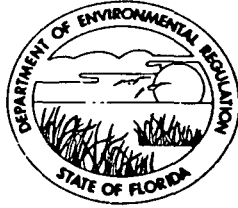


0890003

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION



RECEIVED

MAR 18 1991

DER-BAQM

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Power Boiler [ ] New<sup>1</sup> [X] Existing<sup>1</sup>  
APPLICATION TYPE: [X] Construction [ ] Operation [ ] Modification  
COMPANY NAME: Container Corporation of America COUNTY: Nassau

Identify the specific emission point source(s) addressed in this application (i.e., Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) No. 5 Power Boiler

SOURCE LOCATION: Street North 8th Street City Fernandina Beach  
UTM: East 17:456.2 North 3394.1  
Latitude 30 ° 40 ' 53 "N Longitude 81 ° 27 ' 26 "W

APPLICANT NAME AND TITLE: Wayne Barlow, Vice President and General Manager  
APPLICANT ADDRESS: North 8th Street, Fernandina Beach, FL 32034

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of Container Corporation of America  
I certify that the statements made in this application for a construction permit permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

\*Attach letter of authorization

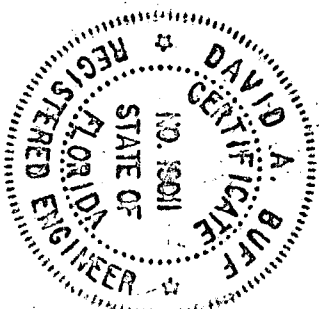
Signed: Wayne Barlow  
Wayne Barlow, Vice President and General Manager  
Name and Title (Please Type)

Date: 3/15/91 Telephone No. (904) 261-5551

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)  
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 treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgement, that

<sup>1</sup>See Florida Administration Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies 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, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed David A. Buff

David A. Buff  
Name (Please Type)

KBN Engineering and Applied Sciences, Inc.  
Company Name (Please Type)

1034 NW 57th Street, Gainesville, FL 32605  
Mailing Address (Please Type)

Florida Registration No. 19011 Date: 3/14/91 Telephone No. (904) 331-9000

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Refer to Attachment A

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction May 1991 Completion of Construction December 1991

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Control equipment already in place

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

A045-190422 Issued 02/27/91 Expires 3/17/96

E. Requested permitted equipment operating time: hrs/day 24; days/wk 7; wks/yr 52;  
If power plant, hrs/yr \_\_\_\_\_; if seasonal, describe: \_\_\_\_\_

F. If this is a new source or major modification, answer the following questions.  
(Yes or No) Not Applicable

1. Is this source in a non-attainment area for a particular pollutant? \_\_\_\_\_

a. If yes, has "offset" been applied? \_\_\_\_\_

b. If yes, has "Lowest Achievable Emission Rate" been applied? \_\_\_\_\_

c. If yes, list non-attainment pollutants. \_\_\_\_\_

2. Does best available control technology (BACT) apply to this source?  
If yes, see Section VI. \_\_\_\_\_

3. Does the State "Prevention of Significant Deterioration" (PSD)  
requirement apply to this source? If yes, see Sections VI and VII. \_\_\_\_\_

4. Do "Standards of Performance for New Stationary Sources" (NSPS)  
apply to this source? \_\_\_\_\_

5. Do "National Emission Standards for Hazardous Air Pollutants"  
(NESHAP) apply to this source? \_\_\_\_\_

H. Do "Reasonably Available Control Technology" (RACT) requirements apply  
to this source? \_\_\_\_\_ No

a. If yes, for what pollutants? \_\_\_\_\_

b. If yes, in addition to the information required in this form, any information  
requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any  
justification for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Not Applicable				

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): Not Applicable

2. Product Weight (lbs/hr): Not Applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission <sup>1</sup>		Allowed <sup>2</sup> Emission Rate per Rule 17-2	Allowable <sup>3</sup> Emission lbs/hr	Potential <sup>4</sup> Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulates	137.1	598.9	0.3 lb/MMBtu	137.1	137.1	598.9	
Sulfur Dioxide	1,733.7	6,618.6	2.75 lb/MMBtu	1,761.4	1,733.7	6,618.6	
Nitrogen Oxides	296.0	1,130.0	N/A	N/A	296.0	1,130.0	
Carbon Monoxide	274.2	1,201.0	N/A	N/A	274.2	1,201.0	
Vol. Org. Cmpds	75.3	329.8	N/A	N/A	75.3	329.8	

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard.

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Research Cottrell Electrostatic Precipitator	Particulate	+99%	submicron	design

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
No 6. Fuel Oil		4,417 gal/hr	657.8
Bark/Woodwaste		107,529 lb/hr	457.0

\*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, others--lbs/hr.

Fuel Analysis:

Percent Sulfur: 2.5 max Percent Ash: 0.1 typical

Density: 8.05 lbs/gal Typical Percent Nitrogen: 0.9

Heat Capacity: 18,500 BTU/lb 148,925 BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average Not Applicable Maximum \_\_\_\_\_

G. Indicate liquid or solid wastes generated and method of disposal.

Bottom ash is sent to waste treatment system.

ESP fly ash is landfilled.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 257 ft. Stack Diameter: 11.0 ft.  
 Gas Flow Rate: 287,134 ACFM 142,711 DSCFM Gas Exit Temperature: 358 °F.  
 Water Vapor Content: 23 % Velocity: 50.4 FPS

SECTION IV: INCINERATOR INFORMATION

Not Applicable

Type of Waste	Type 0 (Plastics)	Type II (Rubbish)	Type III (Refuse)	Type IV (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ day/wk \_\_\_\_\_ wks/yr. \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity: \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control devices:  Cyclone  Wet Scrubber  Afterburner  
 Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

### SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods, 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 ½" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 ½" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Examples: Copy of relevant portion of USGS topographic map).
8. An 8 ½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

- 9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
- 10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY**

Not Applicable

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes    No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes    No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

- |                           |                          |
|---------------------------|--------------------------|
| 1. Control Device/System: | 2. Operating Principles: |
| 3. Efficiency:*           | 4. Capital Costs:        |

\*Explain method of determining



5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Devices:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:<sup>1</sup>
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:<sup>2</sup>
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:<sup>1</sup>
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:<sup>2</sup>
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency:<sup>1</sup>
- 3. Capital Cost:
- 4. Useful Life:
- 5. Operating Cost:
- 6. Energy:<sup>2</sup>
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:
- a. (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

(8) Process Rate:<sup>1</sup>

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

(8) Process Rate:<sup>1</sup>

10. Reason for selection and description of systems:

<sup>1</sup>Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

**SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION**

Not Applicable

A. Company Monitored Data

1. \_\_\_\_\_ no. sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sup>2</sup>\* \_\_\_\_\_ Wind spd/dir

Period of Monitoring \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year

Other data recorded \_\_\_\_\_

Attach all data or statistical summaries to this application.

\*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. \_\_\_\_\_ Year(s) of data from \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year

2. Surface data obtained from (location) \_\_\_\_\_

3. Upper air (mixing height) data obtained from (location) \_\_\_\_\_

4. Stability wind rose (STAR) data obtained from (location) \_\_\_\_\_

C. Computer Models Used

1. \_\_\_\_\_ Modified? If yes, attach description.

2. \_\_\_\_\_ Modified? If yes, attach description.

3. \_\_\_\_\_ Modified? If yes, attach description.

4. \_\_\_\_\_ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO <sup>2</sup>	_____ grams/sec

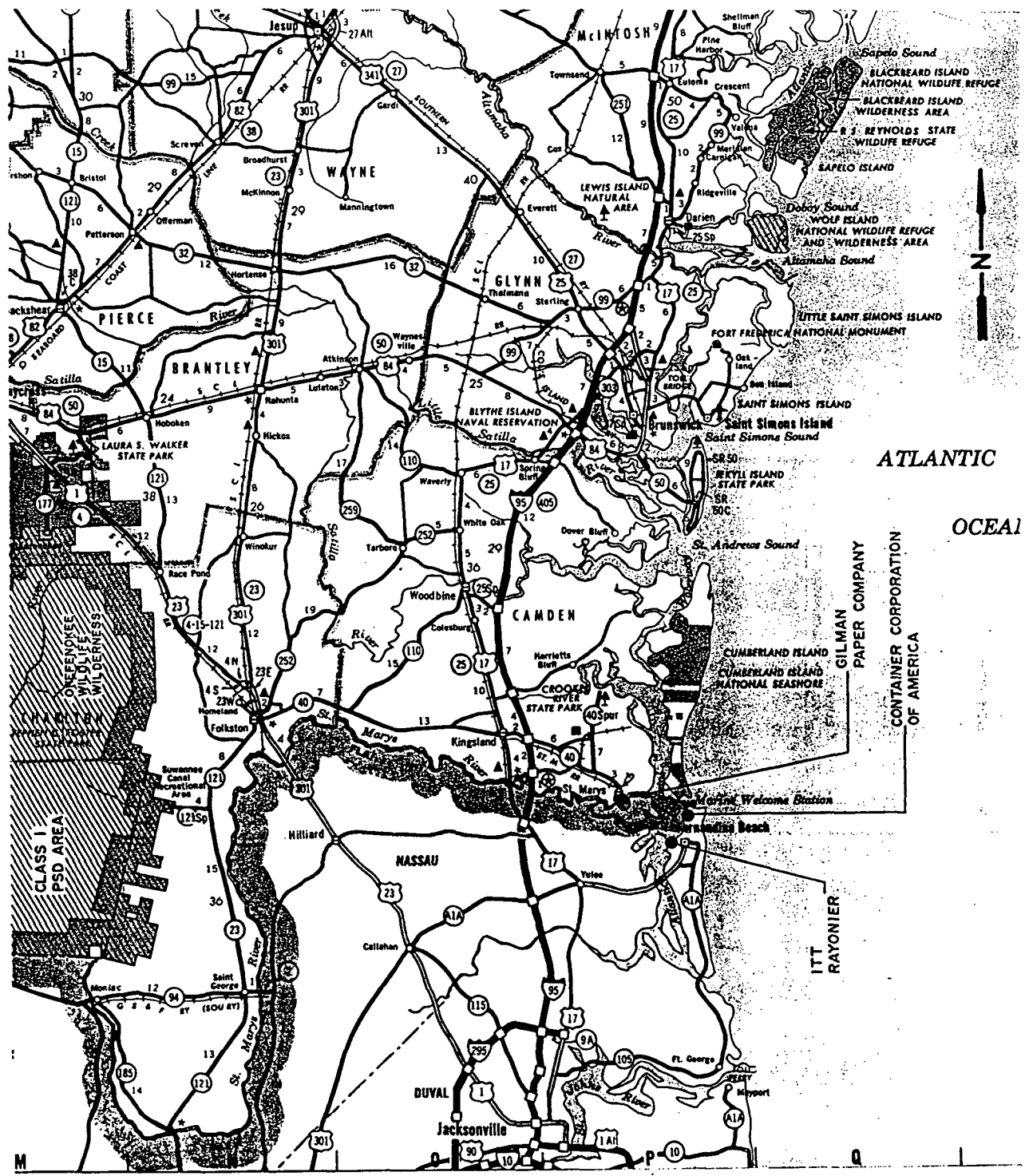
E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e, jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

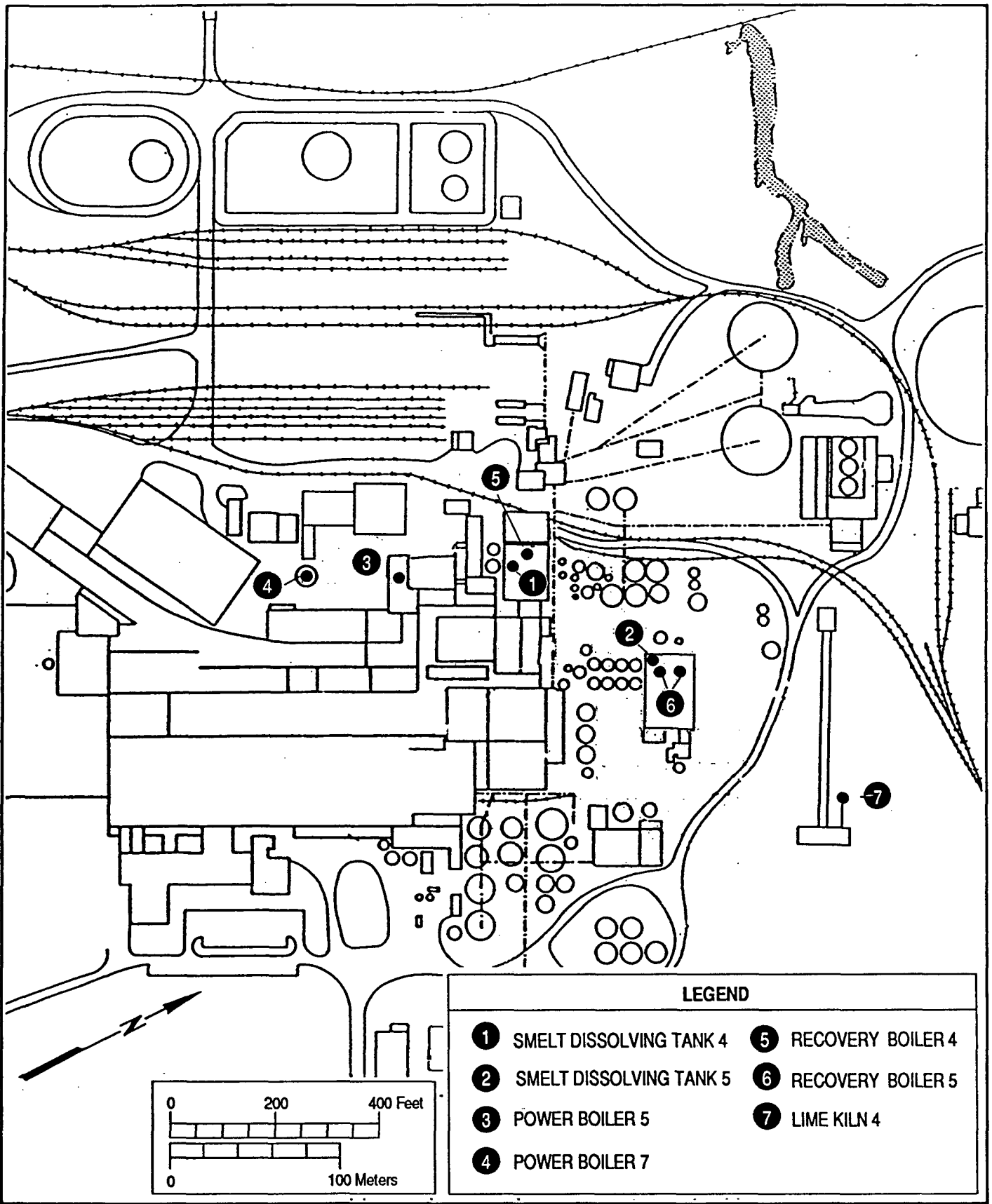
H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.



LOCATION OF CCA MILL



GILMAN PAPER COMPANY  
 CONTAINER CORPORATION  
 OF AMERICA  
 ITT  
 RAYONIER



**EXPANDED PLOT PLAN OF CCA MILL FOR  
EXISTING AND FUTURE CONDITIONS**



**ATTACHMENT A**  
**PROJECT DESCRIPTION**

PROJECT DESCRIPTION

Container Corporation of America (CCA), located in Fernandina Beach, Florida, recently was issued air construction permits by the Florida Department of Environmental Regulation (FDER). The construction permits (AC45-190382 and AC45-190383) authorize the construction of one new batch digester and a new brown stock washer system. Specific Condition 14 in each of these permits requires that a construction permit be submitted for the No. 5 Power Boiler. The purpose of the resulting construction permit is to establish certain federally enforceable permit conditions for this source.

The No. 5 Power Boiler at CCA currently is permitted under operating permit A045-190422. This permit application for the No. 5 Power Boiler reflects the following changes from the current permit:

1. The stack height is being raised from 227 feet to 257 feet above grade.
2. The maximum fuel oil sulfur content is being reduced from 3.0 percent to 2.5 percent.
3. The maximum 24-hour fuel oil burning rate is being limited to 3,850 gallons per hour (92,400 gallons from 8 a.m. to 8 a.m.).

Presented in Attachment B are the maximum estimated emissions from the No. 5 Power Boiler.



**ATTACHMENT B**  
**FUTURE MAXIMUM EMISSIONS**  
**FOR POWER BOILER NO. 5**

FUTURE MAXIMUM EMISSIONS  
FOR POWER BOILER NO. 5

- ✓ A. PM ✓  
Based on current permit limit -- 137.1 lb/hr, 598.9 TPY
- B. PM10  
Based on AP-42 for coal-fired boiler with ESP: 67% is PM10  
✓ 137.1 lb/hr x 0.67 = 91.9 lb/hr  
✓ 598.9 TPY x 0.67 = 402.5 TPY

- C. SO<sub>2</sub>
  - 1. Maximum hourly  
Maximum hourly fuel oil usage = 4,417 gal/hr  
Maximum sulfur content is 2.5%  
Heating value = 148,925 Btu/gal  
Heat input = 4,417 gal/hr x 148,925 Btu/gal  
= 657.8 x 10<sup>6</sup> Btu/hr

Maximum  
hourly →

AP-42 emission factor is 157(S) lb/1,000 gal  
4,417 gal/hr x 157(2.5)/1,000 = 1,733.7 lb/hr OK

- 2. Maximum 24-hour  
Maximum 24-hour (midnight to midnight) fuel oil usage will be limited to 92,400 gallons or average of 3,850 gal/hr

3,850 gal/hr x 157(2.5)/1,000 = 1,511.1 lb/hr OK *Modelled at this number*

- 3. Annual Average  
Annual emissions = 1,511.1 lb/hr x 8,760 hr/yr + 2,000 lb/ton  
= 6,618.6 TPY ✓ OK

- D. NO<sub>x</sub>  
Base on AP-42 factors

- 1. No. 6 Fuel Oil  
Factor is 67 lb/1,000 gal  
4,417 gal/hr x 67 lb/1,000 gal = 296.0 lb/hr Modelled at this

- 2. Bark  
AP-42 factor is 2.8 lb/ton bark  
53.76 TPH x 2.8 lb/ton = 150.5 lb/hr

- 3. Annual Average  
Fuel oil burning results in highest NO<sub>x</sub> emissions.  
For annual emissions, use maximum 24-hour fuel oil burning rate.

*from SO<sub>2</sub>* 3,850 gal/hr x 67 lb/1,000 gal = 258.0 lb/hr  
258.0 lb/hr x 8,760 hr/yr + 2,000 lb/ton = 1,130.0 TPY

- E. CO

- 1. No. 6 Fuel Oil  
Base on AP-42 factor of 5 lb/1,000 gal.  
4,417 gal/hr x 5 lb/1,000 gal = 22.1 lb/hr

- 2. Bark  
From NCASI Technical Bulletin No. 109, maximum is  
0.60 lb/10<sup>6</sup> Btu  
457x10<sup>6</sup> x 0.60/10<sup>6</sup> = 274.2 lb/hr
- 3. Annual Average  
274.2 lb/hr x 8,760 + 2,000 = 1,201.0 TPY

OK

F. VOC

Based on AP-42 factors

- 1. No. 6 Fuel Oil  
Factor is 0.76 lb/1,000 gal  
4,417 gal/hr x 0.76 lb/1,000 gal = 3.4 lb/hr
- 2. Bark Burning  
Factor is 1.4 lb/ton bark  
53.76 TPH x 1.4 lb/ton = 75.3 lb/hr
- 3. Annual Average  
75.3 lb/hr x 8,760 + 2,000 = 329.8 TPY

*Bark  
Burning*

*based on  
470,938 TPY  
of bark  
247.8*

*Incr. is 329.8 - 247.8 = 82.0 TPY*

G. Lead, Mercury, Beryllium, Arsenic, Fluorides

Emission factors from following sources:

Fuel Oil Burning

- a. Fluorides - Emissions Assessment of Conventional Stationary Combustion Systems, Vol. V. Industrial Combustion Sources, EPA-600/7-81-003a.
- b. All other pollutants - Toxic Air Pollutant Emission Factors--A Compilation for Selected Air Toxic Compounds and Sources, EPA-450/2-88-006.

Bark Burning

All pollutants - EPA-600/7-81-003a (see above).

- 1. Lead
  - a. Fuel Oil Burning  
Factor is 8.9 lb/10<sup>12</sup> Btu (uncontrolled)  
658x10<sup>6</sup> Btu/hr x 8.9 lb/10<sup>12</sup> Btu = 0.0059 lb/hr
  - b. Bark Burning  
Factor is 50 pg/J or 116 lb/10<sup>12</sup> Btu  
457x10<sup>6</sup> x 116 lb/10<sup>12</sup> = 0.053 lb/hr = 0.232 TPY
- 2. Mercury
  - a. Fuel Oil Burning  
Factor is 2.4 lb/10<sup>12</sup> Btu for ESP control  
658x10<sup>6</sup> x 2.4/10<sup>12</sup> = 0.0016 lb/hr = 0.0070 TPY
  - b. Bark Burning  
No emission factor.
- 3. Beryllium
  - a. Fuel Oil Burning  
Factor is 0.59 lb/10<sup>12</sup> Btu for ESP control  
658x10<sup>6</sup> x 0.59/10<sup>12</sup> = 0.00039 lb/hr

- b. Bark Burning  
Factor is  $<1$  pg/J or  $<2.3$  lb/ $10^{12}$  Btu  
 $457 \times 10^6 \times 2.3 / 10^{12} = 0.0011$  lb/hr = 0.00048 TPY
- 4. Arsenic
  - a. Fuel Oil Burning  
Factor is 2.28 lb/ $10^{12}$  Btu for ESP control  
 $658 \times 10^6 \times 2.28 / 10^{12} = 0.0015$  lb/hr
  - b. Bark Burning  
Factor is 12 pg/J or 27.9 lb/ $10^{12}$  Btu  
 $457 \times 10^6 \times 27.9 / 10^{12} = 0.013$  lb/hr = 0.057 TPY
- 5. Fluorides
  - a. Fuel Oil Burning  
Factor is 2.7 pg/J or 6.27 lb/ $10^{12}$  Btu, uncontrolled  
 $658 \times 10^6 \times 6.27 / 10^{12} = 0.0041$  lb/hr = 0.018 TPY
  - b. Bark Burning  
No emission factor.

H. Sulfuric Acid Mist

Based on 3% of sulfur emissions.

$1,733.7$  lb/hr  $\times$  98/64  $\times$  0.03 = 79.6 lb/hr

Annual: 6,618.6 TPY  $\times$  98/64  $\times$  0.03 = 304.0 TPY

OK