sulfur from Kraft Pulping
40CFR60.284(b)(1) Monitoring of Emissions and Operations
62-296.401(1) Incinerators
62-296.404(3)(a)1. Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(3)(a)3. Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(3)(f) Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(3)(f) Other Combustion Devices
62-296.404(4)(e) Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(4)(f) Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(5)(c) Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(6)(a) Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(6)(b) Kraft (Sulfate) Pulp Mills and Tall Oil Plants
62-296.404(6)(c)3. Kraft (Sulfate) Pulp Mills and Tall Oil Plants
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63.446(e)(5) MACT Standards - Pulping Process Condensates
63.446(h) MACT Standards - Pulping Process Condensates
63.450 MACT Standards - Closed Vent Systems
63.453(g) Monitoring - Steam Stripper
63.453(i) MACT Standards - Monitoring Condensates
63.453(k) MACT Standards - Monitoring-Closed Vent Systems
63.453(l) MACT Standards - Monitoring-Condensate Closed Collection
63.453(m) MACT Standards - CMS for Alternatives
63.453(n) MACT Standards - Monitoring-Parameter Monitoring
63.453(o) MACT Standards - Operating Parameter Ranges
63.454 MACT Standards - Recordkeeping
63.455 MACT Standards - Reporting
63.457 - Test Methods and Procedures
63.962 MACT Standards - Subpart RR - Individual Drains
63.964 MACT Standards - Subpart RR - Individual Drains

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram:
2. Emission Point Type Code: [x] 1 [ ] 2 [ ] 3 [ ] 4
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **Condensate Stream Stripper & Pulping System-MACT I both can vent to the Thermal Oxidizer**
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [x] V [ ] W
6. Stack Height: **120** feet
7. Exit Diameter: **3** feet
8. Exit Temperature: **169** °F

9. Actual Volumetric Flow Rate:		acfm
10. Percent Water Vapor:		%
11. Maximum Dry Standard Flow Rate:	**9,000**	dscfm
12. Nonstack Emission Point Height:		feet
13. Emission Point UTM Coordinates:		
Zone: East (km):	North (km):	
14. Emission Point Comment (limit to 200 characters):		

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Sulfate (Kraft) Pulping - Other Not Classified**	
2. Source Classification Code (SCC): **3-07-001-99**	
3. SCC Units: **Tons Air-Dried Unbleached Pulp Produced**	
4. Maximum Hourly Rate: **120**	5. Maximum Annual Rate: **781,000**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): **Max. annual rate based on proposed permit limit.**	

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Miscellaneous Manufacturing Industries - Incinerators - Natural gas**	
2. Source Classification Code (SCC): **3-99-900-13**	
3. SCC Units: **Million Cubic Feet Burned**	
4. Maximum Hourly Rate: **0.01**	5. Maximum Annual Rate: **89**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: **1,000**	
10. Segment Comment (limit to 200 characters): **Natural gas is used as a supplemental fuel. (Value listed for Max Annual Rate has been rounded down from 89.35).**	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 3 of 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):

   In-Process Fuel Use, Liquid Waste: General

2. Source Classification Code (SCC):

   3-90-013-99

3. SCC Units:

   1,000 gallons burned

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
0.121	**1,062**

6. Estimated Annual Activity Factor:

7. Maximum Percent Sulfur:	8. Maximum Percent Ash:

9. Million Btu per SCC Unit:

   65

10. Segment Comment (limit to 200 characters):

    Liquid waste represents condensate stripper off gas(methanol) being burned in the thermal oxidizer.

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):	
2. Source Classification Code (SCC):	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
TRS	021	054	EL
SO2	013		NS
HAPs	021	054	WP

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **TRS**

2. Total Percent Efficiency of Control: %

3. Potential Emissions: **0.05** lb/hour **0.22** tons/year

4. Synthetically Limited? [ ] Yes [**X**] No

5. Range of Estimated Fugitive/Other Emissions:

   [**X**] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr

6. Emission Factor: **5 ppmvd**

   Reference: **62-296.404(3)(f)**

7. Emissions Method Code:

   [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [**X**] 5

8. Calculation of Emissions (limit to 600 characters):

9,000 dscfm @ 18.7% O2. Correct TRS @ 18.7% O2: 5ppm [(21 - 18.7)/(21 - 10)] = 1.0 ppm. 9,000 cuft/min x 60 min/hr x 2,116.8 lbf/sqft x 1.0 cuft/10^6 x lb·mol°R/1,545 ft·lbf x 34 lbs(H2S)/kb·mol(H2S) ÷ 528 °R = 0.05 lbs (TRS as H2S)/hr. 0.05 lb/hr x 8,760 hr/yr x 1 ton/2000 lb = 0.22 TPY

9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

TRS emissions subject to work practice standards in Rule 62-296.404(3)(a).

Emissions Unit Information Section 3 of 7

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **RULE**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **5 ppmvd**	
4. Equivalent Allowable Emissions:	**0.05** lb/hour **0.22** tons/year
5. Method of Compliance (limit to 60 characters): **Annual Test using EPA Method 16, 16A, or 16B**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Rule 62-296.404(3)(f), F.A.C.**	

B.

1. Basis for Allowable Emissions Code:	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	
4. Equivalent Allowable Emissions:	lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **SO2**
2. Total Percent Efficiency of Control: **92** %
3. Potential Emissions: **62.44** lb/hour **109.87** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **See Comments** Reference: **See Comments**
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [**X**] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment SCC-EU3-H8**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Emissions Unit Information Section 3 **of** 7

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **HAPs**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **1.8** lb/hour **5.9** tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.015 lb/ton ADUP** Reference: **NACASI Tech Bulletin**
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [X] 5
8. Calculation of Emissions (limit to 600 characters): **0.015 lb/ton ADUP x 120 ton ADUP/hr = 1.8 lb/hr; 0.015 lb/ton ADUP x 781,000 ton ADUP/yr x 1 ton/2000 lb = 5.9 TPY**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **HAP emissions subject to work practice standards in 40 CFR 63.446(e).**

Emissions Unit Information Section 3 **of** 7

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **RULE**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.75 sec@1,600 deg F**	
4. Equivalent Allowable Emissions:	**1.8** lb/hour **5.9** tons/year
5. Method of Compliance (limit to 60 characters): **Continuous Temperature Monitor**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on 40 CFR 63.446(e)**	

B.

1. Basis for Allowable Emissions Code:	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	
4. Equivalent Allowable Emissions:	lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 1 of 1

1.	Visible Emissions Subtype: VE05
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: 3 min/hour
4.	Method of Compliance: Visual Emission Testing using EPA Method 9
5.	Visible Emissions Comment (limit to 200 characters): V.E. limitation based on 62-296.401(1)(a)

Visible Emissions Limitations: Visible Emissions Limitation _____ of _____

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: [ ] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 1 of 4

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): **Condensate Stripper process wastewater feed rate specified in 63.453(g)(1). As an alt SCC may choose to measure methanol outlet concentration 63.446(e)(4) or (e)(5).**	

Continuous Monitoring System Continuous Monitor 2 of 4

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): **Condensate Stripper steam feed rate as specified in 63.453(g)(2).**	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 3 of 4

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): **Condensate Stripper process wastewater feed rate specified in 63.453(g)(1). As an alternative, SCC may choose to measure methanol outlet concentration; 63.446(e)(4) or (e)(5).**	

Continuous Monitoring System Continuous Monitor 4 of 4

1. Parameter Code: TEMP	2. Pollutant(s):
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): **Required for thermal oxidizer per 40 CFR 63.446(e)**	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [ ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

   [x] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[X] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:			
	PM	[X] C	[ ] E	[ ] Unknown
	SO_2	[X] C	[ ] E	[ ] Unknown
	NO_2	[X] C	[ ] E	[ ] Unknown
4.	Baseline Emissions:			
	PM	0 lb/hour	0 tons/year	
	SO_2	0 lb/hour	0 tons/year	
	NO_2		0 tons/year	
5.	PSD Comment (limit to 200 characters):			

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements for All Applications

1.	Process Flow Diagram	
	[X] Attached, Document ID: SCC-EU3-L1	
	[ ] Not Applicable	[ ] Waiver Requested
2.	Fuel Analysis or Specification	
	[X] Attached, Document ID: SCC-EU3-L2	
	[ ] Not Applicable	[ ] Waiver Requested
3.	Detailed Description of Control Equipment	
	[X] Attached, Document ID: SCC-EU3-L3	
	[ ] Not Applicable	[ ] Waiver Requested
4.	Description of Stack Sampling Facilities	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
5.	Compliance Test Report	
	[ ] Attached, Document ID: _____	[X] Not Applicable
	[ ] Previously Submitted, Date: _____	
6.	Procedures for Startup and Shutdown	
	[ ] Attached, Document ID: _____	[X] Not Applicable
7.	Operation and Maintenance Plan	
	[ ] Attached, Document ID: _____	[X] Not Applicable
8.	Supplemental Information for Construction Permit Application	
	[X] Attached, Document ID: Attachment A	[ ] Not Applicable
9.	Other Information Required by Rule or Statute	
	[ ] Attached, Document ID: _____	[X] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10.	Alternative Methods of Operation [ ] Attached, Document ID: _____ [ ] Not Applicable
11.	Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: _____ [ ] Not Applicable
12.	Identification of Additional Applicable Requirements [ ] Attached, Document ID: _____ [ ] Not Applicable
13.	Compliance Assurance Monitoring Plan [ ] Attached, Document ID: _____ [ ] Not Applicable
14.	Acid Rain Permit Application (Hard Copy Required) [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ [ ] Not Applicable

ATTACHMENT SCC-EU3-H8

CALCULATION OF EMISSIONS

Attachment SCC-EU3-H8. Estimated TRS and SO_2 Emission Rates for the Proposed Thermal Oxidizer, Stone Container Corporation, Panama City, Florida

NCG Source	Process Rate		TRS Emission Factor and Applicable Units	Uncontrolled TRS Emissions (lb/hr)	Uncontrolled SO_2 Emissions (4) (lb/hr)	SO_2 Control Efficiency (%)	Controlled SO_2 Emission Rate	
	tons ADUP/hr	tons ADUP/yr					lb/hr	TPY
OPERATING SCENARIO 1: DESTRUCTION OF STRIPPER NCGS AND NO LVHC SYSTEM NCGS (8,760 hr/yr)								
Condensate Stripper Overhead Gases	120	781,000	1.43 lb/ton ADUP (7)	171.6	240.24	92	19.22	62.54
OPERATING SCENARIO 2: DESTRUCTION OF CONDENSATE STRIPPER NCGS (8,760 hr/yr) AND LVHC SYSTEM NCGS (2,190 hr/yr)								
Condensate Stripper Overhead Gases	120	781,000	1.43 lb/ton ADUP (7)	171.6	240.24	92	19.22	62.54
Existing LVHC NCG Gases								
Batch Digester Blow Heat Recovery	120	781,000	1.5 lb/ton ADUP (1)	180.0	252.0	92	20.16	22.08
Nos. 1-3 Multiple Effect Evaporators	120	781,000	1 lb/ton ADUP (1)	120.0	168.0	92	13.44	14.72
Turpentine Condenser	120	781,000	0.5 lb/ton ADUP (2)(5)	60.0	120.0	92	9.60	10.51
Turpentine Decanter	--	--	0.053 lb/hr/tank (3)	0.053	0.07	92	0.0059	0.0065
Additional LVHC NCG Gases								
Turpentine Storage Tank (6)	--	--	0.053 lb/hr/tank (3)	0.053	0.074	92	0.0059	0.0065
New Foul Condensate Tank	--	--	0.053 lb/hr/tank (3)	0.053	0.074	92	0.0059	0.0065
Total				531.76	780.46		62.44	109.87

Footnotes:

(1) Kraft Pulping- Control of TRS Emissions From Existing Mills, Guideline Series, Table 5-1. EPA-450/2-78-003b, March 1979.

(2) NCASI Technical Bulletin No. 469, pgs. 20 and 32.

(3) NCASI Technical Bulletin 701; Table 7: Summary of Air Toxic Emissions from Weak Black Liquor Storage Tanks.

(4) Assumes that 70% of TRS is sulfur.

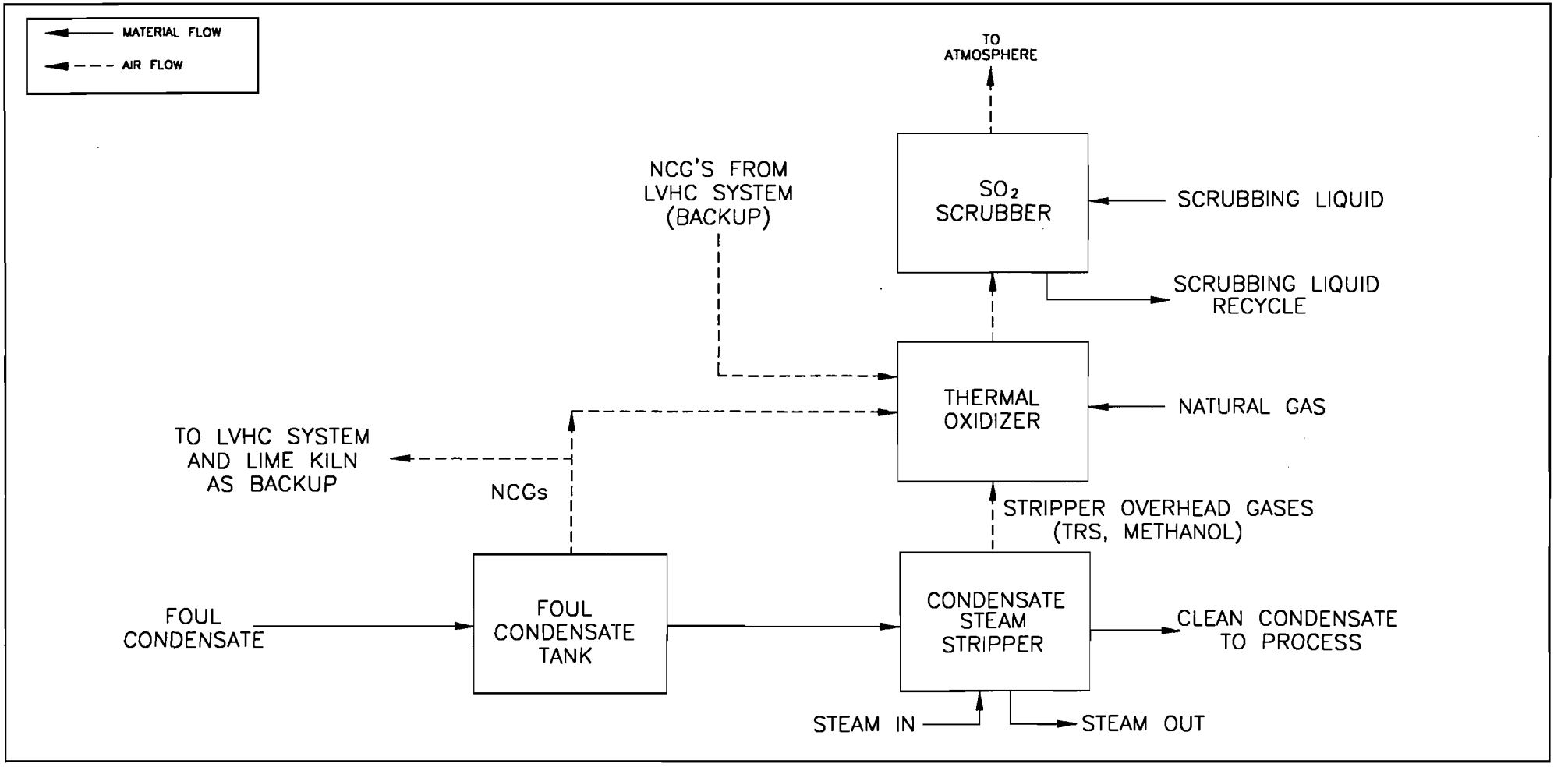
(5) As sulfur.

(6) This is an existing, but uncontrolled, source. Part of the proposed project is to control emissions from this source.

(7) Based on sum of average emission factors for reduced sulfur compounds (dimethyl sulfide and methyl mercaptan) in NCASI Techical Bulletin No. 701: Compilation of Air Toxic and Total Hydrocarbon Emission Data for Sources at Chemical Wood Pulp Mills, October 1995, Table 6.

ATTACHMENT SCC-EU3-L1

PROCESS FLOW DIAGRAM



STONE CONTAINER CORPORATION PANAMA CITY, FL PROCESS FLOW DIAGRAM SCC-EU3-LI	EMISSION UNIT: CONDENSATE STRIPPER / THERMAL OXIDIZER PROCESS AREA: FOUL CONDENSATE SYSTEM FILENAME: FCSTMTO.DWG LATEST REVISION: 04/06/99 by MJA	Golder Associates

ATTACHMENT SCC-EU3-L2

FUEL ANALYSIS

ATTACHMENT SCC-EU3-L2

Fuel Analysis

Fuel	Density (lb/scf)	Moisture	Weight % Sulfur	Weight % Nitrogen	Weight % Ash	Heat Capacity
Natural Gas	0.048	<0.01	<0.001	0.62	--	1,000 Btu/scf

ATTACHMENT SCC-EU3-L3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT SCC-EU3-L3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

SO_2 scrubber designed for a 92% removal efficiency.

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one:

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

[X] This Emissions Unit information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Lime Slaker**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [ ] Unknown **005**		
3. Emissions Unit Status Code: **A**	4. Acid Rain Unit? [ ] Yes [**X**] No	5. Emissions Unit Major Group SIC Code: **26**
6. Emissions Unit Comment (limit to 500 characters):		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):

Wet cyclonic separator scrubber

2. Control Device or Method Code: **85**

B.

1. Description (limit to 200 characters):

2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):

2. Control Device or Method Code:

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Details

1. Initial Startup Date:	
2. Long-term Reserve Shutdown Date:	
3. Package Unit: Manufacturer:	Model Number:
4. Generator Nameplate Rating:	MW
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:	 °F seconds °F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:			mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr		tons/day
3. Maximum Process or Throughput Rate:		**100**	**tons/hr**
4. Maximum Production Rate:			
5. Operating Capacity Comment (limit to 200 characters): **Max Process or Throughput Rate = 100.24 (rounded to 100). Maximum Process Rate Based on Green Liquor Solids (72.14 TPY) and Lime (28.1 TPH @ 90% purity). See Attachment SCC-EU4-C5**			

Emissions Unit Operating Schedule

1. Requested Maximum Operating Schedule:			
	24 hours/day		**7** days/week
	52 weeks/yr		**8,760** hours/yr

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

Not Applicable

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

See Attachment SCC-EU4-D

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: EU9	
2. Emission Point Type Code: [x] 1 [ ] 2 [ ] 3 [ ] 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:	
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [x] V [ ] W	
6. Stack Height:	56 feet
7. Exit Diameter:	2.9 feet
8. Exit Temperature:	200 °F

9. Actual Volumetric Flow Rate:	**17,013** acfm
10. Percent Water Vapor:	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates: Zone: East (km): North (km):	
14. Emission Point Comment (limit to 200 characters):	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Pulp and Paper & Wood Products, Sulfate (Kraft) Pulping, Causticizing: General**	
2. Source Classification Code (SCC): **3-99-999-94**	
3. SCC Units: **pounds processed**	
4. Maximum Hourly Rate: **200,480**	5. Maximum Annual Rate: **1,756,204,800**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): **Maximum Hourly Rate is based on total green liquor feed plus lime feed. See Attachment SCC-EU4-C5**	

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):	
2. Source Classification Code (SCC):	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	085		EL
PM10	085		NS
VOC			NS
HAPS			NS
H001			NS
H115			NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **PM**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **4** lb/hour **17.5** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **4 lb/hr** Reference: **Test Data**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **Based on proposed permit limit**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Emissions Unit Information Section 4 **of** 7

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **RULE**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **See Comment**	
4. Equivalent Allowable Emissions:	**4** lb/hour **17.5** tons/year
5. Method of Compliance (limit to 60 characters): **Annual source testing using EPA Reference Method 5**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **62-296.320(4)(a)2. Requested Allowable Emissions and Units: E = 17.31 P^0.16 lb/hr or 4.0 lb/hr, whichever is less.**	

B.

1. Basis for Allowable Emissions Code:	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	
4. Equivalent Allowable Emissions:	lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **PM10**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **4** lb/hour **17.5** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ]1 [ ]2 [ ]3 _____ to _____ tons/yr
6. Emission Factor: **100 % of PM** Reference: **See Comment**
7. Emissions Method Code: [**X**]0 [ ]1 [ ]2 [ ]3 [ ]4 [ ]5
8. Calculation of Emissions (limit to 600 characters):
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **Emission Factor Reference = Conservatively Assumed, due to lack of data**

Emissions Unit Information Section 4 of 7

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **VOC**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **1.24** lb/hour **5.4** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.044 lb/ton CaO** Reference: **NCASI Bulletin**
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [**X**] 5
8. Calculation of Emissions (limit to 600 characters): **28.11 tons CaO/hr x 0.044 lb/ton = 1.24 lb/hr; 1.24 lb/hr x 8,760 hr/yr x 1 ton/2,000 lb = 5.4 TPY**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Emissions Unit Information Section 4 of 7

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **HAPS**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **1.8** lb/hour **7.7** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **See Comments** Reference: **NCASI Bulletin**
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment SCC-EU4-H8**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Emissions Unit Information Section 4 of 7

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **H001**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **0.19** lb/hour **0.84** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.0068 lb/ton CaO** Reference: **NCASI Bulletin**
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [**X**] 5
8. Calculation of Emissions (limit to 600 characters): **(28.1 tons CaO/hr) * (0.0068 lbs H001/ton CaO) = 0.19 lb/hr. (0.19 lb/hr) * (8,760 hr/yr) * (1 ton/2000lb) = 0.84 TPY**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Emissions Unit Information Section 4 of 7

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **H115**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **1.5** lb/hour **6.6** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.054 lb/ton CaO** Reference: **NCASI Bulletin**
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [**X**] 5
8. Calculation of Emissions (limit to 600 characters): **(28.11 tons CaO/hr) * (0.054 lb H115/ton CaO) = 1.5 lb/hr. (1.5 lb/hr) * (8,760 hr/yr) * (1 ton/2000lb) = 6.6 TPY**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Emissions Unit Information Section 4 of 7

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 1 of 1

1.	Visible Emissions Subtype: **VE20**
2.	Basis for Allowable Opacity: [x] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: **20** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance: **Annual source test using EPA Reference Method 9**
5.	Visible Emissions Comment (limit to 200 characters): **Due to moisture interference, the visible emission limiting standard pursuant to 62-296.320(4)(b)1 is not applicable and is deferred to 62-296.404(2)(b).**

Visible Emissions Limitations: Visible Emissions Limitation _____ of _____

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: [ ] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 1 of 1

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [X] Other	
4. Monitor Information: Monitor Manufacturer: Yokogawa Model Number: Not Available Serial Number: F145BD393-U-424	
5. Installation Date: 01 May 1994	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): Surrogate parameter: Continuously monitor scrubber media flow rate as required per Specific Condition 4 of AO03-252354	

Continuous Monitoring System Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [ ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [X] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:			
	PM	[ ] C	[ ] E	[X] Unknown
	SO_2	[ ] C	[ ] E	[ ] Unknown
	NO_2	[ ] C	[ ] E	[ ] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO_2	lb/hour		tons/year
	NO_2			tons/year
5.	PSD Comment (limit to 200 characters):			
	This emission unit is not expected to emit SO2 or NO2.			

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements for All Applications

1.	Process Flow Diagram	
	[X] Attached, Document ID: SCC-EU4-L1	
	[ ] Not Applicable	[ ] Waiver Requested
2.	Fuel Analysis or Specification	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
3.	Detailed Description of Control Equipment	
	[X] Attached, Document ID: SCC-EU4-L3	
	[ ] Not Applicable	[ ] Waiver Requested
4.	Description of Stack Sampling Facilities	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
5.	Compliance Test Report	
	[ ] Attached, Document ID: _____	[X] Not Applicable
	[ ] Previously Submitted, Date: _____	
6.	Procedures for Startup and Shutdown	
	[ ] Attached, Document ID: _____	[X] Not Applicable
7.	Operation and Maintenance Plan	
	[ ] Attached, Document ID: _____	[X] Not Applicable
8.	Supplemental Information for Construction Permit Application	
	[X] Attached, Document ID: Attachment A	[ ] Not Applicable
9.	Other Information Required by Rule or Statute	
	[ ] Attached, Document ID: _____	[X] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10.	Alternative Methods of Operation [ ] Attached, Document ID: _____ [X] Not Applicable
11.	Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: _____ [X] Not Applicable
12.	Identification of Additional Applicable Requirements [ ] Attached, Document ID: _____ [X] Not Applicable
13.	Compliance Assurance Monitoring Plan [ ] Attached, Document ID: _____ [X] Not Applicable
14.	Acid Rain Permit Application (Hard Copy Required) [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ [X] Not Applicable

ATTACHMENT SCC-EU4-C5

OPERATING CAPACITY COMMENT

ATTACHMENT SCC-EU4-C5

OPERATING CAPACITY COMMENT

Green Liquor Solids: 1.83 lbs/gallon

Maximum Flow: 1,314 gal/min

Tons Solids/Hr: $\frac{1{,}314 \text{ gal/min} \times 1.83 \text{ lbs/gal} \times 60 \text{ min/hr}}{2{,}000 \text{ lbs/ton}} = 72.14 \text{ tons/hr}$

Lime to Slaker: 28.11 tph (total from lime kiln, plus purchased lime)

Total Solids to Slaker =
72.14 tons/hr (from green liquor)
\+ 28.11 tons/hr (from lime @ 90% purity)
100.24 tons/hr Total

ATTACHMENT SCC-EU4-D

LIST OF APPLICABLE REGULATIONS

Specific Emissions Unit Name (ID): No. 4 Lime Kiln - Non-NSPS (Lime Kiln) Page: 1
Facility Name (ID): Stone Container Corporation (10-PCY-03-0009) Date: 04/27/1999

Rule Number	PA/A	Rule Title/Summary	Applicability Comment
62-296.320(4)(a)2. 62-296	A		Process Weight Table
62-296.320(4)(a)3.a.(ii) 62-296	A		EPA Method 5
62-296.404(2)(b) 62-296	A	Kraft (Sulfate) Pulp Mills and Tall Oil Plants: Visible emission limits for sources equipped with wet scrubbers only apply if plume unaffected by plume mixing or moisture condensation.	
62-296.404(3)(e) 62-296	A	Kraft (Sulfate) Pulp Mills and Tall Oil Plants: Lime Kilns and Calciners.	
62-296.404(4)(b)1. 62-296	A	Test Methods and Procedures: PM for scrubber controlled emissions units: DEP Method 5- minimum sample volume 32 dscf. A water wash shall be used.	
62-296.404(4)(b)3. 62-296	A	Test Methods and Procedures: TRS: EPA Method 16 or EPA Method 16A or EPA Method 16B. EPA Method 16 or EPA Method 16A shall be required for instrument certification and compliance testing.	
62-296.404(4)(f) 62-296	A	Test Methods and Procedures: Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.	
62-296.404(5)(a) 62-296	A	Continuous Emissions Monitoring Requirements: Straight kraft recovery furnaces, whether new or old design, cross recovery furnaces, lime kilns and calciners, shall be equipped with TRS CEMS. All digester systems and multiple effect	TRS CMS
62-296.404(5)(b) 62-296	A	Continuous Emissions Monitoring Requirements: Continuous determination of total reduced sulfur emissions.	
62-296.404(6)(a) 62-296	A	Quarterly Reporting Requirements: The report shall include the following information:	

Rule Number	PA/A	Rule Title/Summary	Applicability Comment
62-296.404(6)(b) 62-296	A	Quarterly Reporting Requirements: Maintain a complete file of all measurements in a form suitable for inspection. Retain for at least two years following the date of such measurements, maintenance, reports and records.	
62-296.404(6)(c)2. 62-296	A	Quarterly Reporting Requirements: For lime kilns and calciners, excess emissions during >2 percent of the time, or	
62-296.404(6)(c)4. 62-296	A	Quarterly Reporting Requirements: The Department determines that the affected facility is not maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions. Good air pollution	
62-296.404(6)(d) 62-296	A	Quarterly Reporting Requirements: Notify the Department in writing within 14 days of the date on which periods of excess emissions exceed the percentages allowed.	
62-297.310 62-297	A	General Test Requirements.: The focal point of a compliance test is the stack or duct which vents process and/or combustion gases and air pollutants from an emissions unit into the ambient air.	
62-297.401(1)(a) 62-297 Test Method	A	EPA Method 1 -- Sample and Velocity Traverses for Stationary sources -- 40 CFR 60 Appendix A.:	
62-297.401(16) 62-297 Test Method	A	EPA Method 16 -- Semicontinuous Determination of Sulfur Emissions from Stationary Sources -- 40 CFR:	
62-297.401(16)(a) 62-297 Test Method	A	EPA Method 16A -- Determination of Total Reduced Sulfur Emissions from Stationary Sources (Impinger:	
62-297.401(2) 62-297 Test Method	A	EPA Method 2 -- Determination of Stack Gas Velocity and Volumetric Flow Rate -- 40 CFR 60 Appendix A:	

Specific Emissions Unit Name (ID): No. 4 Lime Kiln - Non-NSPS (Lime Kiln) Page: 3
Facility Name (ID): Stone Container Corporation (10-PCY-03-0009) Date: 04/27/1999

Rule Number	PA/A	Rule Title/Summary	Applicability Comment
62-297.401(3) 62-297 Test Method	A	EPA Method 3 -- Gas Analysis for Carbon Dioxide, Oxygen, Excess Air, and Dry Molecular Weight -- 40:	
62-297.401(4) 62-297 Test Method	A	EPA Method 4 -- Determination of Moisture Content in Stack Gases -- 40 CFR 60 Appendix A.:	
62-297.401(5) 62-297 Test Method	A	EPA Method 5 -- Determination of Particulate Emissions from Stationary Sources -- 40 CFR 60 Appendix:	

ATTACHMENT SCC-EU4-H8

CALCULATION OF EMISSIONS

Attachment SCC-EU4-H8. Potential HAP Emissions from the Slaker System at Stone Container Corporation, Panama City

Pollutant	Emission Factor (lb/ton CaO) (1)	Ref.	Activity Factor [a] (tons CaO/hr)	Hourly Emissions [b] (lb/hr)	Annual Emissions [c] (TPY)
acetaldehyde (H)	6.8E-03	1	28.10	1.9E-01	8.4E-01
acrolein (H)	4.7E-05	1	28.10	1.3E-03	5.8E-03
benzene (H)	5.0E-05	1	28.10	1.4E-03	6.2E-03
carbon tetrachloride (H)	ND	1	28.10	ND	ND
chlorobenzene (H)	ND	1	28.10	ND	ND
chloroform (H)	ND	1	28.10	ND	ND
1,2-dichloroethane (H)	ND	1	28.10	ND	ND
formaldehyde (H)	ND	1	28.10	ND	ND
n-hexane (H)	ND	1	28.10	ND	ND
methanol (H)	5.4E-02	1	28.10	1.5E+00	6.6E+00
methyl ethyl ketone (H)	1.2E-03	1	28.10	3.3E-02	1.4E-01
methyl isobutyl ketone (H)	4.9E-05	1	28.10	1.4E-03	6.0E-03
methylene chloride (H)	ND	1	28.10	ND	ND
styrene (H)	4.0E-04	1	28.10	1.1E-02	4.9E-02
tetrachloroethylene (H)	9.6E-05	1	28.10	2.7E-03	1.2E-02
toluene (H)	1.7E-04	1	28.10	4.8E-03	2.1E-02
1,2,4-trichlorobenzene (H)	3.9E-05	1	28.10	1.1E-03	4.8E-03
1,1,1-trichloroethane (H)	ND	1	28.10	ND	ND
1,1,2-trichloroethane (H)	ND	1	28.10	ND	ND
trichloroethylene (H)	ND	1	28.10	ND	ND
m,p-xylene (H)	4.1E-05	1	28.10	1.2E-03	5.0E-03
o-xylene (H)	3.4E-05	1	28.10	9.6E-04	ND
Total HAPs	6.3E-02			1.8E+00	7.7E+00
Non-HAP Pollutants					
acetone	8.0E-03	1	28.10	2.2E-01	9.8E-01
ammonia	4.6E-01	1	28.10	1.3E+01	5.7E+01
1,2-dichloroethylene	3.8E-04	1	28.10	1.1E-02	4.7E-02
dimethyl disulfide	ND	1	28.10	ND	ND
dimethyl sulfide	ND	1	28.10	ND	ND
methyl mercaptan	ND	1	28.10	ND	ND
terpenes	8.4E-03	1	28.10	2.4E-01	1.0E+00
THC (Method 25A)	4.4E-02	1	28.10	1.2E+00	5.4E+00

References

1. NCASI T.B. 701; Table 17: Slaker and Causticizer Tank Vent Emission Averages, pg.237.

Footnotes:

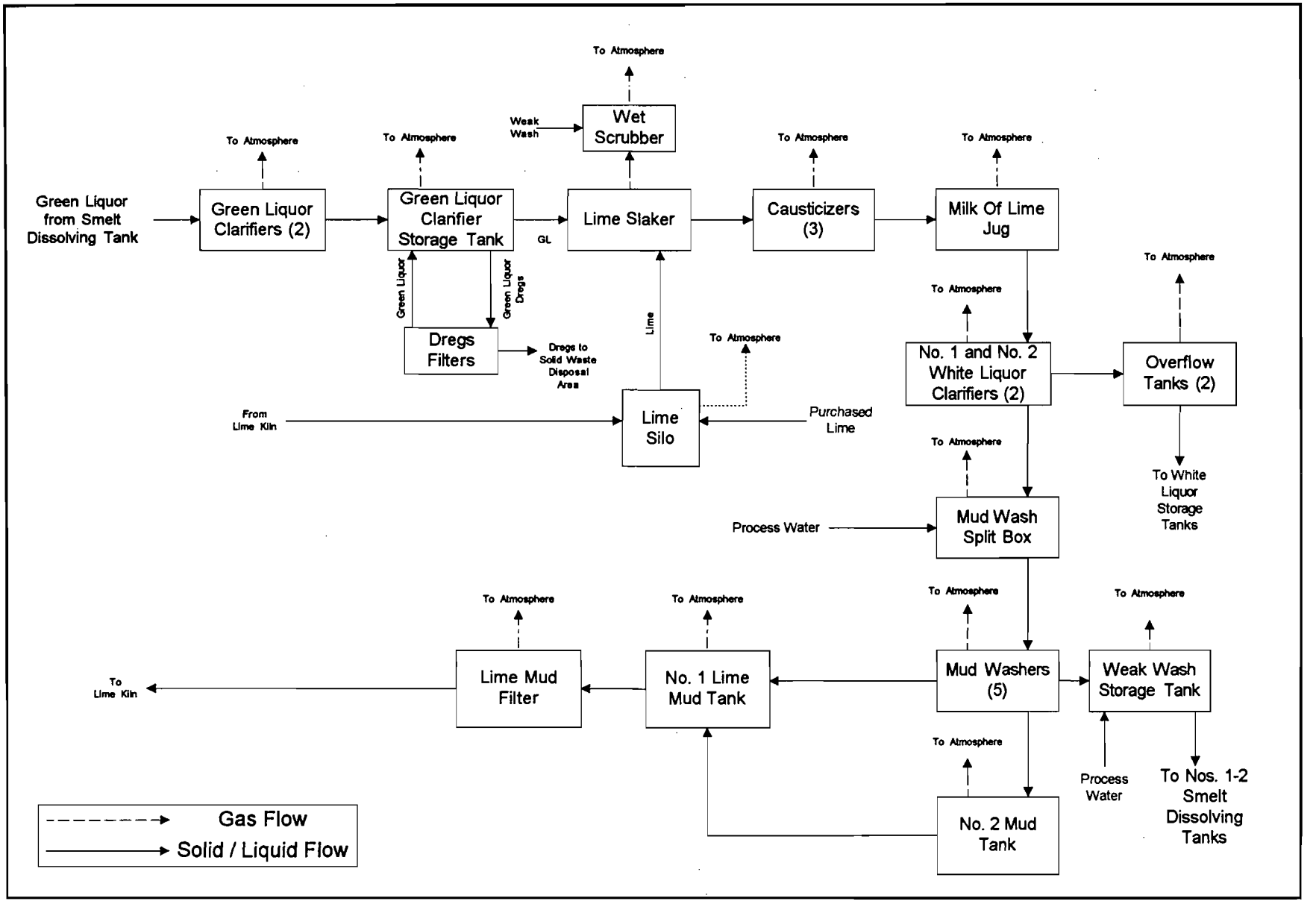
(a) Activity factor is based on a summation of the maximum permitted rates for causticizing area.

(b) Emissions are not quantified for pollutants below the detectable limit.

(c) Based on 8760 hours of operation.

ATTACHMENT SCC-EU4-L1

PROCESS FLOW DIAGRAM



Stone Container Corporation		*Emission Unit:* Lime Slaker	Golder Associates
		Process Area: Chemical Recovery Area	
SCC-EU04-L1	Panama City	*Filename:* LIMESLKR.VSD	
		Latest Revision Date: 7/21/99 11:29 AM	

ATTACHMENT SCC-EU4-L3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

Attachment SCC-EU4-L3

Control Equipment Parameters

Lime Slaker Scrubber (Wet Cyclonic Separator)

Manufacturer	Ducon	
Model No.	Type UW4 Model III	
Date of Installation	1994	
Inlet Gas Temp	185-195	F
Inlet Gas Flow Rate	4,500-5,500	ACFM
Outlet Gas Temp	185-195	F
Outlet Gas Flow Rate	4,500-5,500	ACFM
Scrubbing Media	Water	
Scrubbing Media Flow Rate	20	gpm
Control Efficiency	90	%
Maximum Permitted Particulate Matter Emissions *	4.0	lbs/hr

* Proposed permit limit.

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one:

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

[ ] This Emissions Unit information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[X] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Methanol Storage Tank**		
2. Emissions Unit Identification Number: [X] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code: **A**	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: **26**
6. Emissions Unit Comment (limit to 500 characters): **38,500 gallon capacity**		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Details

1. Initial Startup Date:	
2. Long-term Reserve Shutdown Date:	
3. Package Unit: Manufacturer:	Model Number:
4. Generator Nameplate Rating:	MW
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:	 °F seconds °F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:			mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr		tons/day
3. Maximum Process or Throughput Rate:		**440,000**	**gallons/year**
4. Maximum Production Rate:			
5. Operating Capacity Comment (limit to 200 characters):			

Emissions Unit Operating Schedule

1. Requested Maximum Operating Schedule:			
	24 hours/day	**7**	days/week
	52 weeks/yr	**8,760**	hours/yr

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

Not Applicable

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

40 CFR 60, Subpart Kb - NSPS for Volatile Organic Liquid Storage Vessels
40 CFR 60.116b(a) - NSPS for Volatile Organic Liquid Storage Vessels
40 CFR 60.116b(b) - NSPS for Volatile Organic Liquid Storage Vessels
40 CFR 60.116b(c) - NSPS for Volatile Organic Liquid Storage Vessels
62-204.800(7)(b)14 - Standards of Performance for New Stationary Sources

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: EU4
2. Emission Point Type Code: [ ] 1 [ ] 2 [ ] 3 [x] 4
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:
5. Discharge Type Code: [ ] D [x] F [ ] H [ ] P [ ] R [ ] V [ ] W
6. Stack Height: feet
7. Exit Diameter: feet
8. Exit Temperature: °F

9. Actual Volumetric Flow Rate:	acfm
10. Percent Water Vapor:	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates: Zone: East (km): North (km):	
14. Emission Point Comment (limit to 200 characters):	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Organic Chemical Storage, Fixed Roof Tanks, Methyl Alcohol: Breathing Loss**	
2. Source Classification Code (SCC): **4-07-008-15**	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: **38**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): **Estimated Annual Activity Factor: 38,500 gallons. Annual activity factor is equal to tank capacity.**	

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Organic Chemical Storage, Fixed Roof Tanks, Methyl Alcohol: Working Loss**
2. Source Classification Code (SCC): **4-07-008-16**
3. SCC Units: **1,000 gallons Throughput**

4. Maximum Hourly Rate:	5. Maximum Annual Rate: **440**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	

10. Segment Comment (limit to 200 characters):

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
VOC			NS
HAPS			NS
H115			NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **VOC**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **0.23** lb/hour **1.03** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **See Comment** Reference: **Tanks 4.0**
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [**X**] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment SCC-EU5-H8**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Emissions Unit Information Section 5 of 7

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **HAPS**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **0.23** lb/hour **1.03** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **See comment** Reference: **Tanks 4.0**
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [**X**] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment SCC-EU5-H8**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Emissions Unit Information Section 5 of 7

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **H115**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **0.23** lb/hour **1.03** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **See comment** Reference: **Tanks 4.0**
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [**X**] 5
8. Calculation of Emissions (limit to 600 characters): **See Attachment SCC-EU5-H8**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Emissions Unit Information Section 5 of 7

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 1 of 1

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: [ ] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

Visible Emissions Limitations: Visible Emissions Limitation _____ of _____

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: [ ] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 1 of 1

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

Continuous Monitoring System Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [ ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:			
	PM	[ ] C	[ ] E	[ ] Unknown
	SO_2	[ ] C	[ ] E	[ ] Unknown
	NO_2	[ ] C	[ ] E	[ ] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO_2	lb/hour		tons/year
	NO_2			tons/year
5.	PSD Comment (limit to 200 characters):			
	This emission unit is not expected to emit PM, SO2, NO2			

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements for All Applications

1.	Process Flow Diagram	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
2.	Fuel Analysis or Specification	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
3.	Detailed Description of Control Equipment	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
4.	Description of Stack Sampling Facilities	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
5.	Compliance Test Report	
	[ ] Attached, Document ID: _____	[X] Not Applicable
	[ ] Previously Submitted, Date: _____	
6.	Procedures for Startup and Shutdown	
	[ ] Attached, Document ID: _____	[X] Not Applicable
7.	Operation and Maintenance Plan	
	[ ] Attached, Document ID: _____	[X] Not Applicable
8.	Supplemental Information for Construction Permit Application	
	[X] Attached, Document ID: Attachment A	[ ] Not Applicable
9.	Other Information Required by Rule or Statute	
	[ ] Attached, Document ID: _____	[X] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10.	Alternative Methods of Operation [ ] Attached, Document ID: _____ [X] Not Applicable
11.	Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: _____ [X] Not Applicable
12.	Identification of Additional Applicable Requirements [ ] Attached, Document ID: _____ [X] Not Applicable
13.	Compliance Assurance Monitoring Plan [ ] Attached, Document ID: _____ [X] Not Applicable
14.	Acid Rain Permit Application (Hard Copy Required) [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ [X] Not Applicable

ATTACHMENT SCC-EU5-H8

CALCULATION OF EMISSIONS

TANKS 4.0
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification:	Methanol Storeage Tank
City:	Apalachicola
State:	Florida
Company:	Stone Container Corporation
Type of Tank:	Vertical Fixed Roof Tank
Description:	440,000 gal/yr

Tank Dimensions

Shell Height (ft):	20.00
Diameter (ft):	20.00
Liquid Height (ft):	16.00
Avg. Liquid Height (ft):	8.00
Volume (gallons):	38,500.00
Turnovers:	11.40
Net Throughput (gal/yr):	440,000.00
Is Tank Heated (y/n):	N

Paint Characteristics

Shell Color/Shade:	Gray/Light
Shell Condition:	Good
Roof Color/Shade:	Gray/Light
Roof Condition:	Good

Roof Characteristics

Type:	Dome
Height (ft):	0.00
Radius (ft) (Dome Roof):	10.00

Breather Vent Settings

Vacuum Settings (psig):	-0.03
Pressure Settings (psig):	0.03

Meteorological Data used in Emissions Calculations: Apalachicola, Florida (Avg Atmospheric Pressure = 14.73 psia)

TANKS 4.0
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Methyl alcohol	All	75.62	67.17	84.06	70.32	2.3192	1.8012	2.9588	32.0400			32.04	Option 1: A=7.897, B=1474.08, C=229.13

TANKS 4.0
Emissions Report - Detail Format
Detail Calculations (AP-42)

Annual Emission Calculations	
Standing Losses (lb):	1,273.5960
Vapor Space Volume (cu ft):	5,864.3063
Vapor Density (lb/cu ft):	0.0129
Vapor Space Expansion Factor:	0.1515
Vented Vapor Saturation Factor:	0.3035
Tank Vapor Space Volume	
Vapor Space Volume (cu ft):	5,864.3063
Tank Diameter (ft):	20.0000
Vapor Space Outage (ft):	18.6667
Tank Shell Height (ft):	20.0000
Average Liquid Height (ft):	8.0000
Roof Outage (ft):	6.6667
Roof Outage (Dome Roof)	
Roof Outage (ft):	6.6667
Dome Radius (ft):	10.0000
Shell Radius (ft):	10.0000
Vapor Density	
Vapor Density (lb/cu ft):	0.0129
Vapor Molecular Weight (lb/lb-mole):	32.0400
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	2.3192
Daily Avg. Liquid Surface Temp. (deg. R):	535.2895
Daily Average Ambient Temp. (deg. F):	68.0792
Ideal Gas Constant R (psia cuft / (lb-mol-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	529.9892
Tank Paint Solar Absorptance. (Shell):	0.5400
Tank Paint Solar Absorptance. (Roof):	0.5400
Daily Total Solar Insulation Factor (Btu/sqft day):	1,473.5000
Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.1515
Daily Vapor Temperature Range (deg. R):	33.7813
Daily Vapor Pressure Range (psia):	1.1576
Breather Vent Press. Setting Range(psia):	0.0600
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	2.3192
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	1.8012
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	2.9588
Daily Avg. Liquid Surface Temp. (deg R):	535.2895
Daily Min. Liquid Surface Temp. (deg R):	526.8442
Daily Max. Liquid Surface Temp. (deg R):	543.7348
Daily Ambient Temp. Range (deg. R):	15.9750
Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.3035
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	2.3192
Vapor Space Outage (ft):	18.6667

TANKS 4.0
Emissions Report - Detail Format
Detail Calculations (AP-42)- (Continued)

Working Losses (lb):	778.4441
Vapor Molecular Weight (lb/lb-mole):	32.0400
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	2.3192
Annual Net Throughput (gal/yr.):	440,000.0000
Number of Turnovers:	11.4000
Turnover Factor:	1.0000
Maximum Liquid Volume (cuft):	38,500.0000
Maximum Liquid Height (ft):	16.0000
Tank Diameter (ft):	20.0000
Working Loss Product Factor:	1.0000
Total Losses (lb):	2,052.0401

TANKS 4.0
Emissions Report - Detail Format
Individual Tank Emission Totals

Annual Emissions Report

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Methyl alcohol	778.44	1,273.60	2,052.04

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one:

[ ] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[X] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

[ ] This Emissions Unit information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Chemical Recovery Area**		
2. Emissions Unit Identification Number: [X] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code: **A**	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: **26**
6. Emissions Unit Comment (limit to 500 characters): **See Attachment SCC-EU6-B6**		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Pulp and Paper and Wood Products, Sulfate (Kraft) Pulping, Other Not Classified**	
2. Source Classification Code (SCC): **3-07-001-99**	
3. SCC Units: **Tons Air-Dried Unbleached Pulp Produced**	
4. Maximum Hourly Rate: **120**	5. Maximum Annual Rate: **781,000**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): **Maximum rates based on proposed batch digester system rates.**	

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):	
2. Source Classification Code (SCC):	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			NS
PM10			NS
VOC			NS
HAPS			NS
H115			NS
H001			NS
TRS			NS

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [ ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [X] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:			
	PM	[ ] C	[ ] E	[X] Unknown
	SO_2	[ ] C	[ ] E	[ ] Unknown
	NO_2	[ ] C	[ ] E	[ ] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO_2	lb/hour		tons/year
	NO_2			tons/year
5.	PSD Comment (limit to 200 characters):			
	This emission unit is not expected to emit SO2 or NO2.			

ATTACHMENT SCC-EU6-B6

EMISSION UNIT COMMENT

ATTACHMENT SCC-EU6-B6

EMISSION UNIT COMMENT

Chemical Recovery Area

Lime Slaker and Lime Kiln Area - Unpermitted:

- Lime unloading
- Lime storage silo with associated conveying system
- Causticizers
- Grit washers and associated equipment
- Lime mud washer and associated storage tanks
- Lime mud filters with associated equipment

White liquor clarifiers

White liquor storage tanks

Black liquor tanks(2)

Black liquor oxidation tank

Black liquor filter (fiber filter)

Green liquor clarifiers and tanks

Green liquor dregs washer and standpipe

Weak wash tanks

Soap collection and storage systems

Condensate tanks

Chemical additive tanks

Building ventilation

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one:

[ ] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[X] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

[ ] This Emissions Unit information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Paper Making/Warehousing**		
2. Emissions Unit Identification Number: [X] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code: **A**	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: **26**
6. Emissions Unit Comment (limit to 500 characters): **See Attachment SCC-EU7-B6**		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Pulp and Paper and Wood Products, Sulfate (Kraft) Pulping, Other Not Classified**	
2. Source Classification Code (SCC): **3-07-001-99**	
3. SCC Units: **Tons Air-Dried Unbleached Pulp Produced**	
4. Maximum Hourly Rate: **120**	5. Maximum Annual Rate: **781,000**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): **Maximum rates based on proposed batch digester system rates.**	

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):	
2. Source Classification Code (SCC):	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			NS
PM10			NS
VOC			NS
HAPS			NS
H001			NS
H115			NS

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [ ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [X] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:			
	PM	[ ] C	[ ] E	[X] Unknown
	SO_2	[ ] C	[ ] E	[ ] Unknown
	NO_2	[ ] C	[ ] E	[ ] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO_2	lb/hour		tons/year
	NO_2			tons/year
5.	PSD Comment (limit to 200 characters):			
	This emission unit is not expected to emit SO2 or NO2.			

ATTACHMENT SCC-EU7-B6

EMISSION UNIT COMMENT

ATTACHMENT SCC-EU7-B6

EMISSION UNIT COMMENT

Paper Making/Warehousing

Paper Making:

Nos. 1-2 Paper Machines — with associated vents, vacuum pumps, stock chests, tanks, hydraulic systems, broke handling systems, lube systems, dust collection systems

Broke beaters

Save Alls

Conveyor System

Trim Handling

Chemical Additive Tanks

Warehousing Activities

Building ventilation

ATTACHMENT A

1.0 INTRODUCTION

Stone Container Corporation (SCC) operates a Kraft pulp mill located in Panama City, Florida. Currently, SCC is permitted to produce 120 tons per hour (TPH) of air-dried unbleached pulp (ADUP) through its batch digester system. For prevention of significant deterioration (PSD) permitting purposes, the maximum annual capacity of the batch digester system is 668,850 tons per year (TPY) ADUP.

SCC now desires to change the maximum annual pulp production rate for PSD purposes to 781,000 TPY ADUP. During 1997, SCCs total pulp production was approximately 666,000 TPY ADUP. At this year's (1999) current production level, the 668,850 TPY ADUP pulp production level could be exceeded in November or December of this year.

To implement the increased pulp production, SCC proposes to increase the permitted rates of the Lime Slaker, Batch Digester System and the methanol tank. Although the permitted process rates of these emissions units are being raised, no physical changes to these emissions units are required to accommodate the production increase. In addition, no physical changes or changes to the permitted rates of any other emission units at the facility will be necessary to accomplish the production rate increase.

An air construction permit is being submitted to the Florida Department of Environmental Protection (FDEP) to request this change in facility pulp production capacity for PSD purposes. Due to the ability to achieve the higher level of pulp production without implementing any physical changes or changes in the method of operation at the Panama City mill, PSD review does not apply to the requested change. However, an ambient air impact (modeling) analysis has been completed to provide the FDEP with assurance that facility operation will not cause any ambient air quality standards (AAQS) or PSD allowable increments to be exceeded. This analysis is provided as a separate report.

2.0 PROJECT DESCRIPTION

The SCC mill, located in Panama City, Florida (see Attachment SCC-FE-1), consists of a woodyard, batch digester system, multiple effect evaporator (MEE) system, a bleach plant, two recovery boilers, two smelt dissolving tanks, a lime kiln, two bark boilers, a lime slaker, and other equipment used to produce finished paper products from virgin wood. A plot plan of the existing facility is presented Attachment SCC-FE-2 and an overall process flow diagram is presented in Attachment SCC-FE-3.

The permitted pulp production capacity of the digester system is currently 120 TPH ADUP and 668,850 TPY ADUP (permit no. AC-03-252285; see Appendix B). This permitted production rate originated from the total reduced sulfur (TRS) control project permitted in 1988. The TRS control project was mandated by the federal government and implemented by the Florida Department of Environmental Regulation. In the Batch Digester System construction permit for the TRS control project (AC03-142979 issued Oct. 19, 1988; see Appendix B), Specific Condition 2.a. states: "For PSD purposes, the annual production rate of the digester system will be 668,850 tons of air-dried unbleached pulp (ADUP) per year." The purpose of this condition was not to limit the pulp production capacity of the digester system, but to trigger a review of PSD applicability if this level of production was to be exceeded.

The construction permit wording of 668,850 tons/yr ADUP capacity for PSD purposes has been carried through to subsequent construction and operating permits issued for the Batch Digester System. These permits included a digester system rebuild construction permit issued in 1994 (AC03-252285; see Appendix B). At the time of the system rebuild, the batch digesters became subject to federal New Source Performance Standards (NSPS) for Kraft Pulp Mills (40 CFR 60, Subpart BB).

As described previously, during 1997 SCCs total pulp production was approximately 666,000 TPY ADUP. Projections for this year (1999) indicate that the 668,850 TPY ADUP pulp production level could be exceeded in November or December of this year. As a result, relief is being sought in regards to pulp production capacity.

SCC is now proposing to change the maximum production capacity of the mill for PSD purposes to 781,000 TPY ADUP. To accomplish this pulp production increase, SCC proposes to change the permitted capacity of the following:

- Lime production for the Lime Slaker from the currently permitted rate of 21.18 TPH to 28.1 TPH (10% impurities included).
- Annual Pulp production capacity of the batch digester system for PSD purposes from 668,850 tons ADUP/yr to 781,000 tons ADUP/yr. The currently permitted maximum hourly rate of 120 TPH ADUP will not be changed.

As described above, although the permitted process rates of these emissions units are being raised, no physical changes or changes in the method of operation to these emissions units are required to accommodate the change in production capacity. In addition, no physical changes or changes to the permitted rates of any other emission units at the facility will be necessary to accomplish the production capacity change.

SCC operates two combination bark/fossil fuel boilers (Nos. 3 and 4 Combination Boilers) at the facility to supply steam to the process and to drive steam turbine electric generators. The boiler's operation will not be affected by the proposed change in pulp production capacity. These boilers provide steam to support the pulping process and to generate electricity, and are already operating at a high rate in order to maximize electricity generation. Therefore, the increased pulp production resulting from the proposed changes will not affect current boiler operation.

The actual operating rates of the two recovery boilers (Nos. 1 and 2 Recovery Boilers) will increase due to the increased black liquor solids (BLS) generated through the change in production capacity. The steam generated from the additional BLS will support the production change. However, the permitted rates for the two recovery boilers and associated smelt dissolving tanks will not change, and no physical changes are required to accommodate the change.

The actual operating rates of the MEE system and the smelt dissolving tanks (Nos. 1 and 2 Smelt Dissolving Tanks) will increase, but no physical changes or changes in the method of operation will occur. However, the bleach plant and lime kiln are already operating at high rates, and production through these units is not expected to increase. Any additional lime needed to support the production change will be purchased through outside vendors.

In the attached air permit application form, emission unit sections are included for the Pulping Area General, Lime Slaker, Pulping Area-MACT I, Condensate Stripper/Thermal Oxidizer, Chemical Recovery Area, Papermaking/Warehousing, and the Methanol Storage Tank. The unregulated emission units, Pulping Area General, Chemical Recovery Area, and Papermaking/Warehousing, were included to reflect the revised pulp production capacity. The Pulping Area-MACT I and Condensate Stripper/Thermal Oxidizer were also included to reflect the revised pulp production capacity for the units. The Pulping Area-MACT I and Condensate Stripper/Thermal Oxidizer emission units were recently submitted in the SCCs MACT compliance air construction permit application. The Lime Slaker and Methanol Storage Tank have been included to reflect their revised capacities. The bark boilers, recovery boilers, lime kiln, and woodyard capacities are unaffected by the revised pulp production capacity, therefore were not included as emission unit sections with this application.

SCC is requesting a revised pulp production capacity for PSD purposes of 781,000 TPY ADUP based on the current ability of the two paper machines, which have achieved up to 2,200 tons per day (TPD) ADUP equivalent production. At 355 days per operation, which would be a maximum, the annual tonnage is 781,000 TPY ADUP.

3.0 PSD APPLICABILITY

SCCs ability to attain a higher level of production capacity is entirely due to increased reliability and efficiency of operations at the Panama City mill. Since 1988, when the pulp production limitation for PSD purposes was set, there have only been two physical modifications to the mill. The first was a woodyard rebuild, which was permitted by FDEP in 1988, at essentially the same time as the TRS control project. The woodyard rebuild improved wood chip quality, providing a better "yield" (i.e., tons of pulp per ton of wood used).

The second physical modification to the mill was the digester system rebuild in 1994. This was also permitted by the FDEP, and the new digesters were subject to NSPS. Although the maximum capacity of the digester system (120 TPH ADUP) did not change with the new system, the efficiency, reliability and up time of the new digesters improved.

No other physical changes to the mill have been undertaken since the pulp production capacity limitation was set in 1988. SCC has over the last ten years routinely replaced failed components with equipment of the same capacity, as needed. Most new equipment, though having the same capacity as the old components, is more reliable and has allowed the mill to operate with more uptime and increased efficiency. The SCC mill has strived for safer and more efficient operation and has consequently increased the mill's capacity through increased reliability of equipment and controls.

SCCs improvements in many aspects of operation are reflected in the historical data for the mill. As shown in the figures in Appendix A, the following trends have occurred at the SCC mill:

- Pulp production has steadily risen over the years. The years 1993 and 1994 were affected by the digester rebuild, and 1998 was affected by a 3-month shutdown for economic reasons. This shows that gradual improvement rather than physical changes have led to a high level of production not previously envisioned.

- Since 1978, total energy consumption per ton of pulp produced has decreased from approximately 40 MMBtu/ton bone dry untreated pulp (BDUP) to approximately 30 MMBtu/ton BDUP.
- Black liquor solids (BLS) consumed per ton of pulp produced has steadily decreased since 1994 (subsequent to the new digesters being installed).
- Wood consumption per ton of pulp produced has steadily decreased.
- Total steam production and steam produced per ton of pulp produced have steadily decreased.
- Fossil fuel consumption has decreased steadily over the years. Renewable fuel (bark/wood waste) consumption has increased.

SCC has continually decreased the total heat input from fossil fuels, which in turn has lowered the amount of fossil fuel consumed per ton of pulp. Fossil fuel combustion is a major source of air emissions and the decreased use of fossil fuels due to both the increased overall efficiency of the mill and the increased use of cleaner fuels, such as bark, has lowered overall air emissions from the SCC mill.

Emissions of criteria pollutants and TRS have also remained the same or decreased, on a pound per ton of pulp basis, since the 1987-1988 time period, as compared to 1997-1998 emissions. Emissions of PM, PM_{10}, SO_2, NO_x, and TRS have decreased on a lb/ton of pulp basis, while CO and VOC have remained about the same. CO and VOC emissions would have decreased as well had it not been for a change from fossil fuels to renewable wood fuels, although there is no doubt of the overall benefit in reducing fossil fuel consumption.

The above discussion demonstrates that SCC has achieved its high levels of pulp production based on reliability and improved efficiencies, and not from physical changes.

Under Florida's air pollution regulations, "modifications" to existing air emitting facilities require air construction permits, and may require a PSD preconstruction permit. A "modification" is defined as "any physical change in, change in the method of operation, or

addition to a facility which would result in an increase in the actual emissions of any air pollutant...". A change in the method of operation does not include an increase in the hours of operation or production rate of an emissions unit or facility, unless the change would be prohibited by any federally enforceable permit condition, which was established after January 6, 1975.

As discussed previously, no physical changes have been made to the facility, which caused an increase in actual emissions, and no additions to the facility have been made. Further, a change in the method of operation has not occurred, and will not occur with the higher pulp capacity, since the previously established pulp production capacity is not federally enforceable (i.e., it was only established as a PSD applicability review trigger), and SCC will continue to produce pulp in the same manner as before. An increase in operating hours or in production rate by itself is exempt from PSD review. This project does not involve debottlenecking, since all equipment is already physically capable of handling the requested change in pulp production capacity.

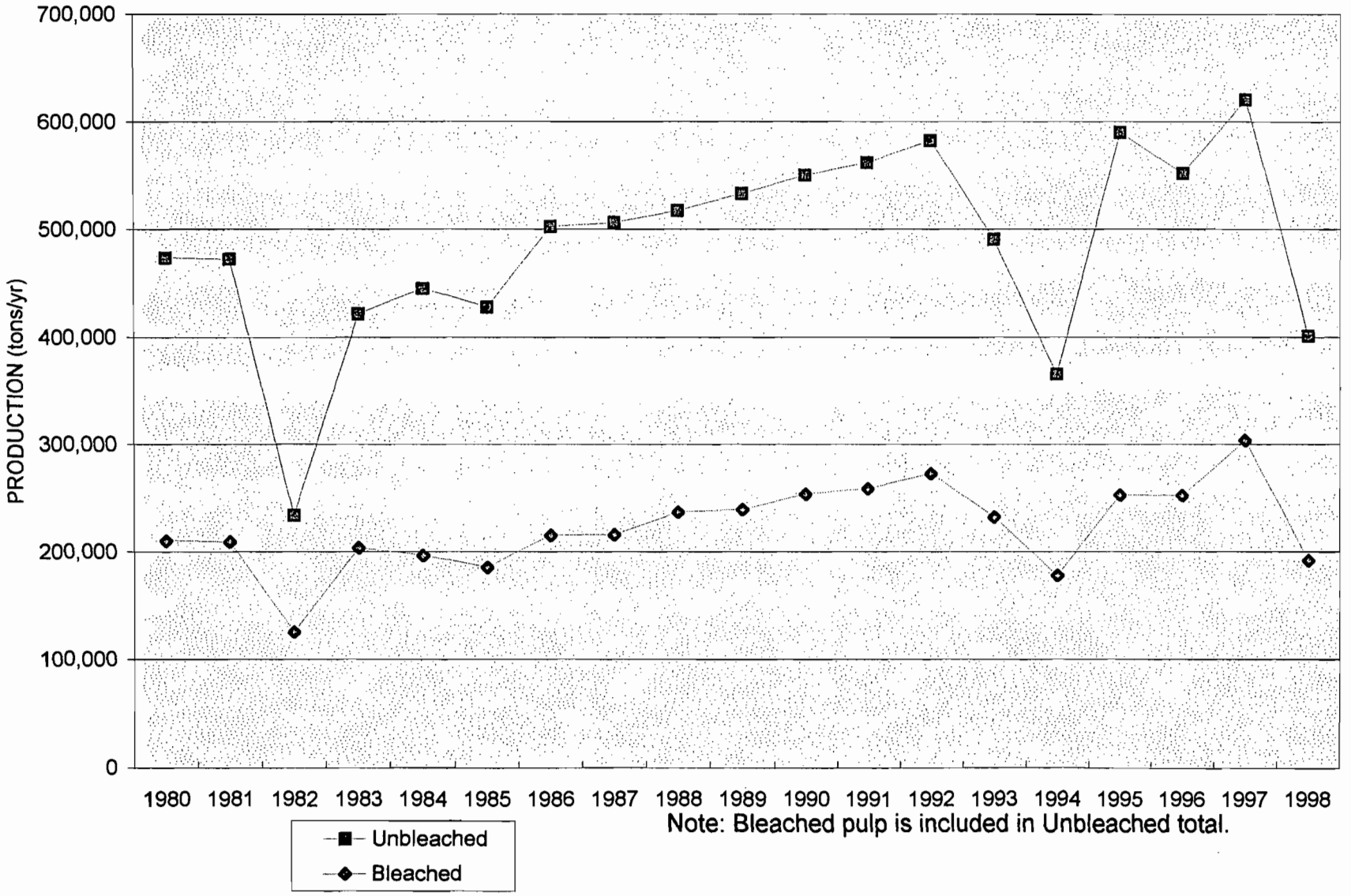
APPENDIX A

FACILITY TRENDS

6/6/99

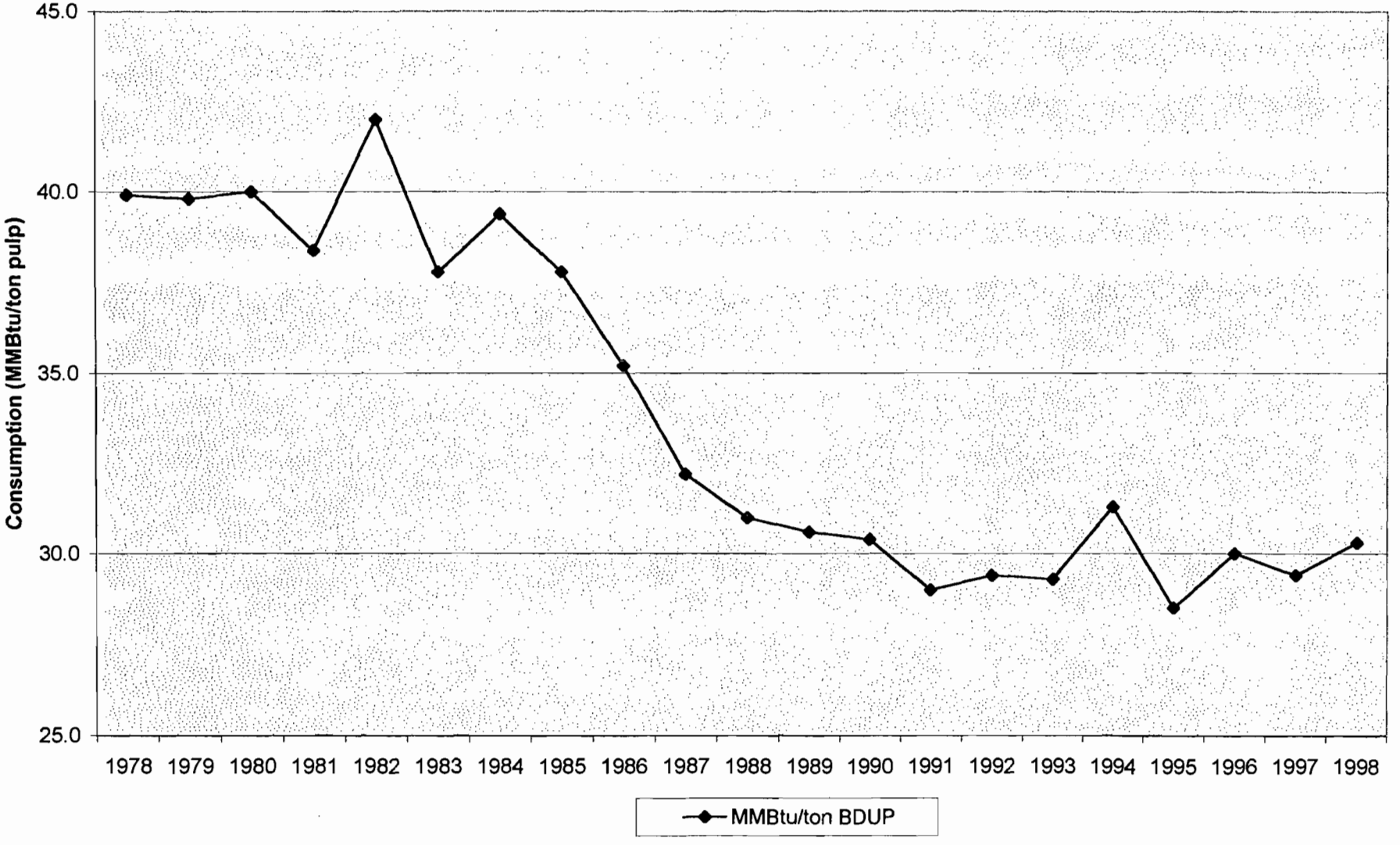
PULP PRODUCTION

Panama City

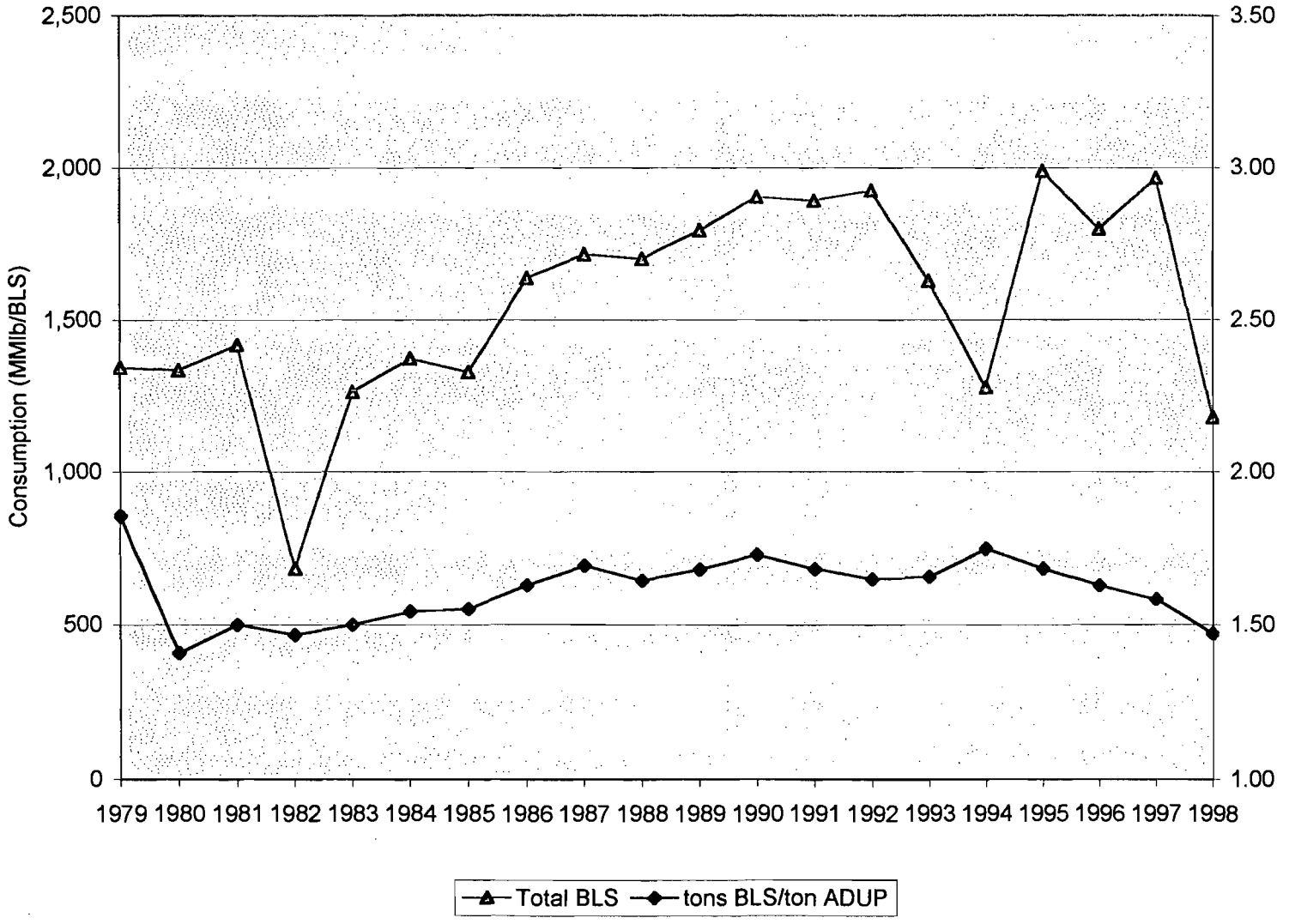


Note: Bleached pulp is included in Unbleached total.

Total Energy Consumption

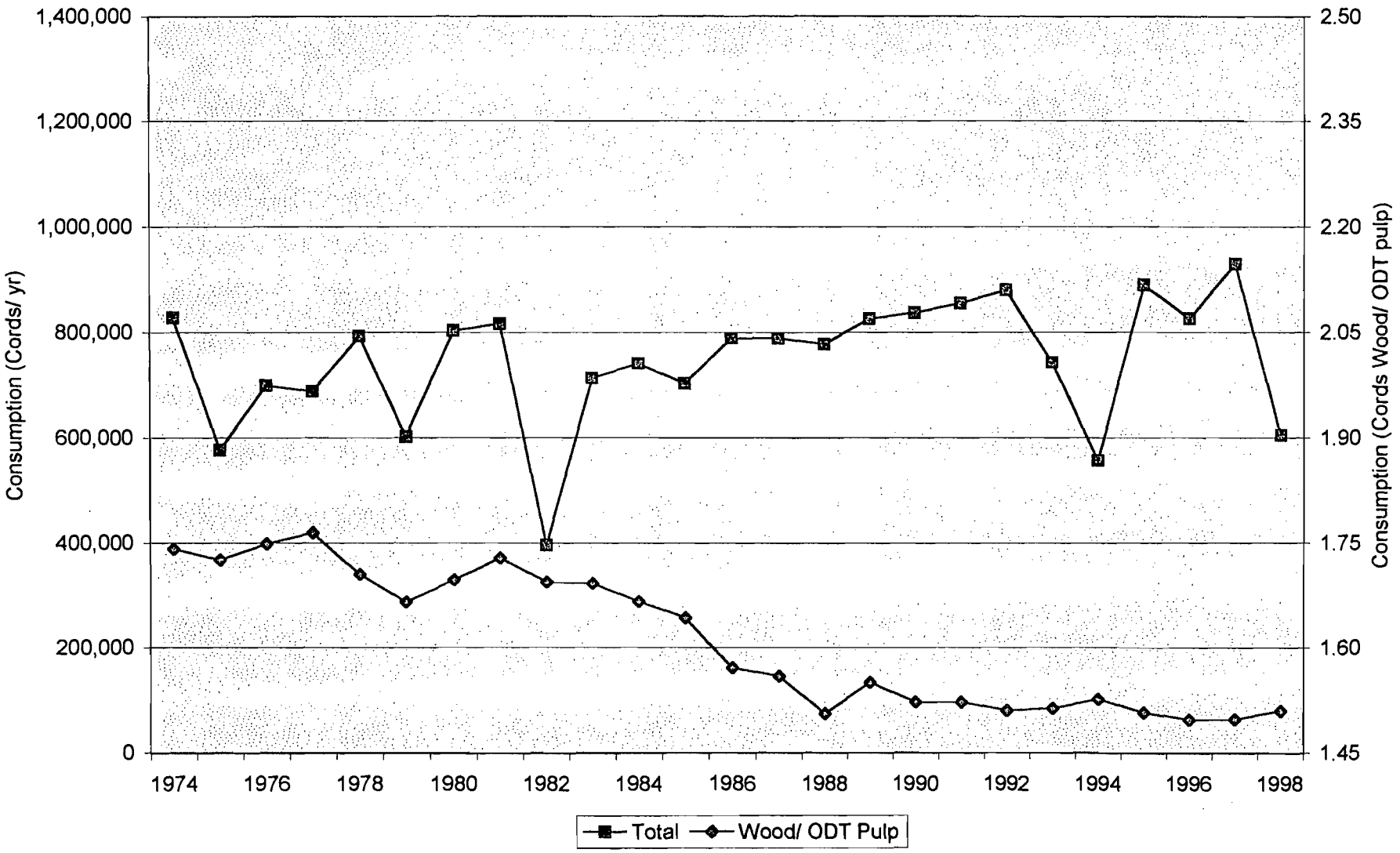


BLS Consumption
Panama City



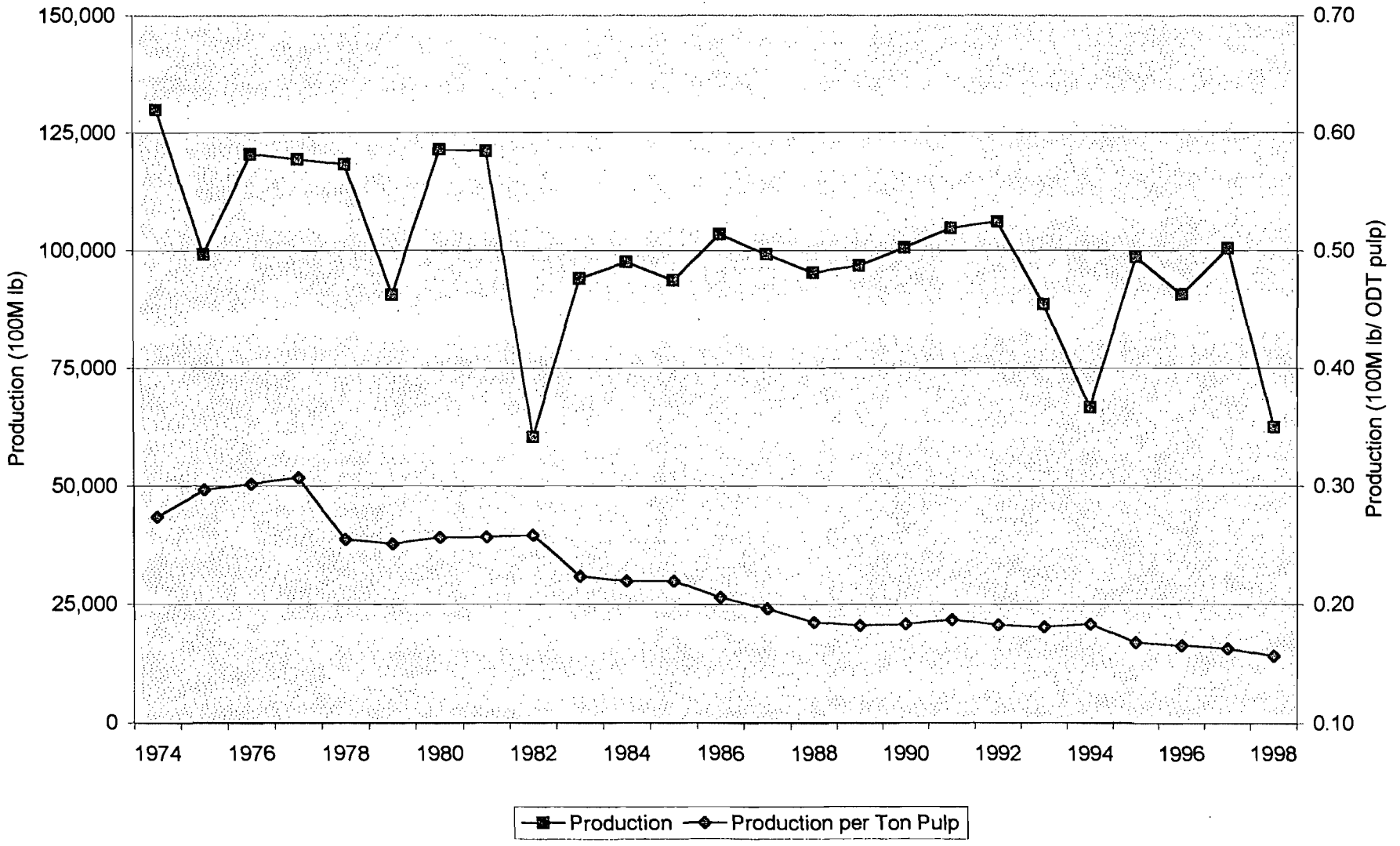
WOOD CONSUMPTION

Panama City

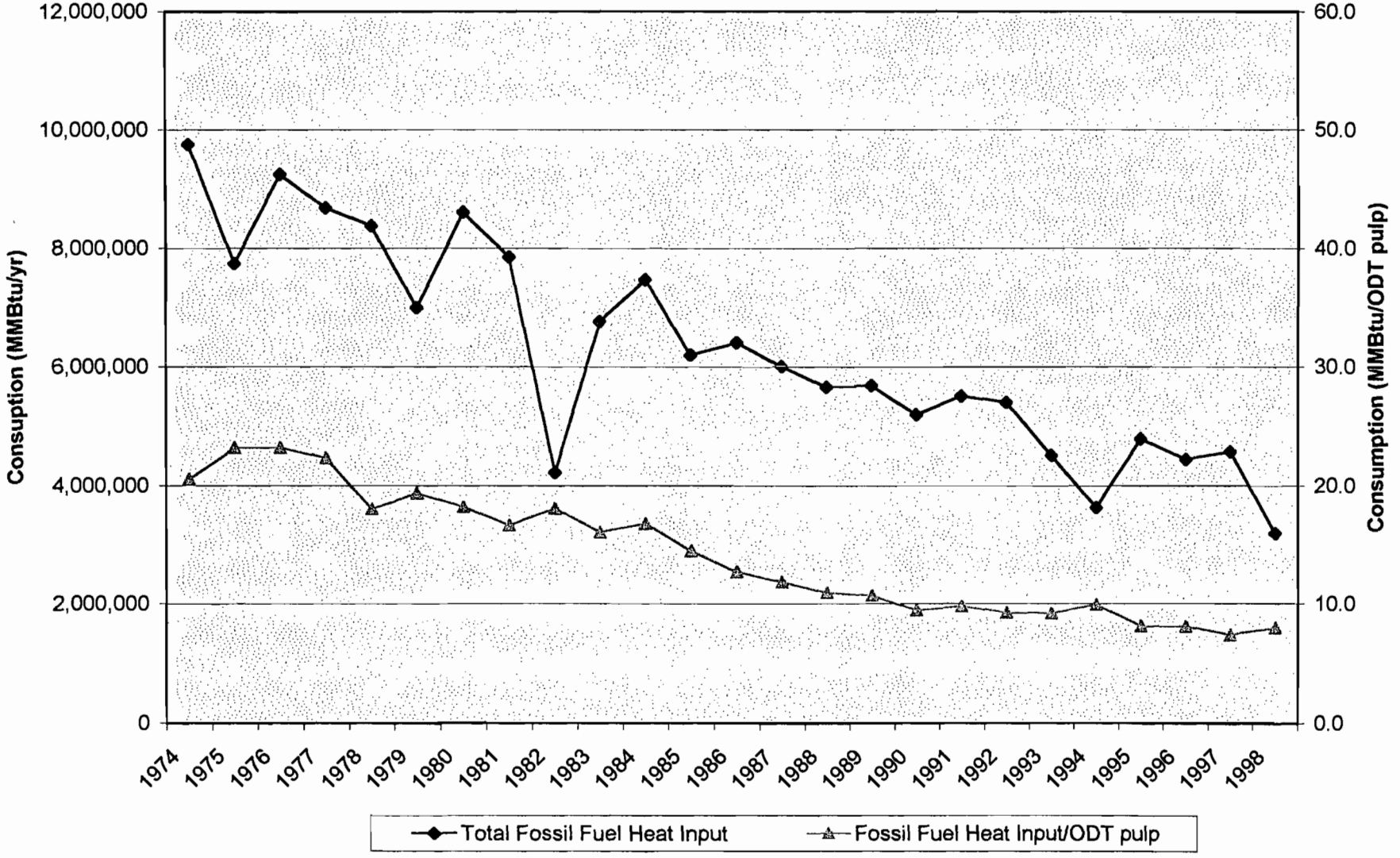


STEAM PRODUCTION

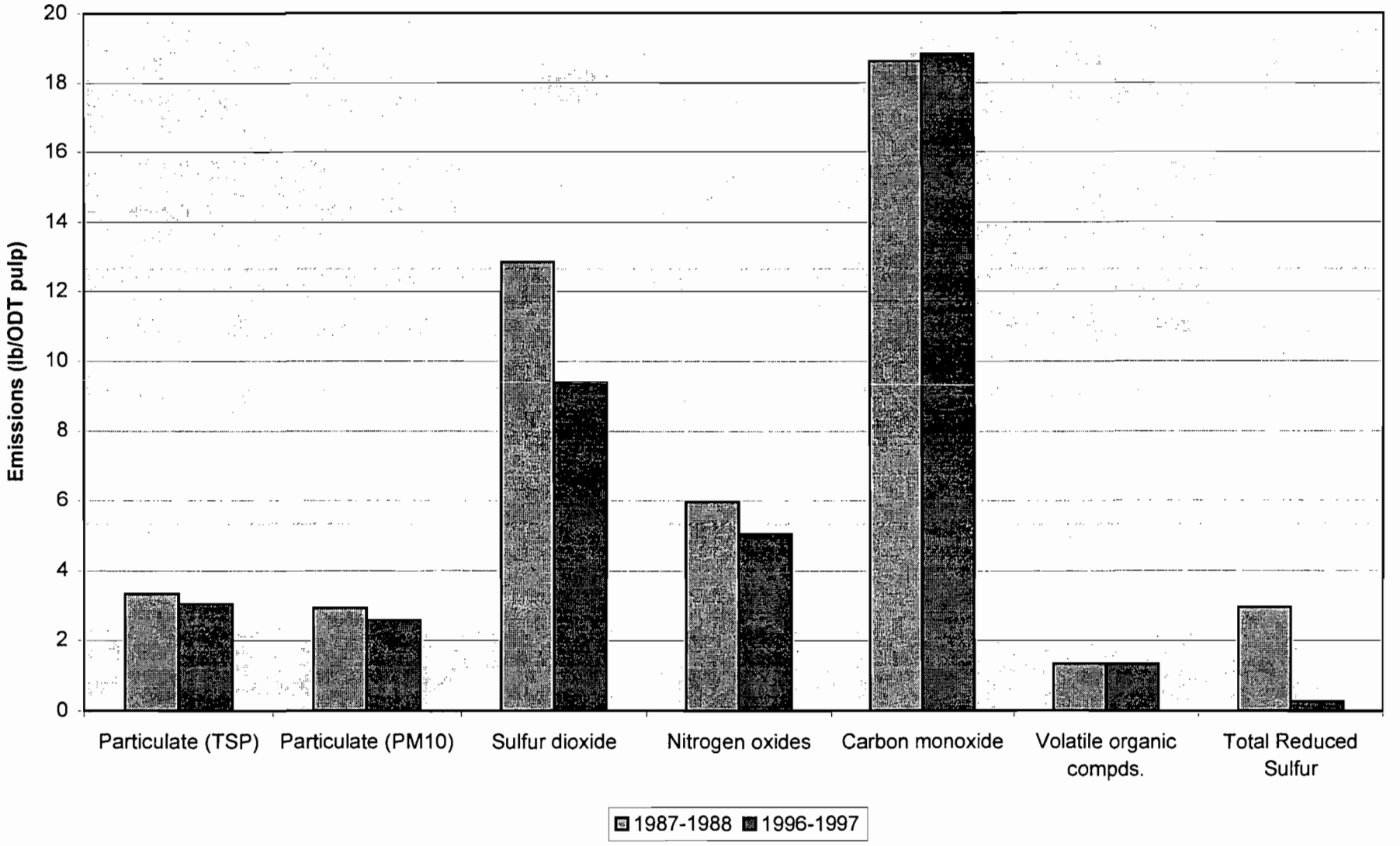
Panama City



Fossil Fuel Consumption



EMSSIONS PER TON OF PULP



APPENDIX B

PERMITS

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

PERMITTEE:
Stone Container Corp.
P. O. Box 2560
Panama City, FL 32402

Permit Number: AC 03-142979
Expiration Date: September 24, 1989
County: Bay
Latitude/Longitude: 30° 08' 31"N
85° 37' 16"W
Project: Digester System

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Rules 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

This permit is for the digester system which consists of 22 batch digester systems. Each batch digester system includes the batch digester, the blow tank(s), the blow heat accumulator(s), the turpentine condenser system(s), etc. pursuant to F.A.C. Rule 17-2.100(59)[Definitions-Digester System]. The construction of a new digesting blow heat accumulator as a replacement for two presently installed digesting accumulators. The construction of improvements to the turpentine condenser system. The construction of a noncondensable gas (NCG) handling system to convey all air pollutant emissions from the digester system to the lime kiln for incineration. The project is located at the permittee's kraft pulp mill in Panama City, Bay County, Florida. The UTM coordinates are Zone 16, 632.8 km East, and 3335.1 km North.

The Standard Industrial Codes are: Industry No. 2611-Pulp Mills
Industry No. 2621-Paper Mills
The Standard Classification Codes are: Pulp & Paper Industry
Major Group 26: Sulfate (Kraft) Pulping
- o Batch Digester System 3-07-001-01
- o Turpentine Condenser 3-07-001-07

Construction will be in accordance with the permit application, plans, documents, and reference materials submitted unless otherwise stated in the General and Specific Conditions.

ATTACHMENTS

AC 03-142979

Attachments:

1. Permit application for digester system, ME evaporators, & turpentine condenser vent, received November 25, 1987.

2. C. H. Fancy's letter to J. F. Stewart, dated December 4, 1987.

3. L. D. Riley's letter to C. H. Fancy, dated December 4, 1987, received December 7, 1987.

4. C. H. Fancy's letter to J. P. Stewart, dated January 22, 1988.

5. Revised permit application for the digester system, received May 5, 1988.

6. C. H. Fancy's letter to J. F. Stewart, dated June 3, 1988.

7. L. D. Riley's letter to C. H. Fancy, dated July 1, 1988, received July 5, 1988.

8. L. D. Riley's letter to C. H. Fancy, dated July 7, 1988, received July 8, 1988.

9. L. D. Riley's letter to Mike Harley, dated July 13, 1988, received July 14, 1988.

10. Technical Evaluation and Preliminary Determination, dated August 9, 1988.

11. L. D. Riley's letter to Mike Harley, dated September 19, 1988, received September 20, 1988.

12. Final Determination, dated October 14, 1988.

PERMITTEE:
Stone Container Corp.

Permit Number: AC 03-142979
Expiration Date: September 24, 1989

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

a. Having access to and copying any records that must be kept under the conditions of the permit;

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

( ) Determination of Best Available Control Technology (BACT)
( ) Determination of Prevention of Significant Deterioration (PSD)
( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS:

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. The digester system may operate continuously, i.e. 8760 hours/year.

2.a. For PSD purposes, the annual production rate of the digester system will be 668,850 tons of air dry unbleached pulp (ADUP) per year.

b. For NSPS purposes, the maximum production rate of the digester system will be 120 tons of ADUP per hour and 1911 tons of ADUP per day.

c. For testing purposes, the maximum production rate of the

SPECIFIC CONDITIONS:

digester system will be 79.6 tons of ADUP per hour. Tests for compliance will be performed with the control device (lime kiln) operating at 90-100% of the maximum lime kiln operating rate and with the digester system operating as near the maximum production rate as possible, but in no case shall the operating rate of the digesters be less than 85% of the maximum production rate.

3. The digester system is subject to the total reduced sulfur (TRS) emission limiting standard pursuant to Florida Administrative Code (F.A.C.) Rule 17-2.600(4)(c)1.a., which requires combustion of the TRS gases in the lime kiln, from which the exhaust gases shall not contain TRS in excess of 20 ppmvd at standard conditions corrected to 10% O_2 as a 12-hour average, in accordance with FAC Rule 17-2.600(4)(c)5.

4. The digester system is subject to the provisions of F.A.C. Rule 17-2.600(4)(c)1.c., which includes the requirement of establishing a contingency plan.

5. The digester system is subject to the provisions of F.A.C. Rules 17-2.240: Circumvention, 17-2.250: Excess Emissions, and 17-4.130: Plant Operation-Problems.

6. The digester system is subject to the provisions of F.A.C. Rules 17-2.710(4): Quarterly Reporting Requirements, and 17-4.140: Reports.

7. Compliance tests using EPA Method 16 or 16A, Determination of TRS Emissions from Stationary Sources, in accordance with F.A.C. Rule 17-2.700, shall be conducted if the permittee does not incinerate the TRS gases from the digester system in the lime kiln.

8. All process equipment shall be inspected regularly and maintained in good operating condition to minimize fugitive gaseous emissions.

9. Pursuant to F.A.C. Rule 17-2.960(1), the digester system shall be in final compliance by May 12, 1989, and the permittee shall provide proof of final compliance to the Northwest District office by June 27, 1989.

SPECIFIC CONDITIONS:

10. The Northwest District office shall be notified in writing at least 15 days prior to source testing pursuant to F.A.C. Rule 17-2.700(2)(a)5. Written reports of the tests shall be submitted to the Northwest District office within 45 days of test completion.

11. To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operation permit, including the application fee, compliance test results, the Certificate of Completion, and the contingency plan, to the Northwest District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit in accordance with F.A.C. Rules 17-2 and 17-4.

If the construction permit expires prior to the permittee filing an application for a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct (F.A.C. Rule 17-4).

12. Any change in the method of operation, raw materials and chemicals processed, equipment, or operation hours pursuant to F.A.C. Rule 17-2.100(118), Modification, shall be submitted for approval to DER's Bureau of Air Quality Management.

13. The lime kiln's construction/operating permit(s) shall have a Specific Condition that the lime kiln is the TRS control device for the digester system.

14. The lime kiln shall be tested for TRS and one-time only for SO_2 emissions. The results will be used to rule out or require further emissions review pursuant to F.A.C. Rule 17-2.500, PSD.

PERMITTEE:
Stone Container Corp.

Permit Number: AC 03-142979
Expiration Date: September 24, 1989

Issued this 19 day of Oct,
1988

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Dale Twachtmann

Dale Twachtmann, Secretary

Department of Environmental Protection

Lawton Chiles
Governor

Northwest District
160 Governmental Center
Pensacola, Florida 32501-5794

Virginia B. Wetherell
Secretary

June 11, 1996

David Riley
Stone Container Corporation
1 Everitt Avenue
Panama City, Florida 32402

Dear Mr. Riley:

This is in response to Mr. David Buff's May 24 letter requesting that permits AO-03270940 and AC03-252285 be amended regarding the maximum allowable operating rate of 120 TPH ADUP in the previous permits. The 87.3 TPH used in specific condition 2 was taken from page 12 of your AO application as the maximum production rate, but since the production can not be tracked on an hourly basis due to the sequencing of the 22 digesters, an average rate should not be used as a maximum allowable.

This letter can be used as a clarifying amendment to the permits restoring the 120 TPH limit as requested and, for PSD purposes, the annual production rate of the digester system remains at 668,850 tons of air dry unbleached pulp (ADUP) per year.

If you have any comments or questions please contact Andy Allen at (904) 444-8364.

Sincerely,

Ed K. Middleswart

Ed K. Middleswart, P.E.
Air Program Administrator

EKM:aac

cc: DEP Division of Air Resources Management, Tallahassee

Department of
Environmental Protection

Lawton Chiles
Governor

Northwest District
160 Governmental Center
Pensacola, Florida 32501-5794

Virginia B. Wetherell
Secretary

PERMITTEE:

Stone Container Corporation

I.D. Number: 10PCY03000927
Permit/Certification Number: AC03-252285
Date of Issue: July 5, 1994
Expiration Date: June 15, 1995
County: Bay
Latitude/Longitude:30°08'30"N/85°37'25"W
Project: Digester System Rebuild

This permit is issued under the provisions of section 403.087,Florida Statutes, and Florida Administrative Code Rules 17-296, 17-297 and 17-4. The above named applicant, hereinafter called permittee, is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

The 22 digester systems will be replaced in kind and the emissions will be totally contained in the existing NCG collection system and routed to the lime kiln for incineration. The No. 4 Bark Boiler serves as backup to the lime kiln for TRS incineration. The TRS gases will be subjected to a minimum temperature of 1200 degrees Fahrenheit for at least 0.5 seconds in either of the two combustion devices. The 22 batch digester systems consist of five blow tanks, one accumulator tank with a condenser before and after the accumulator tank and a turpentine condensing system following the accumulator. The maximum process rate will not increase as a result of the new digester system.

The project is located at the permittee's kraft pulp mill in Panama City, Bay County, Florida. The UTM coordinates are zone 16, 632.8 km East, and 3335.1 km North.

The Standard Industrial Codes are:
Industry No. 2611-Pulp Mills
Industry No. 2621-Paper Mills

The Standard Classification Codes are:
Pulp and Paper Industry Major Group 26:
Sulfate (Kraft) Pulping
BATCH DIGESTER SYSTEM 3-07-001-01
TERPENE CONDENSER 3-07-001-07

PERMITTEE:

Stone Container Corporation

I.D. Number: 10PCY03000927
Permit/Certification Number: AC03-252285
Date of Issue: July 5, 1994
Expiration Date: June 15, 1995

SPECIFIC CONDITIONS:

General

1. The attached General Conditions are part of this permit. [FAC Rule 17-4.160]

Construction

2. The Department shall be notified upon initial commissioning of the new Digester system. [FAC Rule 17-4.210]

3. The Department shall be notified and prior approval obtained of any changes or revisions from the June 6, 1994 application. [FAC Rule 17-4.210]

Operation

4. The digester system may operate continuously (8760 hours per year). [FAC Rule 17-4.070]

5. The maximum production rate will be 87.3 tons per hour air dried unbleached pulp (ADUP). [FAC Rule 17-4.070]

6. The non-condensible gases (NCG) from the batch digesters, blow tanks, accumulator tank and turpentine condenser system shall be destroyed in the Lime Kiln or the Bark Boiler by subjecting the TRS gases to at least 1200°F for at least 0.5 seconds. [FAC Rule 17-296.404(3)(e)]

7. The digester system is subject to the total reduced sulfur (TRS) emission limiting standard which requires combustion of the TRS gases in the lime kiln. [FAC Rule 17-296.404(3)(a)1]

Administrative

8. Submit an updated TRS VENTING CONTINGENCY PLAN with the request for the operation permit. The plan shall include definitions of what constitutes a reportable venting incident and an assessment of the use of the back-up control device.[17-296.404(3)3]

9. The new process equipment shall be installed in such a manner to facilitate regular inspections and maintenance to minimize fugitive gaseous emissions. [FAC Rule 17-4.070]

10. An annual operation report shall be submitted by March 1 each year. [FAC Rule 17-210.370]

11. A major air pollution source Annual Operation Fee Form must be completed and submitted with the appropriate fee between January 15 and March 1 of each year.[FAC Rule 17-213]

PERMITTEE:

Stone Container Corporation

I.D. Number: 10PCY03000927
Permit/Certification Number: AC03-252285
Date of Issue: July 5, 1994
Expiration Date: June 15, 1995

SPECIFIC CONDITIONS:

12. The applicant shall retain a Professional Engineer registered in the State of Florida, for the inspection of the construction of this project. Upon completion the engineer shall inspect for conformity to the permit application and associated documents. A certificate of completion shall be submitted with the compliance test results for an operation permit. The permittee shall obtain an operating permit for this source before the expiration of this construction permit if the permittee desires to continue operation.[FAC Rule 17-4.050]

13. The permanent source identification number for this point source is 10PCY03000927. Please cite this number on all test reports and other correspondence specific to this permitted point source.[FAC Rule 17-297.570]

14. The Department telephone number for reporting problems, malfunctions or exceedances under this permit is (904) 444-8300, day or night, and for emergencies involving a significant threat to human health or the environment is (904) 488-1320. For routine business, telephone (904) 872-4375 during normal working hours. [FAC Rule 17-210.700]

Expiration Date:

June 15, 1995

Issued this 5th day of July, 1994.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Ed K. Middleswart

for BOBBY A. COOLEY
District Director

PERMITTEE:

Stone Container Corporation

I.D. Number: 10PCY03000927
Permit/Certification Number: AC03-252285
Expiration Date: June 15, 1995

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "permit conditions", and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises where the permitted activity is located or conducted to:

a. Have access to and copy any records that must be kept under the conditions of this permit;

b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,

PERMITTEE:

Stone Container Corporation

I.D. Number: 10PCY03000927
Permit/Certification Number: AC03-252285
Expiration Date: June 15, 1995

GENERAL CONDITIONS:

c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. A description of and cause of noncompliance; and

b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-730.300, as applicable. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof is required to be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

PERMITTEE:

Stone Container Corporation

I.D. Number: 10PCY03000927
Permit/Certification Number: AC03-252285
Expiration Date: June 15, 1995

GENERAL CONDITIONS:

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuousmonitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurement;
- the person responsible for performing the sampling or measurement;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

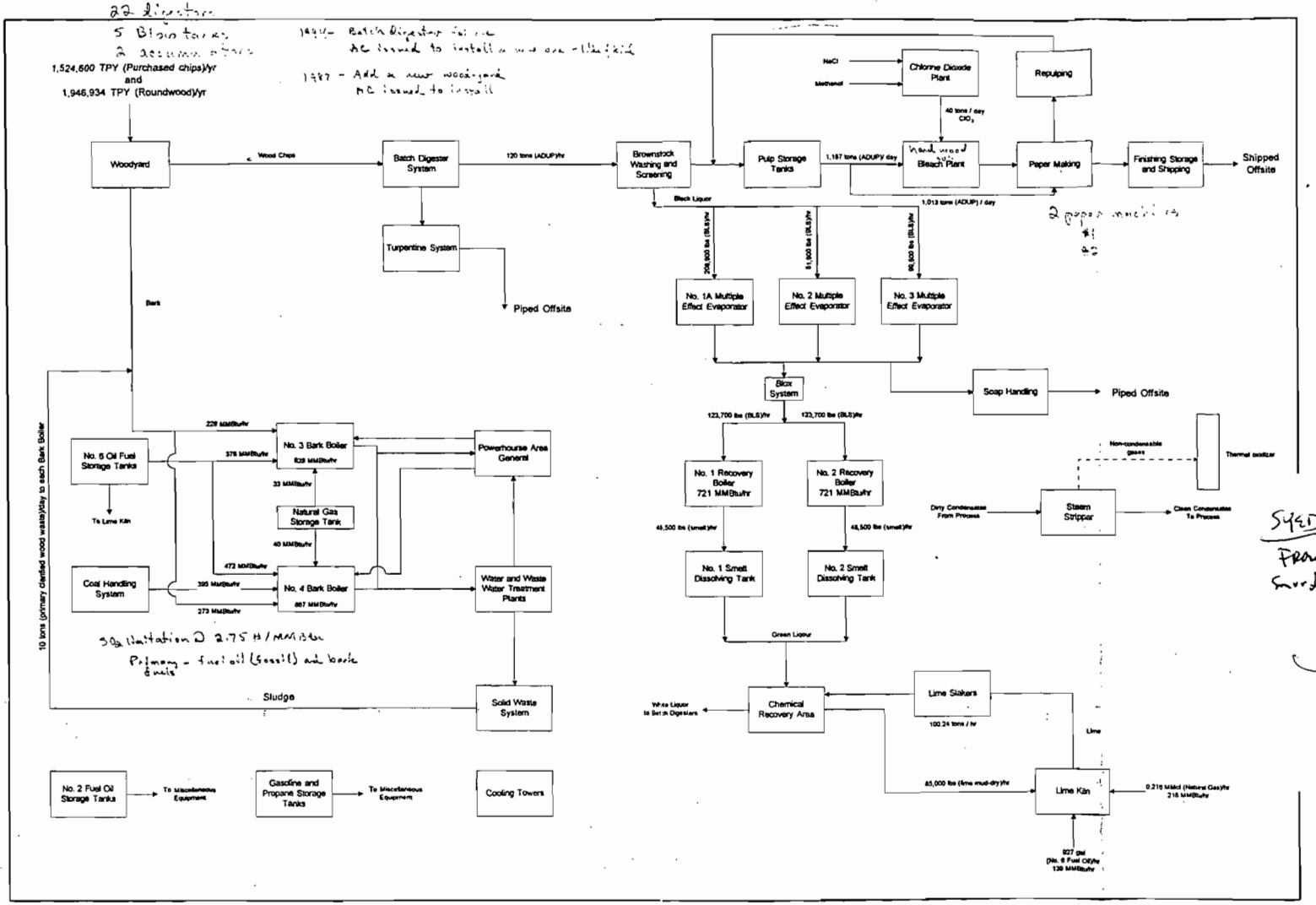
14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

June 7, 1999

@ 10:30 a.m. Smurfit-Stone's Panama City Mill

Bruce Mitchell	FDEP	850/921-9506
Pat Comer	FDEP / OGC	(850) 921-9621
Jeff Brown	DEP/OGC	(850) 921-9625
Al Linero	DEP/BAR	(850) 921-9523
Terry Cole	OHF&C (SSCC)	521-0700
David Buff	Golder Assoc.	352-336-5600
C H Fancy	FDEP	850 921 9503
DAVID RILEY	STONE - PANAMA CITY	850-785-4311
Tom Clements	" "	" " "
Charles Ackel	Smurfit-Stone	904-714-7120

BEST AVAILABLE COPY



Smurfit - Stone Container Corporation		Emission Unit:	Overall Plant
		Process Area:	Overall Plant
SCC-FI-E3	Panama City, FL	Filename:	SCC-FAC2.VSD
		Latest Revision Date:	6/3/99 2:13 PM

Golder Associates

6-7

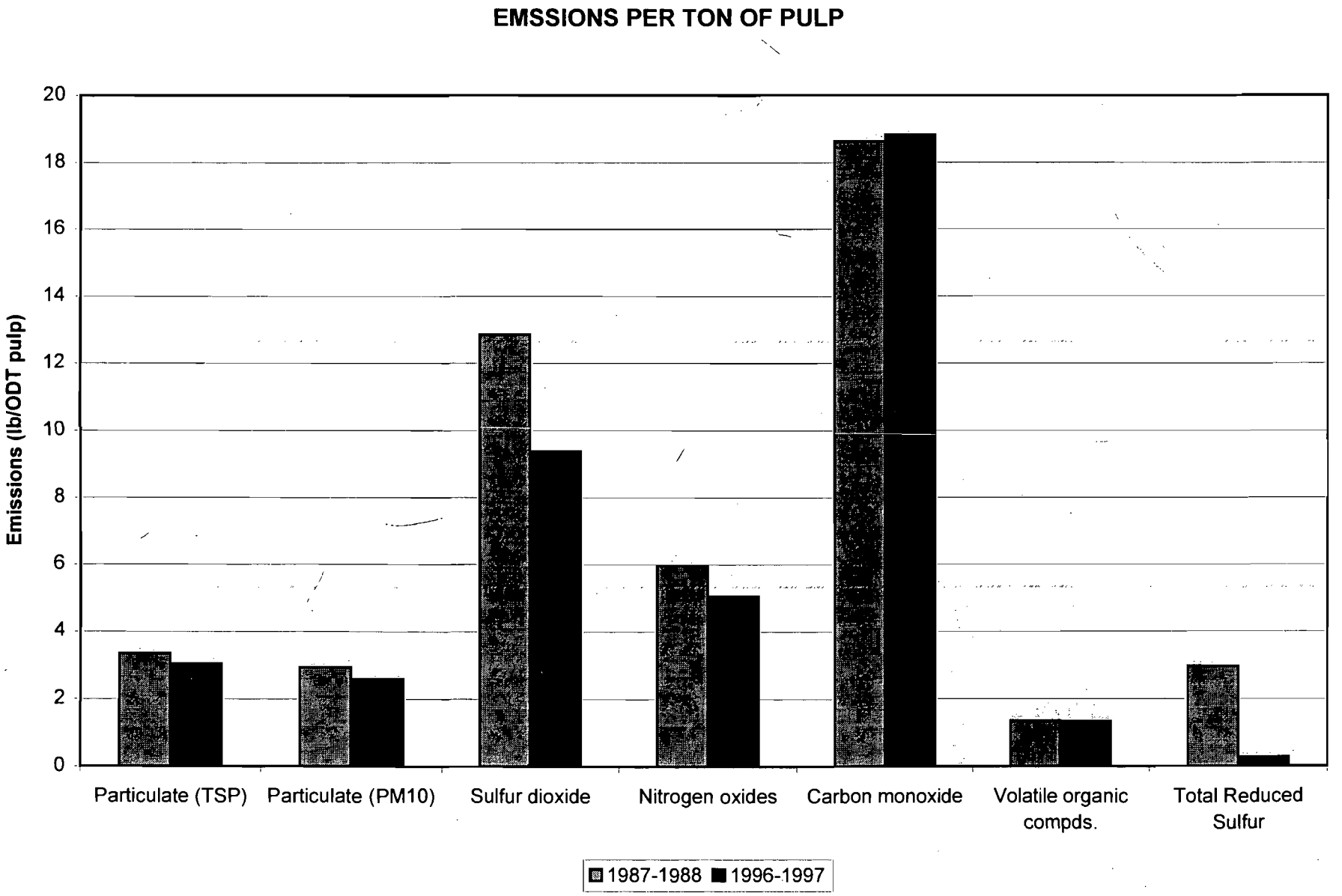
SYSD

From meeting with Smurfit Stone - Chris

June 7, 1999

@ 10:30 a.m. Smurfit-Stone: Panama City Mill

Bruce Mitchell	FDEP	850/921-9506
Pat Comer	FDEP / OGC	(850) 921-9621
Jeff Brown	DEP / OGC	(850) 921-9625
Al Linero	DEP/BAR	(850) 921-9523
Terry Cole	OHF&C (SSCC)	521-0700
David Duff	Golder / SSOC	352-336-5600
C H Fancy	FDEP	850 921 9503
David Riley	Stone - Panama City	850-785-4311
Tom Clements	" "	" " "
Charles Pickett	Smurfit - Stone	904-714-7120



INTEROFFICE MEMORANDUM

Sensitivity: COMPANY CONFIDENTIAL

Date: 01-Jun-1999 03:54pm
From: Alvaro Linero TAL
LINERO_A
Dept: Air Resources Management
Tel No: 850/921-9532

To: Patricia Comer TAL (COMER_P)
To: Jeffrey E. Brown TAL (BROWN_JE)
To: Bruce Mitchell TAL (MITCHELL_B)
To: Syed Arif TAL (ARIF_S)

Subject: Meeting with Stone Container

Pat, Jeff. Golder Associates wants to set up a meeting to discuss "adjustment" of Stone Container's pulp production limit without triggering PSD. Dave Buff of Golder will be there, together with various company representatives, and Terry Cole of Oertel Hoffman.

How does Monday (6/7) look? How about any other days? Please bring Rule 62-212.400 with you along with definitions of actual emissions and modifications. This may be an important test case.

Syed. Please get a copy of the Title V permit in whatever form it is in (draft, proposed, or final). Also have a look at the most recent permitting actions for that facility. Identify the limiting conditions. Maybe we can discuss prior to the meeting.

Thanks. Al.

Department of Environmental Protection

Lawton Chiles
Governor

Northwest District
160 Governmental Center
Pensacola, Florida 32501-5794

Virginia B. Wetherell
Secretary

DECEMBER 4, 1995

David Buff, P.E.
KBN Engineering and Applied Sciences, Inc.
Suite 500
6241 Northwest 23rd Street
Gainesville, Florida 32653-1500

Dear Mr. Buff:

This is in response to your letter dated September 20, 1995 requesting changes to several permits issued to Stone Container. Your letter responded to issues raised by our letter dated July 11, 1995, and our subsequent teleconference.

This letter approves the requested changes as detailed below.

Woodyard Facility; AC03-148859, and AO03-190807:

You requested substitution of a visible emissions limit of 20% in lieu of projected potential PM emissions identified in specific condition 6 of permit AC03-148859, explaining that fugitive PM emissions could not be measured and compliance verified. We agree. As such, the following amendments are approved:

AC03-148859:

Specific condition 6 is deleted

AO03-190807:

Specific condition 16 is changed to include:

f) Visible emissions resulting from activities at the woodyard shall not be equal to or greater than 20%.

Lime Kiln, AC03-149719, AO03-174793:

You requested that the maximum process input rate be identified as 85,000 lbs/hr lime mud (dry) which is measured rather than the production rate of 36,700 lbs/ CaO/hr which is calculated based on the input rate. Additionally, you requested that the sulfur content limit of natural gas be deleted explaining that pipeline natural gas has negligible sulfur content. You also requested that

requirements concerning QA procedures and excess emissions reporting simply reference the appropriate regulations or rules. Lastly you request deletion of a specific condition concerning runoff since it is not germane to an air permit. We agree. As such, the following amendments are approved.

AC03-149719:

Specific condition 2 is changed to read:

The maximum process input rate shall not exceed 85,000 lbs/hr lime mud (dry) based on a maximum lime production of 36,700 lbs CaO/hr dry.

Specific condition 3 is changed by deleting the sentence:

The sulfur content of the natural gas shall not exceed 0.1 percent by weight.

AO03-174793:

Specific condition 15 is changed to read:

The maximum allowable operating rate is 85,000 lbs/hr lime mud (dry) input.

Specific condition 16 is changed by deleting the references to the sulfur content of the natural gas.

Specific condition 17 is changed so that the first sentence reads as follows:

Particulate emissions shall not exceed 29.83 pounds per hour at the maximum allowable operating rate of 85,000 lbs/hr lime mud (dry) input.

The first paragraph of specific condition 23 is revised to read:

A continuous TRS monitor for TRS shall be calibrated, maintained, and operated on the lime kiln in accordance with FAC Rule 62-296.404(5) and 40 CFR 60, Appendix F.

Paragraph A of specific condition 23 is revised to delete the sentence:

A reassessment of the QA Program plan shall be made and submitted to the Northwest District of the DEP within 60 days of the performance specification test.

Specific condition 24 is changed to read as follows:

1) The magnitude of excess emissions computed, and the date and time of commencement and completion of each period of excess emissions, in accordance with 62-296.404(6)(a)1.
2) The rule reference is changed to 62-296.404(6)(a)2
3) The rule reference is changed to 62-296.404(6)(a)3
4) The rule reference is changed to 62-296.404(6)(a)4
5) The rule reference is changed to 62-296.404(6)(b)

Specific condition 27 is deleted.

No. 1 and 2 Smelt Dissolving Tanks, AO03-222668, AO03-240550:

You requested changes in these permits for consistency between the permits, to cite the correct references, and to improve clarity. Additionally, you request deletion of a specific condition concerning runoff since it is not germane to an air permit. We agree with your suggestions. As such the following amendments are approved.

AO03-222668:

The description is changed to read:

Operation of the No. 1 Smelt Dissolving Tank at a maximum operating rate equal to the maximum allowed operating rate of the No. 1 Recovery Boiler which is 123,700 pounds Black Liquor Solids per hour. Smelt from the recovery boiler is dissolved in weak wash. Particulate emissions are controlled by demister pads made by Otto H. York Company; total reduced sulfur (TRS) emissions are controlled by weak wash sprays. The flow rate of weak wash sprays is monitored as a surrogate compliance parameter.

Specific condition 2 is changed to read as follows:

The maximum allowable operating rate is 123,700 lbs/hr Black Liquor Solids fed to Recovery Boiler No. 1. This is the operating rate at which compliance with standards shall be demonstrated. Testing of emissions shall be conducted with the source operating at capacity. Capacity is defined as 90 to 100% of rated capacity. If it is impracticable to test at capacity, then sources may be tested at less than capacity; if the source is tested at less than capacity subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacity is allowed for no more than fifteen days for purposes of additional compliance testing to regain the rated capacity in the permit with prior notification to the Department.

Specific condition 4 is changed as follows:

FAC Rule reference 17-296.710(2) is changed to 62-296.310(1)
FAC Rule reference 17-296.404(d)(1) is changed to 62-296.404(3)(d)(1)
The two columns labeled "Estimated Emissions" are deleted

Specific condition 10 is deleted.

AO03-240550

The second sentence of the description is changed to read as follows:

Smelt from the recovery boiler is dissolved in weak wash to produce green liquor.

Specific condition 6 is changed by adding:

Weak wash spray flow rate shall be recorded at least once per shift.

No. 1 and 2 Recovery Boilers, AO03-222669, AO03-240555:

You requested changes in these permits for consistency between the permits, and to cite the correct references. You also requested that requirements concerning QA procedures and excess emissions reporting simply reference the appropriate regulations or rules. We agree. As such, the following amendments are approved.

AO03-222669:

Specific condition 4 is changed as follows:

The two columns labeled "Estimated Emissions" are deleted.

Under allowable emissions, TRS delete all and replace with footnote 2 to read as follows:

2. 17.5 ppm by volume, dry basis at standard conditions, at 8% O2, 12 hour average.

Specific condition 7 is changed as follows:

The first sentence is revised to read:

A continuous TRS monitor for TRS shall be calibrated, maintained and operated on the recovery boiler in accordance with FAC Rule 62-296.404(5) and 40 CFR 60, Appendix F.

The second sentence is deleted.

A. Delete the sentence: A reassessment of the QA Program plan shall be made and submitted to the Northwest District of the DEP within 60 days of the performance specification test.

Specific condition 8 is changed to read as follows:

A) The magnitude of excess emissions computed, and the date and time of commencement and completion of each period of excess emissions, in accordance with 62-296.404(6)(a)1.
B) The rule reference is changed to 62-296.404(6)(a)2
C) The rule reference is changed to 62-296.404(6)(a)3
D) The rule reference is changed to 62-296.404(6)(a)4
E) The rule reference is changed to 62-296.404(6)(b)

AO03-240555

The general description is changed to read as follows:

Operation of Recovery Boiler No. 2, fueled by 123,700 pounds of black liquor solids (BLS) per hour. No. 6 fuel oil and/or natural gas is used as auxiliary fuel. The maximum sulfur content of the fuel oil is 2.5%. Particulates (PM) are controlled by an electrostatic precipitator manufactured by Koppers, two sections of four fields each. Total reduced sulfur (TRS) emissions are controlled by oxidation of the black liquor prior to entering the boiler fire box.

Specific condition 6 is changed as follows:

The first sentence is revised to read as follows:

The continuous monitor (CEM) for TRS shall be calibrated, maintained and operated in accordance with FAC Rule 62-296.404(5) and 40 CFR 60, Appendix F.

The following sentence is deleted from paragraph A:

A reassessment of the AQ Program plan shall be made and submitted to the Northwest District of the DEP within 60 days of the performance specification test.

The language "and surrogate parameter" is deleted from specific condition 9.

No. 3 & 4 Bark Boilers; AO03-252353, AC03-190964, AO03-223447

You requested changes to these permits adding emissions limits identified by rule, providing consistency between permits, and eliminating unnecessary notifications.

AO03-252353

Add to the column "Allowable Emissions" in Specific condition 6 for PM, after natural gas, "and fossil fuels"

AC03-190964

Add to the list of fuels in specific condition 4:

Primary clarified wood waste; 10 TPD; 0 Btu/hr

Delete the following language from specific condition 19:

The Department's Northwest District office shall be notified in writing when the boiler is switched to incinerating TRS gases and/or operating at 100% fossil fuel..

AO03-223447

Change the fourth sentence in the general description to read as follows:

Sulfur dioxide emissions when incinerating TRS gases or when burning 100 percent fuel oil are controlled by maintaining a minimum pH of 8.0 in the wet scrubber.

If you have any questions or comments, please contact Bob Kriegel of this office at (904) 444-8364.

Sincerely,

Ed K. Middleswart, P.E.
Program Administrator
Air Resources Management

EKM:bkc

cc: David Riley, Stone Container Corporation
A. A. Linero, DEP Division of Air Resources Management, Tallahassee
Jenny Arias, DEP Northwest District Branch Office, Panama City

MEMORANDUM

TO: David Riley, Craig Hurd, A. Allen, A. A. Linero

FROM: David A. Buff DAB
KBN Engineering and Applied Sciences, Inc.

DATE: September 20, 1995

RE: Stone Container Corp., Panama City Mill/FDEP Meeting, August 22, 1995, Tallahassee, FL

Attendees: FDEP Tallahassee - A. A. Linero, S. Aref
FDEP NW District (via telephone) - A. Allen, B. Kreigel, E. Middleswart
Stone Container - David Riley, Craig Hurd
KBN - David Buff

Meeting Notes:

General

The FDEP NW District will process all requested changes, except the request related to increasing the fuel oil sulfur content for the Bark Boilers. This request will be processed by FDEP Tallahassee.

Changes to air operating (AO) permits do not need to be public noticed, since the AO permits are not federally enforceable. The requests can in general be handled as permit amendments, with a letter request from the permittee serving as the application. The amendments can reference the previous AO permit, and address the specific conditions which are changed. The entire permit does not need to be reissued.

Changes to air construction (AC) permits will need to be public noticed, in order to retain their federal enforceability. These requests can also be handled as permit amendments, through letter request, except in the case of the increase in fuel oil sulfur content. The amendments can reference the previous AC permit, and address the specific conditions which are changed. The entire permit does not need to be reissued.

D. Buff of KBN agreed to provide notes of the meeting to the various parties.

Woodyard Permit: AC03-148859

Stone Container requested that the condition related to PM emissions be deleted. Stone Container will provide further information related to basis of emissions, actual emissions will not change, no

physical changes or change in method of operation, no modification will occur; VE limit will be accepted in lieu of mass emissions limit.

This request can be handled as permit amendment, through letter request. The amendments can reference the previous AC permit, and address the specific conditions which are changed. Public notice will be required.

Lime Kiln Permit; AC03-149719

Request to delete sulfur content of natural gas; request will be handled in same manner as woodyard permit.

Lime Kiln AO Permit

Same actions as for Lime Kiln AC permit. Also, conditions related to QA plan requirements for continuous TRS monitor will be changed to reference 40 CFR 60, Appendix F and FAC Rule 62-296.404(5). Stone to provide information that Appendix F and 62-296 are being complied with, reporting requirements not changing, etc. Stone to expand on proposed wording.

No. 3 and 4 Bark Boilers

Request to change fuel oil sulfur content will be submitted through FDEP Tallahassee. Stone will propose to lower maximum fuel oil burning rate to offset increase in sulfur, so maximum SO_2 emissions do not change. FDEP will need to determine if new application is required, and if PSD is issue.

Other Requested Changes

The FDEP NW District has agreed to the other requested changes not described above. Stone Container will repeat the requests in a new letter to FDEP. FDEP will process as amendments, as described previously.

cc: File (2)

KBN

RECEIVED

SEP 22 1995

Bureau of Air Regulation

September 20, 1995

Mr. Ed Middleswart
Florida Department of Environmental Protection
160 Government Center
Pensacola, FL 32501-5794

Re: Amendments to Current Permits
Stone Container Corporation, Panama City

Dear Mr. Middleswart:

Based on our August 22 meeting in Tallahassee with the Department and your staff (via teleconference), Stone Container Corporation (SCC) is requesting amendments to several current operating permits and past construction permits issued to the facility. This request is based upon the August 22 meeting and a review to determine if any permit conditions are considered to be unnecessary, or if any permit conditions need to be revised to be consistent with applicable requirements.

It is noted that this request covers all the issues discussed in the August meeting, except for the requests dealing with utilizing 2.5 percent sulfur fuel oil in all sources at the mill. The requests related to this issue will be forwarded to the DEP Tallahassee office.

The requested permit amendments are described below for specific conditions (S.C.) of each permit, along with the rationale for such changes.

Woodyard Facility; AC03-148859

S.C. 6 - Substitute a visible emissions limit of 20 percent in lieu of the reference to projected potential PM emissions from the woodyard. The 20 percent visible emission limitation is based upon the general PM emission limiting standards contained in 17-296.310(2).

Reason for Request: Mass emission limits are normally not specified in permits for fugitive dust emissions which cannot be measured. There is no means of directly measuring the fugitive PM emissions from the woodyard. Therefore, there is no available method to demonstrate compliance with a mass emission limit. The visible emissions limit will provide the Department with a measurable means of determining compliance and that reasonable precautions are used to prevent fugitive emissions. This condition is not contained in the current operating permit for the woodyard. For these reasons, this condition is considered unnecessary.

This change in the permit wording will in no way affect actual emissions. There will be no physical changes or changes in the method of operation of the woodyard, and there will be no increase in actual emissions. The basis of the original construction permit application for the new woodyard has not changed. Therefore, this change does not constitute a modification under Florida's air rules.

KBN ENGINEERING AND APPLIED SCIENCES, INC.

6241 Northwest 23rd Street, Suite 500, Gainesville, Florida 32653-1500, 904-336-5600, FAX 904-336-6603
5405 West Cypress Street, Suite 215, Tampa, Florida 33607, 813-287-1717, FAX 813-287-1716
1801 Clint Moore Road, Suite 105, Boca Raton, Florida 33487, 407-994-0010, FAX 407-994-4803
7380 Baymeadows Way, Suite 105, Jacksonville, Florida 32256, 904-739-7600, FAX 904-739-7777
1616 P Street N.W., Suite 450, Washington, D.C. 20036, 202-483-1100, FAX 202-462-2270

Lime Kiln; AC03-149719

S.C. 2 - Revise the condition to read "The maximum process input rate shall not exceed 85,000 lbs/hr lime mud (dry) based on a maximum lime production rate of 36,700 lbs CaO/hr (dry).

Reason for Request: The lime mud input rate is measured, whereas the lime production rate is a calculated value based on the lime mud input. Therefore, this change will provide a more direct method of determining the operating rate.

S.C. 3 - Delete the sentence "The sulfur content of the natural gas shall not exceed 0.1 percent by weight."

Reason for Request: Due to the negligible sulfur content of pipeline natural gas, there is no reason to regulate the sulfur content of natural gas. Also, there is no feasible method to demonstrate compliance with this limitation. SCC contracts for natural gas, and SCC must utilize the natural gas supplied by the supplier.

This change in the permit wording will in no way affect actual emissions. There will be no physical changes or changes in the method of operation of the lime kiln, and there will be no increase in actual emissions. The basis of the original construction permit application for the lime kiln has not changed. Therefore, this change does not constitute a modification under Florida's air rules.

Lime Kiln; AO03-174793

S.C. 15 - Revise the first sentence to read "The maximum allowable operating rate is 85,000 lbs/hr lime mud (dry) input.

Reason for Request: The lime mud input rate is measured, whereas the lime production rate is a calculated value based on the lime mud input. Therefore, this change will provide a direct a more direct method of determining the operating rate.

S.C. 16 - In the second sentence, delete the reference to the sulfur content of the natural gas shall not exceed 0.1 percent by weight.

Reason for Request: Refer to justification under Lime Kiln construction permit (above).

S.C. 17 - Revise the first sentence to read "Particulate emissions shall not exceed 29.83 pounds per hour at the maximum allowable operating rate of 85,000 lbs/hr lime mud (dry) input.

Reason for Request: The lime mud input rate is measured, whereas the lime production rate is a calculated value based on the lime mud input. Also, the process weight table regulation is based on process input. Therefore, this change will provide a direct a more direct method of determining the operating rate.

S.C. 23 - Revise this condition to read: "A continuous TRS monitor for TRS shall be calibrated, maintained and operated on the lime kiln in accordance with FAC Rule 62-296.404(5) and 40 CFR 60, Appendix F."

The second sentence of this specific condition is deleted.

Reason for Request: All necessary QA procedures for the continuous TRS monitoring system are contained in 62-296.404(5) and 40 CFR 60, Appendix F. Therefore, this requirement should be specified instead of a QA Program plan.

It is acknowledged that SCC did not submit a Quality Assurance Program plan to the Department, as required by this condition. However, SCC has complied with 62-296.404(5) and 40 CFR 60, Appendix F, and therefore has complied with the intent of this condition. In fact, SCC has actually performed quality assurance practices which go beyond the minimum requirements. This includes performing relative accuracy (RATA) testing annually on the TRS monitors. RATA testing is only required under the rules upon initial installation, and after replacement of major TRS monitoring system components. The results of the annual RATA testing have been submitted to the Department.

S.C. 23.A. - Delete the sentence "A reassessment of the QA Program plan shall be made and submitted to the Northwest District of the DEP within 60 days of the performance specification test."

Reason for Request: Same rationale as for S.C. 23 above.

S.C. 24 - This condition refers to the federal new source performance standards. However, the lime kiln is not an NSPS source, and therefore is not subject to 40 CFR 60.284 or 40 CFR 60.7. The digester system, although subject to the NSPS, is not required to have a CEM for TRS if the TRS is incinerated in a non-NSPS lime kiln and the TRS gases are subject to a minimum temperature of 1200°F for at least 0.5 seconds. The correct reference to excess emissions and reporting requirements should cite the Florida TRS rules, i.e., 62-296.404(5) and (6). The Florida rules require essentially the same requirements as the federal NSPS, therefore, there will be no substantive change in the current reporting requirements. Therefore, the following changes are requested:

S.C. 24.1 - Reword to read: "The magnitude of excess emissions computed, and the date and time of commencement and completion of each period of excess emissions, in accordance with 62-296.404(6)(a)1."

S.C. 24.2 - Correct reference is 62-296.404(6)(a)2.

S.C. 24.3 - Correct reference is 62-296.404(6)(a)3.

S.C. 24.4 - Correct reference is 62-296.404(6)(a)4.

S.C. 24.5 - Correct reference is 62-296.404(6)(b).

S.C. 27 - Delete this condition.

Reason for Request: This condition is not an air quality requirement, and therefore should be deleted from the air permit.

No. 1 Smelt Dissolving Tank; AO03-222668

Description of Source - Revise the description to read "Operation of the No. 1 Smelt Dissolving Tank at a maximum operating rate equal to the maximum allowed operating rate of the No. 1 Recovery Boiler which is 123,700 pounds Black Liquor Solids per hour. Smelt from the recovery boiler is dissolved in weak wash. Particulate emissions are controlled by demister pads made by Otto H. York Company; total reduced sulfur (TRS) emissions are controlled by weak wash sprays. The flow rate of weak wash sprays is monitored as a surrogate compliance parameter.

Reason for Request: Revise wording to be consistent with the wording for the No. 2 Smelt Dissolving Tank.

S.C. 2 - Revise wording of this condition to be consistent with the wording in S.C. 2 of the operating permit for the No. 2 Smelt Dissolving Tank. Also correct "123,700 lbs/hr of black liquor" to "123,700 lbs/hr of black liquor solids".

Reason for Request: Revise wording to be consistent with the wording for the No. 2 Smelt Dissolving Tank.

S.C. 4 - Reference to 17-296.710(2) is incorrect since this rule refers to the RACT limits for PM, which apply only in PM nonattainment areas. The correct reference should be to Rule 62-296.310(1), which is the process weight regulation. The reference to 296.404(d)(1) is incorrect, and should be 296.404(3)(d)1. Also, delete the two columns with the heading "Estimated Emissions".

Reason for Request: Revise the condition to reflect the correct rule citation. Citing of estimated emissions is unnecessary in the permit.

S.C. 10 - Delete this condition.

Reason for Request: This condition is not an air quality requirement, and therefore should be deleted from the air permit.

No. 2 Smelt Dissolving Tank; AO03-240550

Description of Source - The second sentence should be revised to read "Smelt from the recovery boiler is dissolved in weak wash to produce green liquor."

Reason for Request: To clarify the actual operation of the smelt tank.

S.C. 6 - Revise condition to require that the surrogate parameter of weak wash flow rate be recorded at least once per shift.

Reason for Request: The current permit wording does not specify the frequency for recording weak wash flow. The requested change will be consistent with the No. 1 Smelt tank, which requires recording of the flow rate at least once per shift.

No. 1 Recovery Boiler; AO03-222669

S.C. 4 - Delete the two columns with the heading "Estimated Emissions." Also, revise the wording of this condition to be consistent with the wording in S.C. 4 of the Recovery Boiler No. 1 operating permit, which does not contain a reference to lbs/hr or TPY for TRS emissions.

Reason for Request: Citing of estimated emissions is unnecessary in the permit, and the 17.5 ppm limit is sufficient to limit TRS emissions. Also, in order to update the Department's files, the last three compliance tests for the recovery boiler have been reviewed. Based on this review, the maximum anticipated gas flow rate from the recovery boiler system is 180,000 dscfm @ 8 percent O_2. The TRS emissions resulting from this flow rate are calculated as follows:

$PV = mRT;\ m = PV/RT$

$m = 2{,}116.8\ lb_f/ft^2 \times 180{,}000\ ft^3/min \times 60\ min/hr \times (34/1545)\ lb_m\text{-}°R/ft\text{-}lb_f \times 1/528°F \times 17.5/10^6$

$= 16.67\ lb/hr = 73.0\ TPY$

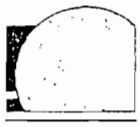
S.C. 7 - In the same manner as the lime kiln permit, revise first sentence to read "A continuous TRS monitor for TRS shall be calibrated, maintained and operated on the recovery boiler in accordance with FAC Rule 62-296.404(5) and 40 CFR 60, Appendix F." Delete the second sentence.

S.C. 7.A. - Delete the sentence "A reassessment of the QA Program plan shall be made and submitted to the Northwest District of the DEP within 60 days of the performance specification test."

Reason for Request: All necessary QA procedures for the continuous TRS monitoring system are contained in 62-296.404(5) and 40 CFR 60, Appendix F. Therefore, this requirement should be specified instead of a QA Program plan.

As described for the lime kiln, SCC has performed quality assurance procedures on the recovery boiler TRS monitors which meet the requirements of Appendix F, and has additionally performed annual RATA testing.

S.C. 8 - This condition refers to the federal new source performance standards. However, the No. 1 Recovery Boiler is not an NSPS source, and therefore is not subject to 40 CFR 60.284 or 40 CFR 60.7. The correct reference to excess emissions and reporting requirements should cite the Florida TRS rules, i.e., 62-296.404(5) and (6). The Florida rules require essentially the same requirements as the federal NSPS,



therefore, there will be no change in the current reporting requirements. Therefore, the following changes are requested:

S.C. 8.A. - Reword to read: "The magnitude of excess emissions computed, and the date and time of commencement and completion of each period of excess emissions, in accordance with 62-296.404(6)(a)1."

S.C. 8.B. - Correct reference is 62-296.404(6)(a)2.

S.C. 8.C. - Correct reference is 62-296.404(6)(a)3.

S.C. 8.D. - Correct reference is 62-296.404(6)(a)4.

S.C. 8.E. - Correct reference is 62-296.404(6)(b).

No. 2 Recovery Boiler; AO03-240555

Description of Source - Reword description to be consistent with description for No. 1 Recovery Boiler, i.e., drop reference to steam production, include natural gas as auxiliary fuel.

Reason for Request: Revise wording to be consistent with the wording for the No. 1 Recovery Boiler.

S.C. 6 - Revise first sentence to read "The continuous monitor (CEM) for TRS shall be calibrated, maintained and operated in accordance with FAC Rule 62-296.404(5) and 40 CFR 60, Appendix F."

S.C. 6.A. - Delete the sentence "A reassessment of the QA Program plan shall be made and submitted to the Northwest District of the DEP within 60 days of the performance specification test."

Reason for Request: All necessary QA procedures for the continuous TRS monitoring system are contained in 62-296.404(5) and 40 CFR 60, Appendix F. Therefore, this requirement should be specified instead of a QA Program plan.

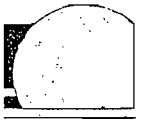
S.C. 9 - Delete the phrase "and surrogate parameter" from this condition.

Reason for Request: Since the boiler has a CEM for TRS, no surrogate parameter monitoring is required.

No. 3 Bark Boiler; AO03-252353

S.C. 6 - Under allowable emissions for PM, revise the limitation to read "0.1 lb/MMBtu from fossil fuels."

Reason for Request: Clarifies that the 0.1 lb/MMBtu limit also applies to fuel oil firing.



No. 4 Bark Boiler; AC03-190964

S.C. 4 - Add to the list of fuels: Primary clarified wood waste 10 TPD 0 Btu/hr

Reason for Request: The clarified woodwaste is a fuel already contained in the No. 3 Bark Boiler permit. This will provide consistency among the permits. The No. 4 Bark Boiler operating permit already reflects this change. There will be no change in emissions due to this request.

S.C. 19 - Delete the first part of this condition which requires notification to FDEP each time the boiler is incinerating TRS gases or burning 100 percent fuel oil.

Reason for Request: There is no basis for requiring the FDEP to be notified each time these activities take place. These activities or methods of operation are allowed under the permit. SCC keeps appropriate records of the dates and times when these operating conditions exist.

No. 4 Bark Boiler; AO03-223447

Description of Source- Revise fourth sentence to read "Sulfur dioxide emissions when incinerating TRS gases or when burning 100 percent fuel oil are controlled by maintaining a minimum pH of 8.0 in the wet scrubber."

Please consider these requested changes to the permits. If you have any questions concerning this request, please call.

Sincerely,

David A. Buff

David A. Buff, P.E.
Principal Engineer
Florida P.E. #19011

SEAL

DAB/arz

cc: David Riley
Craig Hurd
A. A. Linero
File (2)

KBN

June 30, 1995

Mr. Ed Middleswart
Florida Department of Environmental Regulation
160 Government Center
Pensacola, FL 32501-5794

Re: Amendments to Current Permits
Stone Container Corporation, Panama City

Dear Mr. Middleswart:

Stone Container Corporation (SCC), is currently preparing the Title V operating permit application for the Panama City paper mill. As part of this process, a review of all current operating permits and past construction permits has been undertaken. This review has been conducted to determine if any permit conditions are considered to be unnecessary, or if any permit conditions need to be revised to be consistent with applicable requirements. As you may be aware, the Department, through the Title V group in Tallahassee headed by John Brown, has recommended that such reviews and requests be made prior to the Title V application due date in order that the permits can be revised prior to the due date. The Title V due date for the Panama City mill is November 15, 1995.

The requested permit amendments are described below for specific conditions (S.C.) of each permit, along with the rationale for such change.

<u>Woodyard Facility; AC03-148859</u>

S.C. 6 - Delete this condition.

Reason for Request:
Mass emission limits are normally not specified in permits for fugitive dust emissions which cannot be measured. Also, the permit wording limits "projected potential emissions"; it does not require actual emissions to be less than the specified amounts. This condition is not contained in the current operating permit for the woodyard. For these reasons, this condition is considered unnecessary.

<u>Lime Kiln; AC03-149719</u>

S.C. 2 - Revise the condition to read "The maximum process input rate shall not exceed 85,000 lbs/hr lime mud (dry) based on a maximum lime production rate of 36,700 lbs CaO/hr (dry).

KBN ENGINEERING AND APPLIED SCIENCES, INC.

6241 Northwest 23rd Street, Suite 5[illegible], Gainesville, Florida [illegible]1500, 904-336-5600 FAX [illegible]-336-6603
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1801 Clint Moore Road, [illegible], Boca Raton, Florida [illegible], 407-994-[illegible], FAX 407-[illegible]
[illegible]
[illegible] Washington, D.C. [illegible]

Reason for Request:
The lime mud input rate is measured, whereas the lime production rate is a calculated value based on the lime mud input. Therefore, this change will provide a direct a more direct method of determining the operating rate.

S.C. 3 - Delete the sentence "The sulfur content of the natural gas shall not exceed 0.1% by weight."

Reason for Request:
Due to the negligible sulfur content of pipeline natural gas, there is no reason to regulate the sulfur content of natural gas.

Lime Kiln; AO03-174793

S.C 15 - Revise the first sentence to read "The maximum allowable operating rate is 85,000 lbs/hr lime mud (dry) input.

Reason for Request:
The lime mud input rate is measured, whereas the lime production rate is a calculated value based on the lime mud input. Therefore, this change will provide a direct a more direct method of determining the operating rate.

S.C. 16 - In the second sentence, delete the reference to the sulfur content of the natural gas shall not exceed 0.1% by weight.

Reason for Request:
Due to the negligible sulfur content of pipeline natural gas, there is no reason to regulate the sulfur content of natural gas.

S.C 17 - Revise the first sentence to read "Particulate emissions shall not exceed 29.83 pounds per hour at the maximum allowable operating rate of 85,000 lbs/hr lime mud (dry) input.

Reason for Request:
The lime mud input rate is measured, whereas the lime production rate is a calculated value based on the lime mud input. Also, the process weight table regulation is based on process input. Therefore, this change will provide a direct a more direct method of determining the operating rate.

S.C. 23 - Revise first sentence to read " A continuous TRS monitor for TRS shall be calibrated, maintained and operated on the lime kiln in accordance with FAC Rule 62-296.404(5) and 40 CFR 60, Appendix B." Delete the second sentence.

S.C. 23.A. - Delete the sentence "A reassessment of the QA Program plan shall be made and submitted to the Northwest District of the DER within 60 days of the performance specification test."

Reason for Request:
All necessary QA procedures for the continuous TRS monitoring system are contained in 62-296.404(5) and 40 CFR 60, Appendix B. Therefore, this requirement should be specified instead of a QA Program plan.

S.C. 24 - This condition refers to the federal new source performance standards. However, the lime kiln is not an NSPS source, and therefore is not subject to 40 CFR 60.284 or 40 CFR 60.7. The digester system, although subject to the NSPS, is not required to have a CEM for TRS if the TRS is incinerated in a non-NSPS lime kiln and the TRS gases are subject to a minimum temperature of 1200°F for at least 0.5 seconds. The correct reference to excess emissions and reporting requirements should cite the Florida TRS rules, i.e., 62-296.404(5).

S.C. 27 - Delete this condition.

Reason for Request:
This condition is not an air quality requirement, and therefore should be deleted from the air permit.

Lime Slaker; AO03-252354

S.C. 4 - SCC is hereby submitting the attached plan for monitoring the scrubber performance, as required by this condition.

No. 1 Smelt Dissolving Tank; AO03-222668

Description of Source -

Revise the description to read "Operation of the No. 1 Smelt Dissolving Tank at a maximum operating rate equal to the maximum allowed operating rate of the No. 1

Recovery Boiler which is 123,700 pounds Black Liquor Solids per hour. Smelt from the recovery boiler is dissolved in weak wash. Particulate emissions are controlled by demister pads made by Otto H. York Company; total reduced sulfur (TRS) emissions are controlled by weak wash sprays. The flow rate of weak wash sprays is monitored as a surrogate compliance parameter.

Reason for Request:
Revise wording to be consistent with the wording for the No. 2 Smelt Dissolving Tank.

S.C. 2 - Revise wording of this condition to be consistent with the wording in S.C. 2 of the operating permit for the No. 2 Smelt Dissolving Tank. Also correct "123,700 lbs/hr of black liquor" to "123,700 lbs/hr of black liquor solids".

Reason for Request:
Revise wording to be consistent with the wording for the No. 2 Smelt Dissolving Tank.

S.C. 4 - Reference to 17-296.710(2) is incorrect since this rule refers to the RACT limits for PM, which apply only in PM nonattainment areas. The correct reference should be to Rule 62-296.310(1), which is the process weight regulation. The reference to 296.404(d)(1) is incorrect, and should be 296.404(3)(d)1. Also, delete the two columns with the heading "Estimated Emissions".

Reason for Request:
Revise the condition to reflect the correct rule citation. Citing of estimated emissions is unnecessary in the permit.

S.C. 10 - Delete this condition.

Reason for Request:
This condition is not an air quality requirement, and therefore should be deleted from the air permit.

No. 2 Smelt Dissolving Tank; AO03-240550

Description of Source -

The second sentence should be revised to read "Smelt from the recovery boiler is dissolved in weak wash to produce green liquor."

Reason for Request:
To clarify the actual operation of the smelt tank.

S.C. 6 - Revise condition to require that the surrogate parameter of weak wash flow rate be recorded at least once per shift.

Reason for Request:
The current permit wording does not specify the frequency for recording weak wash flow. The requested change will be consistent with the No. 1 Smelt tank, which requires recording of the flow rate at least once per shift.

No. 1 Recovery Boiler; AO03-222669

S.C. 4 - Delete the two columns with the heading "Estimated Emissions". Also, revise the wording of this condition to be consistent with the wording in S.C. 4 of the Recovery Boiler No. 1 operating permit, which does not contain a reference to lbs/hr or TPY for TRS emissions.

Reason for Request:
Citing of estimated emissions is unnecessary in the permit, and the 17.5 ppm limit is sufficient to limit TRS emissions. Also, in order to update the Department's files, the last three compliance tests for the recovery boiler have been reviewed. Based on this review, the maximum anticipated gas flow rate from the recovery boiler system is 180,000 dscfm @ 8% O_2. The TRS emissions resulting from this flow rate are calculated as follows:

$PV = mRT;\ m = PV/RT$

$m = 2{,}116.8\ lb_f/ft^2 \times 180{,}000\ ft^3/min \times 60\ min/hr$

$\times (34/1545)\ lb_m\text{-}^\circ R/ft\text{-}lb_f \times 1/528^\circ F \times 17.5/10^6$

$= 16.67\ lb/hr = 73.0\ TPY$

S.C. 7 - Revise first sentence to read " A continuous TRS monitor for TRS shall be calibrated, maintained and operated on the recovery boiler in accordance with FAC Rule 62-296.404(5) and 40 CFR 60, Appendix B." Delete the second sentence.

S.C. 7.A. - Delete the sentence "A reassessment of the QA Program plan shall be made and submitted to the Northwest District of the DER within 60 days of the performance specification test."

Reason for Request:
All necessary QA procedures for the continuous TRS monitoring system are contained in 62-296.404(5) and 40 CFR 60, Appendix B. Therefore, this requirement should be specified instead of a QA Program plan.

S.C. 8 - This condition refers to the federal new source performance standards. However, the No. 1 Recovery Boiler is not an NSPS source, and therefore is not subject to 40 CFR 60.284 or 40 CFR 60.7. The correct reference to excess emissions and reporting requirements should cite the Florida TRS rules, i.e., 62-296.404(5).

No. 2 Recovery Boiler; AO03-240555

Description of Source

- Reword description to be consistent with description for No. 1 Recovery Boiler, i.e., drop reference to steam production, include natural gas as auxiliary fuel.

Reason for Request:
Revise wording to be consistent with the wording for the No. 1 Recovery Boiler.

S.C. 6 - Revise first sentence to read "The continuous monitor (CEM) for TRS shall be calibrated, maintained and operated in accordance with FAC Rule 62-296.404(5) and 40 CFR 60, Appendix B."

S.C. 7.A. - Delete the sentence "A reassessment of the QA Program plan shall be made and submitted to the Northwest District of the DER within 60 days of the performance specification test."

Reason for Request:
All necessary QA procedures for the continuous TRS monitoring system are contained in 62-296.404(5) and 40 CFR 60, Appendix B. Therefore, this requirement should be specified instead of a QA Program plan.

S.C. 9 - Delete the phrase "and surrogate parameter" from this condition.

Reason for Request:
Since the boiler has a CEM for TRS, no surrogate parameter monitoring is required.

No. 3 Bark Boiler; AO03-252353

S.C. 4 - Revise fuel oil sulfur content of 2.5%.

Reason for Request:
The Florida rules limit fossil fuel steam generators to 2.75 lb/MMBtu, which is equivalent to 2.5% sulfur fuel oil. Also, permits for several other sources at SCC allow 2.5% sulfur fuel oil, and the plant has a single fuel oil tank and piping system.

S.C. 6 - Under allowable emissions for PM, revise the limitation to read "0.1 lb/MMBtu from natural gas and fuel oil."

Reason for Request:
Clarifies that the 0.1 lb/MMBtu limit also applies to fuel oil firing.

No. 4 Bark Boiler; AC03-190964

S.C. 4 - Revise the fuel oil sulfur content to 2.5%. Add to the list of fuels:
Primary clarified wood waste 10 TPD 0 Btu/hr

Reason for Request:
The Florida rules limit fossil fuel steam generators to 2.75 lb/MMBtu, which is equivalent to 2.5% sulfur fuel oil. Also, permits for several other sources at SCC allow 2.5% sulfur fuel oil, and the plant has a single fuel oil tank and piping system. The clarified woodwaste is a fuel already contained in the No. 3 Bark Boiler permit. This will provide consistency among the permits.

S.C. 10 - Delete SO_2 from specific condition.

Reason for Request:
SO_2 emissions are limited by the sulfur content of the fuels being burned and the SO_2 removal efficiency.

S.C. 19 - Delete the first part of this condition which requires notification to FDEP each time the boiler is incinerating TRS gases or burning 100% fuel oil.

Reason for Request:
There is no basis for requiring the FDEP to be notified each time these activities take place. These activities or methods of operation are allowed under the permit. SCC keeps appropriate records of the dates and times when these operating conditions exist.

No. 4 Bark Boiler; AO03-223447

Description of Source

- Revise third sentence to read "Sulfur dioxide emissions when incinerating TRS gases or when burning 100% fuel oil are controlled by maintaining a minimum pH of 8.0 in the wet scrubber."

S.C. 3 - Revise the fuel oil sulfur content to 2.5%. Add to the list of fuels:
Primary clarified wood waste 10 TPD 0 Btu/hr

Reason for Request:
The Florida rules limit fossil fuel steam generators to 2.75 lb/MMBtu, which is equivalent to 2.5% sulfur fuel oil. Also, permits for several other sources at SCC allow 2.5% sulfur fuel oil, and the plant has a single fuel oil tank and piping system. The clarified woodwaste is a fuel already contained in the No. 3 Bark Boiler permit. This will provide consistency among the permits.

S.C. 4 - Delete column heading entitled "Estimated TPY". Clarify that TRS limit is 12-hour average.

Reason for Request:
The estimated TPY listed in the permit have no regulatory meaning, and the numbers do not agree with the construction permit allowables. Moreover, the allowable limits in terms of lb/MMBtu and ppm TRS are sufficient to limit annual emissions from this source.

S.C. 10 - Delete the first part of this condition which requires notification to FDEP each time the boiler is incinerating TRS gases or burning 100% fuel oil.

Reason for Request:
There is no basis for requiring the FDEP to be notified each time these activities take place. These activities or methods of operation are allowed under the permit. SCC keeps appropriate records of the dates and times when these operating conditions exist.

Please consider these requested changes to the permits. If you have any questions concerning this request, please call.

Sincerely,

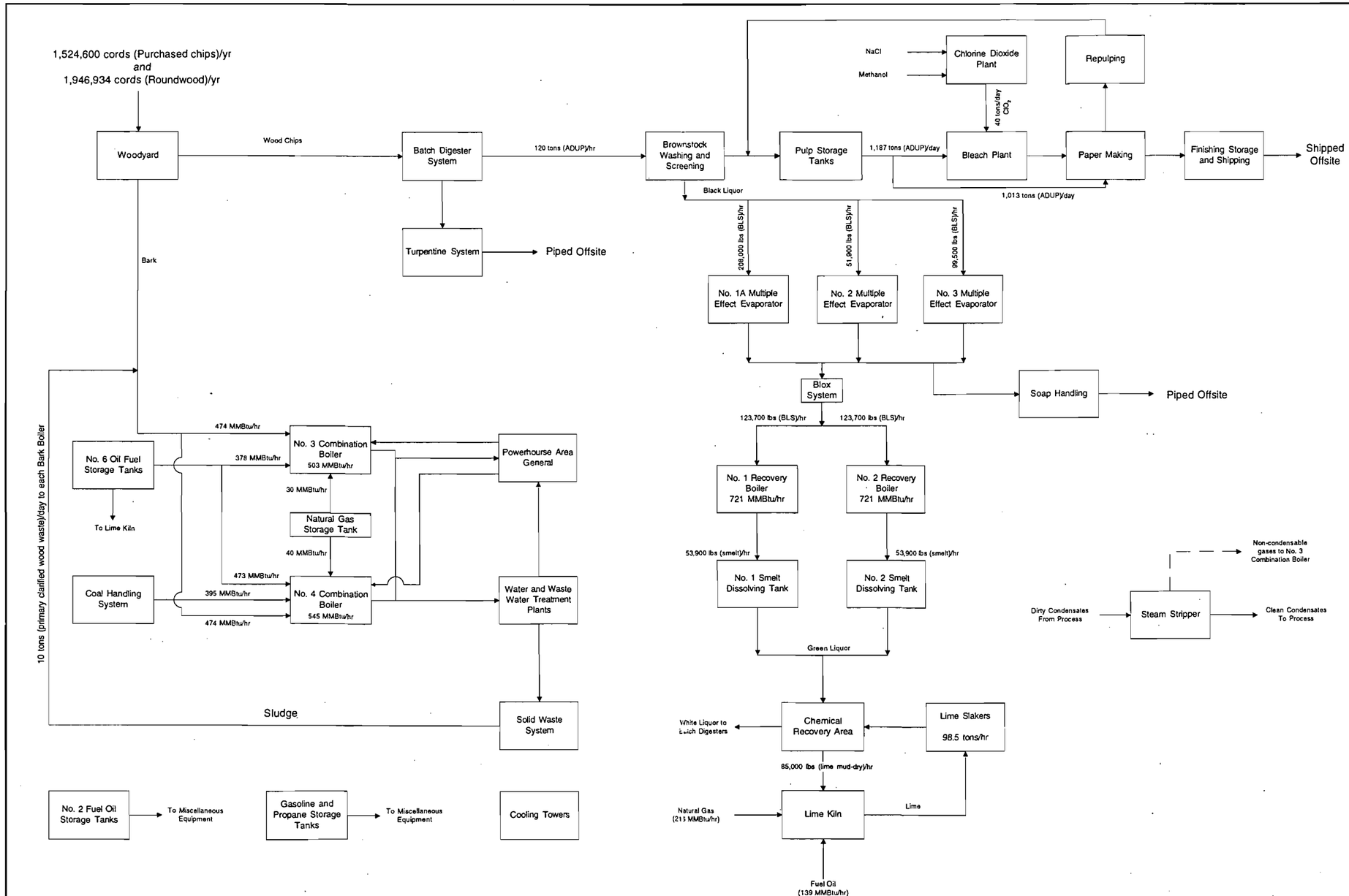
David A. Buff

David A. Buff, P.E.
Principal Engineer
Florida P.E. #19011

SEAL

cc: David Riley
Craig Hurd

DB/mlb



Stone Container Corporation		Emission Unit: Facility	
		Process Area: Overall Plant Flow Diagram	
SCC-FI-C3	Panama City, FL	Filename: 9937518Y/F1/WP/SCC-FAC.VSD	
		Latest Revision Date: 6/7/00	5:29 PM

Golder Associates

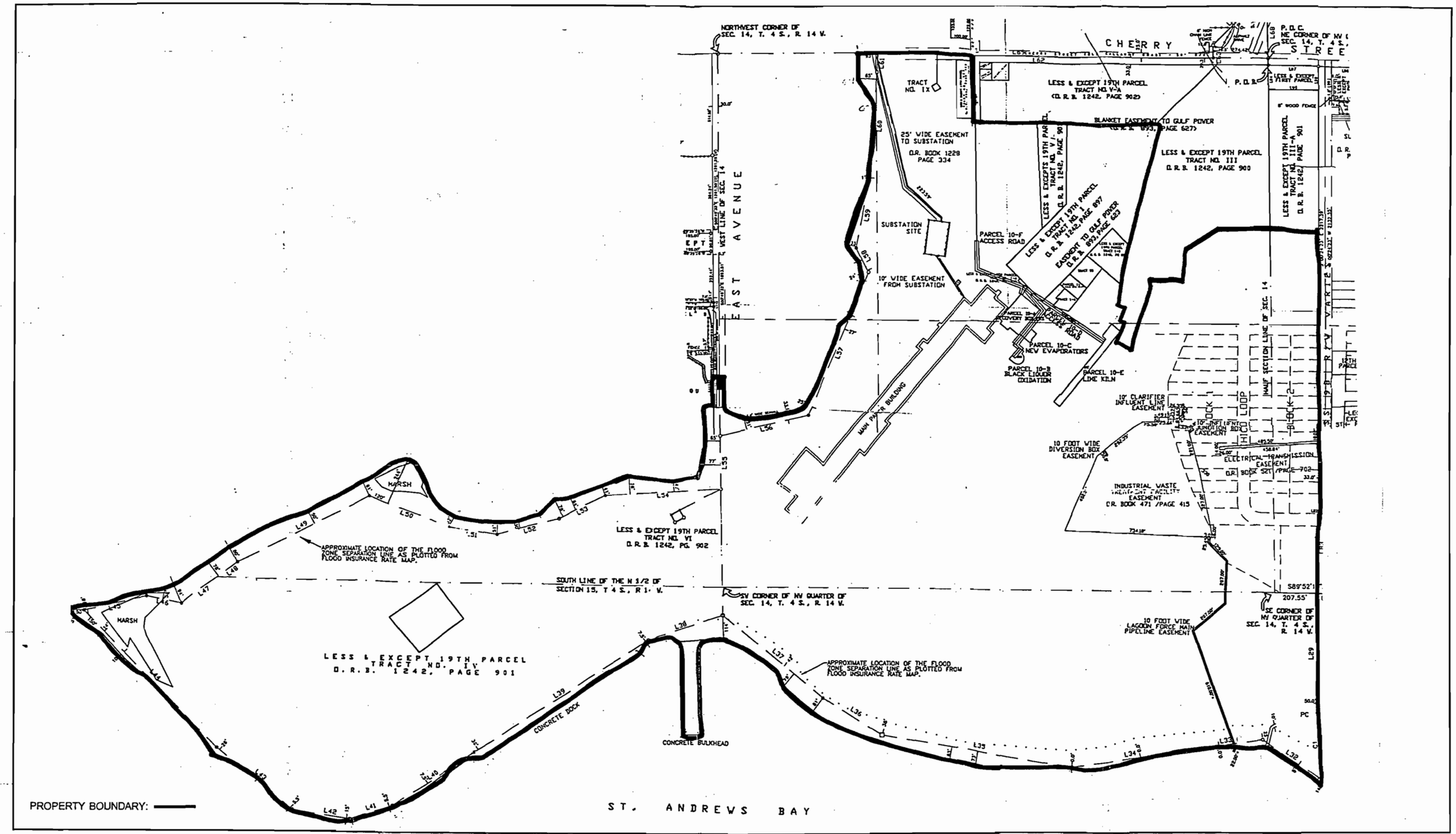
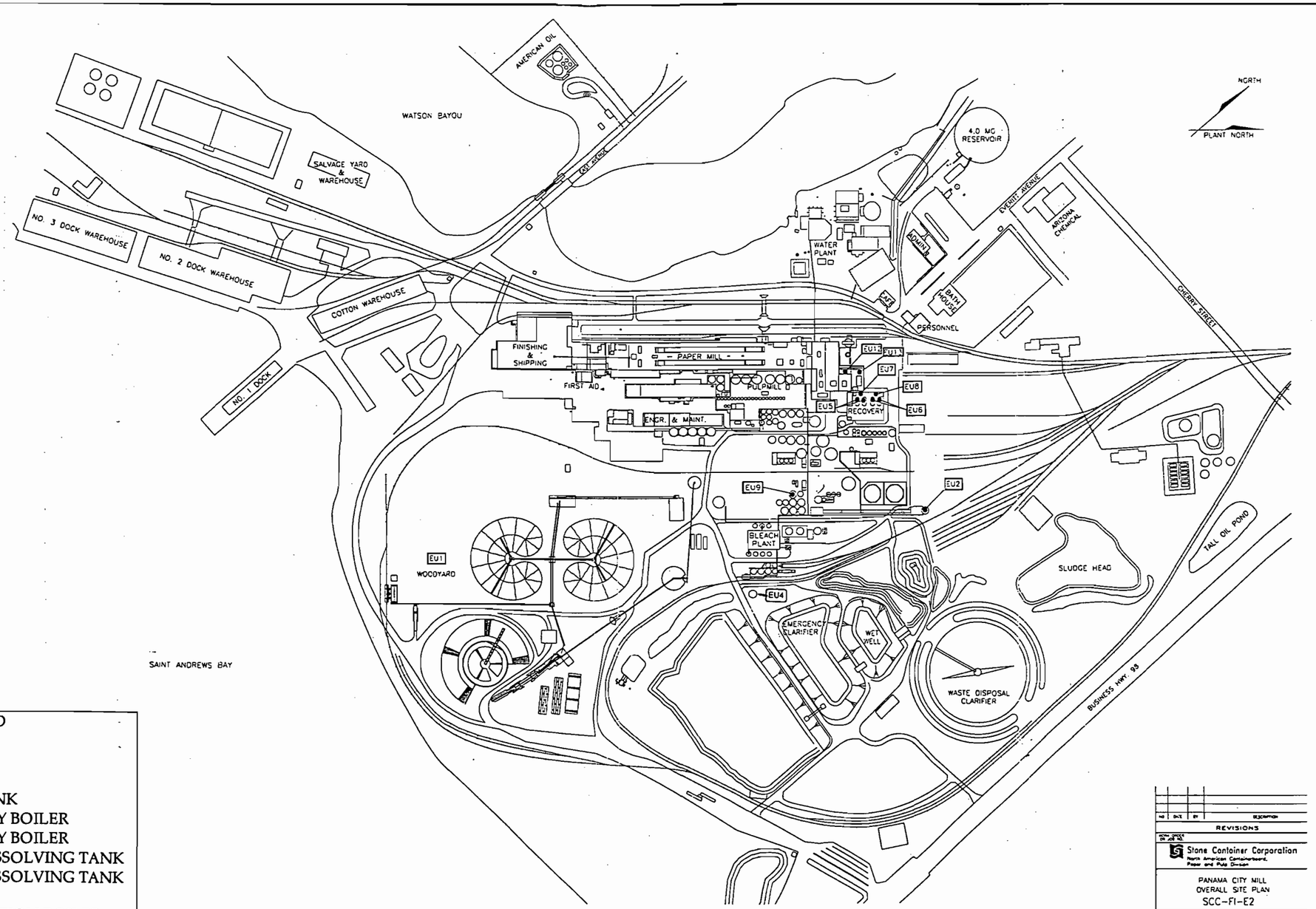


Figure 2-1. Panama City Property Boundary

Smurfit-Stone Container Corporation

Golder Associates



LEGEND

EU1	WOODYARD
EU2	LIME KILN
EU4	METHANOL TANK
EU5	NO. 1 RECOVERY BOILER
EU6	NO. 2 RECOVERY BOILER
EU7	NO. 1 SMELT DISSOLVING TANK
EU8	NO. 2 SMELT DISSOLVING TANK
EU9	LIME SLAKER
EU12	NO. 3 COMBINATION BOILER
EU13	NO. 4 COMBINATION BOILER

NO. | DATE | BY | DESCRIPTION
REVISIONS

Stone Container Corporation
North American Containerboard, Paper and Pulp Division

PANAMA CITY MILL
OVERALL SITE PLAN
SCC-FI-E2

SCALE: NONE | DRN | P.M. | APPROVED | DRAWING NO: WALLSITE

Figure 2-2. Facility Plot Plan

Smurfit-Stone Container Corporation

Golder Associates

Table A-2a. Maximum Emissions for Individual Fuels, No. 3 Combination Boiler Stone Container, Panama City

Regulated Pollutant	No. 6 Oil					Wood/Bark					Natural Gas				
	Emission Factor	Ref.	Activity Factors (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a,b)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	0.10 lb/MMBt	1	378 MMBtu/hr	37.80	165.56	0.3 lb/MMBt	1	474 MMBtu/hr	109.50 (e)	479.61	0.1 /MMBtu	1	30 MBtu/hr	3.00	13.14
Particulate (PM10)	86 % of PM	9	--	32.51	142.39	87 % of PM	5	-- --	95.27	417.26	0.1 /MMBtu	1	30 MBtu/hr	3.00	13.14
Sulfur dioxide: 3-hr	875 lb/hr	8	-- Mgal/hr	875.00		0.075 lb/TWWF	5	60.0 tons/hr	4.50		0.6 b/MMscf	6	0.03 MMscf/h	0.018	
24-hr	485 lb/hr (d)	8	--	485.00	2,124.30	0.075 lb/TWWF	5	60.0 tons/hr	4.50	19.71	0.6 b/MMscf	6	0.03 MMscf/h	0.018	0.079
Nitrogen oxides	47 lb/Mgal	2	2.52 Mgal/hr	118.44	518.77	1.5 lb/TWWF	5	60.0 tons/hr	90.00	394.20	280 lb/MMsc	6	0.03 MMscf/h	8.40	36.79
Carbon monoxide	5 lb/Mgal	2	2.52 Mgal/hr	12.60	55.19	2.923 lb/TWWF	7	60.0 tons/hr	175.38	768.16	84 lb/MMsc	6	0.03 MMscf/h	2.52	11.04
VOC	0.28 lb/Mgal	2	2.52 Mgal/hr	0.71	3.09	0.12 lb/TWWF	3	60.0 tons/hr	7.20	31.54	5.5 lb/MMsc	6	0.03 MMscf/h	1.65E-01	7.23E-01
Sulfuric acid mist: 24-	5.7S lb/Mgal (c	2	2.52 Mgal/hr	42.23	184.97	6.1 % of SO2	4	60.0 tons/hr	0.27	1.20	6.1 % of SO	4	--	0.0011	0.0048
Total reduced sulfur	--		--	--	--	--		--	--	--	--		--	--	--
Lead	1.51E-03 lb/Mgal	2	2.52 Mgal/hr	3.81E-03	1.67E-02	4.45E-04 lb/TWWF	5	60.0 tons/hr	2.67E-02	1.17E-01	1.00E-08 lb/MMsc	6	0.03 MMscf/h	3.00E-10	1.31E-09
Mercury	1.13E-04 lb/Mgal	2	2.52 Mgal/hr	2.85E-04	1.25E-03	5.15E-06 lb/TWWF	5	60.0 tons/hr	3.09E-04	1.35E-03	2.60E-04 lb/MMsc	6	0.03 MMscf/h	7.80E-06	3.42E-05
Beryllium	2.78E-05 lb/Mgal	2	2.52 Mgal/hr	7.01E-05	3.07E-04	-- --		-- --	--	--	1.20E-05 lb/MMsc	6	0.03 MMscf/h	3.60E-07	1.58E-06
Fluorides	3.73E-02 lb/Mgal	2	2.52 Mgal/hr	9.40E-02	4.12E-01	-- --		-- --	--	--	-- --		-- --	--	--

Notes:
TWWF - ton of wet wood residue fuel
All annual emissions based on 8,760 hr/yr operation.
Footnotes:
(a) Refer to Attachment SCC-EU8-G1.
(b) Based on 30 tons/hr dry basis, and 50% moisture in wood/bark.
(c) S = 2.4% max by current permit
(d) Proposed permit limit for 24 hour average for No. 3 Combination Boiler operating, with No. 4 Combination Boiler shutdown or operating on bark/natural gas only .
(e) Based on limit in current operating permit.
References:
1. Based on Florida Rule 62-296.410.
2. Emission Factors based on AP-42 Section 1.3 Table 1.3-1, 1.3-3, 1.3-4 and 1.3-11 for metals (assuming uncontrolled for metals). For sulfuric acid mist, factor shown is for SO3. Convert to HsSO4 by multiplying by 98/80.
3. Emission Factor Based on NCASI TB 646 for an average Spreader Stoker Boilers with Scrubbers Tables1, 2, and 3.
4. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil: 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and sulfur trioxide molecular weights (98/80).
5. Emission Factors based on AP-42 Section 1.6 Table 1.6-1, 1.6-2, 1.6-3, 1.6-5 and 1.6-6 (2/99).
6. Emission Factors based on AP-42 Section 1.4 Table 1.4-1, 1.4-2, and 1.4-4.
7. Emission Factor Based on NCASI TB 416, Table 4.
8. Based on proposed permit limit.
9. Based on AP-42 Section 1.3, Table 1.3-5, for industrial boilers firing residual oil with no control.

Table A-3a. Maximum Emissions for Individual Fuels, No. 4 Combination Boiler, Stone Container, Panama City.

Regulated Pollutant	No. 6 Oil					Wood/Bark					Gas					Coal				
	Emission Factor	Ref.	Activity Factors [a]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors [a b]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors [a]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors [a]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	0.10 lb/MMBtu	1	473 MMBtu/hr	47.3	207.17	0.30 lb/MMBt	1	474 MMBtu/hr	86.60 [i]	379.31	0.1 b/MMBtu	1	40 MMBtu/	4.00	17.52	0.1 lb/MMBtu	1	395 MMBtu/h	39.50	173.01
Particulate (PM10)	86 % of PM	10	– –	40.68	178.17	87 % of PM	5	– –	75.34	330.00	0.1 b/MMBtu	1	40 MMBtu/	4.00	17.52	90 % of PM	7	–	35.55	155.71
Sulfur dioxide: 3-hr	875 lb/hr	9	3.153 Mgal/hr	875.00 [e]		0.075 lb/TWWF	9	60.0 tons/hr	4.50	19.71	0.6 lb/MMscf	6	0.04 MMscf/h	0.024		875 lb/hr [e]	–	–	875.0	
24-hr	575 lb/hr [h]	9		575.00	2,518.50	– –		– –	–	–	0.6 lb/MMscf	6	0.04 MMscf/h	0.024	0.11	575 lb/hr	9	–	575.0	2,518.50
Nitrogen oxides	47 lb/Mgal	2	3.153 Mgal/hr	148.19	649.08	1.5 lb/TWWF	5	60.0 tons/hr	90.00	394.20	280 lb/MMscf	6	0.04 MMscf/h	11.20	49.06	11 lb/ton	7	15.8 TPH	173.8	761.24
Carbon monoxide	5 lb/Mgal	2	3.153 Mgal/hr	15.77	69.05	2.923 lb/TWWF	8	60.0 tons/hr	175.38	768.16	84 lb/MMscf	6	0.04 MMscf/h	3.36	14.72	5 lb/ton	7	15.8 TPH	79.0	346.02
VOC	0.28 lb/Mgal	2	3.153 Mgal/hr	0.88	3.87	0.12 lb/TWWF	3	60.0 tons/hr	7.20	31.54	5.5 lb/MMscf	6	0.04 MMscf/h	0.22	0.96	0.05 lb/ton	3	15.8 TPH	0.79	3.46
Sulfuric acid mist: 24-hr	6.1 % of SO2	4	3.153 Mgal/hr	35.08	153.6	6.1 % of SO2	4	– –	0.27	1.20	6.1 % of SO2	4	–	1.46E-03	6.41E-03	6.1 % of SO2	4	–	35.08	153.63
Total reduced sulfur [c]	– –	–	– –	–	–	– –	–	– –	–	–	–		–	–	–	5 ppmvd [f]	1	164,500 acfm [g]	4.40	19.27
Lead	1.51E-03 lb/Mgal	2	3.153 Mgal/hr	4.8E-03	2.1E-02	4.45E-04 lb/TWWF	5	60.0 tons/hr	2.67E-02	1.17E-01	1.0E-08 lb/MMscf	6	0.04 MMscf/h	4.00E-10	1.75E-09	4.20E-04 lb/ton	7	15.8 TPH	6.64E-03	2.91E-02
Mercury	1.13E-04 lb/Mgal	2	3.153 Mgal/hr	3.6E-04	1.6E-03	5.15E-06 lb/TWWF	5	60.0 tons/hr	3.09E-04	1.35E-03	2.6E-04 lb/MMscf	6	0.04 MMscf/h	1.04E-05	4.56E-05	8.30E-05 lb/ton	7	15.8 TPH	1.31E-03	5.74E-03
Beryllium	2.78E-05 lb/Mgal	2	3.153 Mgal/hr	8.8E-05	3.8E-04	–	–	–	–	–	1.20E-05 lb/MMscf	6	0.04 MMscf/h	4.80E-07	2.10E-06	2.10E-05 lb/ton	7	15.8 TPH	3.32E-04	1.45E-03
Fluorides	3.73E-02 lb/Mgal	2	3.153 Mgal/hr	1.2E-01	5.2E-01	–	–	–	–	–	–	–	–	–	–	0.15 lb/ton	7	15.8 TPH	2.37	10.38

Notes:
TWWF - ton of wet wood residue fuel
All annual emissions based on 8,760 hr/yr operation.
Footnotes
[a] Refer to Attachment SCC-EU9-G1.
[b] Based on 30 tons/hr dry basis and 50% moisture in wood/bark.
[c] TRS gases from digester and MEE system must be incinerated in the Lime Kiln or Bark Boiler at a minumum of 1,200 deg. F for at least 0.5 seconds.
[d] Maximum fuel oil sulfur content = 2.4%
[e] Proposed permit limit, including TRS burning.
[f] All TRS emissions calculated under coal section.
[g] Based on Title V application.
[h] Proposed permit limit for 24 hour average for No. 4 Combination Boiler operating, and with No. 3 Combination Boiler shutdown or operating on bark/natural gas only.
[i] Based on limit in AC03-190964.
References:
1. Based on Florida Rule 62-296.410.
2. Emission Factors based on AP-42 Section 1.3 Table 1.3-1, 1.3-3, 1.3-4 and 1.3-11 for metals (assuming uncontrolled for metals).
3. Emission Factor Based on NCASI TB 646 for an average Spreader Stoker Boilers with Scrubbers Tables1, 2, and 3.
4. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil: 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and sulfur trioxide molecular weights (98/80).
5. Emission Factors based on AP-42 Section 1.6 Table 1.6-1, 1.6-2, 1.6-3, 1.6-5 and 1.6-6 (2/99).
6. Emission Factors based on AP-42 Section 1.4 Table 1.4-1, 1.4-2, and 1.4-4 .
7. Emission Factors based on AP-42 Section 1.1 Tables 1.1-3, 1.1-5, 1.1-9, 1.1-18 and 1.1-19 for spreader stoker boilers.
8. Emission Factor Based on NCASI TB 416, Table 4.
9. Based on proposed permit limit.
10. Based on AP-42 Section 1.3, Table 1.3-5, for industrial boilers firing residual oil with no control.

Table A-6. Maximum Emissions from the Woodyard at Stone Container, Panama City

SOURCE	Type of Operation (	M Moisture Content (%)	U Wind Speed (MPH)	Uncontrolled Emission Factor	Type of Control	Control Efficienc (%)	Controlled Emission Factor	Activity Factor	Maximum Annua PM Emissions (tons/yr)	PM10 Size Multiplier (c)	Maximum Annual PM10 Emissions (tons/yr)
ROUNDWOOD HANDLING											
Debarker	Debarking	--	--	0.024 lbs/ton (d)	Enclosure	80	0.00480 lbs/ton	1,946,934 TPY (e)	4.673	0.35	1.635
Chipper	Continuous Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	1,946,934 TPY (e)	0.125	0.35	0.044
Chip Surge Bin to Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
BARK HANDLING											
Debarker to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
Bark Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
No. 1 Bark Diverter to Emergency Bark Storage Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	0 TPY (f)	0.0000	0.35	0.00000
Emergency Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Unhogged Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Trucked Bark to Purchased Unhogged Bark Storage Pile	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Front End Loaded to Bark Hopper	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Wastewood Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	316,098 TPY (g)	0.0041	0.35	0.00142
No. 1 Bark Diverter to Disc Screen	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Hog	Hammermill	--	--	0.024 lbs/ton (d)	Enclosed	80	0.00480 lbs/ton	471,853 TPY (h)	1.132	1.0	1.132
Bark Hog to Hogged Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Conveyor to Hogged Bark Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Pile	Wind Erosion	--	--	--	None	0	--	--	0.0023	1.0	0.0023
Bark Bin Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone	0	2.0 lb/hr	8,760 hr/yr	8.76	0.35	3.07
Bark Bin Cyclone to Small Bark Bin and Screw	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Small Bark Bin and Screw to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Conveyor to No. 2 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Storage Pile Maintenance	Vehicular Traffic	--	--	0.74 lbs/VMT	None	0	0.74 lbs/VMT	21,900 VMT (i)	8.103	0.35	2.836
PURCHASED CHIP HANDLING											
Truck Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Railcar Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Truck Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
Railcar Unloading Conveyor to Tower No. 1 Chip Diverte	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
MANUFACTURED AND PURCHASED CHIP PROCESSING											
Tower No. 1 Diverter to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Reclaim Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaim Coveyor to Radial Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Radial Conveyor to Chip Reclaimer Storage Pile (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaimer Storage Pile (2)	Wind Erosion	--	--	--	None	0	--	--	0.048	1.0	0.048
Chip Reclaimer Storage Pile to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Screw (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screw to Primary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screens	Screening										
Softwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone, Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Hardwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Primary Screen to Secondary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Secondary Screen to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,321,045 TPY (l)	0.030	0.35	0.010
Screen Building Rejects Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.066
Screen Building Rejects Cyclone to Chip Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	994,734 TPY (m)	0.026	0.35	0.009
Fines Blowline Emergency Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.00017	1.0	0.00017
Fines Blowline Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.07
Fines Blowline Cyclone to Wastewood/Sludge Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	9,947 TPY (n)	0.000	0.35	0.000
Chip Conveyor to No. 5 Transfer Tower (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,305,772 TPY (o)	0.043	0.35	0.015
TOTAL									44.61		16.39

Notes:

(a) Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (US EPA, 1995) Section 13.2.4-3(1). $E = 0.0032 \times (U/5)^{1.3} / (M/2)^{1.4}$ lb/ton

(b) Wind Erosion Emissions based on AP-42 (US EPA, 1995) Section 13.2.5. Refer to Attachment A for derivation.

(c) PM10 Size Multiplier is based on particles < 10 micrometers.

(d) Debarker emissions are based on Table 28 of NCASI Technical Bulletin No. 424 (March 1984), Fugitive Dust Emission Factors and Control Methods Important to Forest Products Industry Manufacturing Operations.

(e) Roundwood throughput is based on 466,800 cords/yr (softwood) @ 2.7 tons/cord and 178,800 cords/yr (hardwood) @ 2.85 tons/cord, plus 10 percent.

(f) Bark throughput is based on 8 percent of roundwood.

(g) Based on purchased bark.

(h) Total bark throughput is sum of manufactured bark and purchased bark.

(i) Vehicle miles traveled (VMT) was calculated assuming front end loader operating 12 hrs/day, 365 days/yr in the woodyard.

(j) Purchased chip throughput is based on 142,800 cords/yr (softwood) and 411,600 cords/yr (hardwood) @ 2.5 tons/cord, plus 10 percent.

(k) Total chip throughput is based on 92 percent of roundwood throughput plus purchased chip throughput.

(l) Based on 70% of total chip throughput.

(m) Based on 30% of total chip throughput.

(n) Fines separated from wood chip stream.

(o) Total chips minus fines.

Table B-2. 1987-1988 Baseline Emissions from No. 1 Recovery Boiler at Stone Container Corporation, Panama City

Regulated Pollutant	BLS				No. 6 Fuel Oil				Tall Oil Pitch				Gas				TOTAL ANNUAL EMISSIONS
	Emission Factor	Ref.	Activity Factor (a)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (d)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (c)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (e)	Annual Emissions (TPY)	
Particulate (PM)	15.0 lb/hr	1	8,153 hr/yr	61.3	--		--	--	--		--	--	--		--	--	61.3
Particulate (PM10)	77.6 % of PM	6	--	47.5	--		--	--	--		--	--	--		--	--	47.5
Sulfur dioxide	0.18 lb/MMBtu	3	4.96E+06 MMBtu/yr	446.4	157 S (b)	8	820.01 Mgal/yr	133.2	--		--	--	0.6 lb/MMscf	9	19.120 MMscf/yr	0.0037	579.7
Nitrogen oxides	0.10 lb/MMBtu	3	4.96E+06 MMBtu/yr	248.0	47 lb/Mgal	8	820.01 Mgal/yr	19.3	0.31 lb/MMBt	10	44,402 MMBtu/yr	7.0	280 lb/MMscf	9	19.120 MMscf/yr	2.68	276.9
Carbon monoxide	5.3 lb/1,000 lb BLS	7	850,968 1,000 lb BLS/yr	2,255	5 lb/Mgal	8	820.01 Mgal/yr	2.05	0.033 lb/MMBt	10	44,402 MMBtu/yr	0.74	84 lb/MMscf	9	19.120 MMscf/yr	0.80	2258.7
VOC	0.058 lb C/MMBtu	3	4.96E+06 MMBtu/yr	143.8	0.28 lb/Mgal	8	820.01 Mgal/yr	0.11	0.0019 lb/MMBt	10	44,402 MMBtu/yr	0.04	5.5 lb/MMscf	9	19.120 MMscf/yr	0.05	144.0
Sulfuric acid mist	0.005 lb/MMBtu	5	4.96E+06 MMBtu/yr	12.6	5.7 S as SO3 (b)	8	820.01 Mgal/yr	4.84	--		--	--	0.037 lb/MMscf	5	19.120 MMscf/yr	0.00023	17.4
Total reduced sulfur	6.3 ppmvd (f)	1	118,974 dscfm	16.4	--		--	--			--	--	--		--	--	16.4
Lead	7.2E-06 lb/MMBtu	2	4.96E+06 MMBtu/yr	1.8E-02	1.5E-03 lb/Mgal	8	820.01 Mgal/yr	6.2E-04	1.0E-05 lb/MMBt	10	44,402 MMBtu/yr	2.2E-04	1.0E-08 lb/MMscf	9	19.120 MMscf/yr	9.56E-11	1.9E-02
Mercury	5.5E-06 lb/MMBtu	2	4.96E+06 MMBtu/yr	1.4E-02	1.1E-04 lb/Mgal	8	820.01 Mgal/yr	4.6E-05	7.5E-07 lb/MMBt	10	44,402 MMBtu/yr	1.7E-05	2.6E-04 lb/MMscf	9	19.120 MMscf/yr	2.49E-06	1.4E-02
Beryllium	1.9E-07 lb/MMBtu	2	4.96E+06 MMBtu/yr	4.7E-04	2.8E-05 lb/Mgal	8	820.01 Mgal/yr	1.1E-05	1.9E-07 lb/MMBt	10	44,402 MMBtu/yr	4.1E-06	1.20E-05 lb/MMscf	9	19.120 MMscf/yr	1.15E-07	4.9E-04
Fluorides	ND	4	--	--	3.7E-02 lb/Mgal	8	820.01 Mgal/yr	1.5E-02	2.5E-04 lb/MMBt	10	44,402 MMBtu/yr	5.5E-03	--		--	--	2.1E-02

ND = Non-detectable
ton = 2000 lb.
note:
(a) Heat input rate based on 1987-1988 BLS burned and 5,830 Btu/lb BLS
1987: 428,768 tons burned
1988: 422,200 tons burned
(b) Average fuel oil sulfur content = 2.07%
(c) Heat input rate based on 1987-1988 tall oil pitch (TOP) burned and 35.1 MMBtu/ton TOP
1987: 2,530 tons burned
1988: 0.0 tons burned
(d) Based on average 1987-1988 fuel oil usage and 150,000 Btu/gal fuel oil
1987: 1099.48 Mgal/yr @ 2.04% S
1988: 540.54 Mgal/yr @ 2.13% S
(e) Based on average 1987-1988 natural gas usage and 1,000 Btu/scf natural gas.
1987: 38.23 MMscf/yr
1988: 0.0 MMscf/yr
(f) Corrected to 8% O2

References:
1. Based on the average of the 1987 and 1988 compliance tests and operating data:
1987 = 12.32 lb PM/hr for 8,435 hr/yr; 6.31 ppmvd at 123,765 dscfm
1988 = 17.94 lb PM/hr for 7,871 hr/yr; 6.31 ppmvd at 113,839 dscfm
2. Emission factor based on NCASI Bulletin No. 650, Table 11D, direct contact evaporator, average factor used.
3. Emission factor based on NCASI Bulletin No. 646, page 16 and Tables 10 and 11, direct contact evaporator with ESP, average factor used.
4. From "Application of Combustion Modifications to Industrial Combustion Equipment" EPA-600/7-79-015a.
one test from recovery boiler.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take
into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on AP-42 Table 10.2-2, and Figure 10.2-2 for Kraft pulping sources.
7. Based on NCASI Bulletin No. 416, Table 5.
8. Emission Factors based on AP-42 Section 1.3 Table 1.3-1, 1.3-3, 1.3-4 and 1.3-11 for metals (assuming uncontrolled).
9. Emission Factors based on AP-42 Section 1.4 Table 1.4-1, 1.4-2, and 1.4-4.
10. Similar to No. 6 Fuel Oil, No. 6 Fuel Oil emission factors converted to lb/MMBtu.

Table B-3. 1987-1988 Baseline Emissions from No. 2 Recovery Boiler at Stone Container Corporation, Panama City

Regulated Pollutant	BLS				No. 6 Fuel Oil				Tall Oil Pitch				Gas				TOTAL ANNUAL EMISSIONS
	Emission Factor	Ref.	Activity Factor (a)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (d)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (c)	Annual Emissions (TPY)	Emission Factor	Ref.	Activit y Factors (e)	Annual Emissions (TPY)	
Particulate (PM)	34.4 lb/hr	1	8,423 hr/yr	145.0	–		–	–	–		–	–	–		–	–	145.0
Particulate (PM10)	77.6 % of PM	6	–	112.5	–		–	–	–		–	–	–		–	–	112.5
Sulfur dioxide	0.18 lb/MMBtu	3	5.00E+06 MMBtu/yr	450.0	157 S (b)	8	1,187.53 Mgal/yr	193.0	–		–	–	0.6 lb/MMscf	9	19.120 MMscf/y	0.0037	643.0
Nitrogen oxides	0.10 lb/MMBtu	3	5.00E+06 MMBtu/yr	250.0	47 lb/Mgal	8	1,187.53 Mgal/yr	27.9	0.31 lb/MMBt	10	43,366 MMBtu/y	6.8	280 lb/MMscf	9	19.120 MMscf/y	2.68	287.4
Carbon monoxide	5.3 lb/1,000 lb BLS	7	850,968 1,000 lb BLS/yr	2,255	5 lb/Mgal	8	1,187.53 Mgal/yr	2.97	0.033 lb/MMBt	10	43,366 MMBtu/y	0.72	84 lb/MMscf	9	19.120 MMscf/y	0.80	2259.6
VOC	0.058 lb C/MMBtu	3	5.00E+06 MMBtu/yr	145.0	0.28 lb/Mgal	8	1,187.53 Mgal/yr	0.17	0.0019 lb/MMBt	10	43,366 MMBtu/y	0.04	5.5 lb/MMscf	9	19.120 MMscf/y	0.05	145.3
Sulfuric acid mist	0.005 lb/MMBtu	5	5.00E+06 MMBtu/yr	12.7	5.7 S as SO3 (b)	8	1,187.53 Mgal/yr	7.01	–		–	–	0.037 lb/MMscf	5	19.120 MMscf/y	0.00023	19.7
Total reduced sulfu	11.2 ppmvd (f)	1	121,662 dscfm	30.8	–		–	–	–		–	–	–		–	–	30.8
Lead	7.2E-06 lb/MMBtu	2	5.00E+06 MMBtu/yr	1.8E-02	1.5E-03 lb/Mgal	8	1,187.53 Mgal/yr	9.0E-04	1.0E-05 lb/MMBt	10	43,366 MMBtu/y	2.2E-04	1.0E-08 lb/MMscf	9	19.120 MMscf/y	9.56E-11	1.9E-02
Mercury	5.5E-06 lb/MMBtu	2	5.00E+06 MMBtu/yr	1.4E-02	1.1E-04 lb/Mgal	8	1,187.53 Mgal/yr	6.7E-05	7.5E-07 lb/MMBt	10	43,366 MMBtu/y	1.6E-05	2.6E-04 lb/MMscf	9	19.120 MMscf/y	2.49E-06	1.4E-02
Beryllium	1.9E-07 lb/MMBtu	2	5.00E+06 MMBtu/yr	4.8E-04	2.8E-05 lb/Mgal	8	1,187.53 Mgal/yr	1.7E-05	1.9E-07 lb/MMBt	10	43,366 MMBtu/y	4.0E-06	1.20E-05 lb/MMscf	9	19.120 MMscf/y	1.15E-07	5.0E-04
Fluorides	ND	4	–	–	3.7E-02 lb/Mgal	8	1,187.53 Mgal/yr	2.2E-02	2.5E-04 lb/MMBt	10	43,366 MMBtu/y	5.4E-03	–		–	–	2.8E-02

ND = Non-detectable
ton = 2000 lb.
note:
(a) Heat input rate based on 1987-1988 BLS burned and 5,830 Btu/lb BLS
1987: 428,768 tons burned
1988: 428,315 tons burned
(b) Average fuel oil sulfur content = 2.07%
(c) Heat input rate based on 1987-1988 tall oil pitch (TOP) burned and 35.1 MMBtu/ton TOP
1987: 2,147 tons burned
1988: 0.0 tons burned
(d) Based on average 1987-1988 fuel oil usage and 150,000 Btu/gal fuel oil
1987: 1488.02 Mgal/yr @ 2.04% S
1988: 887.04 Mgal/yr @ 2.13% S
(e) Based on average 1987-1988 natural gas usage and 1,000 Btu/scf natural gas.
1987: 38.23 MMscf/yr
1988: 0.0 MMscf/yr

References:
1. Based on the average of the 1987 and 1988 compliance tests and operating data:
1987 = 25.30 lb PM/hr for 8,406 hr/yr; 11.24 ppmvd at 123,620 dscfm
1988 = 43.53 lb PM/hr for 8,440 hr/yr; 11.24 ppmvd at 119,711 dscfm
2. Emission factor based on NCASI Bulletin No. 650, Table 11D, direct contact evaporator, average factor used.
3. Emission factor based on NCASI Bulletin No. 646, page 16 and Tables 10 and 11, direct contact evaporator with ESP, average factor used.
4. From "Application of Combustion Modifications to Industrial Combustion Equipment" EPA-600/7-79-015a.
one test from recovery boiler.
5. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take
into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
6. Based on AP-42 Table 10.2-2, and Figure 10.2-2 for Kraft pulping sources.
7. Based on NCASI Bulletin No. 416, Table 5.
8. Emission Factors based on AP-42 Section 1.3 Table 1.3-1, 1.3-3, 1.3-4 and 1.3-11 for metals (assuming uncontrolled).
9. Emission Factors based on AP-42 Section 1.4 Table 1.4-1, 1.4-2, and 1.4-4.
10. Similar to No. 6 Fuel Oil, No. 6 Fuel Oil emission factors converted to lb/MMBtu.

Table B-4. 1987-1988 Baseline Emissions from Power Boiler No. 5 at Stone Container, Panama City.

Regulated Pollutant	No. 6 Oil				Gas				Turpentine Heads				Total Annual Emissions (TPY)
	Emission Factor	Ref.	ctivity Factors (a	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a)	Annual Emissions (TPY)	
Particulate (PM)	--		--	--	11.9 lb/hr	1	6960 hr/yr	41.4	--		--	--	41.4
Particulate (PM10)	--		--	--	100 % of PM	6	--	41.4	--		--	--	41.4
Sulfur dioxide	157 S (c)	2	1,164 Mgal/yr	190.1	0.6 lb/MMscf	6	433.714 MMscf/yr	0.1301	1.05 lb/MMBt	7	60,149 MMBtu/y	31.5	221.7
Nitrogen oxides	47 lb/Mgal	2	1,164 Mgal/yr	27.4	280 lb/MMscf	6	433.714 MMscf/yr	60.72	0.31 lb/MMBt	7	60,149 MMBtu/y	9.42	97.5
Carbon monoxide	5 lb/Mgal	2	1,164 Mgal/yr	2.91	84 lb/MMscf	6	433.714 MMscf/yr	18.22	0.033 lb/MMBt	7	60,149 MMBtu/y	1.00	22.1
VOC	0.28 lb/Mgal	2	1,164 Mgal/yr	0.16	5.5 lb/MMscf	6	433.714 MMscf/yr	1.19	0.0019 lb/MMBt	7	60,149 MMBtu/y	0.056	1.4
Sulfuric acid mist	5.7 S as SO3 (c)(d)	2	1,164 Mgal/yr	6.90	0.037 lb/MMscf	4	433.714 MMscf/yr	0.0080	--		--	--	6.9
Total reduced sulfu	--		--	--	--		--	--	--		--	--	--
Lead	1.5E-03 lb/Mgal	2	1,164 Mgal/yr	8.8E-04	1.0E-08 lb/MMscf	6	433.714 MMscf/yr	2.17E-09	6.7E-11 lb/MMBt	7	60,149 MMBtu/y	2.0E-09	8.8E-04
Mercury	1.1E-04 lb/Mgal	2	1,164 Mgal/yr	6.6E-05	2.6E-04 lb/MMscf	6	433.714 MMscf/yr	5.64E-05	1.7E-06 lb/MMBt	7	60,149 MMBtu/y	5.2E-05	1.7E-04
Beryllium	2.8E-05 lb/Mgal	2	1,164 Mgal/yr	1.6E-05	1.20E-05 lb/MMscf	6	433.714 MMscf/yr	2.60E-06	8.0E-08 lb/MMBt	7	60,149 MMBtu/y	2.4E-06	2.1E-05
Fluorides	3.7E-02 lb/Mgal	2	1,164 Mgal/yr	2.2E-02	--		--	--	--		--	--	2.2E-02

Footnotes

(a) Based on 1987 and 1988 average fuel usage rates.

1987: 2,022.38 Magl No. 6 Fuel Oil/yr @ 2.04% S; 489.088 MMscf natural gas/yr; and 3,427.28 tons turpentine heads/yr @35.1 MMBtu/ton

1988: 1,505.7 Magl No. 6 Fuel Oil/yr @ 2.13% S; 378.34 MMscf natural gas/yr; and 0.0 tons turpentine heads/yr @35.1 MMBtu/ton

(b) 50% H2O and heat content of 7.9 MMBtu/ton (wet).

(c) S = 2.08%

(d) Adjusted to account for the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).

References

1. Based on the average of the 1987 and 1988 compliance tests and operating data:
   1987 = 11.2 lb PM/hr and 180.4 lb SO2/hr for 8,172 hr/yr
   1988 = 12.92 lb PM/hr and 213.3 lb SO2/hr for 5,747 hr/yr
2. Emission Factors based on AP-42 Section 1.3 Table 1.3-1, 1.3-3, 1.3-4 and 1.3-11 for metals (assuming uncontrolled).
3. Emission Factor Based on NCASI TB 646 for an average Spreader Stoker Boilers with Scrubbers Tables1, 2, and 3.
4. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and sulfur trioxide molecular weights (98/80) .
5. Emission Factors based on AP-42 Section 1.6 Table 1.6-1, 1.6-2, 1.6-3, 1.6-5 and 1.6-6 (2/99).
6. Emission Factors based on AP-42 Section 1.4 Table 1.4-1, 1.4-2, and 1.4-4.
7. Similar to No. 6 Fuel Oil, No. 6 Fuel Oil emission factors converted to lb/MMBtu.

Table B-5. 1987-1988 Baseline Emissions from No. 3 Bark Boiler at Stone Container, Panama City.

Regulated Pollutant	No. 6 Oil				Wood/Bark				Gas				Turpentine Residue				Total Annual Emissions (TPY)
	Emission Factor	Ref.	ctivity Factors (a	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a)(b	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a)	Annual Emissions (TPY)	
Particulate (PM)	--		--	--	40.9 lb/hr	1	8,441 hr/yr	172.7	--		--	--	--		--	--	172.7
Particulate (PM10)	--		--	--	87 % of PM	5	--	150.3	--		--	--	--		--	--	150.3
Sulfur dioxide	157 S (c)	2	7,992 Mgal/yr	852.3	0.075 lb/TWWF	5	43,692 TPY	1.1	0.6 lb/MMscf	6	37.624 MMscf/yr	0.0073	1.05 lb/MMBt	7	15,830 MMBtu/y	8.3	861.6
Nitrogen oxides	47 lb/Mgal	2	7,992 Mgal/yr	187.8	1.5 lb/TWWF	5	43,692 TPY	32.8	280 lb/MMscf	6	37.624 MMscf/yr	5.27	0.31 lb/MMBt	7	15,830 MMBtu/y	2.48	228.3
Carbon monoxide	5 lb/Mgal	2	7,992 Mgal/yr	19.98	13.6 lb/TWWF	5	43,692 TPY	297	84 lb/MMscf	6	37.624 MMscf/yr	1.58	0.033 lb/MMBt	7	15,830 MMBtu/y	0.26	318.9
VOC	0.28 lb/Mgal	2	7,992 Mgal/yr	1.12	0.12 lb/TWWF	3	43,692 TPY	2.6	5.5 lb/MMscf	6	37.624 MMscf/yr	0.10	0.0019 lb/MMBt	7	15,830 MMBtu/y	0.015	3.8
Sulfuric acid mist	5.7 S as SO3 (c)(d)	2	7,992 Mgal/yr	30.94	0.005 lb/TWWF	4	43,692 TPY	0.1	0.037 lb/MMscf	4	37.624 MMscf/yr	0.00045	--		--	--	31.0
Total reduced sulfu	--		--	--	--		--	--	--		--	--	--		--	--	--
Lead	1.5E-03 lb/Mgal	2	7,992 Mgal/yr	6.0E-03	4.5E-04 lb/TWWF	5	43,692 TPY	9.7E-03	1.0E-08 lb/MMscf	6	37.624 MMscf/yr	1.88E-10	6.7E-11 lb/MMBt	7	15,830 MMBtu/y	5.3E-10	1.6E-02
Mercury	1.1E-04 lb/Mgal	2	7,992 Mgal/yr	4.5E-04	5.2E-06 lb/TWWF	5	43,692 TPY	1.1E-04	2.6E-04 lb/MMscf	6	37.624 MMscf/yr	4.89E-06	1.7E-06 lb/MMBt	7	15,830 MMBtu/y	1.4E-05	5.8E-04
Beryllium	2.8E-05 lb/Mgal	2	7,992 Mgal/yr	1.1E-04	--		--	--	1.20E-05 lb/MMscf	6	37.624 MMscf/yr	2.26E-07	8.0E-08 lb/MMBt	7	15,830 MMBtu/y	6.3E-07	1.1E-04
Fluorides	3.7E-02 lb/Mgal	2	7,992 Mgal/yr	1.5E-01	--		--	--	--		--	--	--		--	--	1.5E-01

TWWF - ton of wet wood residue fuel

Footnotes

(a) Based on 1987 and 1988 average fuel usage rates.
1987: 7,498.26 Magl No. 6 Fuel Oil/yr @ 2.04% S; 0.0 tons Bark/yr; 75.248 MMscf natural gas/yr; and 0.0 tons turpentine residue/yr @ 35.1 MMBtu/ton
1988: 8,486.02 Magl No. 6 Fuel Oil/yr @ 2.13% S; 87,383 tons Bark/yr; 0.0 MMscf natural gas/yr; and 902 tons turpentine residue/yr @ 35.1 MMBtu/ton
(b) 50% H2O and heat content of 7.9 MMBtu/ton (wet).
(c) S = 2.09% (assume 35% removal in wet scrubber).
(d) Adjusted to account for the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).

References

1. Based on the average of the 1987 and 1988 compliance tests and operating data:
   1987 = 34.84 lb PM/hr and 180.4 lb SO2/hr for 8,443 hr/yr
   1988 = 47.00 lb PM/hr and 213.3 lb SO2/hr for 8,438 hr/yr
2. Emission Factors based on AP-42 Section 1.3 Table 1.3-1, 1.3-3, 1.3-4 and 1.3-11 for metals (assuming uncontrolled).
3. Emission Factor Based on NCASI TB 646 for an average Spreader Stoker Boilers with Scrubbers Tables1, 2, and 3.
4. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and sulfur trioxide molecular weights (98/80) (Assuming 35 % removal by scrubber).
5. Emission Factors based on AP-42 Section 1.6 Table 1.6-1, 1.6-2, 1.6-3, 1.6-5 and 1.6-6 (2/99).
6. Emission Factors based on AP-42 Section 1.4 Table 1.4-1, 1.4-2, and 1.4-4.
7. Similar to No. 6 Fuel Oil, No. 6 Fuel Oil emission factors converted to lb/MMBtu.

Table B-6. 1987-1988 Baseline Emissions from No. 4 Bark Boiler at Stone Container, Panama City.

Regulated Pollutant	No. 6 Oil				Wood/Bark				Gas				Coal				Total Annual Emissions (TPY)
	Emission Factor	Ref.	Activity Factors (a	Annual Emissions (TPY)	Emission Factor	Ref.	ctivity Factors (a)(b	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a)	Annual Emissions (TPY)	
Particulate (PM)	--		--	--	31.55 lb/hr (d)	1	8,443 hr/yr	133.19	--		--	--	--		--	--	133.2
Particulate (PM10)	--		--	--	87 % of PM	5	--	115.87	--		--	--	--		--	--	115.9
Sulfur dioxide	157 S (d)	2	2,544 Mgal/yr	266.1	0.075 lb/TWW	5	63,222 TPY	1.5	0.6 lb/MMscf	6	59.940 MMscf/yr	0.01	38 S (c)	7	73,737 tons/yr	692.1	959.8
Nitrogen oxides	47 lb/Mgal	2	2,544 Mgal/yr	59.78	1.5 lb/TWW	5	63,222 TPY	47.4	280 lb/MMscf	6	59.940 MMscf/yr	8.39	10 lb/ton	7	73,737 tons/yr	368.7	484.3
Carbon monoxide	5 lb/Mgal	2	2,544 Mgal/yr	6.36	13.6 lb/TWW	5	63,222 TPY	430	84 lb/MMscf	6	59.940 MMscf/yr	2.52	0.5 lb/ton	7	73,737 tons/yr	18.4	457.2
VOC	0.28 lb/Mgal	2	2,544 Mgal/yr	0.36	0.12 lb/TWW	3	63,222 TPY	3.8	5.5 lb/MMscf	6	59.940 MMscf/yr	0.16	0.06 lb/ton	3	73,737 tons/yr	2.2	6.5
Sulfuric acid mist	5.7 S	2	2,544 Mgal/yr	9.66	0.005 lb/TWW	4	63,222 TPY	0.1	0.03675 lb/MMscf	4	59.940 MMscf/yr	0.001	1.51 lb/ton	4	73,737 tons/yr	36.3	46.0
Total reduced sulfu	--		--	--	--	1	--	--	--		--	--	--		--	--	--
Lead	1.5E-03 lb/Mgal	2	2,544 Mgal/yr	1.9E-03	4.5E-04 lb/TWW	5	63,222 TPY (a)	1.4E-02	1.0E-08 lb/MMscf	6	59.940 MMscf/yr	3.00E-10	4.2E-04 lb/ton	7	73,737 tons/yr	1.5E-02	3.1E-02
Mercury	1.1E-04 lb/Mgal	2	2,544 Mgal/yr	1.4E-04	5.2E-06 lb/TWW	5	63,222 TPY (a)	1.6E-04	2.6E-04 lb/MMscf	6	59.940 MMscf/yr	7.79E-06	8.3E-05 lb/ton	7	73,737 tons/yr	3.1E-03	3.4E-03
Beryllium	2.8E-05 lb/Mgal	2	2,544 Mgal/yr	3.5E-05	--		--	--	1.20E-05 lb/MMscf	6	59.940 MMscf/yr	3.60E-07	2.1E-05 lb/ton	7	73,737 tons/yr	7.7E-04	8.1E-04
Fluorides	3.7E-02 lb/Mgal	2	2,544 Mgal/yr	4.7E-02	--		--	--	--		--	--	--		--	--	4.7E-02

TWWF - ton of wet wood residue fuel

Footnotes

(a) Based on 1987 and 1988 average fuel usage rates.
1987: 4,571.07 Magl No. 6 Fuel Oil/yr @ 2.04% S; 51,679 tons Bark/yr; 111.871 MMscf natural gas/yr; and 76,571 tons coal/yr @ 0.80% S
1988: 515.97 Magl No. 6 Fuel Oil/yr @ 2.13% S; 74,764 tons Bark/yr; 0.0 MMscf natural gas/yr; and 70,902 tons coal/yr @ 0.71% S
(b) 50% H2O and heat content of 7.9 MMBtu/ton (wet).
(c) Average 1996-1997 coal sulfur content = 0.76% (assume 35% removal in wet scrubber).
(d) S = 2.05% (assume 35% removal in wet scrubber).

References

1. Based on the average of the 1987 and 1988 compliance tests and operating data:
1987 = 36.98 lb PM/hr for 8,451 hr/yr
1988 = 26.1 lb PM/hr for 8,434 hr/yr
2. Emission Factors based on AP-42 Section 1.3 Table 1.3-1, 1.3-3, 1.3-4 and 1.3-11 for metals (assuming uncontrolled).
3. Emission Factor Based on NCASI TB 646 for an average Spreader Stoker Boilers with Scrubbers Tables1, 2, and 3.
4. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and sulfur trioxide molecular weights (98/80) (Assuming 35 % removal by scrubber).
5. Emission Factors based on AP-42 Section 1.6 Table 1.6-1, 1.6-2, 1.6-3, 1.6-5 and 1.6-6 (2/99).
6. Emission Factors based on AP-42 Section 1.4 Table 1.4-1, 1.4-2, and 1.4-4.
7. Emission Factors based on AP-42 Section 1.1 Tables 1.1-3 and 1.1-18 (35% SO2 removal by wet scrubber).

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse, so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Jack B. Prescott, Gen. Mgr
Stone Container Corp
1 Everitt Ave
Panama City, Fl
32402

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)*

B. Date of Delivery 5/11/

C. Signature

X Rose Matteson ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)* Z 341 355 284

PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789

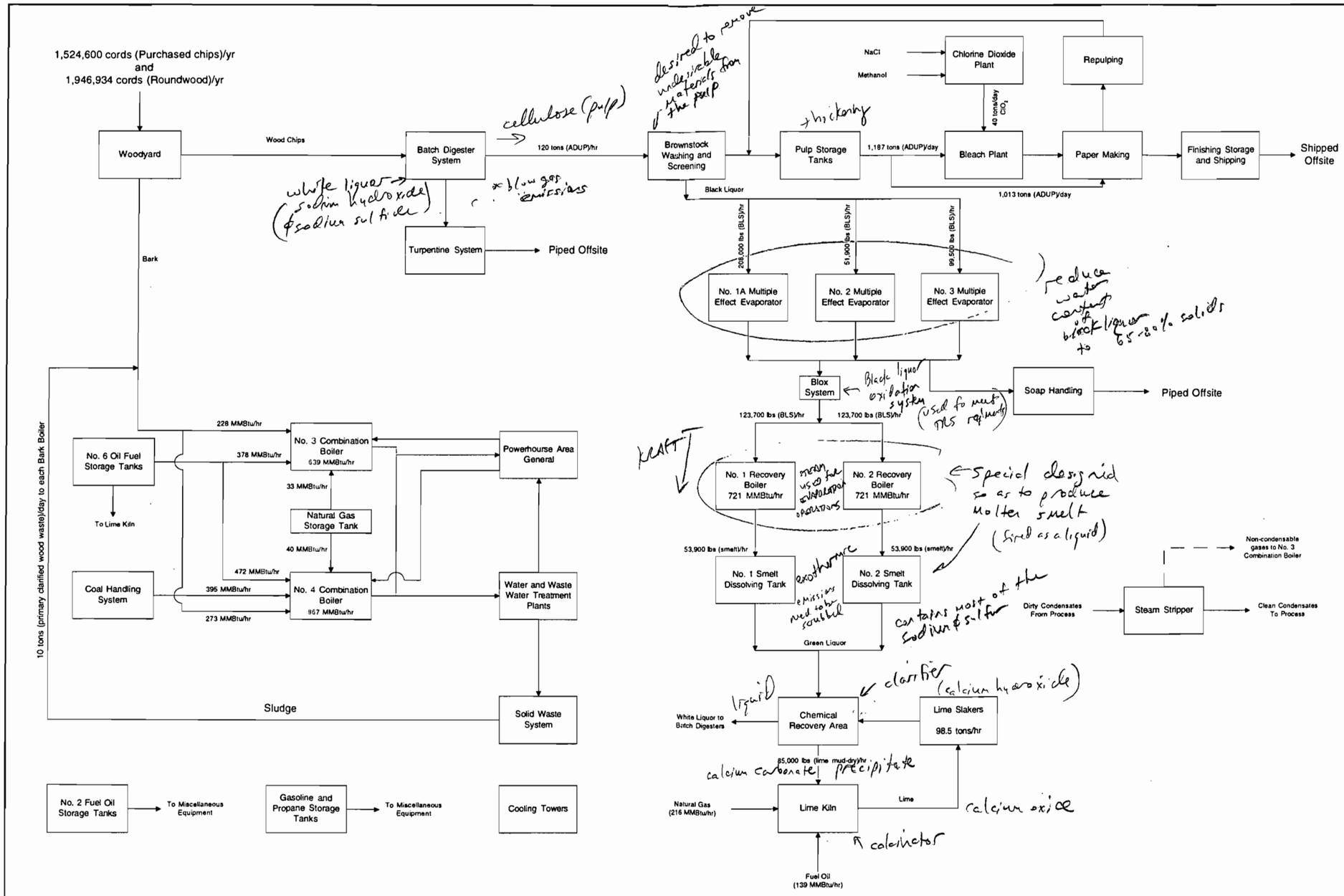
Z 341 355 284

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail (See reverse)

Sent to Jack Prescott	
Street & Number Stone Container	
Post Office, State, & ZIP Code PC Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 5-9-00	

PS Form **3800**, April 1995

0050009-1055-AC
PSD-Fl-288



Stone Container Corporation		Emission Unit: Facility Process Area: Overall Plant Flow Diagram Filename: 9937518Y/F1/WP/SCC-FAC.VSD Latest Revision Date: 4/5/00 4:01 PM	Golder Associates
SCC-FI-C3	Panama City, FL		

PSGO-S002

STACK

To Continuous SO_2 Monitor

PSGO-M003

Venturi Scrubber

Scrubber Media Tank

Caustic from No. 1A MEE 50% Caustic Storage Tank (PE)

caustic

pipe

Multiple Cyclones with Fly Ash Reinjection

fly ash

Sandbox

Fly Ash Reinjection

No. 6 Fuel Oil from No. 6 Fuel Oil Day Tank

Coal from Railcar

Railcar Shaker

PSGO-F060

Coal from Trucks

PSGO-F061

Coal Unloading Hopper

PSGO-F063

Coal Bucket Conveyor PSGO-F062

PSGO-M016

PSGO-F063

Coal Silo

PSGO-F063

Coal Conveyor PSGO-F062

PSGO-F064

PSGO-F063

Coal Hopper

PSGO-F063

Coal Conveyor PSGO-F062

PSGO-F065

PSGO-F063

Coal Bunker

Coal Pulverizer

No. 4 Combination Boiler

Natural Gas

fly ash

NCG System (Backup for Lime Kiln) PSGO-V059

Woodwaste/ Sludge

No. 4 Bark Bin

PSGO-M018

Fly Ash Box

overflow

Overflow to Process Sewer

liquids

Liquid piped to Ash Settling Pond

solids

Solids to Sludge Ash Solid Waste Disposal Area by Truck

PSGO-V066

enclosed pipe

Woodwaste/Sludge piped from Bark Diverter

No. 1 Bark Cyclone

Enclosed Bark Conveyor

PSGO-V067

Woodwaste/Sludge piped from Bark Diverter

No. 2 Bark Cyclone

enclosed pipe

No. 3 Bark Bin

Woodwaste/ Sludge

PSGO-V047

To Atmosphere

Bark Boiler Balanced Polymer Storage Tank

From Tank Truck

To Atmosphere

Lay-up Chemical PortaBin

From Tank Truck

PSGO-V048

To Atmosphere

Defoamer from 5 gal Buckets

Bark Boiler Balanced Polymer Day Tank

Shot Tank

Caustic from No. 1A MEE 50% Caustic Storage Tank

Dispersant from Drum or Portable Bin (RECO-V059)

Boiler Feedwater from Deaerator Heater

No. 3 Combination Boiler

fly ash

Natural Gas

Condensate Stripper Off-Gases

No. 6 Fuel Oil from No. 6 Fuel Oil Day Tank

Caustic from No. 1A MEE 50% Caustic Storage Tank (PE)

pipe

Scrubber Media Tank

caustic

Venturi Scrubber

CONTINUOUS SO2 Monitor

PSGO-S001

STACK

Sandbox

fly ash

Multiple Cyclones with Fly Ash Reinjection

Process Flow Legend

Gas ---------→

Steam —·—·—→

Covered Conveyor

Enclosed Conveyor

Stone Container Corp.
Panama City, FL
Process Flow Diagram
SCC-EU8-J1

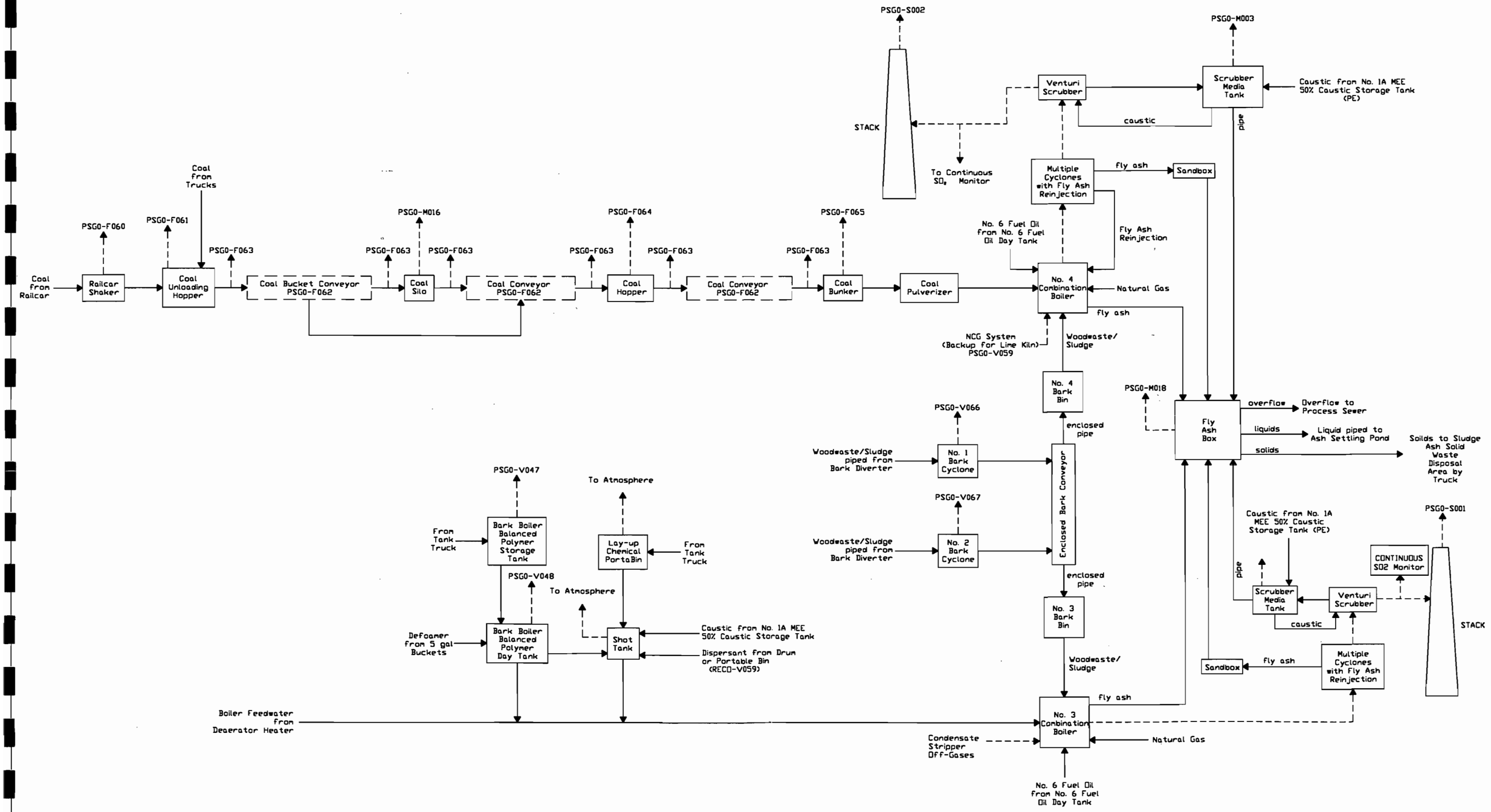
Emission Unit:	No. 3 and 4 Combination Boiler
Process Area:	Utilities/Miscellaneous
Filename:	9937518Y/F1/WP/SCC-EU8-J1.dwg
Latest Revision:	04/05/2000 by PAC

Golder Associates

Attachment SCC-EU8-G2. Maximum Emissions for Individual Fuels, No. 3 Combination Boiler Stone Container, Panama City

Regulated Pollutant	No. 6 Oil					Wood/Bark					Natural Gas				
	Emission Factor	Ref.	Activity Factors (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a,b)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors (a)	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	0.10 lb/MMBtu	1	378 MMBtu/hr	37.80	165.56	0.3 lb/MMBtu	1	474 MMBtu/hr	109.50 (e)	479.61	0.1 lb/MMBtu	1	30 MMBtu/hr	3.00	13.14
Particulate (PM10)	86 % of PM	9	--	32.51	142.39	87 % of PM	5	--	-- 95.27	417.26	0.1 lb/MMBtu	1	30 MMBtu/hr	3.00	13.14
Sulfur dioxide: 3-hr	157S lb/Mgal	2	2.52 Mgal/hr	949.54		0.075 lb/TWWF	5	60.0 tons/hr	4.50		0.6 lb/MMscf	6	0.03 MMscf/hr	0.018	
24-hr	485 lb/hr (d)	8	--	485.00	2,124.30	0.075 lb/TWWF	5	60.0 tons/hr	4.50	19.71	0.6 lb/MMscf	6	0.03 MMscf/hr	0.018	0.079
Nitrogen oxides	47 lb/Mgal	2	2.52 Mgal/hr	118.44	518.77	1.5 lb/TWWF	5	60.0 tons/hr	90.00	394.20	280 lb/MMscf	6	0.03 MMscf/hr	8.40	36.79
Carbon monoxide	5 lb/Mgal	2	2.52 Mgal/hr	12.60	55.19	2.923 lb/TWWF	7	60.0 tons/hr	175.38	768.16	84 lb/MMscf	6	0.03 MMscf/hr	2.52	11.04
VOC	0.28 lb/Mgal	2	2.52 Mgal/hr	0.71	3.09	0.12 lb/TWWF	3	60.0 tons/hr	7.20	31.54	5.5 lb/MMscf	6	0.03 MMscf/hr	1.65E-01	7.23E-01
Sulfuric acid mist: 24-hr	5.7S lb/Mgal (c)	2	2.52 Mgal/hr	42.23	184.97	6.1 % of SO2	4	60.0 tons/hr	0.27	1.20	6.1 % of SO2	4	--	0.0011	0.0048
Total reduced sulfur	--		--	--	--	--		--	--	--	--		--	--	--
Lead	1.51E-03 lb/Mgal	2	2.52 Mgal/hr	3.81E-03	1.67E-02	4.45E-04 lb/TWWF	5	60.0 tons/hr	2.67E-02	1.17E-01	1.00E-08 lb/MMscf	6	0.03 MMscf/hr	3.00E-10	1.31E-09
Mercury	1.13E-04 lb/Mgal	2	2.52 Mgal/hr	2.85E-04	1.25E-03	5.15E-06 lb/TWWF	5	60.0 tons/hr	3.09E-04	1.35E-03	2.60E-04 lb/MMscf	6	0.03 MMscf/hr	7.80E-06	3.42E-05
Beryllium	2.78E-05 lb/Mgal	2	2.52 Mgal/hr	7.01E-05	3.07E-04	-- --		--	-- --	--	1.20E-05 lb/MMscf	6	0.03 MMscf/hr	3.60E-07	1.58E-06
Fluorides	3.73E-02 lb/Mgal	2	2.52 Mgal/hr	9.40E-02	4.12E-01	-- --		--	-- --	--	-- --		-- --	--	--

Notes:
TWWF - ton of wet wood residue fuel
All annual emissions based on 8,760 hr/yr operation.
Footnotes:
(a) Refer to Attachment SCC-EU8-G1.
(b) Based on 30 tons/hr dry basis, and 50% moisture in wood/bark.
(c) S = 2.4% max by current permit
(d) Proposed permit limit for 24 hour average for No. 3 Combination Boiler operating, with No. 4 Combination Boiler shutdown or operating on bark/natural gas only .
(e) Based on limit in current operating permit.
References:
1. Based on Florida Rule 62-296.410.
2. Emission Factors based on AP-42 Section 1.3 Table 1.3-1, 1.3-3, 1.3-4 and 1.3-11 for metals (assuming uncontrolled for metals). For sulfuric acid mist, factor shown is for SO3. Convert to HsSO4 by multiplying by 98/80.
3. Emission Factor Based on NCASI TB 646 for an average Spreader Stoker Boilers with Scrubbers Tables1, 2, and 3.
4. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil: 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and sulfur trioxide molecular weights (98/80).
5. Emission Factors based on AP-42 Section 1.6 Table 1.6-1, 1.6-2, 1.6-3, 1.6-5 and 1.6-6 (2/99).
6. Emission Factors based on AP-42 Section 1.4 Table 1.4-1, 1.4-2, and 1.4-4.
7. Emission Factor Based on NCASI TB 416, Table 4.
8. Based on proposed permit limit.
9. Based on AP-42 Section 1.3, Table 1.3-5, for industrial boilers firing residual oil with no control.



Process Flow Legend

Gas ---------→

Steam —·—·—→

[Covered Conveyor]

[Enclosed Conveyor]

Stone Container Corp.
Panama City, FL
Process Flow Diagram
SCC-EU9-J1

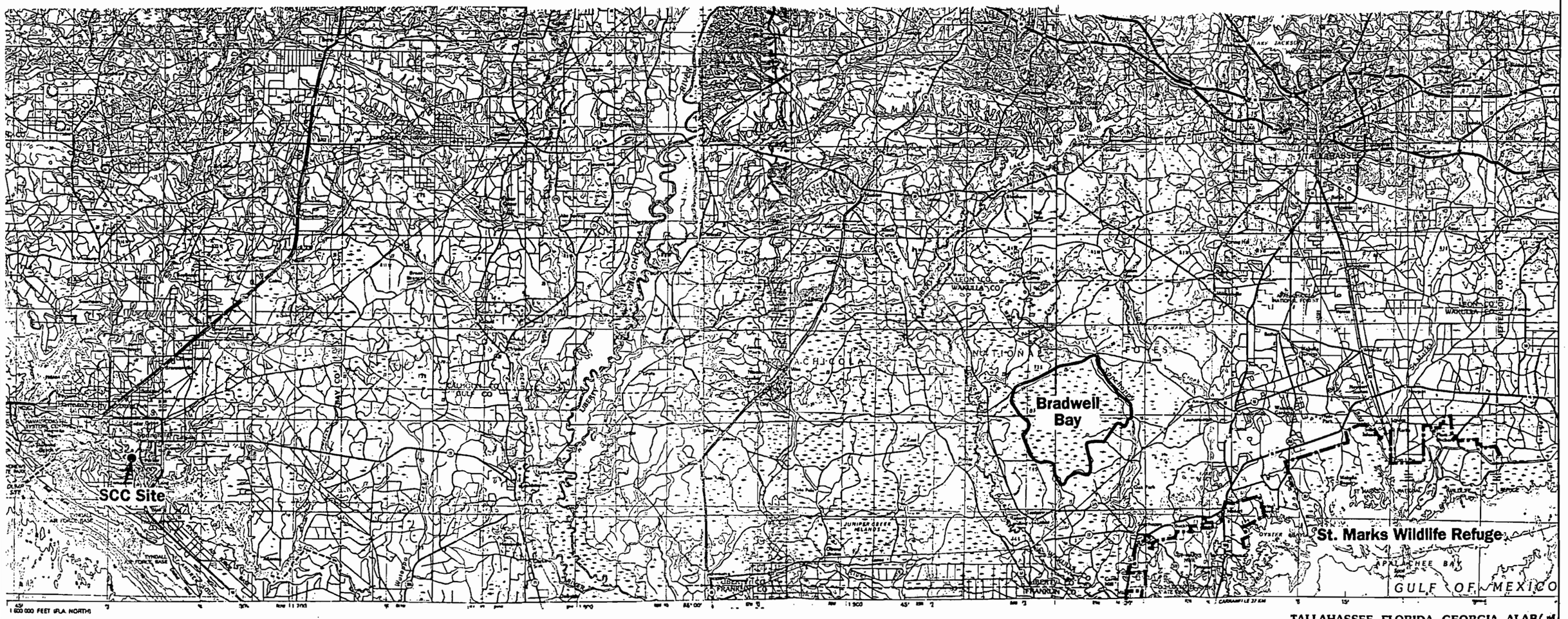
Emission Unit:	No. 3 and 4 Combination Boiler
Process Area:	Utilities/Miscellaneous
Filename:	9937518Y/F1/WP/SCC-EU9-J1.DWG
Latest Revision:	04/05/2000 by PAC

Golder Associates

Attachment SCC-EU9-G2. Maximum Emissions for Individual Fuels, No. 4 Combination Boiler, Stone Container, Panama City.

Regulated Pollutant	No. 6 Oil					Wood/Bark					Gas					Coal				
	Emission Factor	Ref.	Activity Factors [a]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors [a b]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors [a]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor	Ref.	Activity Factors [a]	Hourly Emissions (lb/hr)	Annual Emissions (TPY)
Particulate (PM)	0.10 lb/MMBtu	1	473 MMBtu/hr	47.3	207.17	0.30 lb/MMBtu	1	474 MMBtu/hr	86.60 [i]	379.31	0.1 lb/MMBtu	1	40 MMBtu/hr	4.00	17.52	0.1 lb/MMBtu	1	395 MMBtu/hr	39.50	173.01
Particulate (PM10)	86 % of PM	10	-- --	40.68	178.17	87 % of PM	5	-- --	75.34	330.00	0.1 lb/MMBtu	1	40 MMBtu/hr	4.00	17.52	90 % of PM	7	--	35.55	155.71
Sulfur dioxide: 3-hr	157S lb/Mgal [d]	2	3.153 Mgal/hr	781.00 [e]		0.075 lb/TWWF	9	60.0 tons/hr	4.50	19.71	0.6 lb/MMscf	6	0.04 MMscf/hr	0.024		781 lb/hr [e]	--	--	781.0	
24-hr	575 lb/hr [h]	9		575.00	2,518.50	-- --		-- --	--	--	0.6 lb/MMscf	6	0.04 MMscf/hr	0.024	0.11	575 lb/hr	9	--	575.0	2,518.50
Nitrogen oxides	47 lb/Mgal	2	3.153 Mgal/hr	148.19	649.08	1.5 lb/TWWF	5	60.0 tons/hr	90.00	394.20	280 lb/MMscf	6	0.04 MMscf/hr	11.20	49.06	11 lb/ton	7	15.8 TPH	173.8	761.24
Carbon monoxide	5 lb/Mgal	2	3.153 Mgal/hr	15.77	69.05	2.923 lb/TWWF	8	60.0 tons/hr	175.38	768.16	84 lb/MMscf	6	0.04 MMscf/hr	3.36	14.72	5 lb/ton	7	15.8 TPH	79.0	346.02
VOC	0.28 lb/Mgal	2	3.153 Mgal/hr	0.88	3.87	0.12 lb/TWWF	3	60.0 tons/hr	7.20	31.54	5.5 lb/MMscf	6	0.04 MMscf/hr	0.22	0.96	0.05 lb/ton	3	15.8 TPH	0.79	3.46
Sulfuric acid mist: 24-hr	6.1 % of SO2	4	3.153 Mgal/hr	35.08	153.6	6.1 % of SO2	4	--	0.27	1.20	6.1 % of SO2	4	--	1.46E-03	6.41E-03	6.1 % of SO2	4	--	35.08	153.63
Total reduced sulfur [c]	-- --	--	-- --		--	-- --		-- --	--	--	--		--	--	--	5 ppmvd [f]	1	164,500 acfm [g]	4.40	19.27
Lead	1.51E-03 lb/Mgal	2	3.153 Mgal/hr	4.8E-03	2.1E-02	4.45E-04 lb/TWWF	5	60.0 tons/hr	2.67E-02	1.17E-01	1.0E-08 lb/MMscf	6	0.04 MMscf/hr	4.00E-10	1.75E-09	4.20E-04 lb/ton	7	15.8 TPH	6.64E-03	2.91E-02
Mercury	1.13E-04 lb/Mgal	2	3.153 Mgal/hr	3.6E-04	1.6E-03	5.15E-06 lb/TWWF	5	60.0 tons/hr	3.09E-04	1.35E-03	2.6E-04 lb/MMscf	6	0.04 MMscf/hr	1.04E-05	4.56E-05	8.30E-05 lb/ton	7	15.8 TPH	1.31E-03	5.74E-03
Beryllium	2.78E-05 lb/Mgal	2	3.153 Mgal/hr	8.8E-05	3.8E-04	-- --		--	--	--	1.20E-05 lb/MMscf	6	0.04 MMscf/hr	4.80E-07	2.10E-06	2.10E-05 lb/ton	7	15.8 TPH	3.32E-04	1.45E-03
Fluorides	3.73E-02 lb/Mgal	2	3.153 Mgal/hr	1.2E-01	5.2E-01	-- --		--	--	--	-- --		-- --	--	--	0.15 lb/ton	7	15.8 TPH	2.37	10.38

Notes:
TWWF - ton of wet wood residue fuel
All annual emissions based on 8,760 hr/yr operation.
Footnotes
[a] Refer to Attachment SCC-EU9-G1.
[b] Based on 30 tons/hr dry basis and 50% moisture in wood/bark.
[c] TRS gases from digester and MEE system must be incinerated in the Lime Kiln or Bark Boiler at a minumum of 1,200 deg. F for at least 0.5 seconds.
[d] Maximum fuel oil sulfur content = 2.4%
[e] Current permit limit, including TRS burning.
[f] All TRS emissions calculated under coal section.
[g] Based on Title V application.
[h] Proposed permit limit for 24 hour average for No. 4 Combination Boiler operating, and with No. 3 Combination Boiler shutdown or operating on bark/natural gas only.
[i] Based on limit in AC03-190964.
References:
1. Based on Florida Rule 62-296.410.
2. Emission Factors based on AP-42 Section 1.3 Table 1.3-1, 1.3-3, 1.3-4 and 1.3-11 for metals (assuming uncontrolled for metals).
3. Emission Factor Based on NCASI TB 646 for an average Spreader Stoker Boilers with Scrubbers Tables1, 2, and 3.
4. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil: 5% of SO2 becomes SO3 then take into account the ratio of sulfuric acid mist and sulfur trioxide molecular weights (98/80).
5. Emission Factors based on AP-42 Section 1.6 Table 1.6-1, 1.6-2, 1.6-3, 1.6-5 and 1.6-6 (2/99).
6. Emission Factors based on AP-42 Section 1.4 Table 1.4-1, 1.4-2, and 1.4-4 .
7. Emission Factors based on AP-42 Section 1.1 Tables 1.1-3, 1.1-5, 1.1-9, 1.1-18 and 1.1-19 for spreader stoker boilers.
8. Emission Factor Based on NCASI TB 416, Table 4.
9. Based on proposed permit limit.
10. Based on AP-42 Section 1.3, Table 1.3-5, for industrial boilers firing residual oil with no control.



TALLAHASSEE, FLORIDA–GEORGIA–ALABAMA
30084-A1-TR-25

Figure 3-1
Class I Areas in Relation to Panama City Mill

Sources: USGS, 1998; Golder Associates Inc., 1999.

Golder Associates

Fold at line over top of envelope to

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Jack Prescott, Gen. Mgr.
Store Container
1 Everitt Ave
Panama City, Fl
32402

4a. Article Number
Z 333 618 143

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

5. Received By: *(Print Name)* JG Willey

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*
X JG Willey

PS Form **3811,** December 1994 102595-98-B-0229 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

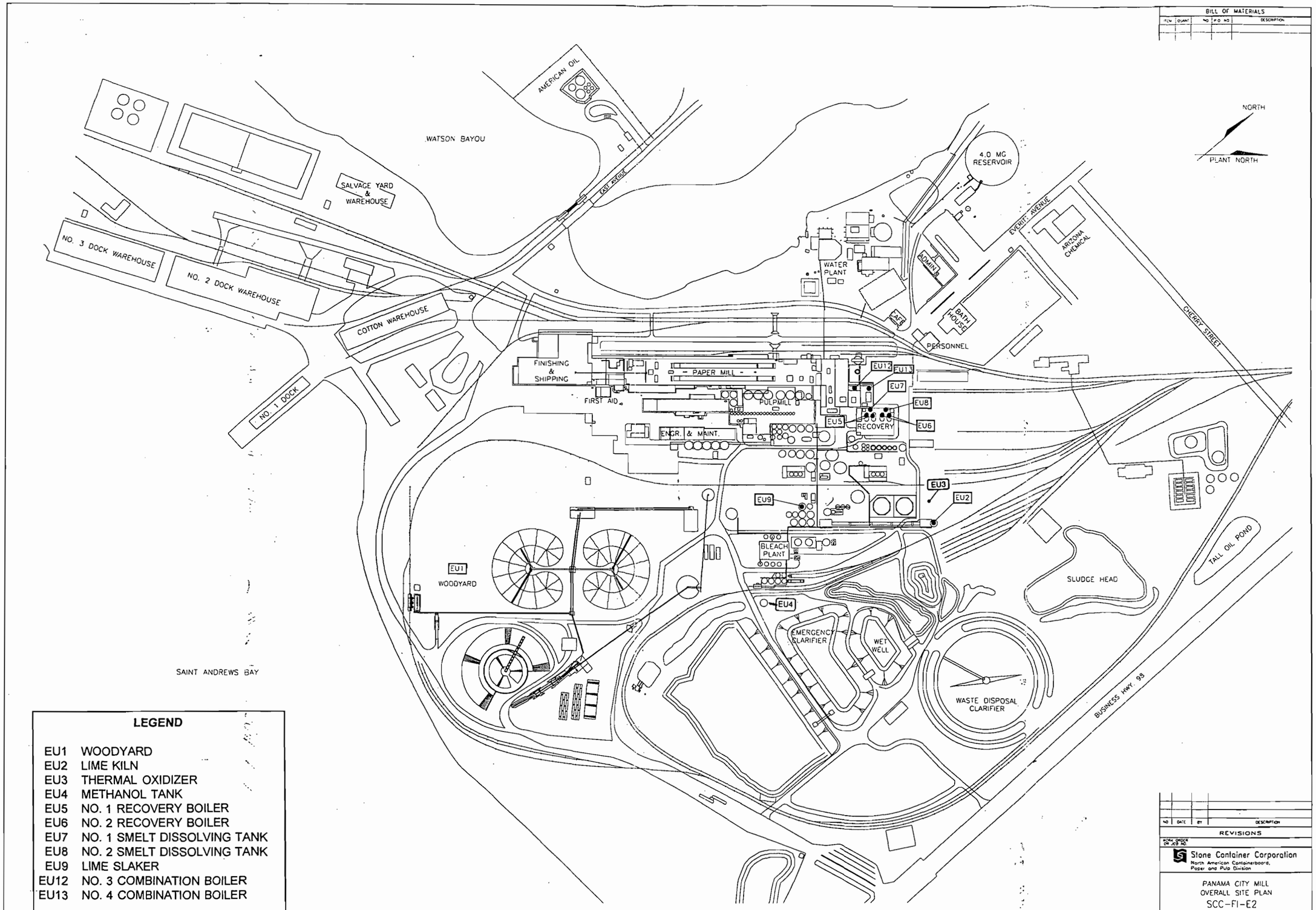
Thank you for using Return Receipt Service.

Z 333 618 143

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Jack Prescott	
Street & Number Store Cont	
Post Office, State, & ZIP Code Panama City Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 0050009-005-AC 9-15-99	

PS Form **3800,** April 1995



LEGEND

EU1	WOODYARD
EU2	LIME KILN
EU3	THERMAL OXIDIZER
EU4	METHANOL TANK
EU5	NO. 1 RECOVERY BOILER
EU6	NO. 2 RECOVERY BOILER
EU7	NO. 1 SMELT DISSOLVING TANK
EU8	NO. 2 SMELT DISSOLVING TANK
EU9	LIME SLAKER
EU12	NO. 3 COMBINATION BOILER
EU13	NO. 4 COMBINATION BOILER

NO | DATE | BY | DESCRIPTION

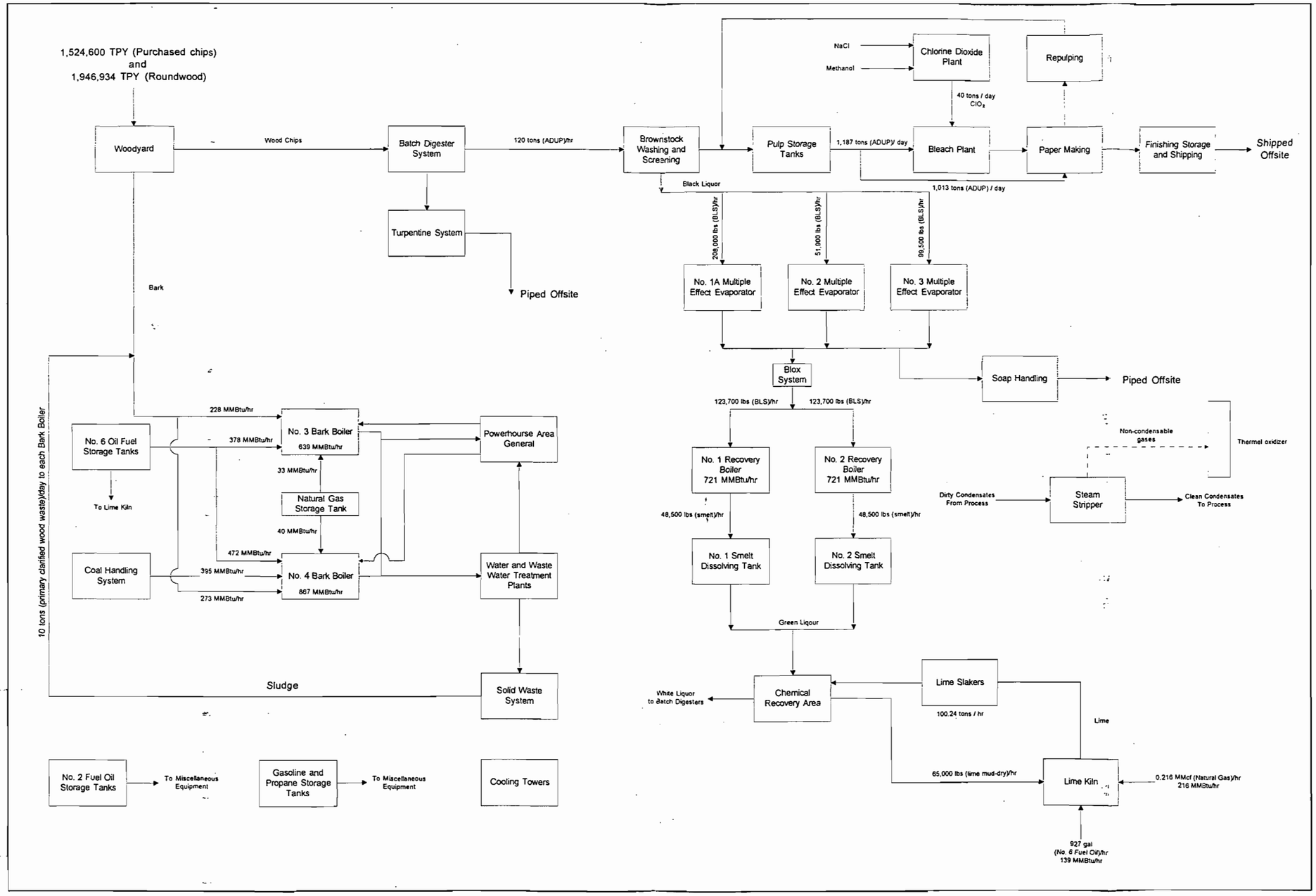
REVISIONS

WORK ORDER OR JOB NO.

Stone Container Corporation
North American Containerboard, Paper and Pulp Division

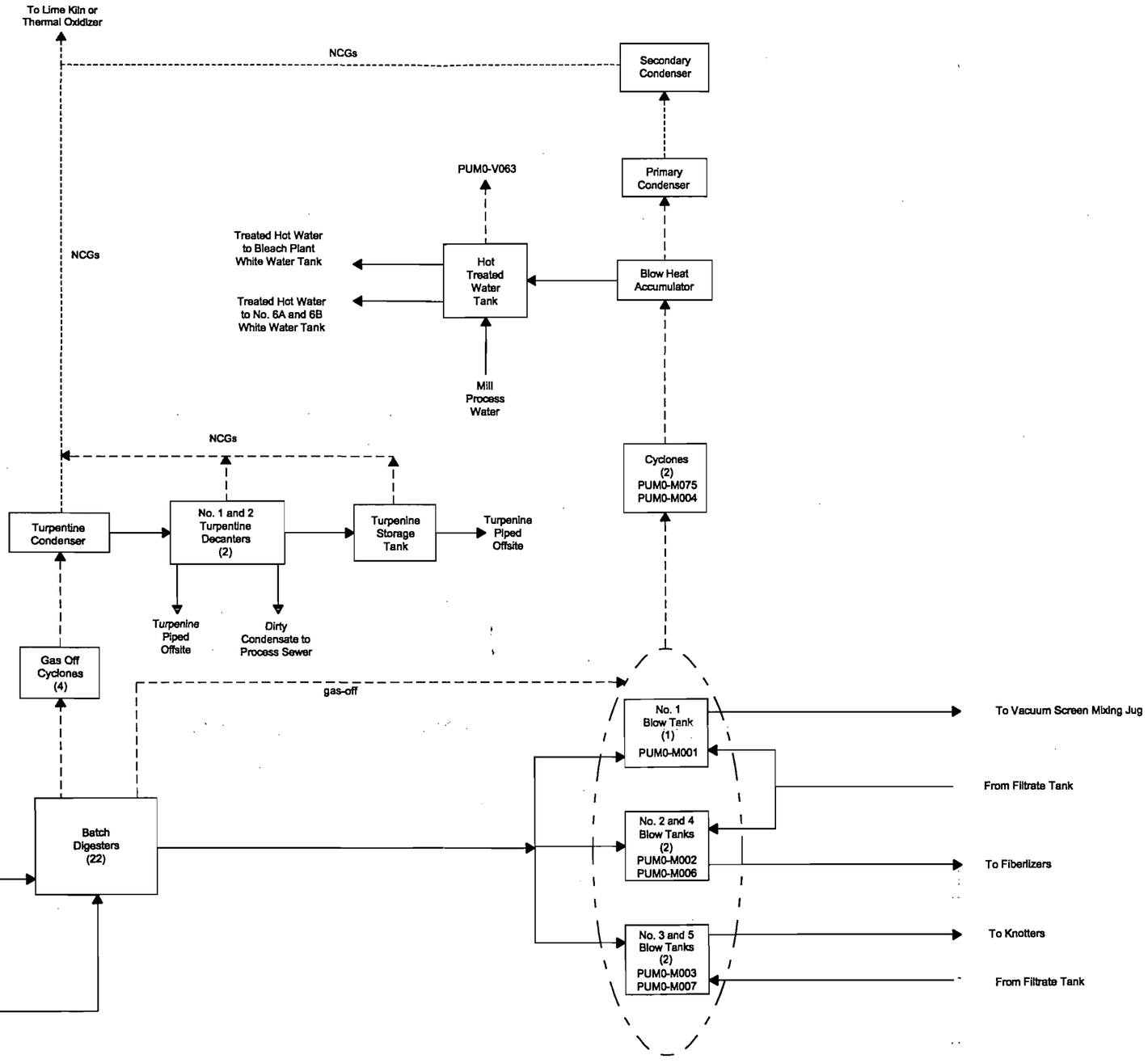
PANAMA CITY MILL
OVERALL SITE PLAN
SCC-FI-E2

SCALE: NONE | DRN. R.L.M. 8/17/94 | CHD. | APP. | DRAWING NO. MILLSITE



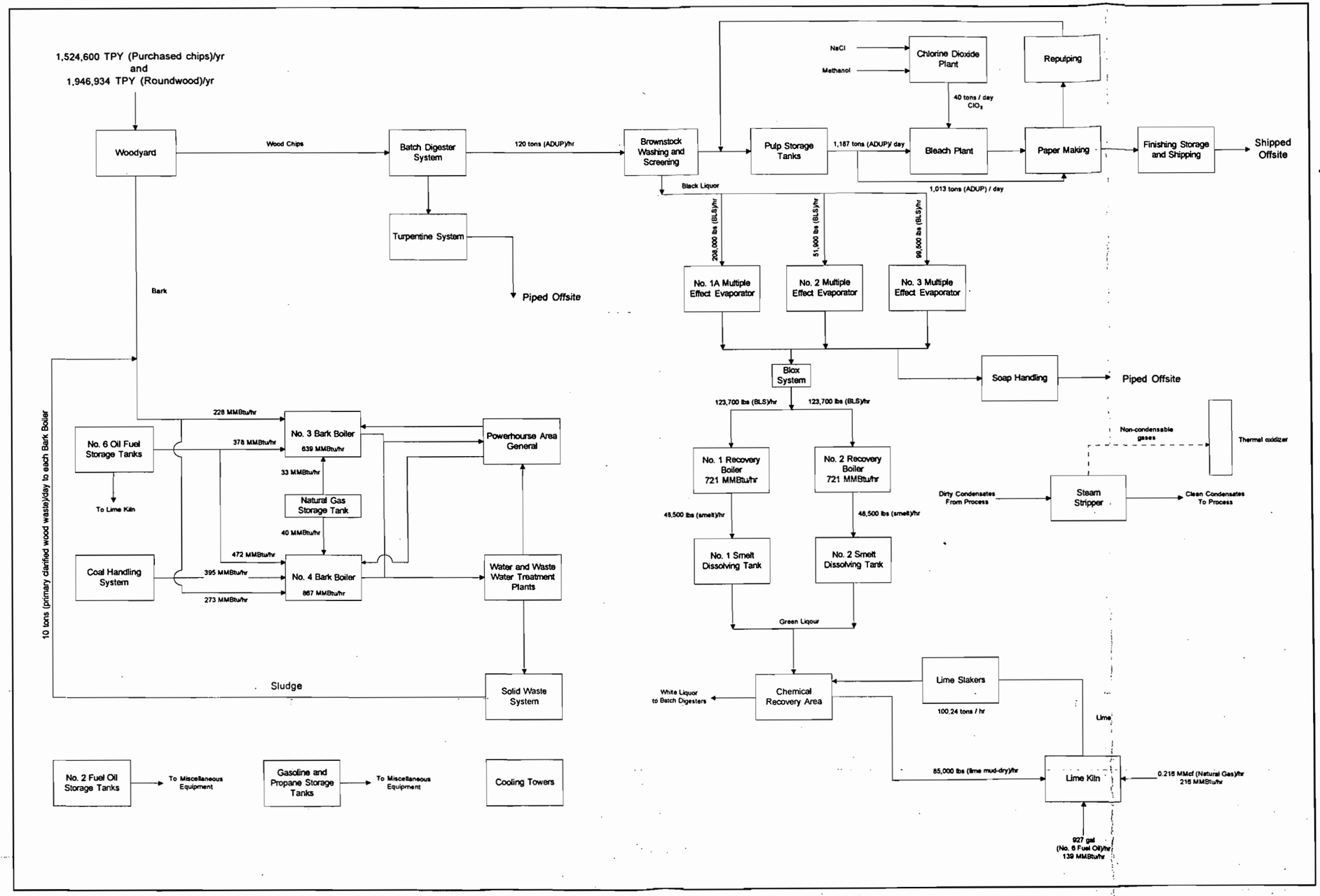
Stone Container Corporation		Emission Unit:	Overall Plant	
		Process Area:	Overall Plant	
SCC-FI-E3	Panama City, FL	*Filename:*	SCC-FAC2.VSD	
		Latest Revision Date:	7/21/99	10:36 AM

Golder Associates



Process Flow Legend		Stone Container Corp. Panama City, FL Process Flow Diagram SCC-EU2-L1		
Solid/Liquid ——→			Emission Unit:	Pulping System MACT I
Gas ----------→			Process Area:	Pulping Area
			Filename:	9937518Y/F1/WP/PAGMACTI.DWG
			Latest Revision:	July 21, 1999

Golder Associates



Smurfit - Stone Container Corporation		Emission Unit:	Overall Plant
		Process Area:	Overall Plant
SCC-FI-E3	Panama City, FL	Filename:	SCC-FAC2.VSD
		Latest Revision Date:	6/3/99 2:13 PM

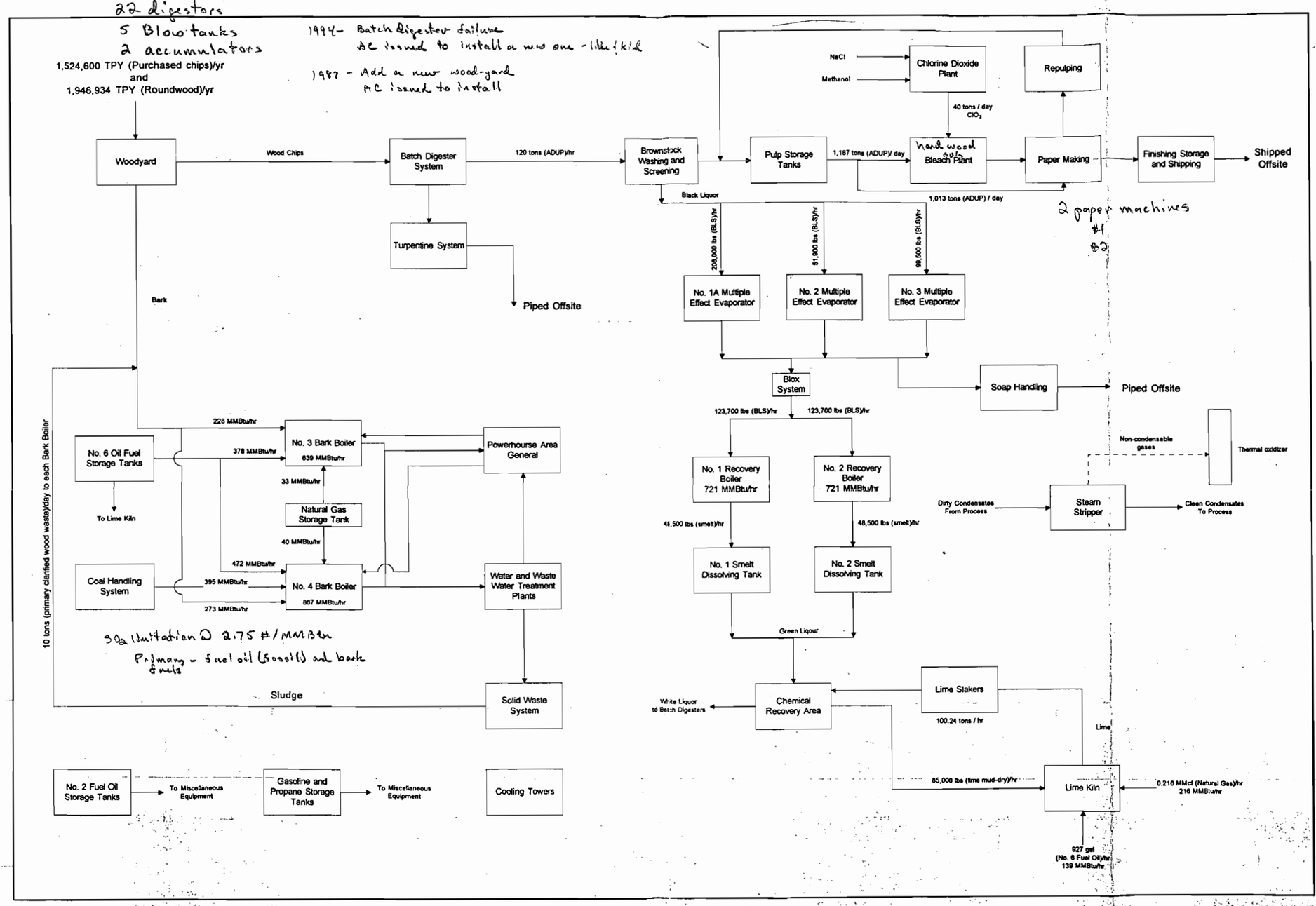
Golder Associates

22 digestors
5 Blow tanks
2 accumulators

1994- Batch Digester failure
AC issued to install a new one - like for kind

1987 - Add a new wood-yard
AC issued to install

1,524,600 TPY (Purchased chips)/yr
and
1,946,934 TPY (Roundwood)/yr



2 paper machines
#1
#2

Smurfit - Stone Container Corporation		*Emission Unit:*	Overall Plant
1960 vintage		Process Area:	Overall Plant
SCC-FI-E3	Panama City, FL	Filename:	SCC-FAC2.VSD
		Latest Revision Date:	6/3/99 2:13 PM

Golder Associates

6-7

SYED
From meeting with Smurfit Stone -
Chi

LAW OFFICES

OERTEL, HOFFMAN, FERNANDEZ & COLE, P.A.

301 SOUTH BRONOUGH STREET
SUITE 500
TALLAHASSEE, FLORIDA 32301

(850) 521-0700
FAX (850) 521-0720

MAILING ADDRESS:
POST OFFICE BOX 1110
TALLAHASSEE, FLORIDA 32302-1110

http://www.ohfc.com

TIMOTHY P. ATKINSON
JEFFREY BROWN
M. CHRISTOPHER BRYANT
C. ANTHONY CLEVELAND
TERRY COLE
SEGUNDO J. FERNANDEZ
SCOTT W. FOLTZ
KENNETH F. HOFFMAN
CHRISTOPHER D. JOHNSTON
KENNETH G. OERTEL
PATRICIA A. RENOVITCH

January 17, 2001

Via Hand Delivery and U.S. Mail

Mr. Howard C. Rhodes, Director
Division of Air Resources Management
Department of Environmental Protection
111 S. Magnolia Drive, Suite 23
Tallahassee, Florida 32301

Re: FDEP Air Construction Permit No. AC01-267311 / PSD-FL-288
Facility No.: 0010087; Status Report

Dear Mr. Rhodes:

As you know, we represent Florida Rock Industries, Inc. with respect to its Thompson S. Baker Cement Plant in Newberry, Florida.

The new Continuous Emission Monitors (CEMs), including the CEM for SO2 emissions (replacing the previous "loaner" CEM's), at the cement plant will be certified by the end of this week. This information was previously transmitted by letter to the Department on January 5, 2001. See attached copy.

Florida Rock's environmental consultant, Koogler & Associates, will on January 24, 2001, be conducting emission measurements for beryllium on the kiln/raw mill stack at the cement plant using EPA Method 104. This information was previously transmitted by letter to the Department on January 11, 2001. See attached copy.

The company is working diligently to complete several other permitting informational requests from the Department, including information concerning SO2 emissions, beryllium emissions, tire compliance schedule, VOC testing protocol and sulfuric acid mist emissions. We are also diligently working to respond to the Department's proposed consent order, and hope to provide a response by the end of next week.

The requested information and responses will be transmitted to the Department as quickly as possible. Please do not hesitate to call me if you have any questions.

Sincerely,

Segundo J. Fernandez

SJF:bmg
Enclosures

c: John Baker
Fred Cohrs
Cary Cohrs
J. Reynolds
Doug Beason
John B. Koogler
Al Linero

F:\Document\TPA\LTR\Rhodes.ltr.wpd

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
352/377-5822 • FAX/377-7158

KA 187-00-09

January 11, 2001

VIA FAX AND MAIL

Mr. Lalit Lalwani
Florida Department of
Environmental Protection
101 N.W. 75th Street, Suite 3
Gainesville, FL 32607-1609

Subject: Florida Rock Industries, Inc.
Newberry, Florida
Permit No. AC01-267311

Dear Mr. Lalwani:

Koogler & Associates is scheduled to conduct emission measurements for beryllium (EPA Method 104) on the kiln/raw mill stack at the Thompson S. Baker Cement Plant on Wednesday, January 24, 2001. The test crew will arrive on site at 7:00 a.m.

If you have any questions, please do not hesitate to contact me.

Very truly yours,

KOOGLER & ASSOCIATES

John B. Koogler, Ph.D., P.E.

JBK:wa

c: Mr. Al Linero, FDEP, Tallahassee
Mr. Howard Rhodes, FDEP, Tallahassee
Mr. Chris Kirts, FDEP, Jacksonville
Mr. George Townsend, FRI
Mr. Cary Cohrs, FRI
Mr. Fred Cohrs, FRI
Mr. Segundo Fernandez, Oertel, Hoffman

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
352/377-5822 • FAX/377-7158

KA 187-00-09

January 5, 2001

VIA FAX

Mr. Lalit Lalwani
Florida Department of
Environmental Protection
101 NW 75th Street, Suite 3
Gainesville, FL 32607-1609

Subject: Continuous Emission Monitoring Certification
Florida Rock Industries, Inc.
Newberry, Florida
Permit No. AC01-267311

Dear Mr. Lalwani:

Pursuant to our conversation, the certifying of the Continuous Emission Monitors (CEMs) at the Thompson S. Baker Cement Plant scheduled for January 8 has been postponed until Wednesday, January 17, 2001.

If you have any questions regarding this schedule, please do not hesitate to contact me at 352-377-5822.

Very truly yours,

KOOGLER & ASSOCIATES

John B. Koogler

John B. Koogler, Ph.D., P.E.

JBK:wa

c: Mr. Christopher Kirts, FDEP, Jacksonville
Mr. Martin Costello, FDEP, Tallahassee
Mr. George Townsend, FRI
Mr. Cary Cohrs, FRI
Mr. Fred Cohrs, FRI
Mr. Segundo Fernandez

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

May 12, 2003

CERTIFIED MAIL - Return Receipt Requested

Mr. Thomas L. Clements
Environmental Superintendent
Stone Container Corporation
Panama City Mill
One Everitt Avenue
Panama City, Florida 32412-0560

Re: Request for Modification of the Woodyard
Air Construction Permit/PSD Permit Amendment Nos.: 0050009-014-AC/PSD-FL-288(A)

Dear Mr. Clements:

One copy of the Draft Air Construction Permit/PSD Permit Amendment (letter) for the modification of the woodyard's processing rates at Stone Container Corporation's existing pulp mill located at One Everitt Avenue, Panama City, Bay County, Florida, is enclosed. The modification will correct the woodyard's allowable production rates from 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year to 1,524,600 tons of purchased chips per year and 1,946,934 tons of roundwood per year. The permitting authority's "INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/PSD PERMIT AMENDMENT" and the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/PSD PERMIT AMENDMENT " are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/PSD PERMIT AMENDMENT" must be published as soon as possible. Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit (letter) pursuant to Rule 62-110.106(11), F.A.C.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to Scott M. Sheplak, P.E., at the above letterhead address. If you have any other questions, please contact Bruce Mitchell at 850/413-9198.

Sincerely,

Trina L. Vielhauer
Chief
Bureau of Air Regulation

TLV/rbm

Enclosures

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Thomas L. Clements
Environmental Superintendent
Stone Container Corporation
Panama City Mill
One Everitt Avenue
Panama City, Florida 32412-0560

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery
OCT 1 0 2003

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number
(Transfer from service label) 7000 2870 0000 7028 1037

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7000 2870 0000 7028 1037

Mr. Thomas L. Clements

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

Sent To
Mr. Thomas L. Clements
Street, Apt. No.; or PO Box No.
One Everitt Avenue
City, State, ZIP+4
Panama City, Florida 32412-0560

PS Form 3800, May 2000 See Reverse for Instructions

In the Matter of an
Application for Permit by:

Stone Container Corporation
One Everitt Avenue
Panama City, Florida 32412-0560

Permit Project No.: 0050009-014-AC/PSD-FL-288(A)
Panama City Mill
Bay County

/

INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/PSD PERMIT AMENDMENT

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue an Air Construction Permit/PSD Permit Amendment (letter; and, copy of the Draft permit(s) enclosed) for the modification of the woodyard's method of operation at Stone Container Corporation's existing pulp mill located at One Everitt Avenue, Panama City, Bay County, Florida. The modification will correct the woodyard's allowable production rates from 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year to 1,524,600 tons of purchased chips per year and 1,946,934 tons of roundwood per year.

The permittee, Stone Container Corporation - Panama City Mill, applied on April 28, 2003, for the modification.

The permitting authority has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-212. This modification is not exempt from permitting procedures. The permitting authority has determined that an Air Construction Permit/PSD Permit Amendment are required for the proposed modification.

The permitting authority intends to issue the Air Construction Permit/PSD Permit Amendment (letter) based on the belief that reasonable assurances have been provided to indicate that operation of the emissions unit will not adversely impact air quality, and the emissions unit will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.0872, F.S., and Rules 62-110.106 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/PSD PERMIT AMENDMENT." The notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit(s). If you are uncertain that a newspaper meets these requirements, please contact the permitting authority at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0144; Fax: 850/922-6979), within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit(s) (letter) pursuant to Rule 62-110.106(11), F.A.C.

The permitting authority will issue the Final Air Construction Permit/PSD Permit Amendment in accordance with the conditions of the enclosed Draft Air Construction Permit/PSD Permit Amendment unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/PSD PERMIT AMENDMENT." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the Draft Air Construction Permit/PSD Permit Amendment, the permitting authority shall issue a Revised Draft Air Construction Permit/PSD Permit Amendment and require, if applicable, another Public Notice.

The permitting authority will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S. Mediation under Section 120.573, F.S., will not be available for this proposed action.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). Petitions filed by the permit applicant or any of the parties listed below must be filed within 14 (fourteen) days of receipt of this notice of intent. Petitions filed by any other person must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-5.207, F.A.C.

A petition must contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number, and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the permitting authority's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the permitting authority's action or proposed action;

(d) A statement of the material facts disputed by the petitioner, if any;

(e) A statement of the facts that the petitioner contends warrant reversal or modification of the permitting authority's action or proposed action;

(f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the permitting authority's action or proposed action; and,

(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the permitting authority to take with respect to the action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

In addition to the above, a person subject to regulation has a right to apply to the Department of Environmental Protection for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information:

(a) The name, address, and telephone number of the petitioner;

(b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any;

(c) Each rule or portion of a rule from which a variance or waiver is requested;

(d) The citation to the statute underlying (implemented by) the rule identified in (c) above;

(e) The type of action requested;

(f) The specific facts that would justify a variance or waiver for the petitioner;

(g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and,

(h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2), F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the United States Environmental Protection Agency and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Trina L. Vielhauer
Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/PSD PERMIT AMENDMENT (including the PUBLIC NOTICE and the Draft permit(s)) and all copies were sent by certified mail before the close of business on 5/12/08 to the person(s) listed:

Mr. Thomas L. Clements, Environmental Superintendent, SCC - PC Mill

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/PSD PERMIT AMENDMENT (including the PUBLIC NOTICE and the Draft permit(s)) were sent by U.S. mail on the same date to the person(s) listed:

Ms. Sandra Veazey, DEP - NWD
Mr. Kevin White, DEP – NWD
Mr. Henry Hernandez, DEP - NWDB
Ms. Jeananne Gettle, U.S. EPA, Region 4
Mr. David Buff, P.E., GA

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency Clerk, receipt of which is hereby acknowledged.

Patricia J. Friday 5/15/08
(Clerk) (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/PSD PERMIT AMENDMENT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Draft Air Construction Permit No.: 0050009-014-AC
Draft PSD Permit Amendment No.: PSD-FL-288(A)
Stone Container Corporation
Panama City Mill
Bay County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue an Air Construction Permit/PSD Permit Amendment (letter) to Stone Container Corporation for its existing pulp mill located in Panama City, Bay County. The applicant's name and address are: Thomas L. Clements, Environmental Superintendent, One Everitt Avenue, Panama City, Florida 32412-0560.

The permittee, Stone Container Corporation, applied on April 28, 2003, for a modification to the woodyard's method of operation at the existing pulp mill. The modification will correct the woodyard's allowable production rates from 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year to 1,524,600 tons of purchased chips per year and 1,946,934 tons of roundwood per year.

The permitting authority will issue the Air Construction Permit/PSD Permit Amendment, and subsequent Final Air Construction Permit/PSD Permit Amendment, in accordance with the conditions of the Draft Air Construction Permit/PSD Permit Amendment, unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed Draft Air Construction Permit/PSD Permit Amendment (letter) issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the Draft Air Construction Permit/PSD Permit Amendment (letter), the permitting authority shall issue a Revised Draft Air Construction Permit/PSD Permit Amendment (letter) and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of the notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the applicable time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Florida Administrative Code (F.A.C.) Rule 28-106.205.

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file(s) or identification number(s), if known;

(b) The name, address and telephone number of the petitioner; name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how petitioner's substantial rights will be affected by the agency determination;

(c) A statement of how and when the petitioner received notice of the agency action or proposed action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so state;

(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle petitioner to relief; and

(f) A demand for relief.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available for this proceeding.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Permitting Authority:
Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0114
Fax: 850/922-6979

Affected District Office Authority:
Department of Environmental Protection
Northwest District Office
Air Resources
160 Governmental Place
Pensacola, Florida 32520-0328
Telephone: 850/595-8364
Fax: 850/595-8096

Affected District Branch Office Authority:
Department of Environmental Protection
Northwest District Branch Office
2353 Jenks Avenue
Panama City, Florida 32405
Telephone: 850/872-4375
Fax: 850/872-7790

The complete project file includes the Draft Air Construction Permit/PSD Permit Amendment, the application, the Technical Evaluation and Preliminary Determination, and the information submitted by the facility's representative, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott M. Sheplak, P.E., at the above address, or call 850/921-9532 for additional information.

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

Stone Container Corporation
Panama City Mill
Facility ID No.: 0050009
Bay County

Air Construction Permit/PSD Permit Amendment
Draft Air Construction Permit No.: 0050009-014-AC
PSD Permit Amendment No.: PSD-FL-288(A)

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Title V Section

1. APPLICATION INFORMATION.

A. Applicant Name and Address:
Stone Container Corporation
Panama City Mill
P. O. Box 59560
Panama City, Florida 32412-0560

Responsible Official
Mr. Thomas L. Clements, Environmental Superintendent

B. Reviewing and Process Schedule:
April 28, 2003: Receipt of Application

2. FACILITY INFORMATION.

A. Facility Location

The Stone Container Corporation's Panama City Mill is located at One Everitt Avenue in Panama City, Bay County, Florida.

The UTM coordinates of this facility are: Zone 16; 632.8 km East; and, 3335.1 km North.

B. Standard Industrial Classification Code (SIC):

Major Group No.	26	Paper and Allied Products
Group No.	261	Pulp Mills
Industry No.	2611	Pulp Mills

C. Facility Category

The Panama City Mill is classified as a major air pollutant emitting facility and is a Title V facility. The initial Title V Permit, No. 0050009-002-AV, was effective on June 28, 2000.

3. PROJECT DESCRIPTION.

An Air Construction (AC) Permit/PSD Permit Amendment is required to correct the federally enforceable allowable production rates of the woodyard. The modification will correct the woodyard's allowable production rates from 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year to 1,524,600 tons of purchased chips per year and 1,946,934 tons of roundwood per year.

4. RULE APPLICABILITY.

The proposed project is subject to permitting under Rule 62-210.300, F.A.C., Permits Required.

The permitting authority intends to issue this Air Construction Permit/PSD Permit Amendment based on the belief that reasonable assurances have been provided to indicate that the correction in the proposed throughput rates of the aforementioned woodyard operation will not adversely impact air quality; and, the affected woodyard operation will be in compliance with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

5. AIR QUALITY ANALYSIS.

An air quality analysis was not required.

6. CONCLUSION.

Based on the foregoing technical evaluation, the Department has made a preliminary determination that the proposed project will be in compliance with all applicable state and federal air pollution regulations. The proposed corrected permit (letter) is attached.

Permit Engineer: Bruce Mitchell

Reviewed and Approved by Scott M. Sheplak, P.E.

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

Month Day, 2003

CERTIFIED MAIL – Return Receipt Requested

Mr. Thomas L. Clements
Environmental Superintendent
Stone Container Corporation
Panama City Mill
One Everitt Avenue
Panama City, Florida 32412-0560

DRAFT

Re: Draft Air Construction Permit Project No.: 0050009-014-AC
Draft PSD Permit Amendment No.: PSD-FL-288(A)
Stone Container Corporation: Panama City Mill

Dear Mr. Clements:

This letter modification corrects the woodyard's allowable production rates established in the air construction permit(s), Nos. 0050009-005-AC/PSD-FL-288, issued/clerked on September 5, 2002. Therefore, the following is changed:

1. Specific Condition A.1.
FROM:
Capacity. The woodyard's maximum allowable production rates are 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year.
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

TO: Specific Condition B.1.
Capacity. The woodyard's maximum allowable production rates are 1,524,600 tons of purchased chips per year and 1,946,934 tons of roundwood per year.
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

2. All of Section III., Subsection A., Woodyard Operations, is relabeled as Section III., Subsection B., Woodyard Operations, and all of the Specific Conditions under this subsection are renumbered as follows:
FROM:
A.1. thru A.10.

TO:
B.1. thru B.10.

This permit (letter) is issued pursuant to Chapter 403, Florida Statutes (F.S.). Any party to this order has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by

filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

Sincerely,

Howard L. Rhodes, Director
Division of Air Resource Management

HLR/rbm

cc: Ms. Sandra Veazey, DEP - NWD
Mr. Kevin White, DEP – NWD
Mr. Henry Hernandez, DEP - NWDB
Ms. Jeananne Gettle, U.S. EPA, Region 4
Mr. David Buff, P.E., GA

Department of
Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

P.E. Certification Statement

Permittee:
Stone Container Corp.
Panama City Mill

Permit No.: 0050009-014-AC/PSD-FL-288(A)

Project type: Air Construction Permit - Modification of the Woodyard

I HEREBY CERTIFY *that the engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).*

STATE OF FLORIDA
SCOTT M. SHEPLAK
REGISTERED
PROFESSIONAL ENGINEER
NO. 48866

Scott M. Sheplak, P.E. Date: 03/08/03
Registration Number: 48866

Permitting Authority:
Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/921-9532
Fax: 850/922-6979

Smurfit-Stone

Containerboard Mill Division

June 2, 2003

Mr. Bruce Mitchell
Florida Dept. of Environmental Protection
Division of Air Resources Mgmt.
2600 Blair Stone Rd
Tallahassee, FL 32399-2400

Re: Public Notice

Dear Mr. Mitchell

The proof of public notice for permit PSD-FL-288(A) is attached. If you have any questions, please call me at (850) 785-4311 x470.

Sincerely

Tom Clements
Environmental Mgr.

Smurfit-Stone Container Corporation
1 Everitt Avenue 32401 P.O. Box 59560 32412-0560 Panama City, FL Phone (850) 785-4311 Fax (850) 763-6290

Florida Freedom Newspapers, Inc.

PUBLISHERS OF THE NEWS HERALD
Panama City, Bay County, Florida
Published Daily

RECEIVED
JUN 05 2003
BUREAU OF AIR REGULATION

State of Florida
County of Bay

Before the undersigned authority appeared _____

Pam Gregory, who on oath says that (s)he is Advertising Director of the News Herald, a daily newspaper published at Panama City, in Bay County, Florida; that the attached copy of advertisement, being a Legal Advertisement- 4284 in the matter of Notice of Intent AC Permit/Stone Container Corp. in the Bay County Court, was published in said newspaper in the issues of May 26, 2003

Affiant further says that the News Herald is a direct successor of the Panama City News and that this publication, together with its direct predecessor, has been continuously published in said Bay County, Florida, each day (except that the predecessor, Panama City News, was not published on Sundays), and that this publication together with its said predecessor, has been entered as a second class mail matter at the post office in Panama City in said Bay County, Florida, for a period of one year next preceding the first publication of the attached copy of the advertisement, all in accordance with the provisions of section 49.03, Florida Statutes; and affiant further says that (s)he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Pam Gregory

State of Florida
County of Bay
Sworn to and subscribed before me this 26th day of May, A. D., 2003 by Pam Gregory, Advertising Director of The News Herald, who is personally known to me or has produced na as identification.

Marie Forrest
MY COMMISSION # DD209621 EXPIRES
May 5, 2007
BONDED THRU TROY FAIN INSURANCE, INC.

Marie Forrest
Notary Public, State of Florida at Large

4284
PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT/ PSD PERMIT AMENDMENT
STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Draft Air Construction Permit No. 0050009-014-AC Draft PSD Permit Amendment No. PSD-FL-288(A) Stone Container Corporation Panama City Mill Bay County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue an Air Construction Permit/ PSD Permit Amendment (letter) to Stone Container Corporation for its existing pulp mill located in Panama City, Bay County. The applicant's name and address are: Thomas L. Clements, Environmental Superintendent, One Everitt Avenue, Panama City, Florida 32412-0560. The permittee, Stone Container Corporation, applied on April 28, 2003, for a modification to the woodyard's method of operation at the existing pulp mill. The modification will correct the woodyard's allowable production rates from 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year to 1,524,600 tons of purchased chips per year and 1,946,934 tons of roundwood per year.

The permitting authority will issue the Air Construction Permit/PSD Permit Amendment, and subsequent Final Air Construction Permit/PSD Permit Amendment, in accordance with the condition of the Draft Air Construction Permit/PSD Permit Amendment, unless a response received in accordance with the following procedures results in a different decision or significant change of terms or condition.

The permitting authority will accept written comments concerning the proposed Draft Air Construction Permit/PSD Permit Amendment (letter) issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the Draft Air Construction Permit/PSD Permit Amendment (letter), the permitting authority shall issue a Revised Draft Air

Construction Permit/PSD Permit Amendment (letter) and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 of the Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730, Fax: 850/487-4938). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of the notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the applicable time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Florida Administrative Code (F.A.C.) Rule 28-106.205.

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file(s) or identification number(s), if known;

(b) The name, address and telephone number of the petitioner, name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding, and an explanation of how petitioner's substantial rights will be affected by the agency determination;

(c) A statement of how and when the petitioner received notice of the agency action or proposed action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so state;

(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle petitioner to relief; and

(f) A demand for relief.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available for this proceeding.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m. Monday through Friday, except legal holidays, at:

Permitting Authority:
Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0114
Fax: 850/922-6979

Affected District Office Authority:
Department of Environmental Protection
Northwest District Office
Air Resources
160 Governmental Place
Pensacola, Florida 32520-0328
Telephone: 850/595-0328
Fax: 850/595-8096

Affected District Branch Office Authority:
Department of Environmental Protection
Northwest District Branch Office
2353 Jenks Avenue
Panama City, Florida 32405
Telephone: 850/872-4375
Fax: 850/872-7790

The complete project file includes the Draft Air Construction Permit/PSD Permit Amendment, the application, the Technical Evaluation and Preliminary Determination, and the information submitted by the facility's representative, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott M. Sheplak, P.E. at the above address, or call 850/921-9532 for additional information.

May 26, 2003

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

April 23, 2003

0137598

Florida Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Attention: Ms. Trina Vielhauer, Chief, Bureau of Air Regulation

RE: STONE CONTAINER CORPORATION - PANAMA CITY MILL
PERMIT NO. 0050009-005-AC/PSD-FL-288
WOODYARD OPERATIONS

Dear Ms. Vielhauer:

Stone Container Corporation (SCC) was issued construction permit No. 0050009-005-AC/PSD-FL-288 for modification to the batch digester system and woodyard operations on September 9, 2002. The purpose of this letter is to request a revision to this permit in regards to the facility description of the Woodyard and the capacity limitations on the Woodyard. SCC is in the process of revising the Title V permit for the facility, and wants to correct the construction permit in order to obtain a correct Title V permit.

In the facility description in Section I, Subsection A, of the above referenced PSD construction permit, the following is stated:

> "In addition, the modification will allow the woodyard's production rates to increase from 554,000 cords of purchased chips per year and 645,600 cords of roundwood per year to 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year."

In Section III, Subsection A, Condition A.1, of the permit it is stated:

> "The woodyard's maximum allowable production rates are 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year."

Review of these permitted rates with the rates specified in the application for the pulp production increase indicates that the units were incorrectly stated in the permit as cords per year instead of tons per year.

The Woodyard production rates corresponding to the increase in pulp production to 781,000 tons per year (TPY) of pulp were contained in the document entitled "Supplemental Information for PSD Permit Application, Stone Container Corporation, Panama City, Florida" (April 2000), prepared by Golder Associates Inc. The rates were presented in Appendix A, Table A-6, of this document, and is attached for your convenience. As shown, the correct rates are 1,946,934 tons of roundwood per year and 1,524,600 tons of purchased chips per year (see footnotes "e" and "j" in table). In terms of cords, the correct rates are 710,160 cords of roundwood per year and 609,840 cords of purchased chips per year. These rates are summarized in the attached Table 1, and contain the 10-percent safety factor indicated in the footnotes to Table A-6.

SCC requests that the facility description and Condition A.1 of the construction permit be revised to reflect the correct throughput rates for the Woodyard. To support this request, attached is the air permit application form for the Woodyard.

Thank you for your consideration of this request. If you have any questions, please call me at (352) 336-5600 or Tom Clements at (850) 785-4311 ext. 470.

Sincerely,

GOLDER ASSOCIATES INC.

David A. Buff

David A. Buff, P. E., Q. E. P.
Principal Engineer

DB/jkw

cc: Tom Clements
Sandra Veazey, Northwest District

P:\Projects\2001\0137598 Stone Container Panama City\4\4.1\042303\L042303.doc

Table A-6. Maximum Emissions from the Woodyard at Stone Container, Panama City

SOURCE	Type of Operation (a)	M Moisture Content (%)	U Wind Speed (MPH)	Uncontrolled Emission Factor	Type of Control	Control Efficiency (%)	Controlled Emission Factor	Activity Factor	Maximum Annual PM Emissions (tons/yr)	PM10 Size Multiplier (c)	Maximum Annual PM10 Emissions (tons/yr)
ROUNDWOOD HANDLING											
Debarker	Debarking	--	--	0.024 lbs/ton (d)	Enclosure	80	0.00480 lbs/ton	1,946,934 TPY (e)	4.673	0.35	1.635
Chipper	Continuous Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	1,946,934 TPY (e)	0.125	0.35	0.044
Chip Surge Bin to Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
BARK HANDLING											
Debarker to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
Bark Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
No. 1 Bark Diverter to Emergency Bark Storage Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	0 TPY (f)	0.0000	0.35	0.00000
Emergency Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Unhogged Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Trucked Bark to Purchased Unhogged Bark Storage Pile	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Front End Loaded to Bark Hopper	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Wastewood Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	316,098 TPY (g)	0.0041	0.35	0.00142
No. 1 Bark Diverter to Disc Screen	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Hog	Hammermill	--	--	0.024 lbs/ton (d)	Enclosed	80	0.00480 lbs/ton	471,853 TPY (h)	1.132	1.0	1.132
Bark Hog to Hogged Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Conveyor to Hogged Bark Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Pile	Wind Erosion	--	--	--	None	0	--	--	0.0023	1.0	0.0023
Bark Bin Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone	0	2.0 lb/hr	8,760 hr/yr	8.76	0.35	3.07
Bark Bin Cyclone to Small Bark Bin and Screw	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Small Bark Bin and Screw to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Conveyor to No. 2 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Storage Pile Maintenance	Vehicular Traffic	--	--	0.74 lbs/VMT	None	0	0.74 lbs/VMT	21,900 VMT (i)	8.103	0.35	2.836
PURCHASED CHIP HANDLING											
Truck Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Railcar Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Truck Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
Railcar Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
MANUFACTURED AND PURCHASED CHIP PROCESSING											
Tower No. 1 Diverter to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	60	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	60	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Reclaim Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	60	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaim Coveyor to Radial Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	60	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Radial Conveyor to Chip Reclaimer Storage Pile (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	60	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaimer Storage Pile (2)	Wind Erosion	--	--	--	None	0	--	--	0.048	1.0	0.048
Chip Reclaimer Storage Pile to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	60	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Screw (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screw to Primary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screens	Screening										
Softwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone, Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Hardwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Primary Screen to Secondary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Secondary Screen to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	60	0.000026 lbs/ton	2,321,045 TPY (l)	0.030	0.35	0.010
Screen Building Rejects Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.066
Screen Building Rejects Cyclone to Chip Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	994,734 TPY (m)	0.026	0.35	0.009
Fines Blowline Emergency Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.00017	1.0	0.00017
Fines Blowline Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.07
Fines Blowline Cyclone to Wastewood/Sludge Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	9,947 TPY (n)	0.000	0.35	0.000
Chip Conveyor to No. 5 Transfer Tower (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,305,772 TPY (o)	0.043	0.35	0.015
TOTAL									44.61		16.39

Notes:

(a) Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (US EPA, 1995) Section 13.2.4-3(1). E = 0.0032 x (U/5)^1.3 / (M/2)^1.4 lb/ton

(b) Wind Erosion Emissions based on AP-42 (US EPA, 1995) Section 13.2.5. Refer to Attachment A for derivation

(c) PM10 Size Multiplier is based on particles < 10 micrometers

(d) Debarker emissions are based on Table 28 of NCASI Technical Bulletin No. 424 (March 1984), Fugitive Dust Emission Factors and Control Methods Important to Forest Products Industry Manufacturing Operations

(e) Roundwood throughput is based on 466,600 cords/yr (softwood) @ 2.7 tons/cord and 178,800 cords/yr (hardwood) @ 2.65 tons/cord, plus 10 percent.

(f) Bark throughput is based on 8 percent of roundwood.

(g) Based on purchased bark.

(h) Total bark throughput is sum of manufactured bark and purchased bark.

(i) Vehicle miles traveled (VMT) was calculated assuming front end loader operating 12 hrs/day, 365 days/yr on the woodyard.

(j) Purchased chip throughput is based on 142,900 cords/yr (softwood) and 411,600 cords/yr (hardwood) @ 2.5 tons/cord, plus 10 percent.

(k) Total chip throughput is based on 92 percent of roundwood throughput plus purchased chip throughput

(l) Based on 70% of total chip throughput.

(m) Based on 30% of total chip throughput.

(n) Fines separated from wood chip stream.

(o) Total chips minus fines

Table 1. Maximum Woodyard Throughput Rates, SCC Panama City

Basis	cords/yr			tons/yr		
	Softwood	Hardwood	Total	Softwood	Hardwood	Total
			Roundwood			
PSD Application[a]	466,800	178,800	645,600	1,260,360	509,580	1,769,940
- plus 10%	46,680	17,880		126,036	50,958	176,994
- Total	513,480	196,680	710,160	1,386,396	560,538	**1,946,934**
			Purchased Chips			
PSD Application[a]	142,800	411,600	554,400	357,000	1,029,000	1,386,000
- plus 10%	14,280	41,160		35,700	102,900	138,600
- Total	157,080	452,760	609,840	392,700	1,131,900	**1,524,600**

Conversions: Purchased chips: 2.5 tons/cord
Roundwood: Softwood: 2.7 tons/cord
Hardwood: 2.85 tons/cord

Footnotes:

[a] Reference "Supplemental Information for PSD Permit Application, Stone Container Corporation, Panama City, Florida" (April 2000), prepared by Golder Associates Inc., Appendix A, Table A-6.

Department of Environmental Protection

Division of Air Resources Management

APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

Identification of Facility

1. Facility Owner/Company Name: **Stone Container Corporation**	
2. Site Name: **Panama City Mill**	
3. Facility Identification Number: **0050009**	[ ] Unknown
4. Facility Location: Street Address or Other Locator: **One Everitt Avenue** City: **Panama City** County: **Bay**	Zip Code: **32402**
5. Relocatable Facility? [ ] Yes [**X**] No	6. Existing Permitted Facility? [**X**] Yes [ ] No

Application Contact

1. Name and Title of Application Contact: **Tom Clements, Environmental Superintendent**		
2. Application Contact Mailing Address: Organization/Firm: **Stone Container Corporation** Street Address: **One Everitt Avenue** City: **Panama City**	State: **FL**	Zip Code: **32402**
3. Application Contact Telephone Numbers: Telephone: (**850**) **785** - **4311**	Fax: (**850**) **763** - **8530**	

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	4-28-03
2. Permit Number:	0050009-014-AC
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

Purpose of Application

Air Operation Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[ ] Initial Title V air operation permit for an existing facility which is classified as a Title V source.

[ ] Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number:_____

[ ] Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: _____

Operation permit number to be revised: _____

[ ] Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)

Operation permit number to be revised/corrected:_____

[ ] Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit number to be revised:_____

Reason for revision:_____

Air Construction Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[X] Air construction permit to construct or modify one or more emissions units.

[ ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

[ ] Air construction permit for one or more existing, but unpermitted, emissions units.

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:
   Jack B. Prescott, General Manager
2. Owner/Authorized Representative or Responsible Official Mailing Address:
   Organization/Firm: **Stone Container Corporation**
   Street Address: **One Everitt Avenue**
   City: **Panama City** State: **FL** Zip Code: **32402**
3. Owner/Authorized Representative or Responsible Official Telephone Numbers:
   Telephone: (**850**) **785** - **4311** Fax: (**850**) **763** - **6290**
4. Owner/Authorized Representative or Responsible Official Statement:

   I, the undersigned, am the owner or authorized representative(check here [ ], if so) or the responsible official (check here [**X**], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.*

   Signature 4/24/03 Date

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: **David A. Buff**
   Registration Number: **19011**
2. Professional Engineer Mailing Address:
   Organization/Firm: **Golder Associates Inc.***
   Street Address: **6241 NW 23rd Street, Suite 500**
   City: **Gainesville** State: **FL** Zip Code: **32653-1500**
3. Professional Engineer Telephone Numbers:
   Telephone: (**352**) **336** - **5600** Fax: (**352**) **336** - **6603**

*** Board of Professional Engineers Certificate of Authorization #00001670**

4. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [ ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

David A. Buff — Signature

4/23/03 — Date

(seal)

Attach any exception to certification statement.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
030	Woodyard	ACM1	

Application Processing Fee

Check one: [ ] Attached - Amount: $: _____ [X] Not Applicable

Construction/Modification Information

1. Description of Proposed Project or Alterations:

   This application is to correct the Woodyard throughput rate specified in permit No. 0050009-005-AC/PSD-FL-288.

2. Projected or Actual Date of Commencement of Construction: **NA**

3. Projected Date of Completion of Construction: **NA**

Application Comment

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Regulated or Unregulated Emissions Unit? (Check one)

[ ] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[X] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
Woodyard

4. Emissions Unit Identification Number:
ID: **030**
[ ] No ID
[ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A		**26**	[ ]

9. Emissions Unit Comment: (Limit to 500 Characters)

Emission unit consists of roundwood, bark and purchased chip handling, and manufactured and purchased chip processing.

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

Process Enclosed

Centrifugal Collectors

2. Control Device or Method Code(s): **007, 054**

Emissions Unit Details

1. Package Unit:
   Manufacturer: Model Number:
2. Generator Nameplate Rating: MW
3. Incinerator Information:
   Dwell Temperature: °F
   Dwell Time: seconds
   Incinerator Afterburner Temperature: °F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:				mmBtu/hr
2. Maximum Incineration Rate:		lb/hr		tons/day
3. Maximum Process or Throughput Rate:			**3,471,534**	**tons/yr wood**
4. Maximum Production Rate:				
5. Requested Maximum Operating Schedule:				
	24	hours/day	**7**	days/week
	52	weeks/year	**8,760**	hours/year

6. Operating Capacity/Schedule Comment (limit to 200 characters):

See Attachment SCC-EU1-C5.

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

62-296.320(4)(b)1. General VE Limitation
62-296.320(4)(c) Unconfined PM Emissions

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? **030**	2. Emission Point Type Code: **3**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): **Conveyor transfer points, cyclone vents, storage piles, bark hog, screens**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **H**	6. Stack Height: feet	7. Exit Diameter: feet
8. Exit Temperature: **77** °F	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: **10** feet	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):		
14. Emission Point Comment (limit to 200 characters): **Refer to Attachment SCC-EU1-D14 for a description of emission sources.**		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **Pulp and Paper & Wood Products, Fugitive Emissions: Purchased Chips Handling**		
2. Source Classification Code (SCC): **3-07-888-01**	3. SCC Units: **Tons Product**	
4. Maximum Hourly Rate: **191**	5. Maximum Annual Rate: **1,524,600**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): **Maximum rates based on 142,800 cords/yr (softwood) and 411,600 cords/yr (hardwood) at 2.5 tons/cord, plus 10 percent. Hourly rate based on 8,000 hrs/yr.**		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **Pulp and Paper & Wood Products, Fugitive Emissions: Purchased Roundwood Handling**		
2. Source Classification Code (SCC): **3-07-888-02**	3. SCC Units: **Tons Product**	
4. Maximum Hourly Rate: **243**	5. Maximum Annual Rate: **1,946,934**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): **Maximum rates based on 466,800 cords/yr (softwood) at 2.7 tons/cord and 178,000 cords/yr (hardwood) at 2.85 tons/cord, plus 10 percent. Hourly rate based on 8,000 hrs/yr.**		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			WP
PM_{10}			NS
VOC			NS

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour **44.61** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code: **3**
8. Calculation of Emissions (limit to 600 characters): **See Attachment SCC-EU1-G8.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: **VE20**	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: **20** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 9**	
5. Visible Emissions Comment (limit to 200 characters): **Rule 62-296.320(4)(b)1.**	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: SCC-EU1-J1 [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID:_____ [X] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
[ ] Attached, Document ID: _____ [X] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID: _____ [X] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID: _____ [X] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID: _____ [X] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID: _____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID: _____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID: _____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID: _____

[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID: _____

[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID: _____

[X] Not Applicable

ATTACHMENT SCC-EU1-C5
OPERATING CAPACITY COMMENT

ATTACHMENT SCC-EU1-C5

OPERATING CAPACITY COMMENT

Maximum throughput rate based on 466,800 cords/yr (round softwood), 178,800 cords/yr (round hardwood), and 554,400 cords/yr (purchased chips); and the conversion factors of 2.7, 2.85, and 2.5 tons per cord, respectively, plus 10 percent. Therefore, the total maximum throughput rate for the woodyard is 513,480 cords/yr (round softwood), 196,680 cords/yr (round hardwood), and 609,840 cords/yr (purchased chips). Conversion may change depending on type of wood purchased and wood density.

ATTACHMENT SCC-EU1-D14
LIST OF SOURCES IN WOODYARD

Attachment SCC-EU1-D14. List of Sources in Woodyard

SOURCE	Type of Operation
ROUNDWOOD HANDLING	
Debarker	Debarking
Chipper	Continuous Drop
Chip Surge Bin to Conveyor	Continuous Drop
Conveyor to Tower No. 1 Chip Diverter	Continuous Drop
BARK HANDLING	
Debarker to Bark Conveyor	Continuous Drop
Bark Conveyor to No. 1 Bark Diverter	Continuous Drop
No. 1 Bark Diverter to Emergency Bark Storage Pile	Continuous Drop
Emergency Bark Storage Pile	Wind Erosion
Unhogged Bark Storage Pile	Wind Erosion
Trucked Bark to Purchased Unhogged Bark Storage Pile	Batch Drop
Front End Loaded to Bark Hopper	Batch Drop
Wastewood Conveyor to No. 1 Bark Diverter	Continuous Drop
No. 1 Bark Diverter to Disc Screen	Continuous Drop
Bark Hog	Hammermill
Bark Hog to Hogged Bark Conveyor	Continuous Drop
Hogged Bark Conveyor to Hogged Bark Pile	Continuous Drop
Hogged Bark Pile	Wind Erosion
Bark Bin Cyclone	Cyclone Vent
Bark Bin Cyclone to Small Bark Bin and Screw	Continuous Drop
Small Bark Bin and Screw to Bark Conveyor	Continuous Drop
Bark Conveyor to No. 2 Bark Diverter	Continuous Drop
Bark Storage Pile Maintenance	Vehicular Traffic
PURCHASED CHIP HANDLING	
Truck Unloading (Chip Van Hopper)	Batch Drop
Railcar Unloading (Chip Van Hopper)	Batch Drop
Truck Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop
Railcar Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop
MANUFACTURED AND PURCHASED CHIP PROCESSING	
Tower No. 1 Diverter to Chip Conveyor (2)	Continuous Drop
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop
Tower No. 2 Diverter to Chip Reclaim Conveyor (2)	Continuous Drop
Chip Reclaim Coveyor to Radial Conveyor (2)	Continuous Drop
Radial Conveyor to Chip Reclaimer Storage Pile (2)	Continuous Drop
Chip Reclaimer Storage Pile (2)	Wind Erosion
Chip Reclaimer Storage Pile to Chip Conveyor (2)	Continuous Drop
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop
Tower No. 2 Diverter to Chip Screw (2)	Continuous Drop
Chip Screw to Primary Screen (2)	Continuous Drop
Chip Screens	Screening
Softwood Primary Screen Cyclone	Cyclone Vent
Hardwood Primary Screen Cyclone	Cyclone Vent
Primary Screen to Secondary Screen (2)	Continuous Drop
Secondary Screen to Chip Conveyor (2)	Continuous Drop
Screen Building Rejects Cyclone	Cyclone Vent
Screen Building Rejects Cyclone to Chip Conveyor	Continuous Drop
Fines Blowline Emergency Storage Pile	Wind Erosion
Fines Blowline Cyclone	Cyclone Vent
Fines Blowline Cyclone to Wastewood/Sludge Conveyor	Continuous Drop
Chip Conveyor to No. 5 Transfer Tower (2)	Continuous Drop

ATTACHMENT SCC-EU1-G8

MAXIMUM EMISSIONS INFORMATION

Attachment SCC-EU1-G8. Maximum Emissions from the Woodyard at Stone Container, Panama City

SOURCE	Type of Operation (a)	M Moisture Content (%)	U Wind Speed (MPH)	Uncontrolled Emission Factor	Type of Control	Control Efficiency (%)	Controlled Emission Factor	Activity Factor	Maximum Annual PM Emissions (tons/yr)	PM10 Size Multiplier (c)	Maximum Annual PM10 Emissions (tons/yr)
ROUNDWOOD HANDLING											
Debarker	Debarking	--	--	0.024 lbs/ton (d)	Enclosure	80	0 00480 lbs/ton	1,946,934 TPY (e)	4 673	0 35	1 635
Chipper	Continuous Drop	30	7.8	0 00013 lbs/ton	None	0	0.00013 lbs/ton	1,946,934 TPY (e)	0.125	0 35	0 044
Chip Surge Bin to Conveyor	Continuous Drop	30	7 8	0 00013 lbs/ton	Enclosed	80	0 00003 lbs/ton	1,946,934 TPY (e)	0 025	0.35	0 0088
Conveyor to Tower No 1 Chip Diverter	Continuous Drop	30	7.8	0 00013 lbs/ton	Enclosed	80	0 00003 lbs/ton	1,946,934 TPY (e)	0.025	0 35	0 0088
BARK HANDLING											
Debarker to Bark Conveyor	Continuous Drop	30	7.8	0 00013 lbs/ton	Enclosed	80	0 00003 lbs/ton	155,755 TPY (f)	0 0020	0 35	0 00070
Bark Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0 00013 lbs/ton	Enclosed	80	0 00003 lbs/ton	155,755 TPY (f)	0 0020	0 35	0 00070
No. 1 Bark Diverter to Emergency Bark Storage Pile	Continuous Drop	30	7 8	0 00013 lbs/ton	Enclosed	80	0 00003 lbs/ton	0 TPY (f)	0 0000	0 35	0 00000
Emergency Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0 0094	1.0	0 0094
Unhogged Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0 0094	1.0	0.0094
Trucked Bark to Purchased Unhogged Bark Storage Pile	Batch Drop	30	7.8	0 00013 lbs/ton	None	0	0 00013 lbs/ton	316,098 TPY (g)	0.0203	0 35	0.00712
Front End Loaded to Bark Hopper	Batch Drop	30	7.8	0 00013 lbs/ton	None	0	0 00013 lbs/ton	316,098 TPY (g)	0 0203	0 35	0.00712
Wastewood Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7 8	0 00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	316,098 TPY (g)	0 0041	0 35	0 00142
No. 1 Bark Diverter to Disc Screen	Continuous Drop	30	7.8	0 00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0 35	0 00213
Bark Hog	Hammermill	--	--	0 024 lbs/ton (d)	Enclosed	80	0 00480 lbs/ton	471,853 TPY (h)	1.132	1.0	1.132
Bark Hog to Hogged Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0 0061	0 35	0 00213
Hogged Bark Conveyor to Hogged Bark Pile	Continuous Drop	30	7.8	0 00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0 0061	0 35	0.00213
Hogged Bark Pile	Wind Erosion	--	--	--	None	0	--	--	0.0023	1 0	0 0023
Bark Bin Cyclone	Cyclone Vent	--	--	2 0 lb/hr	Cyclone	0	2 0 lb/hr	8,760 hr/yr	8 76	0 35	3.07
Bark Bin Cyclone to Small Bark Bin and Screw	Continuous Drop	30	7 8	0 00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0 35	0 00213
Small Bark Bin and Screw to Bark Conveyor	Continuous Drop	30	7 8	0 00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0 35	0 00213
Bark Conveyor to No. 2 Bark Diverter	Continuous Drop	30	7 8	0 00013 lbs/ton	Enclosed	80	0 000026 lbs/ton	471,853 TPY (h)	0 0061	0 35	0 00213
Bark Storage Pile Maintenance	Vehicular Traffic	--	--	0.74 lbs/VMT	None	0	0 74 lbs/VMT	21,900 VMT (i)	8 103	0 35	2.836
PURCHASED CHIP HANDLING											
Truck Unloading (Chip Van Hopper)	Batch Drop	30	7 8	0 00013 lbs/ton	Covered	60	0 000051 lbs/ton	762,300 TPY (j)	0 020	0 35	0 0069
Railcar Unloading (Chip Van Hopper)	Batch Drop	30	7 8	0 00013 lbs/ton	Covered	60	0 000051 lbs/ton	762,300 TPY (j)	0 020	0 35	0 0069
Truck Unloading Conveyor to Tower No 1 Chip Diverter	Continuous Drop	30	7 8	0 00013 lbs/ton	Enclosed	80	0 000026 lbs/ton	762,300 TPY (j)	0 010	0 35	0 0034
Railcar Unloading Conveyor to Tower No 1 Chip Diverter	Continuous Drop	30	7 8	0 00013 lbs/ton	Enclosed	80	0 000026 lbs/ton	762,300 TPY (j)	0 010	0 35	0 0034
MANUFACTURED AND PURCHASED CHIP PROCESSING											
Tower No. 1 Diverter to Chip Conveyor (2)	Continuous Drop	30	7 8	0 00013 lbs/ton	Enclosed	80	0 000026 lbs/ton	3,315,779 TPY (k)	0 043	0 35	0 015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7 8	0 00013 lbs/ton	Enclosed	80	0 000026 lbs/ton	3,315,779 TPY (k)	0 043	0 35	0 015
Tower No 2 Diverter to Chip Reclaim Conveyor (2)	Continuous Drop	30	7 8	0 00013 lbs/ton	Enclosed	80	0 000026 lbs/ton	3,315,779 TPY (k)	0 043	0 35	0 015
Chip Reclaim Coveyor to Radial Conveyor (2)	Continuous Drop	30	7 8	0 00013 lbs/ton	Enclosed	80	0 000026 lbs/ton	3,315,779 TPY (k)	0 043	0 35	0 015
Radial Conveyor to Chip Reclaimer Storage Pile (2)	Continuous Drop	30	7 8	0 00013 lbs/ton	Enclosed	80	0 000026 lbs/ton	3,315,779 TPY (k)	0 043	0 35	0 015
Chip Reclaimer Storage Pile (2)	Wind Erosion	--	--	--	None	0	--	--	0 048	1.0	0 048
Chip Reclaimer Storage Pile to Chip Conveyor (2)	Continuous Drop	30	7 8	0 00013 lbs/ton	Enclosed	80	0 000026 lbs/ton	3,315,779 TPY (k)	0 043	0 35	0 015
Chip Conveyor to Tower No 2 Diverter (2)	Continuous Drop	30	7 8	0 00013 lbs/ton	Enclosed	80	0 000026 lbs/ton	3,315,779 TPY (k)	0 043	0 35	0 015
Tower No. 2 Diverter to Chip Screw (2)	Continuous Drop	30	7 8	0 00013 lbs/ton	Enclosed	80	0 000026 lbs/ton	3,315,779 TPY (k)	0 043	0 35	0 015
Chip Screw to Primary Screen (2)	Continuous Drop	30	7 8	0 00013 lbs/ton	Enclosed	80	0 000026 lbs/ton	3,315,779 TPY (k)	0 043	0 35	0 015
Chip Screens	Screening										
Softwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone, Enclosure	60	0 40 lb/hr	8,760 hr/yr	1.752	0 35	0 613
Hardwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Enclosure	80	0 40 lb/hr	8,760 hr/yr	1.752	0 35	0 613
Primary Screen to Secondary Screen (2)	Continuous Drop	30	7 8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0 043	0 35	0 015
Secondary Screen to Chip Conveyor (2)	Continuous Drop	30	7 8	0 00013 lbs/ton	Enclosed	60	0 000026 lbs/ton	2,321,045 TPY (l)	0.030	0 35	0 010
Screen Building Rejects Cyclone	Cyclone Vent	--	--	2 0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0 35	3 066
Screen Building Rejects Cyclone to Chip Conveyor	Continuous Drop	30	7.8	0 00013 lbs/ton	Covered	60	0 000051 lbs/ton	994,734 TPY (m)	0 028	0 35	0 009
Fines Blowline Emergency Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0 00017	1.0	0 00017
Fines Blowline Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2 0 lb/hr	8,760 hr/yr	8 760	0 35	3 07
Fines Blowline Cyclone to Wastewood/Sludge Conveyor	Continuous Drop	30	7 8	0 00013 lbs/ton	Covered	60	0 000051 lbs/ton	9,847 TPY (n)	0 000	0 35	0 000
Chip Conveyor to No. 5 Transfer Tower (2)	Continuous Drop	30	7.8	0 00013 lbs/ton	Enclosed	80	0 000026 lbs/ton	3,305,772 TPY (o)	0.043	0.35	0.015
TOTAL									44 61		16 26

Notes:

(a) Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (US EPA, 1995) Section 13.2.4-3(1). E = 0 0032 x (U/5)^1.3 / (M/2)^1 4 lb/ton

(b) Wind Erosion Emissions based on AP-42 (US EPA, 1995) Section 13 2.5 Refer to Attachment A for derivation.

(c) PM10 Size Multiplier is based on particles < 10 micrometers.

(d) Debarker emissions are based on Table 28 of NCASI Technical Bulletin No. 424 (March 1984), Fugitive Dust Emission Factors and Control Methods Important to Forest Products Industry Manufacturing Operations

(e) Roundwood throughput is based on 466,800 cords/yr (softwood) @ 2.7 tons/cord and 178,800 cords/yr (hardwood) @ 2.85 tons/cord, plus 10 percent.

(f) Bark throughput is based on 8 percent of roundwood.

(g) Based on purchased bark.

(h) Total bark throughput is sum of manufactured bark and purchased bark.

(i) Vehicle miles traveled (VMT) was calculated assuming front end loader operating 12 hrs/day, 365 days/yr in the woodyard.

(j) Purchased chip throughput is based on 142,800 cords/yr (softwood) and 411,600 cords/yr (hardwood) @ 2.5 tons/cord, plus 10 percent

(k) Total chip throughput is based on 92 percent of roundwood throughput plus purchased chip throughput.

(l) Based on 70% of total chip throughput.

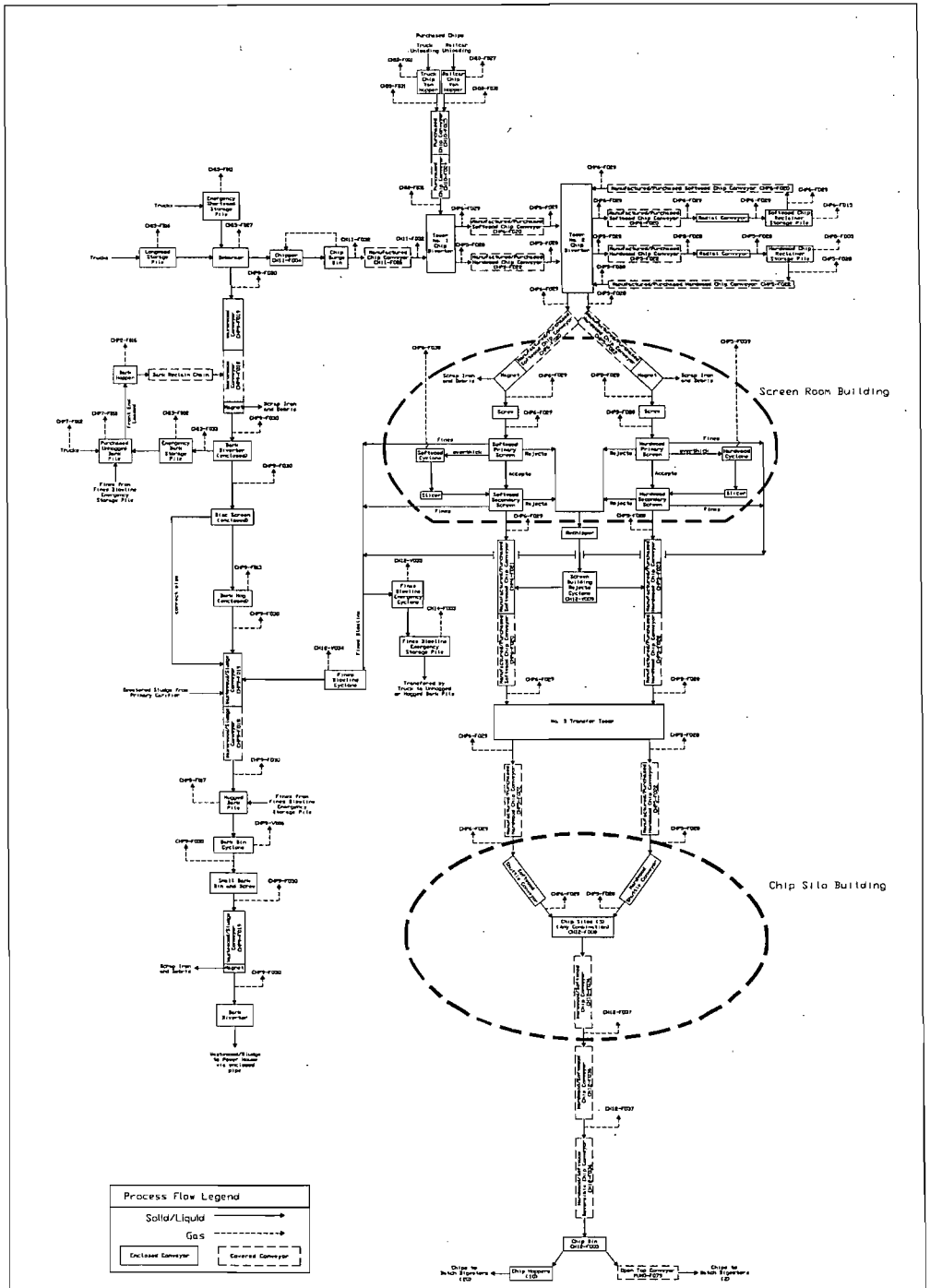
(m) Based on 30% of total chip throughput

(n) Fines separated from wood chip stream

(o) Total chips minus fines

ATTACHMENT SCC-EU1-J1

PROCESS FLOW DIAGRAM



Attachment SCC-EU1-J1
Process Flow Diagram
Stone Container Corporation
Panama City, Florida

Emission Unit: Woodyard
Process Area: Raw Materials
Filename: 0137598/4/4.4/4.4.1Woodyard/SCC-EU1-J1.dwg
Revision Date: 04/23/03 by JKW

Golder Associates

PULP PRODUCTION INCREASE
CONSTRUCTION PERMIT

NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit:

Mr. Thomas L. Clements
Environmental Superintendent
Stone Container Corporation
Panama City Mill
One Everitt Avenue
Panama City, Florida 32412-0560

DEP File No.: 0050009-005-AC/PSD-FL-288
Bay County
Pulp Production Increase

Enclosed is the Final Air Construction Permit/PSD Permit, Nos. 0050009-005-AC/PSD-FL-288. The subject of the permit is a modification to the batch digester system's and woodyard's method of operations at the existing pulp mill. The facility is located at One Everett Avenue, Panama City, Bay County. This permit is issued pursuant to Chapter 403, Florida Statutes (F.S.). There were no comments received during the Public Notice period.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and, by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

Scott M. Sheplak, P.E.
Administrator
Title V Section

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the Final Permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 9/9/02 to the person(s) listed or as otherwise noted:

Mr. Thomas L. Clements *, Environmental Superintendent, SCC – PC Mill.
Mr. Sandra Veazey, NWD
Mr. David Buff, P.E., GAI
Mr. Gregg Worley, U.S. EPA, Region 4

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Barbara J. Friday 9/9/02
(Clerk) (Date)

FINAL DETERMINATION

Stone Container Corporation
Panama City Mill

Air Construction Permit No.: 0050009-005-AC
PSD-FL-288

Bay County

An Intent to Issue an air construction permit to Stone Container Corporation's Panama City Mill, located at One Everitt Avenue, Panama City, Bay County, Florida, was distributed on July 16, 2002. The Public Notice of Intent to Issue an Air Construction Permit was published in the Panama City News Herald on July 26, 2002. There were no comments submitted in response to the Public Notice. The U.S. EPA, Region 4 had no comments regarding the proposed permitting action.

The final action of the Department will be to issue the air construction permit as noticed.

Stone Container Corporation
Panama City Mill
Facility ID No.: 0050009
Bay County

Final Air Construction Permit
Permit No.: 0050009-005-AC
PSD-FL-288

Permitting Authority:
State of Florida
Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Title V Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Telephone: 850/488-0114
Fax: 850/922-6979

Compliance Authority:
Department of Environmental Protection
Northwest District Office
160 Governmental Center
Pensacola, FL 32501-5794
Telephone: 850/595-8364
Fax: 850/595-8096

Final Air Construction Permit
Permit No.: 0050009-005-AC
PSD-FL-288

Table of Contents

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

Permittee:
Stone Container Corporation
One Everitt Avenue
Panama City, Florida 32412-0560

Permit No.: 0050009-005-AC
PSD-FL-288
Facility ID No.: 0050009
SIC Nos.: 26, 2611
Project: Modification of the Batch Digester System and Woodyard Operations

This air construction permit is for modification to the existing Panama City Mill located at One Everitt Avenue, Panama City, Bay County. The purpose of the modification is to allow the batch digester system's pulp production rates to increase from 87.3 tons per hour (TPH) and 668,850 tons per year (TPY) of air-dried unbleached pulp (ADUP) to 120 TPH and 781,000 TPY ADUP. In addition, the modification will allow the woodyard's production rates to increase from 554,400 cords of purchased chips per year and 645,600 cords of roundwood per year to 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year. The UTM Coordinates are: Zone 16, 632.8 km East and 3335.1 km North; and, Latitude: 30° 08' 30" North and Longitude: 85° 37' 25" West.

STATEMENT OF BASIS: This air construction permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-212, 62-296 and 62-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:
Appendix TV-4, Title V Conditions (version 02/12/2002)
TRS Venting Contingency Plan

Effective Date: September 5, 2002
Expiration Date: September 5, 2004

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Howard L. Rhodes, Director
Division of Air Resource Management

HLR/sms/bm

Section I. Facility Information.

Subsection A. Facility Description.

This facility is a Kraft pulp and paper mill which consists of the following major areas: wood yard, digesting system, brown stock washing, bleaching, chemical recovery, and a power/utilities area..

The modification will allow the batch digester system's pulp production rates to increase from 87.3 tons per hour (TPH) and 668,850 tons per year (TPY) of air-dried unbleached pulp (ADUP) to 120 TPH and 781,000 TPY ADUP. In addition, the modification will allow the woodyard's production rates to increase from 554,400 cords of purchased chips per year and 645,600 cords of roundwood per year to 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year. The changes in the method of operations do not require any physical changes to the batch digester system, and its associated control methods, and the woodyard operations. The TRS NCGs generated by the batch digester system's operations are collected and incinerated in the facility's lime kiln, with backup by the facility's No. 4 Combination Boiler. The TRS NCGs are incinerated by subjecting them to a minimum temperature of 1200°F for at least 0.5 seconds. The woodyard operations employ good housekeeping and enclosing or covering the conveyors, where possible.

{Note: The batch digester system is regulated under Rule 62-296.404, F.A.C., Kraft Pulp Mills, 40 CFR 60, Subpart BB, Standards and Performance for Kraft Pulp Mills, and 40 CFR 63, Subpart S, National Emissions Standards for Hazardous Air Pollutants from the Pulp and Paper Industry. The No. 4 Combination Boiler is regulated under Rule 62-296.410, F.A.C., Carbonaceous Fuel Burning Equipment, Rule 62-296.404, F.A.C., Kraft Pulp Mills, 40 CFR 60, Subpart BB, Standards and Performance for Kraft Pulp Mills, and 40 CFR 63, Subpart S, National Emissions Standards for Hazardous Air Pollutants from the Pulp and Paper Industry. The woodyard is regulated under Rule 62-296.320(4)(b)1. & 4., F.A.C.}

This facility is a major source of hazardous air pollutants (HAPs).

Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

E.U. ID No.	Brief Description
027	Batch Digester System
030	Woodyard Operation

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Subsection C. Relevant Documents.

The document listed below is not a part of this permit; however, it is specifically related to this permitting action.

These documents are on file with the permitting authority:

July 26, 1999: Date of Receipt of Application
April 10, 2000: Date of Receipt of Supplemental Information (Response to August 17, 1999 letter)
June 1, 2000: Date of Receipt of Supplemental Information (Revised Ambient Impact Analysis)
June 15, 2000: Date of Receipt of Supplemental Information (Response to May 9, 2000 letter)
June 19, 2000: Date of Receipt of Supplemental Letter
November 6, 2000: Date of Receipt of Supplemental Information (Response to July 10 and October 31, 2000 letters)
March 22, 2001: Date of Receipt of Supplemental Letter (Response to December 5, 2000 letter)
February 19, 2002: Date of Receipt of Supplemental Information (Response to December 5, 2000 letter)
April 24, 2002: Date of Receipt of Supplemental Information (Response to March 21, 2002 letter)
May 13, 2002: Date of Receipt of Supplemental Information (Response to December 5, 2000 letter: Revised Ambient Impact Analysis)

Subsection D. Miscellaneous.

The use of 'Permitting Notes' throughout this permit are for informational purposes only and are not permit conditions.

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-4, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-4, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided one copy when requested or otherwise appropriate.}

2. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants that cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.; AC03-190964; and, 0050009-003-AC]

3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]

4. Prevention of Accidental Releases (Section 112(r) of CAA).
a. As required by Section 112(r)(7)(B)(iii) of the CAA and 40 CFR 68, the owner or operator shall submit an updated Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center.
b. As required under Section 252.941(1)(c), F.S., the owner or operator shall report to the appropriate representative of the Department of Community Affairs (DCA), as established by Department rule, within one working day of discovery of an accidental release of a regulated substance from the stationary source, if the owner or operator is required to report the release to the United States Environmental Protection Agency under Section 112(r)(6) of the CAA.
c. The owner or operator shall submit the required annual registration fee to the DCA on or before April 1, in accordance with Part IV, Chapter 252, F.S., and Rule 9G-21, F.A.C.

Any required written reports, notifications, certifications, and data required to be sent to the DCA, should be sent to:

Department of Community Affairs
Division of Emergency Management
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100
Telephone: 850/413-9921, Fax: 850/488-1739

Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center
Post Office Box 3346
Merrifield, VA 22116-3346
Telephone: 703/816-4434

Any required reports to be sent to the National Response Center, should be sent to:

National Response Center
EPA Office of Solid Waste and Emergency Response
USEPA (5305 W)
401 M Street, SW
Washington, D.C. 20460
Telephone: 1/800/424-8802

Send the required annual registration fee using approved forms made payable to:

Cashier
Department of Community Affairs
State Emergency Response Commission
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2149

[Part IV, Chapter 252, F.S.; and, Rule 9G-21, F.A.C.]

5. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
{Permitting Note: Nothing was deemed necessary and ordered at this time.}
[Rule 62-296.320(1)(a), F.A.C.]

6. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include: Paving and maintenance of roads, parking areas and yards; application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities; landscaping or planting of vegetation; and, enclosure or covering of conveyor systems.
[Rule 62-296.320(4)c.2., F.A.C.]

7. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.
[Rule 62-213.440, F.A.C.]

8. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Northwest District Office at:

Department of Environmental Protection
Northwest District Office
160 Governmental Center
Pensacola, Florida 32501-5794
Telephone: 850/595-8364
Fax: 850/595-8096

Notification of compliance testing may be submitted by electronic mail to:
NWDAIR@dep.state.fl.us.

9. A copy of all compliance related notifications shall also be sent to the Department's Northwest District Branch Office in Panama City at 2353 Jenks Ave, Panama City FL 32405.

10. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air and EPCRA Enforcement Branch, Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9055
Fax: 404/562-9164

11. The permittee shall retain a Professional Engineer, registered in the State of Florida, for the inspection of this project. Upon completion, the Professional Engineer shall inspect for conformity to the permit application and associated documents. An application for a revision to the facility's Title V operating permit shall be submitted within 90 days after initial operation.
[Rules 62-210.300 and 62-4.050(3), F.A.C.]

12. The Department shall be notified and prior approval shall be obtained of any changes or revisions made during construction. Projects beyond one year require annual status reports.
[Rule 62-4.030, F.A.C.]

13. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C.
[Rules 62-213.440(3) and 62-213.900, F.A.C.]

{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-4, TITLE V CONDITIONS.}

14. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.
[Rule 62-213.420(4), F.A.C.]

15. For PSD evaluation purposes, the facility's maximum pulp production is 781,000 TPY ADUP. Pulp production records shall be maintained and available for inspection by the Department upon request.
[Rules 62-4.070(3), 62-4.160(2), and 62-212.400(5), F.A.C.]

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
030	Woodyard Operation

Wood chips are used as the raw material in the papermaking process and scrap wood and bark are used in steam generation. Roundwood (whole tree trunks) is received as either shortwood or longwood. Purchased hardwood or softwood chips are also received. Bark is a byproduct of log processing and some bark is also purchased. The chipping process begins by passing logs through a debarker to remove bark, which is collected and transferred via conveyors and hogged to obtain a desired size. After processing the bark, it is stored in piles, transferred to the bark bin, and then used as a fuel for the combination boilers at the facility. The logs are then chipped and the chips screened for proper size. Both purchased and manufactured chips are conveyed and stored in chip reclaimer storage piles. The facility has one softwood chip reclaimer and one hardwood reclaimer storage pile, where chips are stored temporarily until needed by the facility.

A single cyclone is associated with the bark transfer and conveying system, and used to pneumatically convey the bark. Conveyors are covered and roads are paved and maintained to minimize particulate entrainment. Four (4) cyclones are used in the Screening Room to separate pneumatically conveyed chips and fines from the conveying air stream.

{Note: The woodyard operation is regulated under Rule 62-296.320(4)(b)1. & 4., F.A.C.}

The following specific conditions apply to the emissions unit listed above:

Essential Potential to Emit (PTE) Parameters

A.1. Capacity. The woodyard's maximum allowable production rates are 1,524,600 cords of purchased chips per year and 1,946,934 cords of roundwood per year. tons, not cords
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

A.2. Hours of Operation. The woodyard operation is allowed to operate continuously, i.e., 8,760 hours/year.
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; and, 0050009-003-AC]

Emission Limitations and Standards

A.3. Visible Emissions. See Facility-wide Condition 3. Visible emissions testing shall be performed upon request by the Department.
[0050009-002-AV; and, 0050009-003-AC]

A.4. Objectionable Odors. See Facility-wide Condition 2.
[0050009-003-AC]

A.5. Reasonable precautions shall be taken to prevent emissions of unconfined particulate matter. Reasonable precautions shall include, but are not limited to, the following:

a. Maintenance of roads, parking areas and yards;
b. Application of water or other dust suppressants, when necessary, to control emissions;
c. Removal of particulate matter from roads and other paved areas under control of the owner or operator, and from buildings or work areas to prevent reentrainment;
d. Permittee will protect dust transfer points and transport and storage containers from wind action which might make dust airborne;
e. Chips manufactured on-site shall be screened following storage;
f. Chips shall be screened following removal from storage prior to conveying to the digesters;
g. All conveyor systems shall be covered or enclosed;
h. Drop distance from chip storage stacker shall be maintained to a minimum; and,
i. All access roads shall be paved.

[0050009-003-AC]

Excess Emissions

{Permitting note: The requirements of this rule do not vary any requirement of a NSPS, NESHAP, or Acid Rain program provision.}

A.6. (1) Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
(4) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.
(5) Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest.
(6) In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's Northwest District Office and Northwest District Branch Office - Panama City in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700, F.A.C.]

Testing Requirements and Procedures

A.7. Visible Emissions. See Facility-wide Condition 3.
[0050009-003-AC]

A.8. Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
[Rul3 62-297.310(7)(b), F.A.C.; and, 0050009-003-AC]

Recordkeeping and Reporting Requirements

A.9. Records of purchased wood and roundwood received and processed shall be kept and maintained for Department review for a five (5) year timeframe.
[Rule 62-213.440(1)(b)2.b., F.A.C.]

A.10. Annual Operating Report. See APPENDIX TV-4, Condition 24.
[0050009-003-AC]

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Thomas L. Clements
Environmental Superintendent
Stone Container Corporation
Panama City Mill
One Everitt Avenue
Panama City, Florida 32412-0560

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X [signature] ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery

[illegible] 2003

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number
(Transfer from service label) 7000 2870 0000 7028 1037

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7000 2870 0000 7028 1037

OFFICIAL USE

Mr. Thomas L. Clements

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

Sent To
Mr. Thomas L. Clements
Street, Apt. No.; or PO Box No.
One Everitt Avenue
City, State, ZIP+4
Panama City, Florida 32412-0560

PS Form 3800, May 2000 See Reverse for Instructions

Table A-6. Maximum Emissions from the Woodyard at Stone Container, Panama City

SOURCE	Type of Operation (a)	M Moisture Content (%)	U Wind Speed (MPH)	Uncontrolled Emission Factor	Type of Control	Control Efficiency (%)	Controlled Emission Factor	Activity Factor	Maximum Annual PM Emissions (tons/yr)	PM10 Size Multiplier (c)	Maximum Annual PM10 Emissions (tons/yr)
ROUNDWOOD HANDLING											
Debarker	Debarking	- -	- -	0.024 lbs/ton (d)	Enclosure	80	0.00480 lbs/ton	1,946,934 TPY (e)	4.673	0.35	1.635
Chipper	Continuous Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	1,946,934 TPY (e)	0.125	0.35	0.044
Chip Surge Bin to Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
BARK HANDLING											
Debarker to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
Bark Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
No. 1 Bark Diverter to Emergency Bark Storage Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	0 TPY (f)	0.0000	0.35	0.00000
Emergency Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Unhogged Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Trucked Bark to Purchased Unhogged Bark Storage Pile	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Front End Loaded to Bark Hopper	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Wastewood Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	316,098 TPY (g)	0.0041	0.35	0.00142
No. 1 Bark Diverter to Disc Screen	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Hog	Hammermill	--	--	0.024 lbs/ton (d)	Enclosed	80	0.00480 lbs/ton	471,853 TPY (h)	1.132	1.0	1.132
Bark Hog to Hogged Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Conveyor to Hogged Bark Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Pile	Wind Erosion	--	--	--	None	0	--	--	0.0023	1.0	0.0023
Bark Bin Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone	0	2.0 lb/hr	8,760 hr/yr	8.76	0.35	3.07
Bark Bin Cyclone to Small Bark Bin and Screw	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Small Bark Bin and Screw to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Conveyor to No. 2 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Storage Pile Maintenance	Vehicular Traffic	--	--	0.74 lbs/VMT	None	0	0.74 lbs/VMT	21,900 VMT (i)	8.103	0.35	2.836
PURCHASED CHIP HANDLING											
Truck Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Railcar Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Truck Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
Railcar Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
MANUFACTURED AND PURCHASED CHIP PROCESSING											
Tower No. 1 Diverter to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Reclaim Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaim Coveyor to Radial Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Radial Conveyor to Chip Reclaimer Storage Pile (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaimer Storage Pile (2)	Wind Erosion	--	--	--	None	0	--	--	0.048	1.0	0.048
Chip Reclaimer Storage Pile to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Screw (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screw to Primary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screens	Screening										
Softwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone, Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Hardwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Primary Screen to Secondary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Secondary Screen to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,321,045 TPY (l)	0.030	0.35	0.010
Screen Building Rejects Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.066
Screen Building Rejects Cyclone to Chip Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	994,734 TPY (m)	0.026	0.35	0.009
Fines Blowline Emergency Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.00017	1.0	0.00017
Fines Blowline Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.07
Fines Blowline Cyclone to Wastewood/Sludge Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	9,947 TPY (n)	0.000	0.35	0.000
Chip Conveyor to No. 5 Transfer Tower (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,305,772 TPY (o)	0.043	0.35	0.015
TOTAL									44.61		16.39

Notes:

(a) Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (US EPA, 1995) Section 13.2.4-3(1). $E = 0.0032 \times (U/5)^{1.3} / (M/2)^{1.4}$ lb/ton

(b) Wind Erosion Emissions based on AP-42 (US EPA, 1995) Section 13.2.5. Refer to Attachment A for derivation.

(c) PM10 Size Multiplier is based on particles < 10 micrometers.

(d) Debarker emissions are based on Table 28 of NCASI Technical Bulletin No. 424 (March 1984), Fugitive Dust Emission Factors and Control Methods Important to Forest Products Industry Manufacturing Operations.

(e) Roundwood throughput is based on 466,800 cords/yr (softwood) @ 2.7 tons/cord and 178,800 cords/yr (hardwood) @ 2.85 tons/cord, plus 10 percent.

(f) Bark throughput is based on 8 percent of roundwood.

(g) Based on purchased bark.

(h) Total bark throughput is sum of manufactured bark and purchased bark.

(i) Vehicle miles traveled (VMT) was calculated assuming front end loader operating 12 hrs/day, 365 days/yr in the woodyard.

(j) Purchased chip throughput is based on 142,800 cords/yr (softwood) and 411,600 cords/yr (hardwood) @ 2.5 tons/cord, plus 10 percent.

(k) Total chip throughput is based on 92 percent of roundwood throughput plus purchased chip throughput.

(l) Based on 70% of total chip throughput.

(m) Based on 30% of total chip throughput.

(n) Fines separated from wood chip stream.

(o) Total chips minus fines.

Attachment SCC-EU1-G8. Maximum Emissions from the Woodyard at Stone Container, Panama City

SOURCE	Type of Operation (a)	M Moisture Content (%)	U Wind Speed (MPH)	Uncontrolled Emission Factor	Type of Control	Control Efficiency (%)	Controlled Emission Factor	Activity Factor	Maximum Annual PM Emissions (tons/yr)	PM10 Size Multiplier (c)	Maximum Annual PM10 Emissions (tons/yr)
ROUNDWOOD HANDLING											
Debarker	Debarking	- -	- -	0.024 lbs/ton (d)	Enclosure	80	0.00480 lbs/ton	1,946,934 TPY (e)	4.673	0.35	1.635
Chipper	Continuous Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	1,946,934 TPY (e)	0.125	0.35	0.044
Chip Surge Bin to Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	1,946,934 TPY (e)	0.025	0.35	0.0088
BARK HANDLING											
Debarker to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
Bark Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	155,755 TPY (f)	0.0020	0.35	0.00070
No. 1 Bark Diverter to Emergency Bark Storage Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.00003 lbs/ton	0 TPY (f)	0.0000	0.35	0.00000
Emergency Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Unhogged Bark Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.0094	1.0	0.0094
Trucked Bark to Purchased Unhogged Bark Storage Pile	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Front End Loaded to Bark Hopper	Batch Drop	30	7.8	0.00013 lbs/ton	None	0	0.00013 lbs/ton	316,098 TPY (g)	0.0203	0.35	0.00712
Wastewood Conveyor to No. 1 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	316,098 TPY (g)	0.0041	0.35	0.00142
No. 1 Bark Diverter to Disc Screen	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Hog	Hammermill	--	--	0.024 lbs/ton (d)	Enclosed	80	0.00480 lbs/ton	471,853 TPY (h)	1.132	1.0	1.132
Bark Hog to Hogged Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Conveyor to Hogged Bark Pile	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Hogged Bark Pile	Wind Erosion	--	--	--	None	0	--	--	0.0023	1.0	0.0023
Bark Bin Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone	0	2.0 lb/hr	8,760 hr/yr	8.76	0.35	3.07
Bark Bin Cyclone to Small Bark Bin and Screw	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Small Bark Bin and Screw to Bark Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Conveyor to No. 2 Bark Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	471,853 TPY (h)	0.0061	0.35	0.00213
Bark Storage Pile Maintenance	Vehicular Traffic	--	--	0.74 lbs/VMT	None	0	0.74 lbs/VMT	21,900 VMT (i)	8.103	0.35	2.836
PURCHASED CHIP HANDLING											
Truck Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Railcar Unloading (Chip Van Hopper)	Batch Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	762,300 TPY (j)	0.020	0.35	0.0069
Truck Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
Railcar Unloading Conveyor to Tower No. 1 Chip Diverter	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	762,300 TPY (j)	0.010	0.35	0.0034
MANUFACTURED AND PURCHASED CHIP PROCESSING											
Tower No. 1 Diverter to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Reclaim Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaim Coveyor to Radial Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Radial Conveyor to Chip Reclaimer Storage Pile (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Reclaimer Storage Pile (2)	Wind Erosion	--	--	--	None	0	--	--	0.048	1.0	0.048
Chip Reclaimer Storage Pile to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Conveyor to Tower No. 2 Diverter (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Tower No. 2 Diverter to Chip Screw (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screw to Primary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Chip Screens	Screening										
Softwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Cyclone, Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Hardwood Primary Screen Cyclone	Cyclone Vent	--	--	2.0 lb/hr	Enclosure	80	0.40 lb/hr	8,760 hr/yr	1.752	0.35	0.613
Primary Screen to Secondary Screen (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,315,779 TPY (k)	0.043	0.35	0.015
Secondary Screen to Chip Conveyor (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	2,321,045 TPY (l)	0.030	0.35	0.010
Screen Building Rejects Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.066
Screen Building Rejects Cyclone to Chip Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	994,734 TPY (m)	0.026	0.35	0.009
Fines Blowline Emergency Storage Pile	Wind Erosion	--	--	--	None	0	--	--	0.00017	1.0	0.00017
Fines Blowline Cyclone	Cyclone Vent	--	--	2.0 lb/hr	None	0	2.0 lb/hr	8,760 hr/yr	8.760	0.35	3.07
Fines Blowline Cyclone to Wastewood/Sludge Conveyor	Continuous Drop	30	7.8	0.00013 lbs/ton	Covered	60	0.000051 lbs/ton	9,947 TPY (n)	0.000	0.35	0.000
Chip Conveyor to No. 5 Transfer Tower (2)	Continuous Drop	30	7.8	0.00013 lbs/ton	Enclosed	80	0.000026 lbs/ton	3,305,772 TPY (o)	0.043	0.35	0.015
TOTAL									44.61		16.39

Notes:

(a) Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (US EPA, 1995) Section 13.2.4-3(1). $E = 0.0032 \times (U/5)^{1.3} / (M/2)^{1.4}$ lb/ton

(b) Wind Erosion Emissions based on AP-42 (US EPA, 1995) Section 13.2.5. Refer to Attachment A for derivation.

(c) PM10 Size Multiplier is based on particles < 10 micrometers.

(d) Debarker emissions are based on Table 28 of NCASI Technical Bulletin No. 424 (March 1984), Fugitive Dust Emission Factors and Control Methods Important to Forest Products Industry Manufacturing Operations.

(e) Roundwood throughput is based on 466,800 cords/yr (softwood) @ 2.7 tons/cord and 178,800 cords/yr (hardwood) @ 2.85 tons/cord, plus 10 percent.

(f) Bark throughput is based on 8 percent of roundwood.

(g) Based on purchased bark.

(h) Total bark throughput is sum of manufactured bark and purchased bark.

(i) Vehicle miles traveled (VMT) was calculated assuming front end loader operating 12 hrs/day, 365 days/yr in the woodyard.

(j) Purchased chip throughput is based on 142,800 cords/yr (softwood) and 411,600 cords/yr (hardwood) @ 2.5 tons/cord, plus 10 percent.

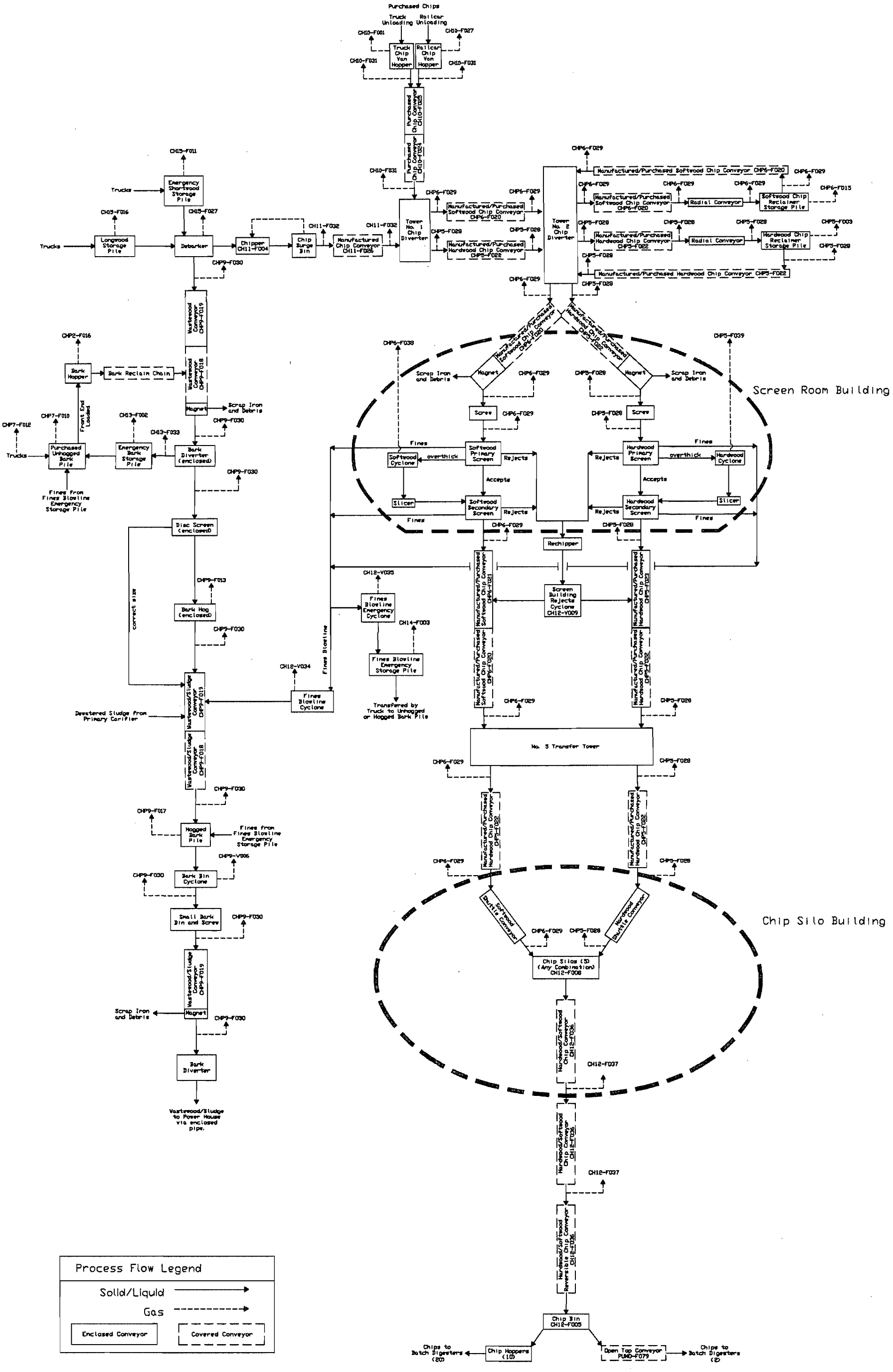
(k) Total chip throughput is based on 92 percent of roundwood throughput plus purchased chip throughput.

(l) Based on 70% of total chip throughput.

(m) Based on 30% of total chip throughput.

(n) Fines separated from wood chip stream.

(o) Total chips minus fines.



Attachment SCC-EU1-J1 Process Flow Diagram Stone Container Corporation Panama City, Florida	Emission Unit: Woodyard Process Area: Raw Materials Filename: 0137598/4/4.4/4.4.1Woodyard/SCC-EU1-J1.dwg Revision Date: 04/23/03 by JKW

Golder Associates