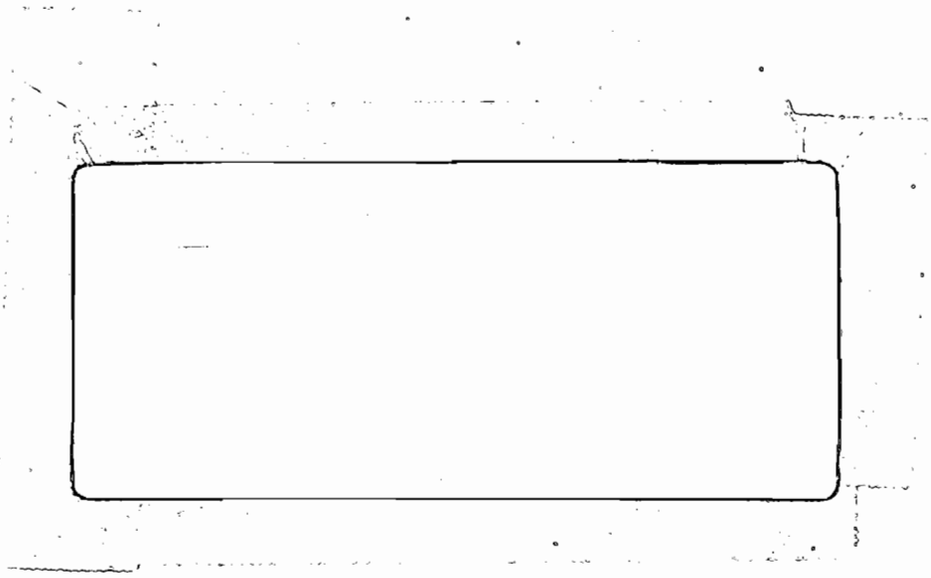

Golder Associates

AMBIENT IMPACT ANALYSIS OF THE CLEAN CONDENSATE ALTERNATIVE PROJECT FOR STONE CONTAINER CORPORATION

PANAMA CITY MILL

Prepared For:

STONE CONTAINER CORPORATION
PANAMA CITY, FLORIDA

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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 operation of the mill as part of the Clean Condensate Alternative (CCA) project, as described in the air construction permit application. The CCA project will result in increases of sulfur dioxide (SO_2), nitrogen oxide (NO_x), and sulfuric acid mist (SAM) from the No. 3 Combination Boiler and No. 4 Combination Boiler at the mill.

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 CCA project. As a prerequisite to issuance of an air construction permit, SCC must demonstrate that the mill is in compliance with ambient air quality standards (AAQS) and prevention of significant deterioration (PSD) Class II and Class I allowable increments.

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:

- SO_2, and
- Nitrogen dioxide (NO_2).

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 62-204.240. 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 SO_2, NO_2, and PM_{10}. The nearest PSD Class I areas are the Bradwell Bay and St. Marks National Wilderness Areas (NWA) located about 96 and 112 km from the SCC Panama City mill.

The air quality impact analysis demonstrates that the proposed increases in SO_2 and NO_x 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 proposed increases in SO_2 and NO_x at the SCC Mill, along with source emission rates and stack parameters;
- Section 3.0 presents the air modeling methodology, emissions inventories and data used in the modeling analysis;
- Section 4.0 presents the air dispersion modeling results; and
- Section 5.0 presents the references.

Table 1-1. National and State AAQS, Allowable PSD Increments, and Significant Impact Levels

Pollutant	Averaging Time	AAQS ($\mu g/m^3$)			PSD Increments ($\mu g/m^3$)		Significant Impact Levels [d] ($\mu g/m^3$)	
		National Primary Standard	National Secondary Standard	State of Florida	Class I	Class II	Class I	Class II
Particulate Matter[a]	Annual Arithmetic Mean	50	50	50	4	17	0.2	1
(PM_{10})	24-Hour Maximum[b]	150[b]	150[b]	150[b]	8	30	0.3	5
Sulfur Dioxide	Annual Arithmetic Mean	80	NA	60	2	20	0.1	1
	24-Hour Maximum[c]	365[b]	NA	260[b]	5	91	0.2	5
	3-Hour Maximum[b]	NA	1,300[b]	1,300[b]	25	512	1.0	25
Carbon Monoxide	8-Hour Maximum[b]	10,000[b]	10,000[b]	10,000[b]	NA	NA	NA	500
	1-Hour Maximum[b]	40,000[b]	40,000[b]	40,000[b]	NA	NA	NA	2,000
Nitrogen Dioxide	Annual Arithmetic Mean	100	100	100	2.5	25	0.1	1
Ozone[a]	1-Hour Maximum	235[c]	235[c]	235[c]	NA	NA	NA	NA
	1-Hour Maximum	235	235	NA	NA	NA	NA	NA
Lead	Calendar Quarter Arithmetic Mean	1.5	1.5	1.5	NA	NA	NA	NA

Note: NA = Not applicable, i.e., no standard exists.

PM_{10} = particulate matter with aerodynamic diameter less than or equal to 10 micrometers.

[a] On July 18, 1997, the 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 has not yet occurred. 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. The FDEP has not yet adopted these standards.

[b] Short-term maximum concentrations are not to be exceeded more than once per year except for the PM_{10} AAQS (these do not apply to significant impact levels). The PM_{10} 24-hour AAQS is attained when the expected number of days per year with a 24-hour concentration above 150 $\mu g/m^3$ is equal to or less than 1. For modeling purposes, compliance is based on the sixth highest 24-hour average value over a 5-year period.

[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 mill for the Clean Condensate Alternative project. The No. 3 Combination Boiler and No. 4 Combination Boiler will continue to be used to combust condensate stripper off-gases (SOG).

#3 CB
#4CB

2.2 SCC MILL EMISSIONS

The CCA project will result in additional total reduced sulfur compounds (TRS), hazardous air pollutants (HAPs), ammonia, and other air pollutants in the SOG going to the boilers. The project will result in emission increases of SO_2 and NO_x from the No. 3 Combination Boiler and No. 4 Combination Boiler. SOGs are sent either to the No. 3 Combination Boiler, as the primary combustion device, or the No. 4 Combination Boiler as the backup combustion device.

#3CB Primary
#4CB backup

The maximum emissions for all permitted point sources of SO_2 and NO_x located at the SCC Panama City mill are presented in Table 2-1. The maximum emissions were used for modeling the applicable averaging times for those pollutants. The maximum emissions are based on the permitted emission rates or maximum calculated emission rates derived from permitted operational rates, except for SO_2 and NO_x emissions from the combination boilers. SCC proposes to increase SO_2 and NO_x emissions rates from the Nos. 3 and 4 Combination Boilers to the following:

Emission Source	Averaging Period	Units	Emission Rate		
			Existing	Proposed Increase	Future
SO_2 Emissions					
No. 3 Combination Boiler	3-hour	lb/hr	1,190.4	402	1,592.4
	24-hour	lb/hr	485 61.11	402	887
No. 4 Combination Boiler	All	lb/hr	781 98.1	402	1,183.0
NO_x Emissions					
No. 3 Combination Boiler	Annual	TPY	569.8	97.1	666.9
No. 4 Combination Boiler	Annual	TPY	828.3	97.1	925.4

200.6 g/s
111.8 g/s
149.1 g/s

It is noted that the proposed 402 lb/hr increase in SO_2 emissions and 97.1 TPY increase in NO_x emissions represent the total emission increases from both boilers, since the Condensate Stripper SOGs are sent to only one of the boilers at any one time. Therefore, two scenarios were modeled:

1. The total emission increase coming from the No. 3 Combination Boiler; and
2. The total emission increase coming from the No. 4 Combination Boiler.

Baseline emissions for the SCC Panama City mill, for purposes of calculating PSD increment consumption, are presented in Table 2-2. For SO_2, the major source baseline date is January 6, 1975. 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. Supportive information for these emissions was presented in previous applications and correspondence to FDEP (2000, 2002).

2.3 SITE LAYOUT AND STRUCTURES

An overall site plan and a plot plan of the SCC Panama City facility, showing stack locations, are presented in Figures 2-2 and 2-3, respectively. The dimensions of the major buildings and structures at the facility are presented in Section 3.0. The SCC site and modeling receptors used in the modeling analysis are presented in Appendix C.

2.4 STACK PARAMETERS

Stack parameters for both the future case and the PSD baseline case 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 these parameters was presented in previous applications and correspondence to FDEP (2000, 2002). The exit gas temperatures and flow rates for Nos. 3 and 4 Combination Boilers have been updated based on stack test information obtained since 2000 (see CCA project permit application).

See Table 2-1 of 05/28/02 Subm. Fnal

Table 2-1. Maximum Existing and Future SO_2 and NO_x Emissions for the Stone Container Corporation Mill, Panama City

Emission Unit		Unit ID	Existing Emissions		Future Emissions		Change in Emissions	
SO_2 Emissions			lb/hr	g/s	lb/hr	g/s	lb/hr	g/s
No. 1 Recovery Boiler		RB1	129.8	16.35	129.8	16.35	0.0	0.0
No. 2 Recovery Boiler		RB2	129.8	16.35	129.8	16.35	0.0	0.0
No. 1 Smelt Dissolving Tank		SDT1	1.0	0.13	1.0	0.13	0.0	0.0
No. 2 Smelt Dissolving Tank		SDT2	1.0	0.13	1.0	0.13	0.0	0.0
Lime Kiln		LK1	4.7	0.59	4.7	0.59	0.0	0.0
No. 3 Combination Boiler [a]	24-hour	BB3	485.0 (109.5 lb/hr)	61.1	887.0	111.8	402.0	50.7
	3-hour		1,190.4	150.0	1,592.4	200.6	402.0	50.7
No. 4 Combination Boiler [a]		BB4	781.0	98.4	1,183.0	149.1	402.0	50.7
NO_x Emissions			TPY	g/s	TPY	g/s	TPY	g/s
No. 1 Recovery Boiler		RB1	315.8	9.08	315.8	9.08	0.0	0.0
No. 2 Recovery Boiler		RB2	315.8	9.08	315.8	9.08	0.0	0.0
No. 1 Smelt Dissolving Tank		SDT1	8.8	0.25	8.8	0.25	0.0	0.0
No. 2 Smelt Dissolving Tank		SDT2	8.8	0.25	8.8	0.25	0.0	0.0
Lime Kiln		LK1	195.8	5.63	195.8	5.63	0.0	0.0
No. 3 Combination Boiler [a]		BB3	569.8	16.39	666.9 (130.07 lbs/hr)	16.39	97.1	0.0
No. 4 Combination Boiler [a]		BB4	828.3	23.83	925.4 (189.2 lbs/hr)	23.83	97.1	0.0

[a] Note: Increase in emissions will only occur in one boiler at any one time.

Now 485 887 485
781 781 1183
126615/hr 1668 1668

See note in Table 2-1 of 05/28/01

See Table 2-2 of 02/18/02 submitted

Table 2-2. 1974 PSD Baseline SO_2 Emissions Used in the Modeling Analysis for the SCC Mill, Panama City

Emission Unit	Unit ID	Baseline Emissions	
Short-Term Emissions		lb/hr	g/s
No. 1 Recovery Boiler	RB1b	121.5	15.3
No. 2 Recovery Boiler	RB2b	121.5	15.3
No. 1 Smelt Dissolving Tank	SDT1b	7.5	0.9
No. 2 Smelt Dissolving Tank	SDT2b	7.5	0.9
Lime Kiln	LK1b	3.2	0.4
No. 4 Power Boiler[a]	PB45b	205.5	25.9
No. 5 Power Boiler[a]		212.0	26.7] 52.6
No. 6 Power Boiler	PB6b	524.0	66.0
No. 3 Combination Boiler 1BB	BB3b	342.9	43.2
No. 4 Combination Boiler 1BB	BB4b	546.0	68.8
TOTALS		2,091.6	263.5
Long-Term Emissions		TPY	g/s
No. 1 Recovery Boiler	RB1b	452.8	13.0
No. 2 Recovery Boiler	RB2b	452.8	13.0
No. 1 Smelt Dissolving Tank	SDT1b	26.4	0.8
No. 2 Smelt Dissolving Tank	SDT2b	26.4	0.8
Lime Kiln	LK1b	12.0	0.3
No. 4 Power Boiler[a]	PB45b	773.9	22.3
No. 5 Power Boiler[a]		773.9	22.3
No. 6 Power Boiler	PB6b	1,934.7	55.7
No. 3 Combination Boiler	BB3b	1,335.9	38.4
No. 4 Combination Boiler	BB4b	2,114.8	60.8
TOTALS		7,903.6	227.4

[a] Nos. 4 and 5 Power Boilers shared a common stack and were modeled as one source.

Table 2-3. Stack Parameters and Locations Used in the Modeling Analysis for the SCC Mill, Panama City

Emission Unit	Unit ID	Relative Location[a] X (ft)	Relative Location[a] X (m)	Relative Location[a] Y (ft)	Relative Location[a] Y (m)	Stack Parameters Height (ft)	Stack Parameters Height (m)	Stack Parameters Diameter (ft)	Stack Parameters Diameter (m)	Operating Parameters Temperature (°F)	Operating Parameters Temperature (K)	Operating Parameters Flow Rate (acfm)	Operating Parameters Velocity (ft/s)	Operating Parameters Velocity (m/s)
Future Conditions														
No. 1 Recovery Boiler[b]	RB1	42.7	13.03	-54.09	-16.49	233	71.0	6.42	1.96	298	421	168,784	86.9	26.5
No. 2 Recovery Boiler[b]	RB2	87.7	26.73	-0.49	-0.15	233	71.0	6.42	1.96	311	428	175,193	90.2	27.5
No. 1 Smelt Dissolving Tank	SDT1	1.3	0.41	-19.38	-5.91	233	71.0	6.00	1.83	166	348	29,179	17.2	5.2
No. 2 Smelt Dissolving Tank	SDT2	46.3	14.12	34.21	10.43	233	71.0	6.00	1.83	166	348	25,447	15.0	4.6
Lime Kiln	LK1	537.2	163.79	-117.98	-35.97	61	18.6	8.00	2.44	167	348	117,018	38.8	11.8
No. 3 Combination Boiler	BB3	-93.7	-28.57	106.04	32.33	213	64.9	7.83	2.39	148	337	288,244	99.8	30.4
No. 4 Combination Boiler	BB4	-116.9	-35.63	78.49	23.93	213	64.9	7.83	2.39	146	336	306,035	105.9	32.3
SO_2 PSD Baseline (1974) Conditions														
No. 1 Recovery Boiler[b]	RB1b	42.7	13.03	-54.09	-16.49	233	71.0	6.42	1.96	310	428	170,920	88.0	26.8
No. 2 Recovery Boiler[b]	RB2b	87.7	26.73	-0.49	-0.15	233	71.0	6.42	1.96	320	433	157,907	81.3	24.8
No. 1 Smelt Dissolving Tank	SDT1b	1.3	0.41	-19.38	-5.91	233	71.0	6.00	1.83	150	339	28,670	16.9	5.2
No. 2 Smelt Dissolving Tank	SDT2b	46.3	14.12	34.21	10.43	233	71.0	6.00	1.83	140	333	29,518	17.4	5.3
Lime Kiln	LK1b	537.2	163.79	-117.98	-35.97	61	18.6	8.00	2.44	160	344	101,335	33.6	10.2
No. 4 Power Boiler[c]	PB45b	-151.5	-46.20	41.03	12.51	296	90.2	12.00	3.66	400	478	168,289	24.8	7.6
No. 5 Power Boiler[c]		-151.5	-46.20	41.03	12.51	296	90.2	12.00	3.66	400	478	168,289	24.8	7.6
No. 6 Power Boiler	PB6b	171.9	52.41	18.24	5.56	241	73.5	8.00	2.44	430	494	107,367	35.6	10.9
No. 3 Combination Boiler	BB3b	-93.7	-28.57	106.04	32.33	150	45.7	8.50	2.59	440	500	164,107	48.2	14.7
No. 4 Combination Boiler	BB4b	-116.9	-35.63	78.49	23.93	150	45.7	7.34	2.24	470	516	153,853	60.6	18.5

[a] Sources are relative to the air modeling origin location, which is the easternmost corner of the Combination Boilers Building.

[b] Source has two identical stacks. Parameters are for each stack.

[c] Nos. 4 and 5 Power Boilers shared a common stack and were modeled as one source.

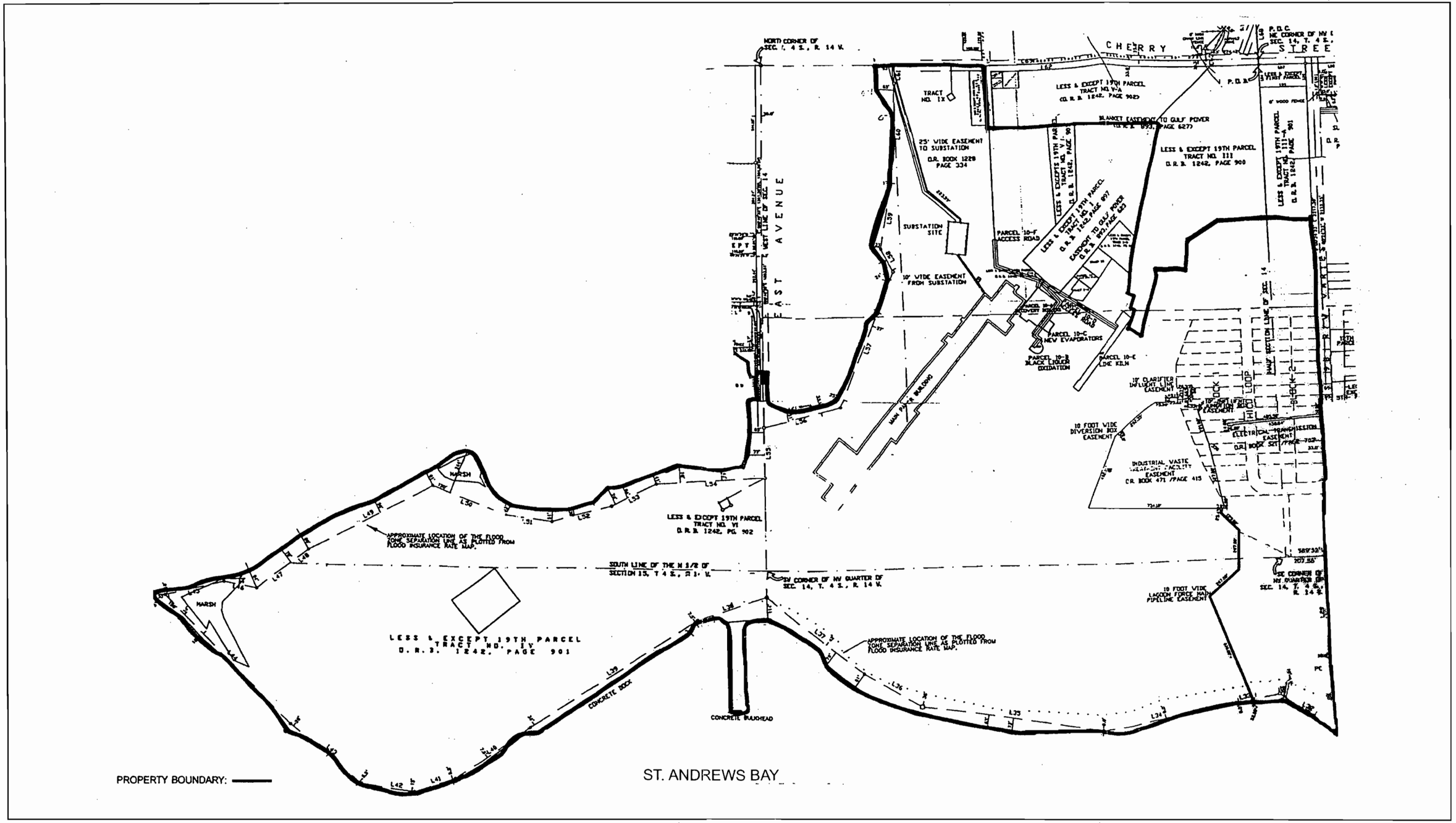

Figure 2-1. Property Boundary for the Panama City Mill Stone Container Corporation

Source: Golder, 2004.

Golder Associates

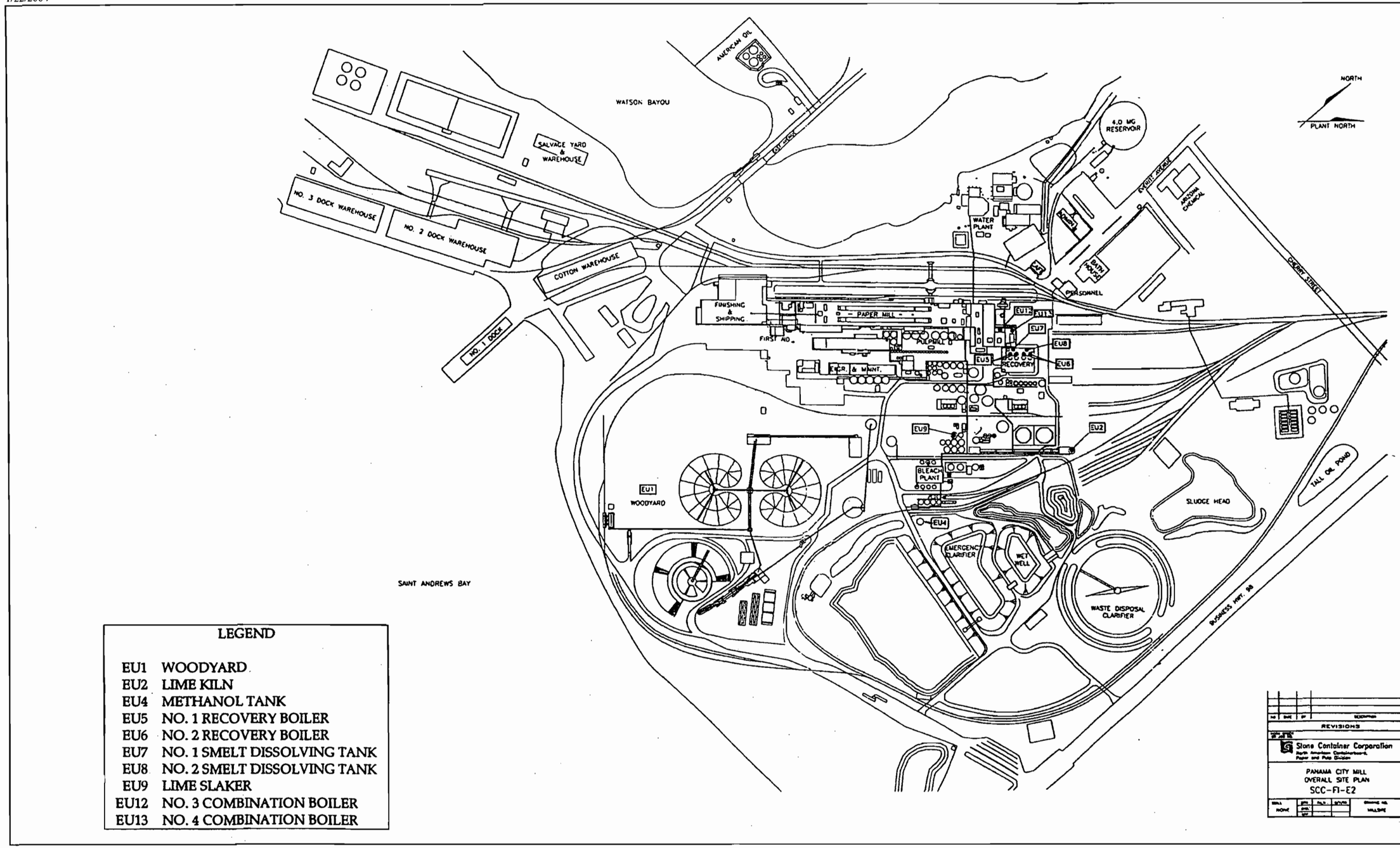

Figure 2-2. Overall Site Plan for the Panama City Mill
Stone Container Corporation

Source: Golder, 2004.

Golder Associates

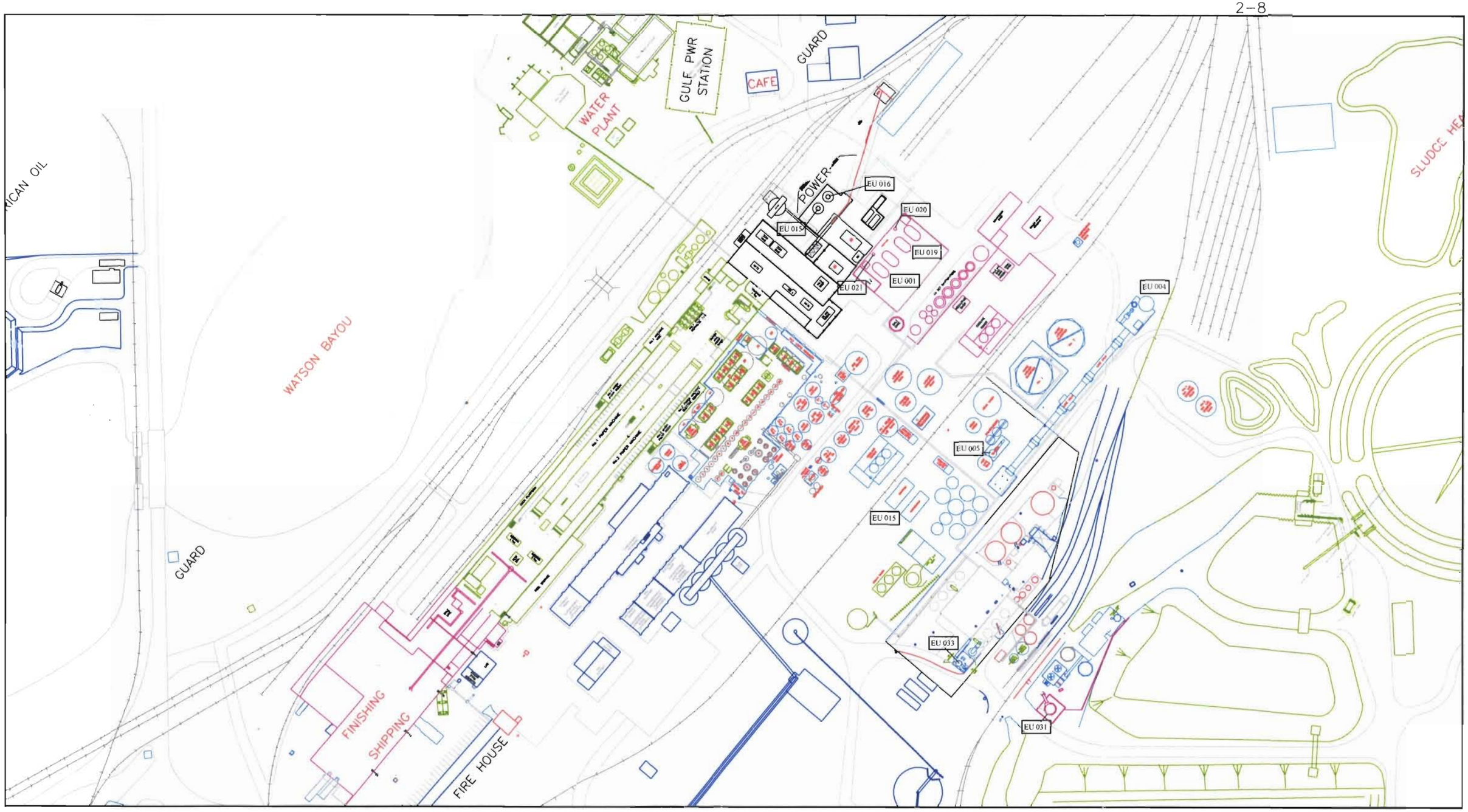

FIGURE 2-3. FACILITY PLOT PLAN
(Enlarged to Identify Emission Points)
STONE CONTAINER CORPORATION
PANAMA CITY, FL

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LATEST REVISION: 01/20/04

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3.0 AIR QUALITY IMPACT ANALYSIS METHODOLOGY

The air quality impact analysis is provided to demonstrate that the SCC Mill's increase in emissions of SO_2 and NO_x due to the CCA project will comply with the AAQS and allowable PSD Class I and II increments. This section presents the air quality modeling methodology.

3.1 GENERAL AIR QUALITY MODELING ANALYSIS APPROACH

The air quality impact analysis of the SCC mill was conducted following 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 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.

The SCC mill is located approximately 96 and 112 km, from the PSD Class I areas of the Bradwell Bay and the St. Marks NWA, respectively. Therefore, SO_2 and NO_2 concentrations were predicted at those areas.

More detailed descriptions of the models, along with the emission inventory, meteorological data, and screening receptor grids, used in the analysis are presented in the following sections.

3.2 SIGNIFICANT IMPACT ANALYSIS APPROACH

3.2.1 SITE VICINITY

A significant impact analysis was performed to determine the magnitude and distance to which the project's SO_2 and NO_2 impacts are predicted to exceed the EPA's significant impact levels at any location beyond the plant's restricted boundaries. EPA's significant SO_2 impact levels are 25, 5, and 1 microgram per cubic meter ($\mu g/m^3$) for the 3-hour, 24-hour, and annual averaging periods, respectively. EPA's significant NO_2 impact level is 1 $\mu g/m^3$ for the annual averaging period.

If the project-only impacts are above the significant impact levels in the vicinity of the facility, then two additional and more detailed air modeling analyses are required. The first analysis is performed to demonstrate compliance with national and Florida AAQS, and the second analysis is performed to demonstrate compliance with allowable PSD Class II increments.

3.2.2 PSD CLASS I AREAS

Generally, if the facility undergoing the modification is within 200 km of a PSD Class I area, then a significant impact analysis is also performed to evaluate the impact due to the project alone at the PSD Class I area. Because the Bradwell Bay and St. Marks NWA are located within 200 km of the SCC Mill, the maximum predicted SO_2 and NO_2 impacts at those areas are compared to the proposed EPA's SO_2 and NO_2 significant impact levels for PSD Class I areas. The SO_2 significant impact levels are 1.0, 0.2, and 0.1 $\mu g/m^3$ for the 3-hour, 24-hour, and annual averaging periods, respectively. The NO_2 significant impact level is 0.1 $\mu g/m^3$ for the annual averaging period. These recommended levels have never been promulgated as rules, but are the currently accepted criteria to determine whether a proposed project will incur a significant impact on a PSD Class I area.

If the project-only impacts at the PSD Class I area are predicted to be above the proposed EPA PSD Class I significant impact levels, then an analysis is performed to demonstrate compliance with allowable PSD Class I impacts at the PSD Class I area.

3.3 DETAILED AIR MODELING ANALYSIS APPROACH

3.3.1 GENERAL PROCEDURES

Because there will be a significant increase in SO_2 and NO_x emissions from the Nos. 3 and 4 Combination Boilers, air modeling analyses are required to determine if the project-only impacts are predicted to be greater than the significant impact levels. These analyses consider impacts due to the proposed project alone. Air quality impacts are predicted using 5 years of meteorological data and selecting the highest predicted ground-level concentrations for comparison to the significant impact levels.

To predict the maximum annual and short-term concentrations for the proposed project, the modeling approach was divided into screening and refined phases. Concentrations are predicted for the screening phase using a coarse receptor grid and a 5-year meteorological data record. If the highest concentration is predicted at a receptor that lies in an area where the receptor spacing is more than 100 m, then a refined analysis is performed in that area using a receptor grid of greater resolution. Modeling refinements are performed using a receptor spacing of 100 m or less with a receptor grid centered on the screening receptor at which the maximum concentration was predicted. The air dispersion model is then executed with the refined grid for the entire year of meteorology during which the screening concentration occurred.

If the modification's impacts are greater than the significant impact levels, the air modeling analyses must consider other nearby sources and background concentrations to predict a total concentration for comparison to AAQS and PSD increments.

Generally, when using 5-years of meteorological data for the analysis, the highest annual and the highest, second-highest (HSH) short-term concentrations are compared to the applicable AAQS and allowable PSD increments. The HSH concentration 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.

The HSH approach is consistent with air quality standards and allowable PSD increments, which permit a short-term average concentration to be exceeded once per year at each receptor.

The AAQS analysis is a cumulative source analysis that evaluates whether the concentrations from all sources will comply with the AAQS. These concentrations include the modeled impacts from sources at the project site and from other nearby facility sources added to a background concentration. The background concentration accounts for sources not included in the modeling analysis.

The PSD Class II analysis is a cumulative source analysis that evaluates whether the concentrations for increment-affecting sources will comply with the allowable PSD Class II increments. These concentrations include the modeled impacts from PSD increment-affecting sources at the project site, plus nearby PSD increment-affecting sources at other facilities.

3.3.2 PSD CLASS I ANALYSIS

For each pollutant for which a significant impact is predicted at the PSD Class I area, a PSD Class I analysis is required. The PSD Class I analysis is a cumulative source analysis that evaluates whether the concentrations for increment-affecting sources located within 200 km of the PSD Class I area will comply with the allowable PSD Class I increments. These concentrations include the impacts from PSD increment-affecting sources at the project site, plus the impacts from PSD increment-affecting sources at other facilities.

3.4 MODEL SELECTION

The selection of an air quality model to calculate air quality impacts was based on its applicability to simulate impacts in areas surrounding the SCC Mill, as well as at the PSD Class I area of interest. Two air quality dispersion models were selected and used in these analyses to address air quality impacts for the proposed project. These models were:

- The Industrial Source Complex Short Term (ISCST) dispersion model with the Plume Rise Model Enhancement (PRIME) downwash algorithm, referred to as the ISC-PRIME model; and
- The California Puff model (CALPUFF).

The ISC-PRIME dispersion model, Version 01228 (EPA, 2001) was used to evaluate the pollutant impacts in nearby areas surrounding the SCC Panama City Mill. This model was previously used to address air quality impacts due to the modifications proposed to revise the pulp production capacity of the Mill (2000) and was approved for use by both the FDEP and EPA (2001). EPA's approval

letter is provided in Appendix A. Therefore, to be consistent with the previous air modeling performed at the SCC Mill and based on the FDEP's and EPA's approval of its use, the ISC-PRIME model was used to determine the project's impacts for comparison to PSD Class II significant impact levels.

The ISC-PRIME model is maintained by the EPA on its 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 3-1. 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.

In this analysis, the EPA regulatory default options were used to predict all maximum impacts. The ISC-PRIME model can be executed in the rural or urban land use mode that 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 land use within a 3-km radius 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 the land-use within a 3-km radius of the SCC Mill, the rural dispersion coefficients were used in the modeling analysis. Also, since the terrain around the facility is flat to gently rolling, the simple terrain feature of the model was selected. The ISC-PRIME model was used to provide maximum concentrations for the annual, 24-hour, and 3-hour averaging times.

At distances beyond 50 km from a source, the CALPUFF model, Version 5.7 (EPA, 2003), is recommended for use by the EPA and the Federal Land Manager (FLM). Major features of the CALPUFF model are presented in Table 3-2. The CALPUFF model is a long-range transport model applicable for estimating the air quality impacts in areas that are more than 50 km from a source. The CALPUFF model is maintained by the EPA on the SCRAM internet website. The methods and assumptions used in the CALPUFF model are based on the latest recommendations for modeling analysis as presented in the following reports:

- The Interagency Workgroup on Air Quality Models (IWAQM), *Phase 2 Summary Report and Recommendations for Modeling Long Range Transport Impacts* (EPA, 1998); and

- The *Federal Land Manager's Air Quality Relative Values Workgroup (FLAG) Phase I Report* (December, 2000).

In addition, updates to the modeling methods and assumptions were followed based on discussion with the FLM.

The CALPUFF model was used to perform a significant impact analysis for the proposed project at the PSD Class I areas of the Bradwell Bay and St. Marks NWA. A more detailed description of the assumptions and methods used for the CALPUFF model is presented in Appendix B.

3.5 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 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.

CALMET, the meteorological preprocessor to CALPUFF, was used to develop a 3-dimensional wind field necessary to perform the air modeling analysis to evaluate pollutant impacts at each PSD Class I area. The modeling domain consisted of a rectangular 3-dimensional grid that extended from approximately 87.5 to 81.5 degrees longitude and from 29.25 to 31.9 degrees latitude. The modeling domain includes the following meteorological and land use parameters:

- Surface weather data;
- Upper air data;
- A 1-degree land use data;
- A 1-degree Digital Elevation Model (DEM) terrain data;
- Mesoscale Model - Generation 4 (MM4) data (for initializing the wind field) for 1990; MM5 data for 1992 and 1996; and
- Hourly precipitation data.

These data were obtained and processed for the calendar years 1990, 1992, and 1996, the years for which MM4 and MM5 data are available on CD. The CALMET wind field and the CALPUFF model options used were consistent with the suggestions of the FLMs. Meteorological data used with the CALPUFF model consist of a CALMET-developed wind field covering panhandle Florida. More detailed descriptions of the assumptions and methods used for processing the meteorological data and establishing the model domain are presented in Appendix B.

3.6 EMISSION INVENTORY

3.6.1 SIGNIFICANT IMPACT ANALYSIS

The maximum emissions for the SCC mill for the future operating condition are summarized in Table 2-1. The proposed increases in SO_2 and NO_x emissions for the Nos. 3 and 4 Combination Boilers were used in the PSD Class II and I significant impact analyses. The stack and operating parameters are presented in Table 2-3.

For the PSD Class I area, the SCC Mill's UTM East and North coordinates were assumed to be 632.8 and 3,335.1 km, respectively, in UTM Zone 16.

As described in Section 2.0, two operating scenarios were evaluated:

1. SOG being burned in the No. 3 Combination Boiler year round; and
2. SOG being burned in the No. 4 Combination Boiler year round.

This analysis is designed to determine the worst-case impacts for either operating scenario.

Based on modeling results presented in Section 4.0, the proposed increase in SO_2 emissions for the Nos. 3 and 4 Combination Boilers are predicted to be greater than the PSD Class II significant impact levels. For the No. 3 Combination Boiler and No. 4 Combination Boiler, the maximum SO_2 concentrations are predicted to be significant out to 24 and 22 km, respectively, from the mill. Therefore, additional modeling analyses are required to demonstrate compliance with the AAQS and PSD Class II increments.

SO_2 SI 24 km

The proposed increase in NO_x emissions for the Nos. 3 and 4 Combination Boilers are predicted to be less than the PSD Class II significant impact levels. Therefore, no additional modeling analyses were required.

NO_x SI 0 km

Similarly, for the PSD Class I areas, the proposed increase in SO_2 emissions for the No. 3 Combination Boiler and No. 4 Combination Boiler are predicted to be greater than the PSD Class I significant impact levels. Therefore, additional modeling analyses are required to demonstrate compliance with the PSD Class I increments. Because the proposed increase in NO_x emissions for both boilers are predicted to be less than the PSD Class I significant impact levels, no additional modeling analyses were required for NO_2.

3.6.2 AAQS AND PSD CLASS II ANALYSES

As discussed in Section 4.1, the maximum impacts from the proposed CCA project were predicted to be greater than the SO_2 significant impact levels. As a result, a cumulative source analysis is required to demonstrate compliance with the SO_2 AAQS and PSD Class II increments.

As previously discussed, the future source emissions for the SCC Mill are presented in Table 2-1. The 1974 PSD baseline emissions for SO_2 are presented in Table 2-2. Future and 1974 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 1974 baseline source emissions and parameters were used for the PSD Class II increment analyses. Because there

were separate 3-hour and 24-hour average SO_2 emission rates for the No. 3 Combination Boiler, separate modeling runs were performed for the appropriate averaging periods.

The emission inventories for other facilities were updated from the previous analyses performed for the SCC Panama City Mill (2000, 2002). These inventories 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 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 and PSD Class II increment modeling analyses.

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 3-3. Based on the NC screening technique, the

facilities to be included in the air modeling analysis are Arizona Chemical Company, Granger Asphalt Paving, Gulf Asphalt Corporation, Triangle Construction Road Building, Gulf Power Corporation's Lansing Smith Power Plant, and Bay County Energy Systems. Based on discussions with the FDEP, the Florida Coast Paper facility in Gulf County, which is now owned by SCC and had been modeled in previous air impact analyses, has been dismantled and is no longer operating. As a result, this facility was not included in the air modeling analysis for assessing compliance with the AAQS but was included as a baseline source for assessing compliance with the PSD increments.

The individual source emission, stack, and operating parameters for sources considered in the AAQS and PSD Class II modeling analyses are presented in Table 3-4. 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.

3.6.3 PSD CLASS I ANALYSIS

The maximum project-only SO_2 impacts for the 3-hour and 24-hour averaging periods are predicted to be greater than the proposed Class I significant impact levels at the PSD Class I areas of the Bradwell Bay and St. Marks NWA. As a result, a cumulative source impact analysis was required to demonstrate compliance with the PSD Class I increments.

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 200 km from the PSD Class I areas. The maximum annual and H2H short-term concentrations are compared to the allowable PSD Class I increments.

The SO_2 emissions and stack parameters for the SCC Mill's future and baseline sources are presented in Tables 2-1, 2-2, and 2-3.

The individual source emission, stack, and operating parameters for other sources considered in the PSD Class I modeling analyses are presented in Table 3-4.

3.7 BUILDING DOWNWASH EFFECTS

The building dimensions considered in the air modeling analysis for the SCC Mill are presented in Table 3-5. A computer-generated layout of the property boundaries, buildings, and stack locations is presented in Appendix C.

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.

3.8 RECEPTOR LOCATIONS

3.8.1 SITE VICINITY

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 292 receptors, including 68 receptors located along the property line of SCC mill (see Appendix C). An additional 224 receptors were located offsite the SCC mill property boundary at distances of 0.1, 0.2, 0.5, 0.8, 1.1, and 1.5 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 3-6.

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 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 12.0, 14.0, 16.0 and 20.0 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.

3.8.2 CLASS I AREA

Maximum pollutant concentrations were predicted with the CALPUFF model using 143 discrete receptors located at the Bradwell Bay NWA and the St. Marks NWA. A listing of these receptors is presented in Table 3-7. Due to the large distance from the SCC mill to these PSD Class I areas, additional receptor refinements were not performed for these areas.

3.9 BACKGROUND CONCENTRATIONS

The methods and assumptions used to determine SO_2 background concentrations for use in the modeling analysis were based on those presented in the response letter to FDEP for the proposed pulp increase in 2002. The SO_2 concentrations used for the previous analysis were based on 1999 monitoring data obtained from the two SO_2 monitors located in Pensacola. The two monitors were Ellyson Industrial Park monitor (AIRS ID No. 120330-004-01) and the University Parkway monitor (AIRS ID No. 120330-022-01). These monitors are the nearest monitors to the SCC Mill that measure SO_2 concentrations.

Similar to the previous analysis, the source impact sector was based only on the location of the Gulf Power Company's Crist Power Plant and monitoring data from both monitors were included. The source impact sector is defined as the area within a 90 degree-sector downwind from the source. As a result, a monitor is assumed to have an impact from a source if the monitor is located within a 90 degree sector downwind from the source. Concentrations are excluded from the background concentration analysis when the monitor is within a source impact sector.

For this analysis, SO_2 concentrations for the same monitors were used based on monitoring data reported for 2002 and through September 2003. As discussed in the earlier response letter, there are three major sources of SO_2 emissions in the Project area: Gulf Power Company's Crist Power Plant, Solutia, and Champion International. The locations of these sources and monitors are presented in Appendix D. The source impact sector for each source relative to each monitor is also shown in Appendix D. These sources are all generally located northwest to north-northwest of the two SO_2 monitors.

The source impact sectors for the Crist Power Plant are approximately 290 to 20 degrees for the Ellyson Industrial Park monitor and 293 to 23 degrees for the University Parkway monitor. These sectors were used to determine background concentrations from each monitor.

It should be noted that, although the other major sources are located further away from the monitors than the Crist Power Plant, these sources are likely to also impact those monitors. Therefore, the method used in this analysis to base the source impact sector only on the Crist Power Plant is a conservative approach to estimate background concentrations (i.e., higher concentrations are produced).

The wind direction data used to determine when the SO_2 emissions from the Crist Power Plant could impact the monitors were based on the meteorological data collected at the Ellyson Industrial Park monitor. Although wind direction is reported at the University Parkway monitor, very little data were usable due to malfunction of the wind direction sensor. As such, the wind direction data from this monitor was not further considered in this analysis.

A summary of the results of this analysis is presented in Table 3-8. The four highest concentrations for each averaging period are presented for each monitor. The SO_2 background concentrations were based on the highest of the second-highest concentrations measured at the two monitors. The second-highest concentration is appropriate to use since the format for complying with the 3- and 24-hour average ambient air quality standards is based on the second-highest value.

As shown in Table 3-8, the 3- and 24-hour average SO_2 background concentrations are estimated to be 147.8 and 23.4 $\mu g/m^3$, respectively. It should be noted that several periods were eliminated from background consideration at the University Parkway monitor due to the likely influence of the Crist Power Plant or apparent malfunction of the SO_2 monitor. The first highest 3-hour concentration of 252 $\mu g/m^3$ was eliminated as a background value since the concentration appeared to be affected from emissions due to the Crist Power Plant. The wind directions of 21 to 23 degrees for those hours were just slightly outside of the source impact sector defined as 290 to 20 degrees. The third highest 3-hour concentration of 185 $\mu g/m^3$ and the second highest 24-hour concentration of 26.8 $\mu g/m^3$ were eliminated as background values since there appeared to be a malfunction at the SO_2 monitor. Both values occurred during the same day and were based on an impact measured for only one hour during the entire day. The monitor recorded no concentrations for observations made for adjoining hours when the winds were similar to those that were observed for the impact hour.

Table 3-1. Major Features of the ISC-PRIME Model, Version 01228

ISC-PRIME Model Features
• 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 Huber and Snyder (1976); Huber (1977); and Schulman and Scire (1980) 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 ISC-PRIME; 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 Plume Rise Model Enhancement.

References:

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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 3-2. Major Features of the CALPUFF Model, Version 5.7

CALPUFF Model Features
• Source types: Point, line (including buoyancy effects), volume, area (buoyant, non-buoyant)
• Non-steady-state emissions and meteorological conditions (time-dependent source and emission data; gridded 3-dimensional wind and temperature fields; spatially-variable fields of mixing heights, friction velocity, precipitation, Monin-Obukhov length; vertically and horizontally-varying turbulence and dispersion rates; time-dependent source and emission data for point, area, and volume sources; temporal or wind-dependent scaling factors for emission rates)
• Efficient sampling function (integrated puff formulation; elongated puff (slug) formation)
• Dispersion coefficient options (Pasquill-Gifford (PG) values for rural areas; McElroy-Pooler values (MP) for urban areas; CTDM values for neutral/stable; direct measurements or estimated values)
• Vertical wind shear (puff splitting; differential advection and dispersion)
• Plume rise (buoyant and momentum rise; stack-tip effects; building downwash effects; partial plume penetration above mixing layer)
• Building downwash effects (Huber-Snyder method; Schulman-Scire method)
• Complex terrain effects (steering effects in CALMET wind field; puff height adjustments using ISC model method or plume path coefficient; enhanced vertical dispersion used in CTDMPLUS)
• Subgrid scale complex terrain (CTSG option) (CTDM flow module; dividing streamline as in CTDMPLUS)
• Dry deposition (gases and particles; options for diurnal cycle per pollutant, space and time variations with a resistance model, or none)
• Overwater and coastal interaction effects (overwater boundary layer parameters; abrupt change in meteorological conditions, plume dispersion at coastal boundary; fumigation; option to use Thermal Internal Boundary Layers (TIBL) into coastal grid cells)
• Chemical transformation options (Pseudo-first-order chemical mechanisms for SO_2, SO_4, HNO_3, and NO_3; Pseudo-first-order chemical mechanisms for SO_2, SO_4, NO, NO_2, HNO_3, and NO_3 (RIVAD/ARM3 method); user-specified diurnal cycles of transformation rates; no chemical conversions)
• Wet removal (scavenging coefficient approach; removal rate as a function of precipitation intensity and type)
• Graphical user interface
• Interface utilities (scan ISC-PRIME and AUSPLUME meteorological data files for problems; translate ISC-PRIME and AUSPLUME input files to CALPUFF input files)

Note: CALPUFF = California Puff Model

Source: EPA, 2003.

Table 3-3. Summary of SO_2 Facilities Considered for Inclusion in the AAQS, PSD Class II, and PSD Class I Modeling Analyses

Facility ID Number	Facility	UTM Coordinates North (km)	UTM Coordinates East (km)	Relative to Stone Container Mill [a] X (km)	Relative to Stone Container Mill [a] Y (km)	Relative to Stone Container Mill [a] Distance (km)	Relative to Stone Container Mill [a] Direction (deg.)	SO_2 Emissions Rate [b] (TPY)	AAQS and PSD Class II Analysis: Q Emissions Threshold Distance x 20 [c]	AAQS and PSD Class II Analysis: Included in Modeling Analysis?	PSD Class I Analysis: Included in Modeling Analysis?
Modeling Area [d]											
0050001	Arizona Chemical Company [e]	3335.4	633.1	0.08	0.07	0.1	49	1,226	SIA [d]	Yes	No
0050062	Granger Asphalt Paving, Inc.	3340.3	628.1	-4.7	5.2	7.0	318	74	SIA	Yes	No
0050008	Gulf Asphalt Corporation	3343.7	634.9	2.1	8.6	8.9	14	74	SIA	Yes	No
0050038	Triangle Construction Road Building Inc.	3347.0	638.8	6.0	11.9	13.3	27	45	SIA	Yes	No
0050014	Gulf Power (Lansing Smith Plant)	3349.1	625.2	-7.6	14.0	15.9	332	80,769	SIA	Yes	Yes
0050031	Bay County Energy Systems Inc.	3348.9	644.0	11.2	13.8	17.8	39	313	SIA	Yes	Yes
Screening Area [d]											
7770034	Drum Mix Asphalt Plant #6	3362.8	648.8	16.0	27.7	32.0	30	52	639.3	No	No
0450002	Sylvachem Corporation	3299.6	661.9	29.1	-35.5	45.9	141	2	917.1	No	No
0450005	Florida Coast Paper Company, L.L.C.	3299.0	662.8	30.0	-36.1	46.9	140	3,118	938.8	Yes	Yes
0770007	North Florida Lumber	3358.9	689.5	56.7	23.8	61.5	67	3	1230.4	No	No
1330035	Trawick Pit	3397.5	633.9	1.1	62.4	62.4	1	2	1247.6	No	No
1330005	Florida Gas Transmission Station 13	3394.2	610.6	-22.2	59.1	63.1	339	2	1262.6	No	No
1310008	Freeport Batch Plant	3360.3	573.1	-59.7	25.2	64.8	293	39	1296.0	No	No
0630031	White Construction Company	3403.5	654.2	21.4	68.4	71.7	17	96	1433.4	No	No
Beyond Screening Area out to 100 km [d]											
1310013	Alabama Electric Cooperative	3383.5	575.1	-57.7	48.4	75.3	310	2	1506.2	No	No
0630002	Baxter Asphalt & Concrete	3406.9	666.7	33.9	71.8	79.4	25	41	1588.0	No	No
0770009	Timber Energy Resources	3358.1	709.4	76.6	23.0	80.0	73	13	1599.6	No	No
0630035	Anderson Columbia Company, Inc. Plant #2	3404.5	677.0	44.2	69.4	82.3	32	23	1645.6	No	No
7775017	Defuniak Drum Mix Asphalt Plant	3400.5	579.5	-53.3	65.4	84.4	321	99	1687.4	No	No

Table 3-3. Summary of SO_2 Facilities Considered for Inclusion in the AAQS, PSD Class II, and PSD Class I Modeling Analyses

Facility ID Number	Facility	UTM Coordinates North (km)	UTM Coordinates East (km)	Relative to Stone Container Mill [a] X (km)	Relative to Stone Container Mill [a] Y (km)	Relative to Stone Container Mill [a] Distance (km)	Relative to Stone Container Mill [a] Direction (deg.)	SO_2 Emissions Rate [b] (TPY)	AAQS and PSD Class II Analysis: Q Emissions Threshold Distance x 20 [c]	AAQS and PSD Class II Analysis: Included in Modeling Analysis?	PSD Class I Analysis: Included in Modeling Analysis?
7770049	Jones Pit Facility	3417.2	657.8	25.0	82.1	85.8	17	2	1716.4	No	No
7770021	#12 Asphalt Plant	3400.7	577.2	-55.6	65.6	86.0	320	56	1719.8	No	No
0770010	Georgia Pacific Corporation - Hosford	3369.5	713.5	80.7	34.4	87.7	67	22	1754.5	No	Yes [f]
0630045	Springhill Regional Landfill	3423.1	650.5	17.7	88.0	89.7	11	8	1794.9	No	No
0630023	Southern States Cooperative, Inc.	3424.9	651.5	18.7	89.8	91.7	12	49	1834.3	No	No
0630014	Gulf Power (Scholz Plant)	3395.8	702.4	69.6	60.7	92.4	49	31,728	1847.0	Yes	No
0630044	Apalachee Correctional Institution	3399.3	703.0	70.2	64.2	95.2	48	9	1903.5	No	No
0390029	Florida Gas Transmission Station 14	3377.4	719.9	87.1	42.3	96.8	64	2	1936.6	No	No
0390004	Florida State Hospital - Chattahoochee	3399.2	707.6	74.8	64.1	98.5	49	729	1970.2	No	No
7770142	Chadbourne Plant 106	3402.2	559.1	-73.7	67.1	99.7	312	23	1993.1	No	No
Beyond 100 km [d]											
0390032	C.W. Roberts Contracting Inc.	3371.4	726.5	93.7	36.3	100.5	69	48	NA	No	No
0910064	Hurlburt Field	3364.7	529.7	-103.1	29.6	107.3	286	43	NA	No	No
0390005	Engelhard Corporation	3387.5	732.6	99.8	52.4	112.7	62	10	NA	No	No
0730003	City of Tallahassee - Hopkins	3371.7	749.5	116.7	36.6	122.3	73	17,428	NA	No	Yes [f]
7770014	Peavy and Son Construction Company	3395.2	742.4	109.6	60.1	125.0	61	98	NA	No	No
0390009	Havana Mills	3394.3	747.1	114.3	59.2	128.7	63	3	NA	No	No
0730065	National Linen Service	3368.3	759.0	126.2	33.2	130.5	75	23	NA	No	No
0730009	Physical Plant	3368.9	760.5	127.7	33.8	132.1	75	31	NA	No	No
7770064	Woodville Plant	3361.6	762.8	130.0	26.5	132.7	78	21	NA	No	No
1290003	Primex Technologies, Ordance & Tactical	3342.1	767.6	134.8	7.0	135.0	87	245	NA	No	No
1290005	St. Marks Terminal	3338.4	769.3	136.5	3.3	136.5	89	66	NA	No	No
1290001	City of Tallahassee S.O.Purdom Plant	3340.0	769.5	136.7	4.9	136.8	88	5,414	NA	No	Yes [f]

Table 3-3. Summary of SO_2 Facilities Considered for Inclusion in the AAQS, PSD Class II, and PSD Class I Modeling Analyses

Facility ID Number	Facility	UTM Coordinates North (km)	UTM Coordinates East (km)	Relative to Stone Container Mill [a] X (km)	Relative to Stone Container Mill [a] Y (km)	Relative to Stone Container Mill [a] Distance (km)	Relative to Stone Container Mill [a] Direction (deg.)	SO_2 Emissions Rate [b] (TPY)	AAQS and PSD Class II Analysis: Q Emissions Threshold Distance x 20 [c]	AAQS and PSD Class II Analysis: Included in Modeling Analysis?	PSD Class I Analysis: Included in Modeling Analysis?
0730034	Mitchell Brothers Inc.	3372.1	766.2	133.4	37.0	138.4	74	86	NA	No	No
1130015	DBA Santa Rosa Asphalt & Materials Inc.	3384.0	493.8	-139.0	48.9	147.4	289	14	NA	No	No
7774806	Milton Plant	3385.1	493.7	-139.1	50.0	147.8	290	36	NA	No	No
1130037	Florida Gas Transmission Station 12	3419.6	510.8	-122.0	84.5	148.4	305	4	NA	No	No
1130003	Sterling Fibers, Inc.	3380.2	489.2	-143.6	45.1	150.5	287	1	NA	No	No
1130004	Air Products and Chemicals Inc.	3383.4	487.0	-145.8	48.3	153.6	288	4	NA	No	No
0330132	Freeport-McMoran Sulphur, L.L.C.	3363.2	480.0	-152.8	28.1	155.4	280	3	NA	No	No
0330060	Coastal Fuels Marketing, Inc.	3363.4	479.6	-153.2	28.3	155.8	280	47	NA	No	No
0330067	Main Street WWTP	3363.7	478.9	-153.9	28.6	156.6	281	15	NA	No	No
0330122	Hudsco, Inc.	3375.8	480.8	-152.0	40.7	157.4	285	50	NA	No	No
7775030	Compression Coat, Inc.	3363.4	476.1	-156.7	28.3	159.2	280	11	NA	No	No
0330045	Gulf Power Co. (Crist Plant)	3381.4	478.3	-154.5	46.3	161.3	287	173,865	NA	No	No
1130014	Blackjack Creek	3412.7	488.8	-144.0	77.6	163.6	298	129	NA	No	No
0330040	Solutia Inc.	3385.0	476.0	-156.8	49.9	164.5	288	8,844	NA	No	No
7775008	Group III Asphalt, Inc.	3375.9	469.9	-162.9	40.8	167.9	284	49	NA	No	No
0330248	Specialty Minerals, Inc.	3374.6	469.6	-163.2	39.5	168.0	284	3	NA	No	No
1130043	Group III Asphalt, Inc.	3375.9	469.6	-163.2	40.8	168.2	284	30	NA	No	No
0330042	Pensacola Mill	3385.8	469.0	-163.8	50.7	171.5	287	4,433	NA	No	No
1130005	St Regis Treating Facility and Jay Gas Plant	3425.6	482.8	-150.0	90.5	175.2	301	9,859	NA	No	No
7770068	Sunbelt Resources, Inc.	3374.1	452.0	-180.8	39.0	185.0	282	22	NA	No	No

NA= Not applicable

Table 3-3. Summary of SO_2 Facilities Considered for Inclusion in the AAQS, PSD Class II, and PSD Class I Modeling Analyses

									AAQS and PSD Class II Analysis		PSD Class I Analysis
		UTM Coordinates		Relative to Stone Container Mill [a]				SO_2 Emissions	Q Emissions		
Facility ID Number	Facility	North (km)	East (km)	X (km)	Y (km)	Distance (km)	Direction (deg.)	Rate [b] (TPY)	Threshold Distance x 20 [c]	Included in Modeling Analysis?	Included in Modeling Analysis?

[a] The SCC Mill is located at UTM Coordinates: North 3335.1 km
East 632.8 km

[b] Sources with emissions less than 1 TPY not considered in screening analysis.

[c] Based on the North Carolina Screening Threshold method, source is included in the modeling analysis if the product of Distance x 20 < emission rate for sources located up to 100 km away from SCC Mill.

[d] For the AAQS and PSD Class II increment analyses, SIA= significant impact area based on the significant impact distance for the project.
For the Nos. 3 and 4 Combination Boilers, the significant impact distances are predicted to be 24 and 22 km, respectively. For these analyses, the SIA of 24 km is used.
"Modeling Area" is the area in which the Project is predicted to have a significant impact. EPA recommends that all sources within this area be modeled.
"Screening Area" is the area that is 50 km beyond but within 100 km of the modeling area. EPA recommends that sources be modeled that are expected to have a significant impact in the modeling area.
"Beyond Screening Area out to 100 km" is the area beyond the screening area and out to 100 km in which only large sources are included in the modeling.
"Beyond 100 km" area is the area beyond 100 km from the SCC Mill in which PSD sources are included in the PSD Class I modeling analysis.

[e] Distance from SCC Mill to Arizona Chemical Company obtained from Arizona Chemical Co. plot plan.

[f] Source modeled because the source is a PSD source located within 200 km of the PSD Class I area.

Table 3-4. Summary of Background SO_2 Sources Modeled for Determining Compliance with AAQS and PSD Increments

Facility ID Number	Facility	Units	ISC-PRIME ID Name	UTM Coordinates North (km)	UTM Coordinates East (km)	Relative to SSCM X (km)	Relative to SSCM Y (km)	Stack Parameters Height (m)	Stack Parameters Diameter (m)	Stack Parameters Temper. (K)	Stack Parameters Velocity (m/s)	Emission Rate (g/s)	PSD Source? (EXP/CON/ NA)	Modeled in Analysis for AAQS	Modeled in Analysis for Class II	Modeled in Analysis for Class I
0050001	Arizona Chemical Company															
		Boiler #1	ARIZCHM1	3335.40	633.10	0.08	0.07	30.5	1.22	510.9	22.75	17.64	NA	Yes	No	No
		Boiler #2	ARIZCHM2					30.5	1.22	466.5	17.64	17.64	NA	Yes	No	No
0050062	Granger Asphalt Paving, Inc.															
		Source #1	GRANGE1	3340.28	628.09	-4.71	5.18	8.5	3.05	405.4	2.57	7.14	NA	Yes	No	No
0050008	Gulf Asphalt Corporation															
		Source #1	GULFASP1	3343.70	634.90	2.10	8.60	7.6	1.22	327.6	11.4	7.44	NA	Yes	No	No
0050038	Triangle Construction Road Building Inc.															
		Source #1	TRICON1	3347.00	638.80	6.00	11.90	10.7	1.01	349.8	14.25	3.62	NA	Yes	No	No
0050014	Gulf Power															
		Lansing Smith Units 1 and 2	GULFPW12	3349.10	625.20	-7.60	14.00	60.7	5.49	441.0	31.30	3258.20	NA	Yes	No	No
		Peaking Turbines	GULFPWPK					10.1	4.18	922.0	36.90	34.50	NA	Yes	No	No
0050031	Bay County Energy Systems															
		Boilers No. 1 and 2	BAYENRGY	3348.90	644.00	11.20	13.80	38.1	1.37	477.6	17.50	9.02	CON	Yes	Yes	Yes
0450005	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	3299.00	662.80	30.00	-36.10	30.5	2.38	367.6	2.25	3.10	EXP	No	Yes	Yes
		Recovery Boiler #5						38.1	2.56	460.9	14.81	32.29				
		Recovery Boiler #6						38.1	2.56	394.3	2.94	32.26				
		Recovery Boiler #7						61.0	5.33	429.8	9.10	22.06				
			FCPRB567	3299.00	662.80	30.00	-36.10	38.1	2.56	394.3	9.10	86.61	EXP	No	Yes	Yes
0770010	Georgia Pacific Corporation (Hosford)															
		Dryers 1 & 2	GPHOS1	3369.50	713.50	80.70	34.40	39.6	2.59	399.3	15.31	0.85	CON	No	No	Yes
		Panel Press	GPHOS2					30.5	2.18	340.9	18.46	0.001	CON	No	No	Yes
		Thermal Oil System	GPHOS10					42.0	1.68	644.3	6.35	0.005	CON	No	No	Yes
0630014	Gulf Power Co.(Scholz Plant)															
		Units 1 & 2 (ESP)	SCH12	3395.80	702.40	69.60	60.70	45.7	4.11	438.7	12.19	912.74	NA	Yes	No	No
1290001	City of Tallahassee S.O.Purdom Plant															

Table 3-4. Summary of Background SO_2 Sources Modeled for Determining Compliance with AAQS and PSD Increments

Facility ID Number	Facility	Units	ISC-PRIME ID Name	UTM Coordinates North (km)	UTM Coordinates East (km)	Relative to SSCM X (km)	Relative to SSCM Y (km)	Stack Parameters Height (m)	Stack Parameters Diameter (m)	Stack Parameters Temper. (K)	Stack Parameters Velocity (m/s)	Emission Rate (g/s)	PSD Source? (EXP/CON/ NA)	Modeled in Analysis for AAQS	Modeled in Analysis for Class II	Modeled in Analysis for Class I
		Unit No. 2	TALPUR2	3339.97	769.50	136.70	4.87	26.0	1.95	478.0	5.89	-39.88	EXP	No	No	Yes
		Unit No. 3	TALPUR3					26.0	1.95	478.0	5.89	-39.88	EXP	No	No	Yes
		Unit No. 4	TALPUR4					26.0	1.95	478.0	5.89	-39.88	EXP	No	No	Yes
		Unit No. 5	TALPUR5					38.1	3.96	447.0	7.23	-104.04	EXP	No	No	Yes
		Unit No. 6	TALPUR6					38.1	3.96	447.0	7.23	-104.04	EXP	No	No	Yes
		Unit No. 7	TALPUR7					54.9	2.74	422.0	14.44	-68.92	EXP	No	No	Yes
		Unit No. 8	TALPUR8					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
0730003	City of Tallahassee A.B.Hopkins Plant															
		Unit No. 1	TALHOP1	3371.70	749.53	116.73	36.60	61.0	3.35	400.0	21.11	-227.59	EXP	No	No	Yes
		Unit No. 2	TALHOP2					76.2	4.27	533.0	22.60	410.76	CON	No	No	Yes

Note: EXP= expansion; CON= consumption; NA= not applicable

Table 3-5. SCC Mill Building Structures Considered in the Air Modeling Analysis

Structure	Height		Length		Width	
	ft	m	ft	m	ft	m
Recovery Boilers 1+2 (upper tier) [a]	173	52.73	100	30.5	92	28.0
Recovery Boilers 1+2 (lower tier) [a]	66	20.26	134	40.8	112	34.1
Recovery Boiler Building's ESPs 1+2 [b]	214	65.23	100	30.5	53	16.2
Bleach Plant	71	21.64	123	37.5	78	23.8
Engineering & Maintenance	35	10.67	315	96.0	55	16.9
Offices/Storeroom	35	10.67	361	110.2	54	16.5
White Liquor Clarifier Tanks	29	8.69	199	60.8	90	27.4
Pulp Mill	83	25.30	352	107.4	193	59.0
Paper Mill	40	12.19	1,396	425.7	235	71.8
Combination Boilers Building	83	25.30	97	29.7	140	42.7
Recovery Boiler Cooling Tower (R)	38	11.58	75	23.0	63	19.1
Pulp Mill Cooling Tower (P)	38	11.58	75	23.0	63	19.1
ClO_2 Cooling Tower (C)	31	9.45	50	15.3	33	9.9
ClO_2 Building	81	24.71	95	29.1	50	15.3
Power Boiler 6 Building[c]	150	45.72	35	10.5	53	16.0

Note: For a multiple-shaped structure, the length and width are based on the portion of the structure that has the maximum length or width. Length based on plant axis from southwest to northeast (40 degrees clockwise from north); width based on plant axis from northwest to southeast.

[a] Structures were modeled separately in two tiers but considered to be a single solid structure.

[b] Structures were modeled as a single solid structure having the height and width of the ESPs and the length of the upper tier of the recovery boilers.

[c] Existed during SO_2 baseline (1974) only.

Table 3-6. Property Boundary Receptors Used in the Air Modeling Analysis

Receptor	Distance X (m)	Distance Y (m)	Receptor	Distance X (m)	Distance Y (m)
1	-224.3	382.8	35	-454.2	-603.4
2	-124.3	382.8	36	-487.7	-622.4
3	-76.8	330.4	37	-487.7	-522.4
4	-33.0	274.1	38	-559.6	-534.5
5	48.4	254.6	39	-643.6	-588.9
6	53.1	154.7	40	-727.5	-643.2
7	15.4	71.3	41	-814.1	-688.4
8	60.6	4.4	42	-897.5	-743.7
9	121.5	26.7	43	-990.0	-775.9
10	159.5	39.9	44	-1084.8	-754.8
11	171.5	-34.4	45	-1164.0	-695.1
12	207.0	-6.8	46	-1238.6	-629.5
13	266.1	43.6	47	-1309.1	-558.6
14	315.3	116.5	48	-1379.6	-487.7
15	414.0	120.7	49	-1328.7	-450.5
16	476.2	82.2	50	-1234.1	-420.9
17	478.0	-17.8	51	-1151.2	-365.3
18	479.9	-117.8	52	-1061.6	-320.8
19	481.7	-217.8	53	-972.0	-276.4
20	483.6	-317.7	54	-887.2	-248.9
21	485.4	-417.7	55	-820.8	-320.5
22	487.3	-517.7	56	-721.8	-328.0
23	489.1	-617.7	57	-634.7	-283.0
24	478.9	-697.4	58	-538.8	-259.6
25	390.4	-653.5	59	-460.6	-236.6
26	291.3	-664.7	60	-438.9	-149.3
27	192.8	-681.6	61	-423.7	-148.8
28	93.6	-691.2	62	-335.9	-158.5
29	-6.4	-689.4	63	-277.2	-89.6
30	-103.8	-670.3	64	-234.2	-0.4
31	-200.1	-643.4	65	-239.6	93.0
32	-288.4	-599.6	66	-179.0	172.5
33	-363.6	-537.7	67	-188.0	263.9
34	-454.2	-503.4	68	-223.1	356.5

Note: Distances are relative to the air modeling origin location, which is the easternmost corner of the Combination Boilers' Building.

Table 3-7. Receptor Locations at the St. Marks and Bradwell Bay National Wilderness Areas Used in the PSD Class I Modeling Analyses

Receptor No.	UTM Coordinates (km) East	North	Receptor No.	UTM Coordinates (km) East	North	Receptor No.	UTM Coordinates (km) East	North
St. Marks NWA (Western Portion)			50	771.000	3,332.000	100	784.000	3,336.183
1	769.660	3,334.380	51	773.000	3,330.500	101	783.000	3,336.171
2	770.000	3,333.480	52	774.000	3,330.500	102	791.646	3,336.585
3	770.420	3,332.920	53	771.000	3,336.000	103	791.439	3,338.244
4	771.060	3,332.350	54	773.000	3,336.000	104	789.431	3,338.305
5	771.850	3,332.110	55	774.000	3,336.000	105	791.300	3,332.259
6	772.100	3,332.710	56	775.000	3,335.000	106	791.300	3,331.469
7	772.380	3,332.160	57	775.000	3,334.000	107	790.443	3,338.299
8	772.230	3,331.440	58	775.000	3,333.000	108	791.258	3,335.786
9	771.570	3,331.050	59	776.000	3,333.000			
10	771.450	3,330.530	60	776.000	3,331.000	St. Marks NWA (Eastern Portion)-		
11	771.700	3,330.220	61	778.000	3,333.500	Thoms Island		
12	772.420	3,329.810	62	779.000	3,334.000	109	744.700	3,322.400
13	773.350	3,329.870	63	789.000	3,333.000	110	745.400	3,321.400
14	774.000	3,330.230	64	794.368	3,328.455	111	746.500	3,321.400
15	774.270	3,331.020	65	778.372	3,332.269	112	747.100	3,320.500
16	774.100	3,330.040	66	778.883	3,332.191	113	746.400	3,319.900
17	774.740	3,330.480	67	779.661	3,332.675	114	746.200	3,318.800
18	775.370	3,330.910	68	780.388	3,332.580	115	745.600	3,318.000
19	776.140	3,331.240	69	780.743	3,332.364	116	745.200	3,319.200
20	776.220	3,331.880	70	781.219	3,332.425	117	745.200	3,320.400
21	776.490	3,332.400	71	781.868	3,332.952	118	744.100	3,321.500
22	776.440	3,333.010	72	782.335	3,332.987	119	744.700	3,321.000
23	777.370	3,332.250	73	782.984	3,333.471	120	744.700	3,321.700
24	770.000	3,338.000	74	783.192	3,333.359	121	745.400	3,321.000
25	770.000	3,336.000	75	783.936	3,333.489	122	745.400	3,322.000
26	772.000	3,336.000	76	784.585	3,333.627	123	746.000	3,319.500
27	772.000	3,333.000	77	785.173	3,333.203	124	746.000	3,320.500
28	772.000	3,331.000	78	785.597	3,333.748	125	746.000	3,321.200
29	775.000	3,333.000	79	786.159	3,333.645			
30	775.000	3,331.000	80	787.000	3,333.750	Bradwell Bay NWA		
31	777.000	3,333.000	81	788.000	3,333.219	126	728.000	3,343.000
32	770.200	3,339.000	82	782.000	3,335.390	127	728.000	3,341.000
33	770.200	3,338.000	83	781.000	3,335.268	128	731.000	3,343.000
34	770.200	3,337.200	84	780.000	3,333.939	129	731.000	3,341.000
35	774.400	3,336.100	85	789.500	3,331.512	130	731.000	3,338.000
36	770.400	3,333.000	86	791.098	3,330.375	131	733.000	3,343.000
37	768.900	3,337.600	87	790.098	3,330.847	132	733.000	3,341.000
38	769.100	3,336.800	88	794.098	3,329.274	133	733.000	3,338.000
39	768.800	3,338.400	89	793.098	3,329.183	134	733.000	3,336.000
40	769.300	3,338.800	90	792.098	3,329.606	135	733.000	3,333.000
41	769.800	3,339.100	91	791.244	3,330.549	136	736.000	3,346.000
42	768.755	3,338.411	92	791.305	3,333.366	137	736.000	3,343.000
43	769.098	3,338.713	93	790.915	3,335.000	138	736.000	3,341.000
44	769.399	3,338.902	94	791.342	3,337.159	139	736.000	3,338.000
45	769.717	3,339.105	95	789.000	3,337.914	140	736.000	3,336.000
46	770.257	3,339.219	96	788.000	3,337.182	141	738.000	3,343.000
47	769.200	3,336.000	97	787.000	3,336.476	142	738.000	3,341.000
48	769.700	3,335.000	98	786.000	3,336.415	143	741.000	3,341.000
49	770.000	3,334.000	99	785.000	3,336.244			

Note: SCC Mill's UTM East and North coordinates are 632.8 and 3,335.1 km, respectively.
km= kilometer

Table 3-8. Estimated SO_2 Background Concentrations using 2002 and 2003 Monitoring Data from Pensacola

Averaging Period	Monitor	Rank	Measured Concentration [a] 2002 ppb	2002 ug/m^3	2003 ppb	2003 ug/m^3	Number of Background Observations [b] (TotalObservations) 2002	2003
3-hour	Ellyson Industrial Park (12033-0004-01)	1st	29.0	75.9	37.0	96.8	988 (2,920)	714 (2,184)
		2nd	28.3	74.1	33.0	86.3		
		3rd	23.0	60.2	30.0	78.5		
		4th	20.0	52.3	28.0	73.2		
	University Parkway (12033-0022-01)	1st	68.0	177.9	96.5	252.4 [c]	213 (2,920)	487 (2,184)
		2nd	56.5	147.8	85.7	224.1		
		3rd	37.0	96.8	70.7	184.9 [c] malfunction		
		4th	33.3	87.2	49.3	129.0		
24-hour	Ellyson Industrial Park (12033-0004-01)	1st	4.56	11.9	3.44	9.0	91 (365)	91 (273)
		2nd	3.96	10.4	2.56	6.7		
		3rd	3.73	9.8	2.55	6.7		
		4th	3.33	8.7	2.4	6.3		
	University Parkway (12033-0022-01)	1st	6.55	17.1	14.7	38.3	11 (365)	58 (273)
		2nd	3.45	9.0	10.2	26.8 [c]		
		3rd	2.81	7.4	9.0	23.4 malfunction		
		4th	2.00	5.2	2.5	6.5		
3-hour	SO_2 Background [d]	2nd	56.5	147.8	85.7	129.0		
24-hour	SO_2 Background [d]	2nd	4.0	10.4	10.2	23.4		

[a] Based on concentrations that were measured in 2002 and through September 2003 when the wind direction at the Ellyson Industrial Park monitor was outside of a wind direction sector of 90 degrees that was centered on the monitor located downwind from Gulf Power Company's Crist Power Plant (defined as the source impact sector). The source impact sector for each monitor relative to the Crist Power Plant is as follows:

Monitor	Source Impact Sector (degrees)
Ellyson Industrial Park	290 to 20
University Parkway	293 to 23

[b] Based on the observations that met criteria of minumum of 3 and 18 valid observations for the 3- and 24-hour averaging periods, respectively, and concentrations were greater than zero.

[c] Eliminated from background consideration due to likely influence from the Crist Power Plant or apparent malfunction of the SO_2 monitor.

[d] Based on the highest of the 2nd highest concentrations measured at the two monitors.

Note: Estimated SO_2 background concentrations using 1999 monitoring data from Pensacola from previous modeling analyses:

Averaging Period	Rank	ppb	ug/m^3
3-hour	2nd	40.5	105.9
24-hour	2nd	10.1	26.5

4.0 AIR MODEL RESULTS

4.1 PSD CLASS II SIGNIFICANT MPACT ANALYSIS

The maximum SO_2 and NO_2 concentrations predicted for the No. 3 Combination Boiler and No. 4 Combination Boiler only for comparison to the PSD Class II significant impact levels are presented in Table 4-1. Because the CCA project's SO_2 impacts are predicted to be above the PSD Class II significant impact levels, additional modeling analyses are required to be performed to address compliance with AAQS and PSD Class II increments. Since the project's NO_2 impacts are predicted to be less than the PSD Class II significant impact levels, additional modeling analyses are not required.

The summaries of the ISC-PRIME results and example input files are presented in Appendix E.

4.2 PSD CLASS I SIGNIFICANT IMPACT ANALYSIS

The maximum SO_2 and NO_2 concentrations predicted for the No. 3 Combination Boiler and No. 4 Combination Boiler for the PSD Class I significant impact analysis at the Bradwell Bay NWA and St. Marks NWA are presented in Table 4-2. The maximum 3-hour and 24-hour average SO_2 impacts are predicted to be above the PSD Class I significant impact levels, therefore requiring additional modeling analyses to address compliance with the SO_2 PSD Class I increments. The maximum annual average NO_2 impacts are predicted be less than the PSD Class I significant impact levels. Therefore additional modeling analyses are not required to address compliance with the NO_2 PSD Class I increments.

$SO_2 > SIG$

$NO_2 < SIG$ ✓

An example of the CALPUFF model input file is presented in Appendix E.

4.3 AAQS IMPACT ANALYSIS

The maximum 3-hour, 24-hour and annual SO_2 concentrations predicted for the modeled AAQS sources for the screening analysis are presented in Table 4-3. Based on the results of the screening analyses, refined modeling analyses were performed. The refined modeling results are added to the measured non-modeled background concentration to produce a cumulative total air quality concentration that can be compared with the AAQS. A summary of the results of the refined AAQS analysis is presented in Table 4-4. All maximum impacts were predicted to occur at or near the SCC property boundary.

From the refined analyses, the maximum total SO_2 concentrations with the proposed SO_2 emission increase for the No. 3 Combination Boiler are predicted to be 956, 234, and 58.8 $\mu g/m^3$ for the 3-hour, 24-hour and annual averaging times, respectively. The maximum total SO_2 concentrations with the proposed SO_2 emission increase for the No. 4 Combination Boiler are predicted to be 943, 231, and 58.5 $\mu g/m^3$ for the 3-hour, 24-hour and annual averaging times, respectively. These concentrations are all below the AAQS of 1,300; 260, and 60 $\mu g/m^3$ for the respective averaging times.

The summaries of the ISC-PRIME results and example input files are presented in Appendix E.

4.4 PSD CLASS II INCREMENT ANALYSIS

The maximum 3-hour, 24-hour and annual SO_2 concentrations predicted for the modeled PSD Class II sources for the screening analysis are presented in Table 4-5. A summary of the results of the refined PSD Class II increment consumption analysis is presented in Table 4-6. Similar to the AAQS analysis, all maximum impacts were predicted to occur at or near the SCC property boundary.

From the refined analyses, the maximum total SO_2 concentrations with the proposed SO_2 emission increase for the No. 3 Combination Boiler are predicted to be 353, 66.5, and 6.5 $\mu g/m^3$ for the 3-hour, 24-hour and annual averaging times, respectively. The maximum total SO_2 concentrations with the proposed SO_2 emission increase for the No. 4 Combination Boiler are predicted to be 352, 62.2, and 6.3 $\mu g/m^3$ for the 3-hour, 24-hour and annual averaging times, respectively. These concentrations are below the allowable PSD Class II increments of 512, 91, and 20 $\mu g/m^3$, for the 3-hour, 24-hour, and annual averaging times, respectively.

The summaries of the ISC-PRIME results and example input files are presented in Appendix D.

4.5 PSD CLASS I INCREMENT ANALYSIS

The maximum 3-hour and 24-hour SO_2 concentrations predicted for the modeled PSD Class I sources are presented in Table 4-7. The maximum total SO_2 concentrations with the proposed SO_2 emission increase for the No. 3 Combination Boiler are predicted to be 14.6 and 2.46 $\mu g/m^3$ for the 3-hour and 24-hour averaging times, respectively. The maximum total SO_2 concentrations with the proposed SO_2 emission increase for the No. 4 Combination Boiler are predicted to be the same as those for the

No. 3 Combination Boiler scenario. These concentrations are below the allowable PSD Class I increments of 25 and 5 $\mu g/m^3$ for the 3-hour and 24-hour averaging times, respectively.

4.6 CONCLUSIONS

Based on the results of the air quality modeling analyses, the maximum SO_2 and NO_2 concentrations due to the proposed increases in SO_2 and NO_x emissions from the Nos. 3 and 4 Combination Boilers, together with those from other air emission sources, will comply with all applicable AAQS and PSD increments.

Table 4-1. Maximum Change in SO_2 and NO_2 Concentrations Predicted for No. 3 Combination Boiler and No. 4 Combination Boiler-Significant Impact Analysis

Pollutant	Averaging Time	Concentration[a] ($\mu g/m^3$)	Receptor Location[b] Direction (deg)	Receptor Location[b] Distance (m)	Time Period (YYMMDDHH)	EPA Significant Impact Level ($\mu g/m^3$)
Emissions Increase for No. 3 Combination Boiler						
SO_2	Annual	2.55	320.0	1,100.0	86123124	1
		2.29	300.0	1,100.0	87123124	
		3.44	300.0	1,500.0	88123124	
		3.13	310.0	1,500.0	89123124	
		4.67	300.0	1,500.0	90123124	
	24-hour	31.7	320.0	1,100.0	86051024	5
		40.1	300.0	1,100.0	87032424	
		32.8	141.6	787.9	88112824	
		30.5	300.0	1,500.0	89021524	
		42.9	300.0	1,500.0	90052624	
	3-hour	99.8	300.0	800.0	86041912	25
		117	300.0	800.0	87031715	
		93.3	320.0	800.0	88072012	
		111	310.0	1,100.0	89072615	
		112	300.0	1,100.0	90072012	
NO_2	Annual	0.14	320.0	1,100.0	86123124	1
		0.13	300.0	1,100.0	87123124	
		0.19	300.0	1,500.0	88123124	
		0.17	310.0	1,500.0	89123124	
		0.26	300.0	1,500.0	90123124	
Emissions Increase for No. 4 Combination Boiler						
SO_2	Annual	2.12	310.0	1,500.0	86123124	1
		2.19	300.0	1,500.0	87123124	
		3.36	300.0	1,500.0	88123124	
		2.96	310.0	1,500.0	89123124	
		4.58	300.0	1,500.0	90123124	
	24-hour	22.9	130.7	640.4	86012724	5
		36.5	290.0	1,500.0	87111624	
		30.2	300.0	1,500.0	88032924	
		24.9	310.0	1,100.0	89060124	
		40.1	300.0	1,500.0	90052624	
	3-hour	90.7	300.0	800.0	86032512	25
		106	300.0	800.0	87031715	
		105	330.0	800.0	88091715	
		106	310.0	1,100.0	89072615	
		107	300.0	1,100.0	90072012	
NO_2	Annual	0.12	310.0	1,500.0	86123124	1
		0.12	300.0	1,500.0	87123124	
		0.19	300.0	1,500.0	88123124	
		0.16	310.0	1,500.0	89123124	
		0.25	300.0	1,500.0	90123124	

Note: YY = Year; MM = Month; DD = Day; HH = Hour.

[a] Concentrations are predicted using five years of surface meteorological data from the National Weather Service (NWS) stations at Pensacola Regional Airport (1986 to 1987) and Apalachicola (1988 to 1990) and five years of upper air meteorological data from the NWS station at Apalachicola (1986 to 1990).

[b] Relative to modeling origin located at the eastern most corner of the Combination Boilers' building.

Table 4-2. Maximum Change in SO_2 and NO_2 Concentrations Predicted for No. 3 Combination Boiler and No. 4 Combination Boiler-PSD Class I Significant Impact Analysis at the St. Marks and Bradwell Bay NWA

Averaging Time	Concentration [B52] ($\mu g/m^3$)	Receptor UTM Location (km) East	Receptor UTM Location (km) North	Time Period [b] (Year, Julian Day, Ending Hour)			Proposed EPA Class I Significant Impact Level ($\mu g/m^3$)
SO_2 Concentrations							
A. Emissions Increase for No. 3 Combination Boiler							
Annual	0.016	728.0	3,343.0	1990	364	2300	0.1
	0.021	728.0	3,341.0	1992	362	2300	
	0.020	728.0	3,341.0	1996	365	2400	
24-hour	0.285	745.6	3,318.0	1990	95	2300	0.2
	0.360	745.6	3,318.0	1992	59	2300	
	0.400	728.0	3,341.0	1996	307	2400	
3-hour	0.95	728.0	3,343.0	1990	162	200	1.0
	1.19	728.0	3,341.0	1992	211	200	
	1.24	728.0	3,341.0	1996	306	600	
B. Emissions Increase for No. 4 Combination Boiler							
Annual	0.016	728.0	3,343.0	1990	364	2300	0.1
	0.021	728.0	3,341.0	1992	362	2300	
	0.020	728.0	3,341.0	1996	365	2400	
24-hour	0.285	745.6	3,318.0	1990	95	2300	0.2
	0.358	745.6	3,318.0	1992	59	2300	
	0.386	728.0	3,341.0	1996	307	2400	
3-hour	0.98	728.0	3,343.0	1990	162	200	1.0
	1.28	733.0	3,341.0	1992	211	500	
	1.24	728.0	3,341.0	1996	306	600	
NO_2 Concentrations							
A. Emissions Increase for No. 3 Combination Boiler							
Annual	0.00043	728.0	3,343.0	1990	364	2300	0.1
	0.00057	728.0	3,341.0	1992	362	2300	
	0.00055	728.0	3,341.0	1996	365	2400	
B. Emissions Increase for No. 4 Combination Boiler							
Annual	0.00043	728.0	3,343.0	1990	364	2300	0.1
	0.00058	728.0	3,341.0	1992	362	2300	
	0.00055	728.0	3,341.0	1996	365	2400	

Note: UTM = Universal Transverse Mercator.

[a] Based on the CALPUFF model using 1990, 1992, and 1996 surface and upper air meteorological data developed with the CALMET program. UTM coordinates relative to Zone 16.

[b] The 1990 and 1992 meteorological data started on hour 0000 and ended on hour 2300.
The 1996 meteorological data started on hour 0100 and ended on hour 2400.
The number of days available for each year varied based on the available meteorological data.

Table 4-3. Maximum Predicted SO2 Impacts For Comparison to AAQS- Screening Analyses

Rank and Averaging Time	Concentration ($\mu g/m^3$) [a] Total	Modeled Sources	Background	Receptor Location[b] Direction (deg)	Distance (m)	Time Period (YYMMDDHH)	AAQS ($\mu g/m^3$)
Emissions Increase for No. 3 Combination Boiler							
Highest Annual	44.3	20.7	23.6 [c]	320	1100	86123124	60
	45.0	21.4	23.6	300	1500	87123124	
	49.3	25.7	23.6	300	1500	88123124	
	47.2	23.6	23.6	310	1100	89123124	
	56.9	33.3	23.6	300	1500	90123124	
HSH 24-Hour	198	175	23.6	130	1100	86012624	260
	201	177	23.6	300	800	87031724	
	163	139	23.6	310	1100	88052924	
	183	159	23.6	140	800	89022324	
	211	187	23.6	300	1100	90052524	
HSH 3-Hour	792	642	150	300	1,100	86060412	1,300
	956	806	150	300	1,100	87011724	
	772	622	150	310	1,100	88050315	
	909	759	150	310	1,100	89090615	
	817	668	150	300	1,100	90031215	
Emissions Increase for No. 4 Combination Boiler							
Highest Annual	43.6	20.0	23.6	320	1100	86123124	60
	44.9	21.3	23.6	300	1500	87123124	
	49.2	25.6	23.6	300	1500	88123124	
	47.0	23.4	23.6	310	1100	89123124	
	56.8	33.2	23.6	300	1500	90123124	
HSH 24-Hour	195	171	23.6	130	1100	86012624	260
	214	191	23.6	290	1100	87120724	
	161	138	23.6	310	1100	88052924	
	178	154	23.6	150	1500	89022324	
	208	185	23.6	300	1500	90060124	
HSH 3-Hour	785	635	150	300	1,100	86060412	1,300
	943	793	150	300	1,100	87011724	
	777	627	150	330	1,100	88080612	
	899	749	150	310	1,100	89090615	
	811	662	150	300	1,100	90031215	

Note: YYMMDDHH = Year, Month, Day, Hour Ending
HSH = Highest, Second-Highest

[a] Concentrations are predicted using five years of surface meteorological data from the National Weather Service (NWS) stations at Pensacola Regional Airport (1986 to 1987) and Apalachicola (1988 to 1990) and five years of upper air meteorological data from the NWS station at Apalachicola (1986 to 1990).

[b] Relative to modeling origin located approximately 0.41 m to the west and 5.91 m to the north of the No.1 Smelt Dissolving Tank.

[c] As a conservative estimate of the annual average background concentration, the 24-hour average background concentration was used.

13,000 to 15,000 N
10,000 to 12,500 E

SC 695-8364 X 1226
Kevin White
Bay County RRF

Table 4-4. Maximum Predicted SO_2 Impacts For Comparison to AAQS- Refined Analyses

Rank and Averaging Time	Concentration ($\mu g/m^3$) Total	Modeled Sources	Background	Receptor Location Direction (deg)	Distance (m)	Time Period (YYMMDDHH)	AAQS ($\mu g/m^3$)
Emissions Increase for No. 3 Combination Boiler							
Highest Annual	58.8	35.2	23.6	304	1300	90123124	60
HSH 24-Hour	198	175	23.6	130	1200	86012624	260
	225	201	23.6	302	1400	87031824	
	234	211	23.6	302	1400	90060124	
HSH 3-Hour	956	806	150	300	1,100	87011724	1,300
	911	762	150	314	1,000	89060115	
Emissions Increase for No. 4 Combination Boiler							
Highest Annual	58.5	34.9	23.6	304	1300	90123124	60
HSH 24-Hour	196	172	23.6	130	1200	86012624	260
	222	198	23.6	302	1400	87031824	
	231	207	23.6	302	1400	90060124	
HSH 3-Hour	943	793	150	300	1,100	87011724	1,300
	902	753	150	314	1,000	89072615	

Note: YYMMDDHH = Year, Month, Day, Hour Ending
HSH = Highest, Second-Highest

Table 4-5. Maximum Predicted SO_2 Impacts For Comparison to the PSD Class II Increments- Screening Analyses

Rank and Averaging Time	Concentration ($\mu g/m^3$) [a] Modeled Sources	Receptor Location [b] Direction (deg)	Distance (m)	Time Period (YYMMDDHH)	PSD Class II Increment ($\mu g/m^3$)
Emissions Increase for No. 3 Combination Boiler					
Highest Annual	2.6	300	1100	86123124	20
	2.7	300	1100	87123124	
	4.3	300	1100	88123124	
	3.6	300	1100	89123124	
	5.8	300	1100	90123124	
HSH 24-Hour	30.1	300	1500	86020324	91
	37.0	300	1100	87092724	
	39.4	300	1100	88050224	
	52.1	310	800	89060124	
	62.7	300	1100	90060124	
HSH 3-Hour	323	300	800	86060412	512
	324	300	800	87032403	
	332	300	1,500	88080218	
	350	310	800	89032712	
	332	300	800	90080515	
Emissions Increase for No. 4 Combination Boiler					
Highest Annual	2.6	300	1100	86123124	20
	2.6	300	1100	87123124	
	4.3	300	1100	88123124	
	3.6	300	1100	89123124	
	5.8	300	1100	90123124	
HSH 24-Hour	29.1	300	1500	86020324	91
	35.6	300	1100	87092724	
	39.8	300	1100	88050224	
	52.6	310	800	89060124	
	60.0	300	1100	90060124	
HSH 3-Hour	311	300	800	86060412	512
	315	300	800	87060912	
	335	300	1,500	88080218	
	351	310	800	89032712	
	330	300	800	90080515	

Note: YYMMDDHH = Year, Month, Day, Hour Ending
HSH = Highest, Second-Highest

[a] Concentrations are predicted using five years of surface meteorological data from the National Weather Service (NWS) stations at Pensacola Regional Airport (1986 to 1987) and Apalachicola (1988 to 1990) and five years of upper air meteorological data from the NWS station at Apalachicola (1986 to 1990).

[b] Relative to modeling origin located at the eastern most corner of the Combination Boilers' building.

Table 4-6. Maximum Predicted SO_2 Impacts For Comparison to the PSD Class II Increments- Refined Analyses

Rank and Averaging Time	Concentration ($\mu g/m^3$) Modeled Sources	Receptor Location Direction (deg)	Receptor Location Distance (m)	Time Period (YYMMDDHH)	PSD Class II Increment ($\mu g/m^3$)
Emissions Increase for No. 3 Combination Boiler					
Highest Annual	6.3	302	1100	90123124	20
HSH 24-Hour	66.1	302	1100	90060124	91
HSH 3-Hour	353	310	900	89060115	512
Emissions Increase for No. 4 Combination Boiler					
Highest Annual	6.1	302	1100	90123124	20
HSH 24-Hour	61.8	302	1100	90060124	91
HSH 3-Hour	351	310	800	89032712	512

Note: YYMMDDHH = Year, Month, Day, Hour Ending
HSH = Highest, Second-Highest

Table 4-7. Maximum Predicted SO_2 Impacts For Comparison to the PSD Class I Increments at the St. Marks and Bradwell Bay NWA

Rank and Averaging Time	Concentration [a] ($\mu g/m^3$)	Receptor UTM Location (km) East	Receptor UTM Location (km) North	Time Period [b] (Year, Julian Day, Ending Hour)			PSD Class I Increment ($\mu g/m^3$)
Emissions Increase for No. 3 Combination Boiler							
HSH 24-Hour	2.46	741.0	3,341.0	1990	283	2300	5
	1.55	736.0	3,343.0	1992	131	2300	
	1.64	728.0	3,341.0	1996	135	2400	
HSH 3-Hour	14.1	741.0	3,341.0	1990	135	800	25
	8.5	768.8	3,338.4	1992	152	800	
	10.1	769.1	3,338.7	1996	343	900	
Emissions Increase for No. 4 Combination Boiler							
HSH 24-Hour	2.46	741.0	3,341.0	1990	283	2300	5
	1.55	736.0	3,343.0	1992	131	2300	
	1.64	728.0	3,341.0	1996	135	2400	
HSH 3-Hour	14.1	741.0	3,341.0	1990	135	800	25
	8.5	768.8	3,338.4	1992	152	800	
	10.1	769.1	3,338.7	1996	343	900	

Note: UTM = Universal Transverse Mercator.
HSH = Highest, Second-Highest

[a] Based on the CALPUFF model using 1990, 1992, and 1996 surface and upper air meteorological data developed with the CALMET program. UTM coordinates relative to Zone 16.

[b] The 1990 and 1992 meteorological data started on hour 0000 and ended on hour 2300.
The 1996 meteorological data started on hour 0100 and ended on hour 2400.
The number of days available for each year varied based on the available meteorological data.

used to be 5km spacing

4km spacing

1996 ISHWO is worst yr
07/1996 After went to ASOS
NOAA lost 1/3 of cloud cover in nation

5.0 REFERENCES

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APPENDIX A

ISC-PRIME APPROVAL LETTER FROM EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

DEC 3 2001

DEC 20 2001

4APT-APB

Mr. A. A. Linero
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399

Re: ISC-PRIME Model for
Stone Container Corporation, Panama City Mill

Dear Mr. Linero:

This letter is in response to your request that the U.S. Environmental Protection Agency (EPA) document their approval of the use of the ISC-PRIME model to assess the ambient air quality impacts associated with the proposed modification to the Stone Container Corporation Panama City Mill in Panama City, Florida.

We have reviewed the documentation supplied in support of the use of the non-Guideline model ISC-PRIME [i.e., a model not currently recommended in EPA's Guideline on Air Quality Models (40 CFR 51, Appendix W)]. Based on EPA's technical and performance evaluations, ISC-PRIME has been found to be superior to the current guideline ISCST3 model. ISC-PRIME has, therefore, been proposed as a guideline model to replace ISCST3. Based on the following, we believe ISC-PRIME to be an appropriate and acceptable model to be used to estimate ambient air quality impacts for the proposed Stone Container modifications: 1) applicant's supporting documentation showing ISC-PRIME to be applicable and superior to ISCST3 in this application; 2) ISC-PRIME's technically superiority to the EPA guideline ISCST3 model; 3) ISC-PRIME better performance than ISCST3 in comparisons with observations; and 4) performance evaluations that show that ISC-PRIME is not significantly biased toward under-estimation of maximum concentrations.

We therefore approve the use of the ISC-PRIME model for the assessment of air quality impacts from the proposed modifications to Stone Container Corporation's Panama City Mill. In accordance with EPA's division of responsibilities with respect to the use of alternative non-Guideline models (Appendix W; Section 3.2), this approval by EPA Region 4 is a case-specific approval and should not be construed to imply approval for applications of ISC-PRIME to other projects. Although EPA's Office of Air Quality Planning and Standards has proposed generic approval of the ISC-PRIME model as a guideline model, incorporation into Appendix W is not expected until early next year.

Please note that this case-specific approval of ISC-PRIME for application to this permit revision must be included in all public notices so the public has an opportunity to comment and request a public hearing on this matter.

If you have any questions, or if we can be of further assistance, please contact Stan Krivo of my staff at 404/561-9123.

Sincerely,

Kay T. Prince

Kay T. Prince
Chief
Air Planning Branch
Air, Pesticides and Toxics
Management Division

cc: David A. Buff, Golder Associates Inc.
Cleve Holladay, FL DEP

APPENDIX B

CALPUFF MODEL DESCRIPTION AND METHODOLOGY

B.0 CALPUFF MODEL DESCRIPTION AND METHODOLOGY

B.1 INTRODUCTION

As part of the new source review requirements under Prevention of Significant Deterioration (PSD) regulations, new major sources or major modifications to those sources are required to address air quality impacts at PSD Class I areas. As part of the PSD analysis report submitted to the Florida Department of Environmental Protection (DEP), the air quality impacts due to the potential emissions of the proposed Stone Container Corporation (SCC) Project are required to be addressed at the PSD Class I areas of the Bradwell Bay and St. Marks National Wilderness Areas (NWA). The Bradwell Bay and St. Marks NWA are located approximately 96 and 112 km, respectively, east of the SCC plant and are the only PSD Class I areas within 200 km of the plant.

This evaluation is concerned with determining compliance with the allowable PSD Class I increments. Compliance with PSD Class I increments can be evaluated by determining if the source's impacts are less than the proposed U.S. Environmental Protection Agency (EPA) Class I significant impact levels. The significant impact levels are threshold levels that are used to determine the type of air impact analyses needed for the facility. If the new or modified source's impacts are predicted to be less than significant, then the source's impacts are assumed not to have a significant adverse affect on air quality and additional modeling with other sources is not required. However, if the source's impacts are predicted to be greater than the significant impact levels, additional modeling with other sources is required to demonstrate compliance with Class I increments.

Currently there are several air quality modeling approaches recommended by the Interagency Workgroup on Air Quality Models (IWAQM) to perform these analyses. The IWAQM consists of EPA and Federal Land Managers (FLM) of Class I areas who are responsible for ensuring that AQRVs are not adversely impacted by new and existing sources. These recommendations have been summarized in two documents:

- *Interagency Workgroup on Air Quality Models (IWAQM), Phase 2 Summary Report and Recommendations for Modeling Long Range Transport Impacts* (EPA, 1998), referred to as the IWAQM Phase 2 report.
- *Federal Land Managers' Air Quality Related Values Workgroup (FLAG), Phase I Report,* USFS, NPS, USFWS (12/00), referred to as the FLAG document.

For the Project, air quality analyses were performed that assess the Project's impacts in the PSD Class I areas of the St. Marks and Bradwell Bay NWA using the refined modeling approach from the IWAQM Phase 2 report for SO_2 and NO_2 PSD Class I increment analysis.

The refined analysis approach was used instead of the screening analysis approach since the air quality impacts are based on generally more realistic assumptions, include more detailed meteorological data, and are estimated at locations at the Class I area.

B.2 GENERAL AIR MODELING APPROACH

The general modeling approach was based on using the long-range transport model, California Puff model (CALPUFF, Version 5.7). At distances beyond 50 km, the ISCST3 model is considered to over-predict air quality impacts, because it is a steady-state model. At those distances, the CALPUFF model is recommended for use. The DEP has requested that air quality impacts for a source located more than 50 km from a Class I area be predicted using the CALPUFF model.

The methods and assumptions used in the CALPUFF model were based on the latest recommendations for a refined analysis as presented in the IWAQM Phase 2 Summary Report and the FLAG documents.

The following sections present the methods and assumptions used to assess the pollutant impacts for the Proposed Project.

B.3 MODEL SELECTION AND SETTINGS

The CALPUFF air modeling system was used to model to assess the Proposed Project's impacts at the PSD Class I area for comparison to the PSD Class I significant impact levels. CALPUFF is a non-steady state Lagrangian Gaussian puff long-range transport model that includes algorithms for building downwash effects as well as chemical transformations (important for visibility controlling pollutants), and wet/dry deposition. The CALPUFF meteorological and geophysical data preprocessor (CALMET, Version 5.5), a preprocessor to CALPUFF, is a diagnostic meteorological model that produces a three-dimensional field of wind and temperature and a two-dimensional field of other meteorological parameters. CALMET was designed to process raw meteorological, terrain and land-use databases to be used in the air modeling analysis. The CALPUFF modeling system uses a number of FORTRAN preprocessor programs that extract data from large databases and converts the data into formats suitable for input to CALMET. The processed data produced from CALMET

was input to CALPUFF to assess the pollutant specific impact. Both CALMET and CALPUFF were used in a manner that is recommended by the IWAQM Phase 2 and FLAG reports.

B.3.1 CALPUFF MODEL APPROACHES AND SETTINGS

The IWAQM has recommended approaches for performing a Phase 2 refined modeling analyses that are presented in Table B-1. These approaches involve use of meteorological data, selection of receptors and dispersion conditions, and processing of model output.

The specific settings used in the CALPUFF model are presented in Table B-2.

B.3.2 EMISSION INVENTORY AND BUILDING WAKE EFFECTS

The CALPUFF model included the Project's emission, stack, and operating data as well as 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 input. The PSD Analysis Report presents a listing of the facility's emissions and structures included in the analysis.

B.4 RECEPTOR LOCATIONS

For the refined analyses for addressing compliance with the PSD Class I increments, pollutant concentrations were predicted in an array of 125 discrete receptors located at the St. Marks NWA and an additional 18 discrete receptors located at the Bradwell Bay NWA. The St. Marks receptors include 108 covering the eastern section of the NWA and 17 receptors covering the western section of Thoms Island.

B.5 METEOROLOGICAL DATA

B.5.1 REFINED ANALYSIS

CALMET was used to develop the gridded parameter fields required for the refined modeling analyses. The follow sections discuss the specific data used and processed in the CALMET model.

B.5.2 CALMET SETTINGS

The CALMET settings contained in Table B-3 were used for the refined modeling analysis.

B.5.3 MODELING DOMAIN

A rectangular modeling domain extending 532 km in the east-west (x) direction and 300 km in the north-south (y) direction was used for the refined modeling analysis. The southwest corner of the rectangle, the origin of the modeling domain, is located at 29.25 N degrees latitude and 87.5 W degrees longitude. This location is in the Gulf of Mexico approximately 190 km south of the Alabama-Florida border. For the processing of meteorological and geophysical data, the domain contains 133 grid cells in the x-direction and 75 grid cells in the y-direction. The domain grid resolution is 4 km. The air modeling analysis was performed in the UTM coordinate system and based on Zone 16.

B.5.4 MESOSCALE MODEL – GENERATION 4 AND 5 (MM4/MM5) DATA

Pennsylvania State University in conjunction with the NCAR Assessment Laboratory developed the MM4 and MM5 datasets, prognostic wind fields or "guess" fields, for the United States. The hourly meteorological variables used to create these datasets (wind, temperature, dew point depression, and geopotential height for eight standard levels and up to 15 significant levels) are extensive and have been developed for the MM4 data for 1990 and the MM5 data for 1992, and 1996. The analysis used the MM4 and MM5 data to initialize the CALMET wind field. The 1990 MM4 and 1992 MM5 data have horizontal spacing of 80 km while the 1996 MM5 data have horizontal spacing of 36 km. These data are used to simulate atmospheric variables within the modeling domain.

The 1990 MM4 and 1992 MM5 subsets consisted of an 11 x 8- cell rectangle, 80-km resolution extending from the grid points (44,12) to (54,19). These data were processed to create MM4.DAT or MM5.DAT files for input to the CALMET model. The 1996 MM5 subset consisted of an 20 x 16-cell rectangle, 36-km resolution extending from the grid points (113,29) to (132,44). These data were processed to create a MM5.DAT file for input to the CALMET model. The 1990 MM4 data were obtained from the National Climatic Data Center, while the 1992 and 1996 MM5 data were obtained from the National Park Service.

The MM4 and MM5 data set used in the CALMET, although advanced, lacks the fine detail of specific temporal and spatial meteorological variables and geophysical data. These variables were processed into the appropriate format and introduced into the CALMET model through the additional data files obtained from the following sources.

B.5.5 SURFACE DATA STATIONS AND PROCESSING

The surface station data processed for the CALPUFF analyses consisted of data from up to eight available NWS stations or Federal Aviation Administration (FAA) Flight Service stations for Jacksonville, Gainesville, Pensacola and Tallahassee, Florida; Columbus, and Macon, Georgia; and Mobile and Montgomery, Alabama. For 1996 only, an additional six surface stations were included from Integrated Surface Hourly (ISH) data for secondary and military airports. A summary of the surface station information and locations are presented in Table B-4. The surface station parameters include wind speed, wind direction, cloud ceiling height, opaque cloud cover, dry bulb temperature, relative humidity, station pressure, and a precipitation code that is based on current weather conditions. The surface station data were processed into CALMET input using the utility program SMERGE.

Because the modeling domain extends largely over water, C-Man station data from Cape San Blas, Florida were obtained. These data were processed into an over-water surface station format (i.e., SEA*.DAT) for input to CALMET. The over-water station data include wind direction, wind speed and air temperature.

B.5.6 UPPER AIR DATA STATIONS AND PROCESSING

The analysis included up to four available upper air NWS stations located in Apalachicola, Tallahassee, and Ruskin, Florida; Waycross, Georgia; and Centerville, Alabama. Data for each station were processed into CALMET input format using the utility program READ62. The data and locations for the upper air stations are presented in Table B-4.

B.5.7 PRECIPITATION DATA STATIONS AND PROCESSING

Precipitation data were processed from a network of hourly precipitation data files collected from primary and secondary NWS precipitation-recording stations located within the latitude and longitudinal limits of the modeling domain. Data for up to 57 stations were obtained in NCDC TD-3240 variable format and converted into a fixed-length format. The utility programs PXTRACT and PMERGE were then used to process the data into the format for the PRECIP.DAT file that is used by CALMET. A listing of the precipitation stations used for the modeling analysis is presented in Table B-5.

B.5.8 GEOPHYSICAL DATA PROCESSING

Terrain elevations for each grid cell of the modeling domain were obtained from 1-degree Digital

Elevation Model (DEM) files obtained from the U.S. Geographical Survey (USGS) internet website. The DEM data was extracted for the modeling domain grid using the utility program TERREL. Land-use data were also extracted from 1-degree USGS files and processed using utility programs CTGCOMP and CTGPROC. Both the terrain and land use files were combined into a GEO.DAT file for input to CALMET with the MAKEGEO utility program.

Table B-1. Refined Modeling Analyses Recommendations [a]

Model Input/Output	Description
Meteorology	Use CALMET (minimum 6 to 10 layers in the vertical; top layer must extend above the maximum mixing depth expected); horizontal domain extends 50 to 80 km beyond outer receptors and sources being modeled; terrain elevation and land-use data is resolved for the situation.
Receptors	Within Class I area(s) of concern; obtain regulatory concurrence on coverage.
Dispersion	1. CALPUFF with default dispersion settings. 2. Use MESOPUFF II chemistry with wet and dry deposition. 3. Define background values for ozone and ammonia for area.
Processing	1. For PSD increments: use highest, second highest 3-hour and 24-hour average SO_2 concentrations; highest, second highest 24-hour average PM_{10} concentrations; and highest annual average SO_2, PM_{10} and NO_x concentrations. 2. For haze: process, on a 24-hour basis, compute the source extinction from the maximum increase in emissions of SO_2, NO_x and PM_{10}; compute the daily relative humidity factor [f(RH)], provided from an external disk file; and compute the maximum percent change in extinction using the FLM supplied background extinction data in the FLAG document. 3. For significant impact analysis: use highest annual and highest short-term averaging time concentrations for SO_2, PM_{10} and NO_x.

[a] IWAQM Phase II report (December, 1998) and FLAG document (December, 2000)

Table B-2. CALPUFF Model Settings

Parameter	Setting
Pollutant Species	SO_2, SO_4, NO_x, HNO_3, NO_3, PM_{10}
Chemical Transformation	MESOPUFF II scheme, hourly ozone data
Deposition	Include both dry and wet deposition, plume depletion
Meteorological/Land Use Input	CALMET
Plume Rise	Transitional, Stack-tip downwash, Partial plume penetration
Dispersion	Puff plume element, PG /MP coefficients, rural mode, ISC building downwash scheme
Terrain Effects	Partial plume path adjustment
Output	Create binary concentration file including output species for SO_4, NO_3, PM_{10}, SO_2, and NO_x; process for visibility change using Method 2 and FLAG background extinctions
Model Processing	For haze: highest predicted 24-hour extinction change (%) for the year For deposition: annual average deposition rate For significant impact analysis: highest predicted annual and highest short-term averaging time concentrations for SO_2, NO_x, and PM_{10}.
Background Values	Ozone: 50 ppb; Ammonia: 1 ppb

[a] Recommended values by the Florida DEP.

Table B-3. CALMET Settings

Parameter	Setting
Grid Southwest Corner	UTM East- 452 km UTM North- 3,236 km UTM Zone- 16
Horizontal Grid Dimensions	532 km by 300 km, 4 km grid resolution
Vertical Grid	10 layers
Weather Station Data Inputs	8 surface, 4 upper air, 57 precipitation stations
Wind model options	Diagnostic wind model, no kinematic effects
Prognostic wind field model	1990 MM4 data and 1992 MM5 data, 80 km resolution; 1996 MM5 data, 36 km resolution; used for wind field initialization
Output	Binary hourly gridded meteorological data file for CALPUFF input

Table B-4 Surface, Overwater, and Upper Air Stations Used in the Refined Modeling Analysis

Station Name	Station Symbol	WBAN Number	UTM Coordinate			Anemometer Height	Time Zone[b]
			Easting (km)	Northing (km)	Zone		
Surface Stations							
Jacksonville, FL	JAX	13889	1012.82 [a]	3374.19	17	6.1	5
Tallahassee, FL	TLH	93805	753.04 [a]	3363.99	16	7.6	5
Tampa, FL	TPA	12842	929.17 [a]	3094.25	17	6.7	5
Columbus, GA	CSG	93842	692.57 [a]	3599.35	16	9.1	5
Macon, GA	MCN	3813	831.58 [a]	3620.93	17	7.0	5
Mobile, AL	MOB	13894	380.26	3394.97	16	10.1	6
Montgomery, AL	MGM	13895	556.50	3573.65	16	7.0	6
Gainesville, FL	GNV	12816	957.43 [a]	3284.16	17	6.7	5
Albany, GA [c]	ALB	13869	767.40 [a]	3492.00	17	10	5
Blountown, FL [c]	CSB	3824	688.80	3372.00	16	10	6
Dothan, AL [c]	DOT	93843	649.20	3436.30	16	10	6
Tyndall AFB, FL [c]	TYN	13846	636.60	3326.80	16	10	6
Valpariso, FL [c]	VAL	3852	530.40	3364.80	16	10	6
Valdosta, GA [c]	VLD	13857	863.00 [a]	3431.90	17	10	5
Overwater Stations							
Cape San Blas, FL	CSBF1	-	659.04	3283.32	16	9.8	6
Upper Air Stations							
Ruskin, FL	TBW	12842	941.95 [a]	3064.55	17	NA	5
Waycross, GA	AYS	13861	946.68 [a]	3457.95	17	NA	5
Tallahassee, FL	TLH	93805	753.04	3363.99	17	NA	5
Centerville, AL	CKL	3881	476.62	3640.04	17	NA	6
Apalachicola, FL	AQQ	12832	690.22 [a]	3290.65	17	NA	5

[a] Equivalent UTM Coordinate for Zone 16

[b] Eastern = 5, Central = 6

[c] Used for 1996 only.

Table B-5. Hourly Precipitation Stations Used in the Refined Modeling Analysis

Station Name	Station Number	UTM Coordinate Easting (km)	Northing (km)	Zone
Florida				
Apalachicola WSO Arpt	80211	691.061	3289.921	16
Blackman	80765	533.424	3427.601	16
Branford	80975	895.606 [a]	3315.955	17
Bristol	81020	693.715	3366.473	16
Cross City 2 WNW	82008	870.268 [a]	3281.754	17
Dowling Park 1 W	82391	863.505 [a]	3348.418	17
Gainesville 11 WNW	83322	935.411 [a]	3284.205	17
Graceville 1 SW	83538	641.703	3424.797	16
Inglis 3 E	84273	922.631 [a]	3211.652	17
Jacksonville WSO AP	84358	1013.427 [a]	3373.634	17
Lynne	85237	989.255 [a]	3230.295	17
Monticello 3 W	85879	800.168 [a]	3381.291	17
Niceville	86240	548.745	3377.572	16
Panacea 3 S	86828	752.453	3319.607	16
Panama City 5 NE	86842	634.754	3343.414	16
Raiford State Prison	87440	965.020 [a]	3326.686	17
Tallahassee WSO AP	88758	754.292	3365.100	16
Wausau	89415	635.756	3391.462	16
Woodruff Dam	89795	704.292	3399.935	16
Alabama				
Abbeville 1 NNW	10008	662.902	3495.325	16
Alberta	10140	459.798	3566.793	16
Andalusia 3 W	10252	545.472	3463.482	16
Atmore State Nursery	10402	458.171	3448.658	16
Auburn Agronomy Farm	10430	640.773	3607.735	16
Dadeville 2	12124	617.060	3633.087	16
Dothan	12377	652.449	3452.663	16
Enterprise 5 NNW	12675	604.606	3472.403	16
Greenville	13519	533.119	3523.197	16
Marion 7 NE	15112	474.872	3618.169	16
Midway	15397	639.828	3549.782	16
Montgomery Dannelly Field	15550	555.790	3573.610	16
Peterman	16370	474.564	3494.634	16
Thorsby Exp Station	18209	530.782	3642.236	16
Troy	18323	597.296	3519.354	16
Georgia				
Abbeville 4 S	90010	861.839 [a]	3535.687	17
Americus Exp Stn Nurs	90258	757.935	3554.581	16
Bainbridge Intl Paper C	90586	724.846	3409.588	16
Brunswick	91340	1032.132 [a]	3448.130	17
Claxton	91973	995.054 [a]	3559.185	17
Columbus Metro Ap	92166	693.300	3599.307	16
Coolidge	92238	806.336	3434.765	17
Doles	92728	806.730 [a]	3510.587	17
Dublin 2	92844	901.605 [a]	3603.714	17
Edison	93028	715.132	3494.426	16
Fargo	93312	930.278 [a]	3396.112	17
Folkston 3 SW	93460	982.591 [a]	3407.519	17
Hamilton 4 W	94033	693.630	3625.258	16
Hazlehurst	94204	930.478 [a]	3528.882	17
Jesup	94671	996.541 [a]	3497.124	17
Lizella	95249	815.936 [a]	3633.385	17
Lumpkin 2 SE	95394	710.020	3545.778	16
Macon Middle GA Reg	95443	831.127 [a]	3619.583	17
Pearson	96879	904.643 [a]	3463.307	17
Sylvania 2 SSE	98517	1022.108 [a]	3621.570	17
The Rock	98657	757.814	3650.455	16
Valdosta 4 NW	98974	856.902 [a]	3416.946	17
West Point	99291	669.434	3638.065	16

[a] Equivalent UTM Easting Coordinate for Zone 16

APPENDIX C

SITE AND MODELING RECEPTORS AND BUILDING LOCATIONS USED IN THE MODELING

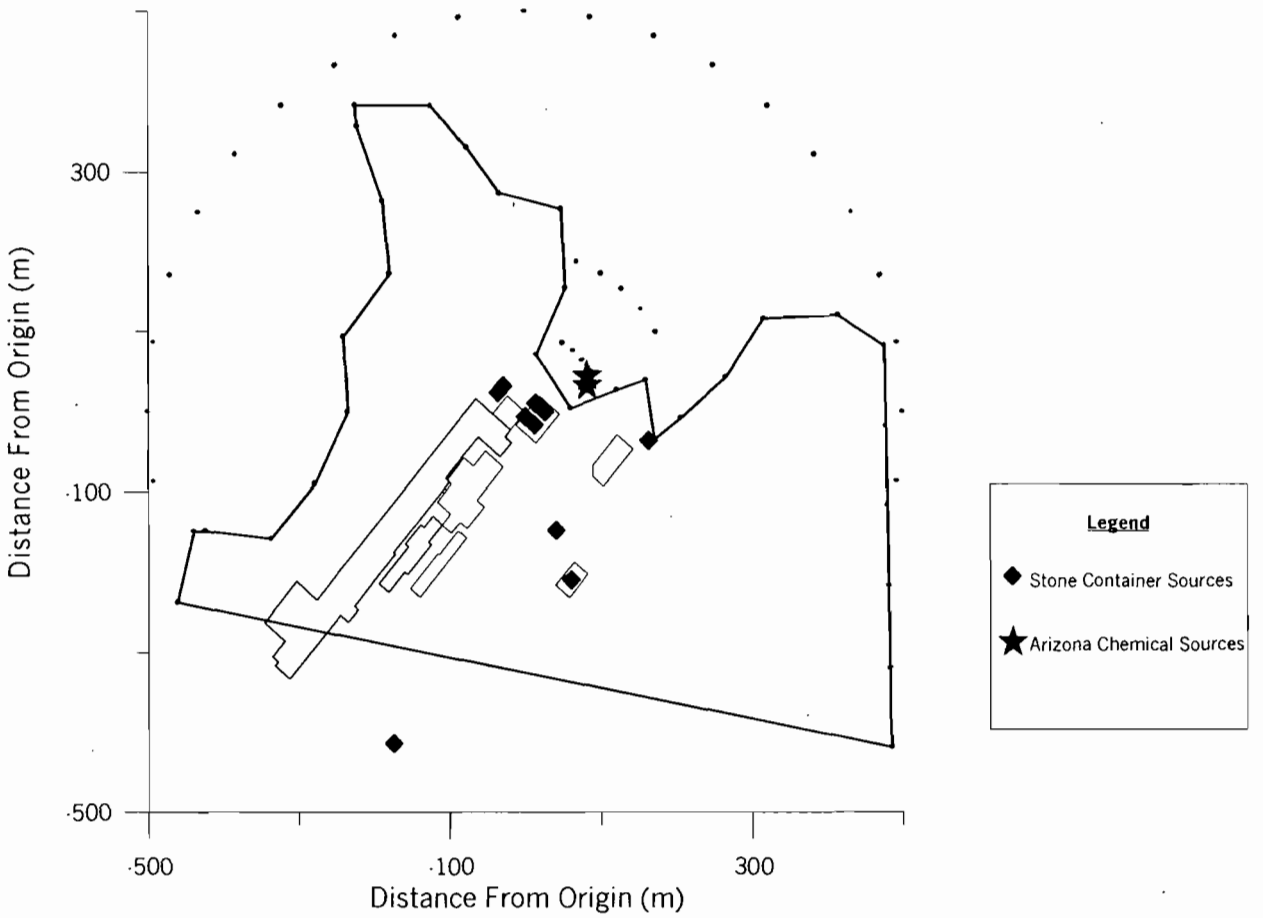


Figure C-1. SCC Panama City Mill Property Boundaries and Receptors
Arizona Chemical Co. and SCC Sources

Source: Golder, 2001.

Golder Associates

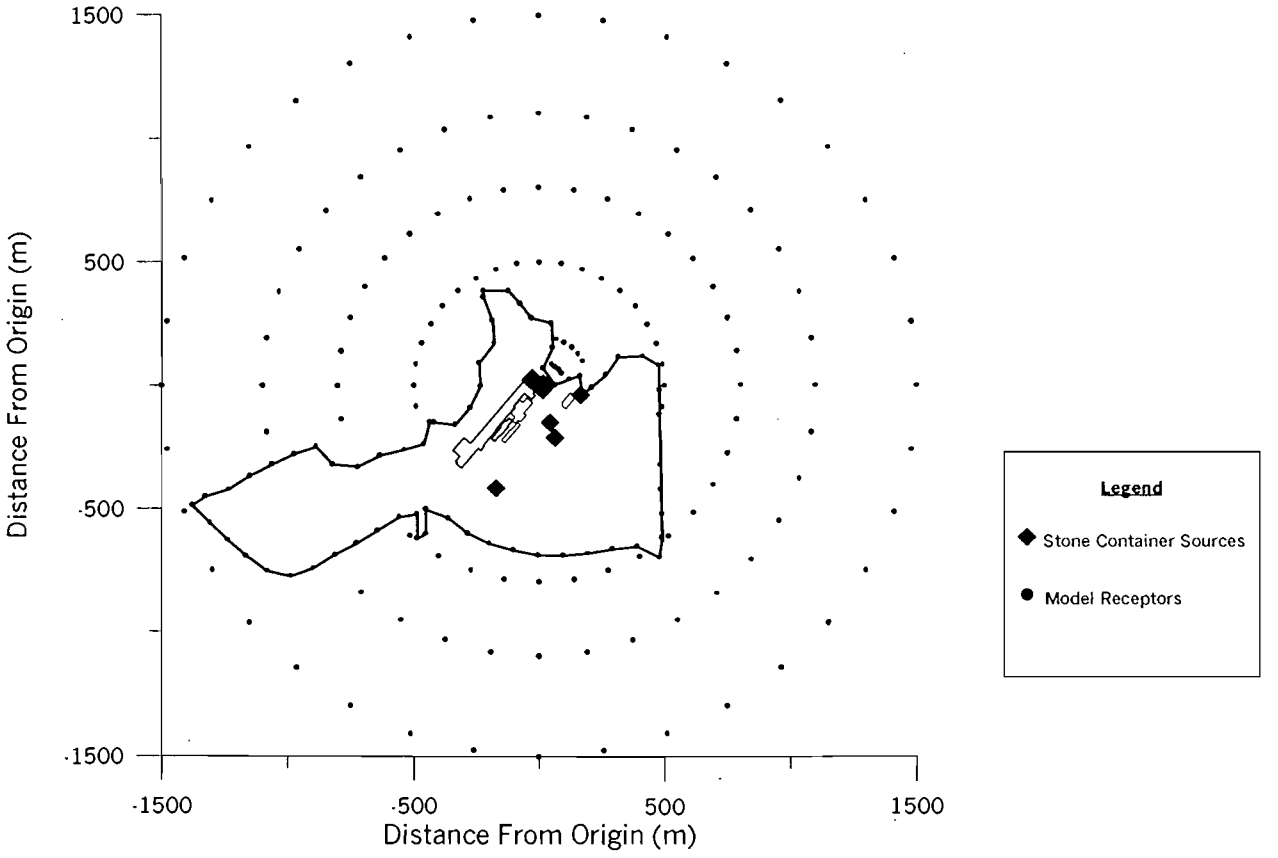


Figure C-2. SCC Panama City Mill Property Boundaries, Receptors, and Sources

Source: Golder, 2001.

Golder Associates

SWF BATH HOUSE

STONE GUARD HOUSE

100-20 #2 FUEL OIL STORAGE

OVERHEAD PITCH STORAGE NO. 5

NO.7 CRUDE TALL OIL STORAGE

DRYER BUILDING (STORAGE)

EU-TO

HOSE HOUSE NO. 17

NO.6 CRUDE TALL OIL STORAGE

HOSE HOUSE NO.29

EU-TR

PIPE

BOILER 1

EU-B1

ARIZONA CHEMICAL CO. WAREHOUSE

OVERHEAD PIPE

HOSE HOUSE NO. 16

D-1

TANK NO.16

TANK NO. 17

STEAM PLANT

EU-B#2

BOILER 2

100-149

100-116

100-117

EU-CTO

100-115

100-112

100-113

100-41B

100-41A

M-401C

M-401A

100-127

M-406B

M-406A

100-123

CRUDE PLANT CONTROL BLDG.

HOSE HOUSE NO. 30

CONTROL BLDG.

600-60

PIPE

600-005

A

B

E

G

20,600

20,550

20,500

20,450

20,400

20,350

20,300

20,225

,350

,400

,450

,500

,550

,600

,650

8,700

18,750

18,800

18,850

18,900

18,950

19,000

19,050

Figure C-3. Arizona Chemical Company Facility Plot Plan

0337592/4/4.2/4.2.1 Modeling Rpt/Figure C-3 Pasteup

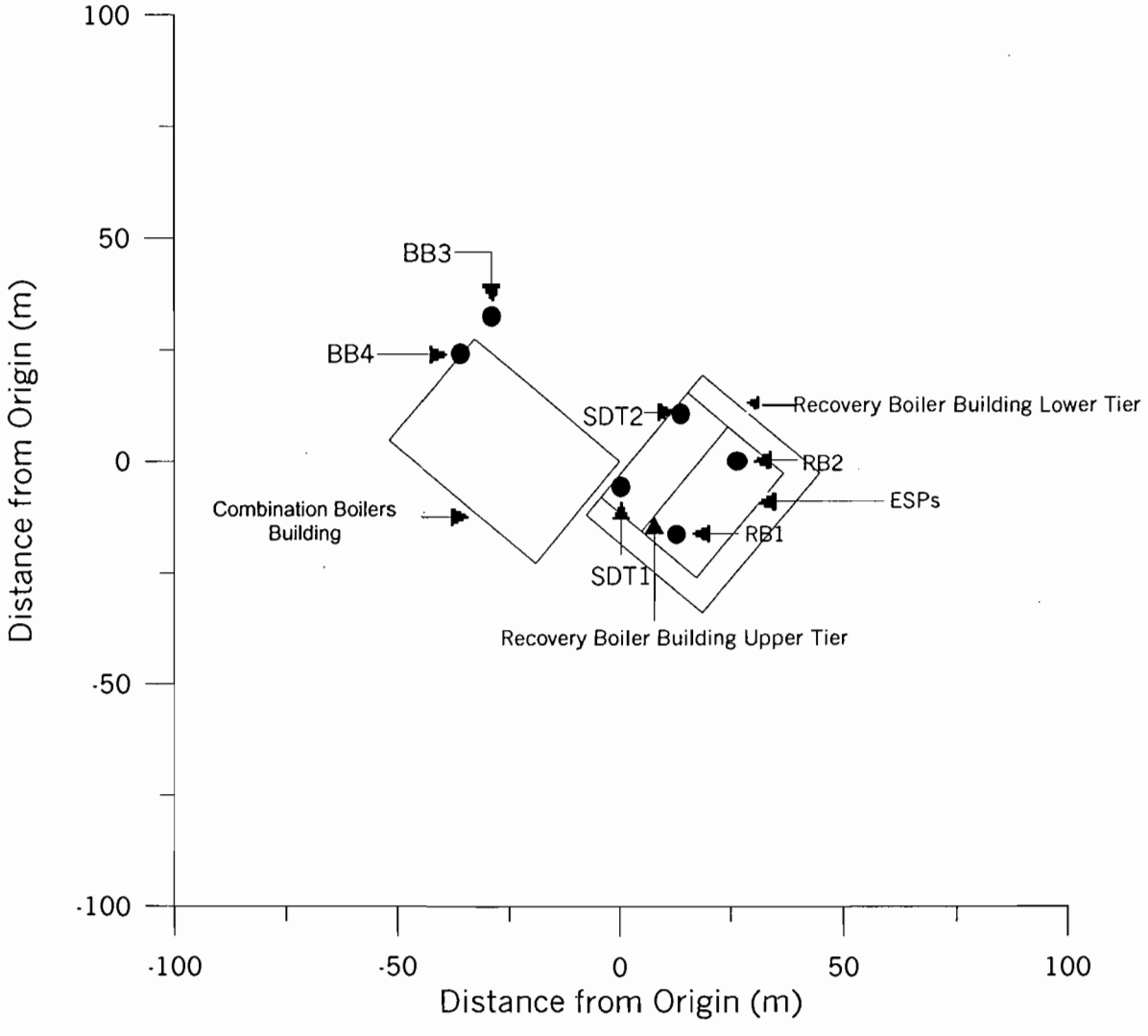
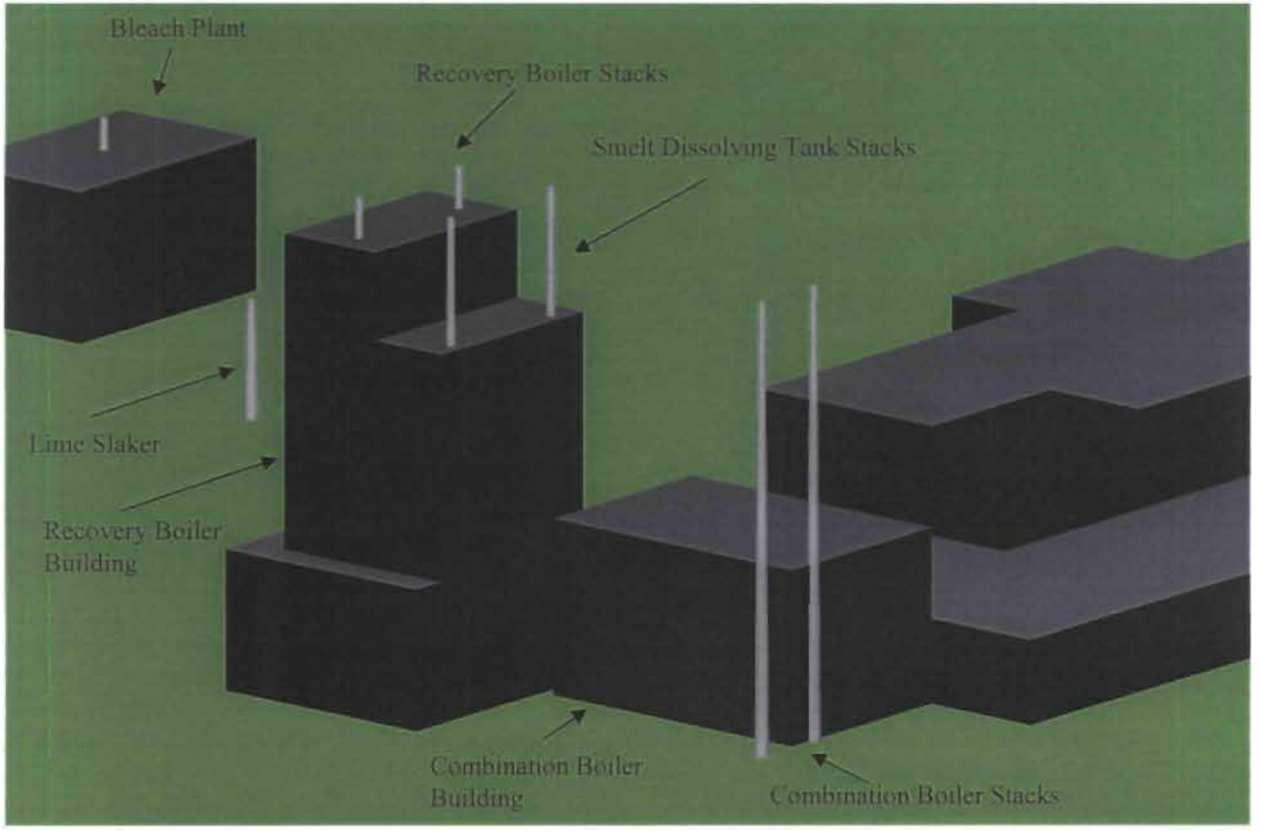


Figure C-4. Plot of Recovery Boilers, Bark Boilers, Smelt Dissolving Tanks, and Nearby Buildings

Source: Golder, 2001.

TITLE:

Figure C-5. Recovery and Combination Boiler With Associated Stacks



COMMENTS:

STACKS:
9

BUILDINGS:
10

COMPANY NAME:
Golder Associates, Inc.

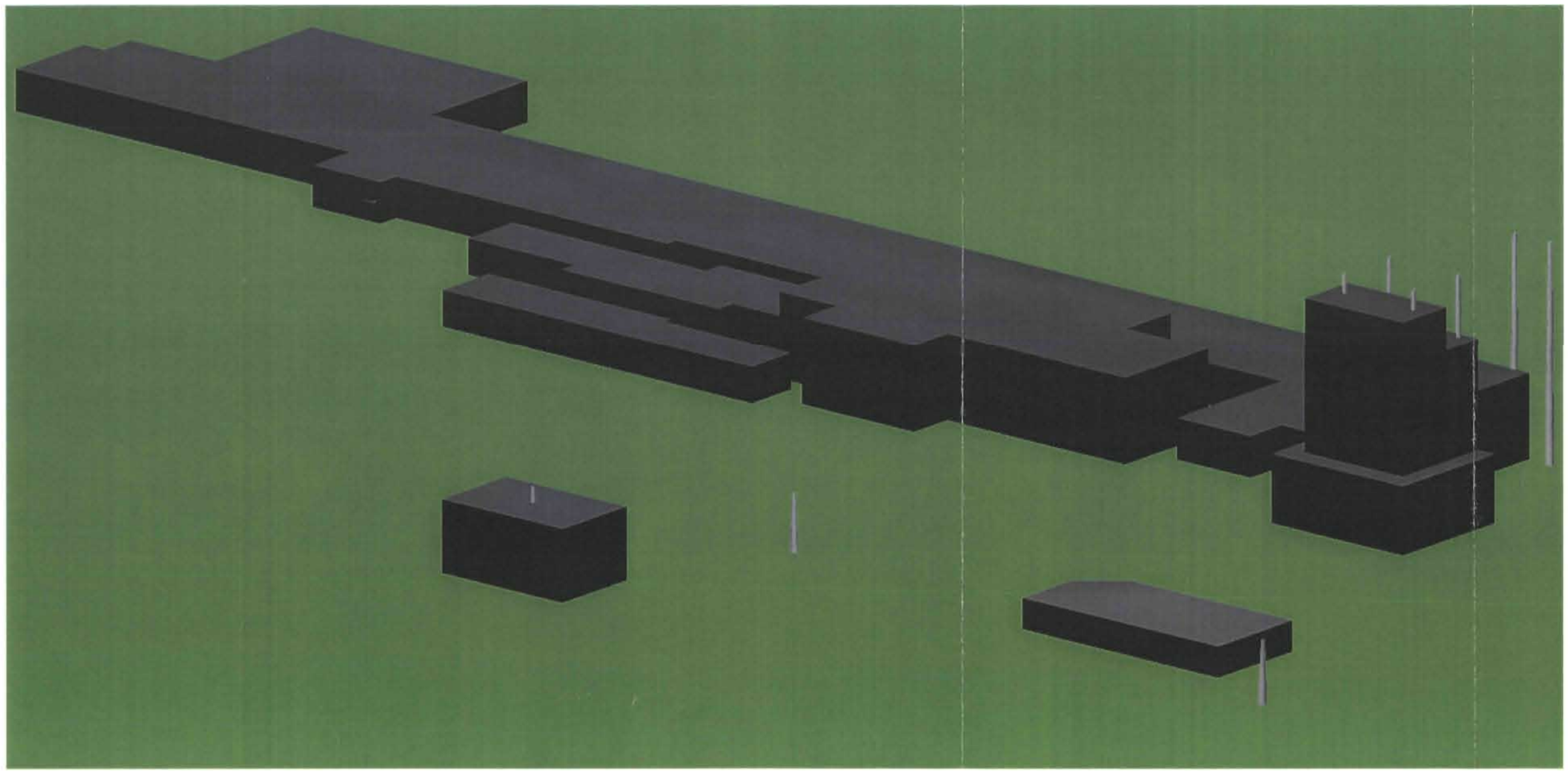
DATE:
2/5/2002

PROJECT NO.:

BPIP 3D View - Lakes Environmental Software

TITLE:

Figure C-6. Facility Layout - Stone Container Corporation, Panama City



BPIP 3D View - Lakes Environmental Software

COMMENTS:

STACKS:

9

BUILDINGS:

10

COMPANY NAME:

Golder Associates, Inc.

DATE:

2/5/2002

PROJECT NO.:

```
'BPIP data for SCC Panama City 4/22/02'
'ST'
'METERS' 1.0
'UTMN'   0.0
14
'RecBlrUT' 1 0.0
4 52.73
-4.16    -8.04
15.43    15.30
36.91    -2.72
17.32   -26.07
'RecBlrLT' 1 0.0
4 20.27
-7.49   -12.01
18.76    19.27
44.91    -2.67
18.66   -33.96
'ESP' 1 0.0
4 65.23
 4.94   -15.69
24.53     7.66
36.91    -2.72
17.32   -26.07
'BleachPlt' 1 0.0
4 21.64
64.75   -187.43
82.96   -202.71
58.87   -231.43
40.65   -216.15
'Eng.&Maint' 1 0.0
6 10.67
-152.07 -220.35
-115.63 -176.92
-113.88 -178.39
-88.6   -148.27
-77.4   -157.68
-139.11 -231.22
'SuptOffSt' 1 0.0
12 10.67
-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 -199.9
-180.54 -225.11
'Wht Liq Clar' 1 0.0
5 8.69
142.97  -46.56
121.96  -28.92
89.63   -67.45
89.87   -81.38
103.88  -93.14
'PulpMill' 1 0.0
14 25.30
-28.39  -68.69
-63.95  -111.07
-54.49  -119
-76.83  -145.62
-86.28  -137.68
-97.45  -150.99
```

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-109.71 -140.71
-98.54  -127.4
-116.41 -112.41
-96.72  -88.94
-102.32 -84.24
-80.28  -57.97
-68.02  -68.26
-51.86  -49
'PaperMill' 1 0.0
22 12.19
-311.97 -332.67
-331.23 -316.51
-327.12 -311.6
-334.82 -305.14
-318.07 -285.18
-345.39 -262.25
-302.48 -211.12
-275.17 -234.04
-65.33  16.03
-19.1   -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 -175.9
-172.01 -177.96
-225.79 -242.05
-221.23 -245.87
-234.75 -261.98
-245.26 -253.17
'BarkBlr' 1 0.0
4 25.30
-32.69  27.43
0       0
-19.1   -22.77
-51.79  4.66
'R Cool Tower' 1 0.0
6 11.58
68.13 -64.66
65.20 -62.20
61.51 -66.60
49.79 -56.77
68.24 -34.78
82.89 -47.08
'P Cool Tower' 1 0.0
6 11.58
  3.19 -142.06
  0.26 -139.60
 -3.19 -143.70
-14.91 -133.87
  3.30 -112.17
 17.95 -124.47
'C Cool Tower' 1 0.0
4 9.45
105.92 -263.74
 98.30 -257.34
108.14 -245.62
115.76 -252.01
'CLO2' 1 0.0
4 24.94
130.50 -243.38
118.77 -233.54
137.46 -211.26
149.19 -221.11
```

```
9
'LK1'     0.0  18.6  163.79  -35.97
'LSKR'    0.0  17.1   41.47 -147.60
'RB1'     0.0  71.0   13.02  -16.49
'SDT1'    0.0  71.0    0.41   -5.91
'RB2'     0.0  71.0   26.73   -0.15
'SDT2'    0.0  71.0   14.12   10.43
'BLEACH'  0.0  26.2   61.52 -209.78
'BB3'     0.0  64.9  -28.57   32.33
'BB4'     0.0  64.9  -35.63   23.93
0
```

BPIP (Dated: 95086)
BPIP data for SCC Panama City 4/22/02

==========
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.

BPIP data for SCC Panama City 4/22/02

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
LK1	18.60	0.00	116.97	116.97
LSKR	17.10	0.00	116.61	116.61
RB1	71.00	0.00	116.98	116.98
SDT1	71.00	0.00	116.97	116.97
RB2	71.00	0.00	116.98	116.98
SDT2	71.00	0.00	116.98	116.98
BLEACH	26.20	0.00	114.85	114.85
BB3	64.90	0.00	115.67	115.67
BB4	64.90	0.00	116.89	116.89

* 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.

BPIP (Dated: 95086)
DATE : 0/ 0/ 0
TIME : 0: 0: 0

BPIP data for SCC Panama City 4/22/02

BPIP output is in meters

SO	BUILDHGT	LK1	0.00	0.00	0.00	0.00	8.69	8.69
SO	BUILDHGT	LK1	8.69	8.69	65.23	65.23	65.23	0.00
SO	BUILDHGT	LK1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	LK1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	LK1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	LK1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LK1	0.00	0.00	0.00	0.00	37.57	46.58
SO	BUILDWID	LK1	54.16	60.10	33.73	34.47	34.16	0.00
SO	BUILDWID	LK1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LK1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LK1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LK1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LK1	0.00	0.00	0.00	0.00	63.06	63.40
SO	BUILDLEN	LK1	61.81	58.34	31.97	29.23	25.61	0.00
SO	BUILDLEN	LK1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LK1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LK1	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LK1	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LK1	0.00	0.00	0.00	0.00	-85.81	-86.72
SO	XBADJ	LK1	-84.99	-80.68	-158.85	-159.96	-156.21	0.00
SO	XBADJ	LK1	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LK1	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LK1	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LK1	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LK1	0.00	0.00	0.00	0.00	13.50	3.73
SO	YBADJ	LK1	-6.15	-15.85	26.76	1.55	-23.71	0.00
SO	YBADJ	LK1	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LK1	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LK1	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LK1	0.00	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	0.00	25.30	25.30	25.30	25.30
SO	BUILDHGT	LSKR	25.30	25.30	25.30	65.23	65.23	52.73
SO	BUILDHGT	LSKR	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	LSKR	0.00	0.00	0.00	0.00	0.00	24.94
SO	BUILDHGT	LSKR	24.94	24.94	21.64	21.64	21.64	21.64
SO	BUILDWID	LSKR	0.00	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	73.13	34.26	33.74	41.07
SO	BUILDWID	LSKR	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LSKR	0.00	0.00	0.00	0.00	0.00	31.30
SO	BUILDWID	LSKR	29.08	31.29	43.36	44.36	44.00	42.31
SO	BUILDLEN	LSKR	0.00	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	71.34	29.23	31.97	41.37
SO	BUILDLEN	LSKR	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LSKR	0.00	0.00	0.00	0.00	0.00	20.13
SO	BUILDLEN	LSKR	15.32	20.13	35.17	39.34	42.31	44.00
SO	XBADJ	LSKR	0.00	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	-188.66	29.23	-155.84	-162.90
SO	XBADJ	LSKR	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LSKR	0.00	0.00	0.00	0.00	0.00	-130.04
SO	XBADJ	LSKR	-129.77	-130.60	-81.30	-84.73	-85.58	-83.83
SO	YBADJ	LSKR	0.00	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	31.93	29.23	3.80	-25.10
SO	YBADJ	LSKR	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LSKR	0.00	0.00	0.00	0.00	0.00	22.78
SO	YBADJ	LSKR	1.61	-19.62	13.30	2.04	-9.29	-20.34
SO	BUILDHGT	RB1	52.73	52.73	52.73	52.73	52.73	52.73

SO	BUILDHGT	RB1	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB1	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	RB1	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	RB1	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB1	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	RB1	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	RB1	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB1	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	RB1	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	RB1	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB1	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	RB1	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	RB1	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB1	16.16	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	RB1	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	RB1	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB1	16.16	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	RB1	-8.69	-7.53	-6.15	-4.57	-7.73	-10.65
SO	XBADJ	RB1	-13.25	-15.45	-8.08	-8.10	-7.87	-7.40
SO	XBADJ	RB1	-6.71	-11.10	-15.16	-18.76	-21.78	-31.79
SO	XBADJ	RB1	-31.73	-30.70	-28.74	-25.90	-27.15	-27.57
SO	XBADJ	RB1	-27.16	-25.92	-23.89	-21.14	-17.74	-13.80
SO	XBADJ	RB1	-9.45	-10.10	-10.45	-10.47	-10.18	-9.58
SO	YBADJ	RB1	-1.37	0.65	2.65	4.57	6.35	7.94
SO	YBADJ	RB1	9.29	10.35	7.28	8.55	9.55	10.26
SO	YBADJ	RB1	10.66	10.74	10.49	9.92	9.05	3.35
SO	YBADJ	RB1	1.37	-0.65	-2.65	-4.57	-6.35	-7.94
SO	YBADJ	RB1	-9.29	-10.35	-7.29	-8.55	-9.55	-10.26
SO	YBADJ	RB1	-10.66	-10.74	-10.49	-9.92	-9.05	-3.35

SO	BUILDHGT	SDT1	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	SDT1	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT1	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	SDT1	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	SDT1	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT1	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	SDT1	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	SDT1	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT1	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	SDT1	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	SDT1	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT1	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	SDT1	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	SDT1	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT1	16.16	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	SDT1	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	SDT1	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT1	16.16	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	SDT1	-16.92	-13.16	-9.00	-4.57	-4.87	-5.02
SO	XBADJ	SDT1	-5.02	-4.87	4.53	6.16	7.60	8.81
SO	XBADJ	SDT1	9.75	5.11	0.31	-4.50	-9.18	-21.21
SO	XBADJ	SDT1	-23.50	-25.07	-25.88	-25.91	-30.01	-33.20
SO	XBADJ	SDT1	-35.39	-36.50	-36.50	-35.39	-33.21	-30.01
SO	XBADJ	SDT1	-25.91	-26.31	-25.91	-24.73	-22.79	-20.16
SO	YBADJ	SDT1	-15.63	-14.82	-13.56	-11.89	-9.86	-7.53
SO	YBADJ	SDT1	-4.97	-2.26	-3.29	0.32	3.92	7.40
SO	YBADJ	SDT1	10.66	13.60	16.12	18.15	19.63	15.97
SO	YBADJ	SDT1	15.63	14.82	13.56	11.89	9.86	7.53
SO	YBADJ	SDT1	4.97	2.26	3.29	-0.32	-3.92	-7.40
SO	YBADJ	SDT1	-10.66	-13.60	-16.12	-18.15	-19.63	-15.96

SO	BUILDHGT	RB2	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	RB2	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB2	65.23	65.23	65.23	65.23	65.23	52.73

SO	BUILDHGT	RB2	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	RB2	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB2	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	RB2	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	RB2	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB2	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	RB2	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	RB2	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB2	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	RB2	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	RB2	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB2	16.16	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	RB2	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	RB2	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB2	16.16	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	RB2	-27.16	-27.58	-27.15	-25.90	-28.73	-30.70
SO	XBADJ	RB2	-31.73	-31.79	-21.79	-18.76	-15.16	-11.10
SO	XBADJ	RB2	-6.71	-7.40	-7.86	-8.09	-8.07	-15.45
SO	XBADJ	RB2	-13.25	-10.65	-7.73	-4.57	-6.15	-7.53
SO	XBADJ	RB2	-8.69	-9.58	-10.18	-10.47	-10.45	-10.10
SO	XBADJ	RB2	-9.45	-13.81	-17.74	-21.14	-23.89	-25.92
SO	YBADJ	RB2	9.29	7.94	6.35	4.57	2.65	0.64
SO	YBADJ	RB2	-1.38	-3.36	-9.06	-9.93	-10.49	-10.74
SO	YBADJ	RB2	-10.67	-10.27	-9.55	-8.55	-7.29	-10.35
SO	YBADJ	RB2	-9.29	-7.94	-6.35	-4.57	-2.65	-0.64
SO	YBADJ	RB2	1.38	3.36	9.06	9.93	10.49	10.74
SO	YBADJ	RB2	10.67	10.27	9.55	8.55	7.29	10.35
SO	BUILDHGT	SDT2	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	SDT2	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT2	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	SDT2	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	SDT2	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT2	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	SDT2	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	SDT2	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT2	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	SDT2	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	SDT2	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT2	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	SDT2	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	SDT2	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT2	16.16	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	SDT2	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	SDT2	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT2	16.16	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	SDT2	-35.39	-33.20	-30.01	-25.90	-25.88	-25.07
SO	XBADJ	SDT2	-23.49	-21.21	-9.18	-4.50	0.31	5.11
SO	XBADJ	SDT2	9.76	8.81	7.60	6.16	4.54	-4.87
SO	XBADJ	SDT2	-5.02	-5.02	-4.87	-4.58	-9.01	-13.16
SO	XBADJ	SDT2	-16.92	-20.16	-22.79	-24.73	-25.91	-26.31
SO	XBADJ	SDT2	-25.91	-30.02	-33.21	-35.39	-36.50	-36.50
SO	YBADJ	SDT2	-4.97	-7.53	-9.86	-11.89	-13.56	-14.82
SO	YBADJ	SDT2	-15.63	-15.97	-19.64	-18.16	-16.12	-13.60
SO	YBADJ	SDT2	-10.67	-7.41	-3.92	-0.32	3.29	2.26
SO	YBADJ	SDT2	4.97	7.53	9.86	11.89	13.56	14.82
SO	YBADJ	SDT2	15.63	15.97	19.63	18.16	16.12	13.60
SO	YBADJ	SDT2	10.67	7.41	3.92	0.32	-3.29	-2.26
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	52.73	52.73	21.64
SO	BUILDHGT	BLEACH	21.64	21.64	21.64	21.64	21.64	21.64
SO	BUILDHGT	BLEACH	21.64	21.64	24.94	24.94	24.94	24.94

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	40.41	41.37	42.31
SO	BUILDWID	BLEACH	39.33	35.16	29.92	23.78	29.93	35.17
SO	BUILDWID	BLEACH	39.34	42.31	32.12	32.84	32.56	31.30
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	39.52	41.07	44.00
SO	BUILDLEN	BLEACH	44.35	43.36	41.05	37.49	41.05	43.36
SO	BUILDLEN	BLEACH	44.36	44.00	30.42	27.80	24.33	20.13
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	-227.27	-229.66	-22.35
SO	XBADJ	BLEACH	-22.57	-22.11	-20.97	-19.20	-20.97	-22.10
SO	XBADJ	BLEACH	-22.57	-22.34	-87.67	-88.31	-86.26	-81.59
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	27.49	-8.97	0.29
SO	YBADJ	BLEACH	0.22	0.15	0.07	0.00	-0.08	-0.16
SO	YBADJ	BLEACH	-0.23	-0.29	17.54	4.69	-8.30	-21.04
SO	YBADJ	BLEACH	-0.45	-0.44	-0.42	-0.39	-0.34	-0.28
SO	BUILDHGT	BB3	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB3	25.30	25.30	52.73	65.23	65.23	65.23
SO	BUILDHGT	BB3	65.23	65.23	65.23	65.23	52.73	25.30
SO	BUILDHGT	BB3	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB3	25.30	25.30	52.73	65.23	65.23	65.23
SO	BUILDHGT	BB3	65.23	65.23	65.23	65.23	52.73	25.30
SO	BUILDWID	BB3	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB3	51.82	51.80	41.37	33.63	33.63	32.82
SO	BUILDWID	BB3	30.49	32.83	33.63	33.63	41.37	51.79
SO	BUILDWID	BB3	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB3	51.82	51.80	41.37	33.63	33.63	32.82
SO	BUILDWID	BB3	30.49	32.83	33.63	33.63	41.37	51.79
SO	BUILDLEN	BB3	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB3	47.07	50.19	41.07	29.23	25.61	21.20
SO	BUILDLEN	BB3	16.16	21.20	25.61	29.23	41.07	50.20
SO	BUILDLEN	BB3	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB3	47.07	50.19	41.07	29.23	25.61	21.20
SO	BUILDLEN	BB3	16.16	21.20	25.61	29.23	41.07	50.20
SO	XBADJ	BB3	-52.62	-48.54	-42.98	-36.12	-35.57	-33.94
SO	XBADJ	BB3	-31.28	-27.67	24.41	29.23	25.61	53.03
SO	XBADJ	BB3	56.53	53.03	25.61	29.23	24.41	4.90
SO	XBADJ	BB3	5.54	6.01	6.30	6.40	-1.10	-8.58
SO	XBADJ	BB3	-15.79	-22.52	-65.48	29.23	25.61	-74.23
SO	XBADJ	BB3	-72.69	-74.23	25.61	29.23	-65.48	-55.10
SO	YBADJ	BB3	-7.84	-12.77	-17.32	-21.33	-24.70	-27.32
SO	YBADJ	BB3	-29.11	-30.01	-37.71	29.23	25.61	-11.22
SO	YBADJ	BB3	0.00	11.22	25.61	29.23	37.71	2.68
SO	YBADJ	BB3	7.84	12.77	17.32	21.33	24.70	27.32
SO	YBADJ	BB3	29.11	30.01	37.71	29.23	25.61	11.22
SO	YBADJ	BB3	0.00	-11.22	25.61	29.23	-37.71	-2.68
SO	BUILDHGT	BB4	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB4	25.30	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	BB4	65.23	65.23	65.23	52.73	25.30	25.30
SO	BUILDHGT	BB4	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB4	25.30	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	BB4	65.23	65.23	65.23	52.73	25.30	25.30
SO	BUILDWID	BB4	51.81	50.26	47.18	42.68	47.19	50.27

SO	BUILDWID	BB4	51.82	41.07	33.73	34.44	34.16	32.82
SO	BUILDWID	BB4	30.49	32.83	34.17	40.41	50.19	51.79
SO	BUILDWID	BB4	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB4	51.82	41.07	33.73	34.44	34.16	32.82
SO	BUILDWID	BB4	30.49	32.83	34.17	40.41	50.19	51.79
SO	BUILDLEN	BB4	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB4	47.07	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	BB4	16.16	21.20	25.61	39.52	51.80	50.20
SO	BUILDLEN	BB4	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB4	47.07	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	BB4	16.16	21.20	25.61	39.52	51.80	50.20
SO	XBADJ	BB4	-43.12	-38.23	-32.18	-25.15	-24.77	-23.63
SO	XBADJ	BB4	-21.78	25.44	40.57	29.23	51.67	54.94
SO	XBADJ	BB4	56.54	51.13	44.17	25.57	-2.94	-3.50
SO	XBADJ	BB4	-3.96	-4.29	-4.50	-4.57	-11.91	-18.89
SO	XBADJ	BB4	-25.30	-66.81	-72.54	29.23	-77.28	-76.15
SO	XBADJ	BB4	-72.70	-72.34	-69.78	-65.09	-48.86	-46.70
SO	YBADJ	BB4	-13.34	-16.54	-19.23	-21.34	-22.80	-23.57
SO	YBADJ	BB4	-23.63	-37.90	-33.13	29.23	-11.79	-0.42
SO	YBADJ	BB4	10.97	22.02	32.41	38.84	5.84	9.74
SO	YBADJ	BB4	13.34	16.54	19.23	21.34	22.80	23.57
SO	YBADJ	BB4	23.63	37.90	33.13	29.23	11.79	0.42
SO	YBADJ	BB4	-10.97	-22.02	-32.41	-38.84	-5.84	-9.74

```
'BPIP data for SCC Panama City BASELINE 1/18/02'
'ST'
'METERS' 1.0
'UTMN'   0.0
11
'PB6 Build' 1 0.0
4 45.7
64.35    -12.22
71.11    -4.16
58.85    6.13
52.09    -1.93
'RecBlrUT' 1 0.0
4 52.73
-4.16    -8.04
15.43    15.30
36.91    -2.72
17.32   -26.07
'RecBlrLT' 1 0.0
4 20.27
-7.49   -12.01
18.76    19.27
44.91    -2.67
18.66   -33.96
'ESP' 1 0.0
4 65.23
 4.94   -15.69
24.53     7.66
36.91    -2.72
17.32   -26.07
'BleachPlt' 1 0.0
4 21.64
64.75   -187.43
82.96   -202.71
58.87   -231.43
40.65   -216.15
'Eng.&Maint' 1 0.0
6 10.67
-152.07 -220.35
-115.63 -176.92
-113.88 -178.39
-88.6   -148.27
-77.4   -157.68
-139.11 -231.22
'SuptOffSt' 1 0.0
12 10.67
-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 -199.9
-180.54 -225.11
'CoolTowers' 1 0.0
5 9.14
142.97  -46.56
121.96  -28.92
89.63   -67.45
89.87   -81.38
103.88  -93.14
'PulpMill' 1 0.0
14 25.30
```

```
-28.39  -68.69
-63.95  -111.07
-54.49  -119
-76.83  -145.62
-86.28  -137.68
-97.45  -150.99
-109.71 -140.71
-98.54  -127.4
-116.41 -112.41
-96.72  -88.94
-102.32 -84.24
-80.28  -57.97
-68.02  -68.26
-51.86  -49
'PaperMill' 1 0.0
22 12.19
-311.97 -332.67
-331.23 -316.51
-327.12 -311.6
-334.82 -305.14
-318.07 -285.18
-345.39 -262.25
-302.48 -211.12
-275.17 -234.04
-65.33  16.03
-19.1   -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 -175.9
-172.01 -177.96
-225.79 -242.05
-221.23 -245.87
-234.75 -261.98
-245.26 -253.17
'BarkBlr' 1 0.0
4 25.30
-32.69  27.43
0       0
-19.1   -22.77
-51.79  4.66
11
'LK1b'   0.0  18.6  163.79  -35.97
'LSKRb'  0.0  17.1   41.47  -147.60
'RB1b'   0.0  71.0   13.02  -16.49
'SDT1b'  0.0  71.0    0.41  -5.91
'RB2b'   0.0  71.0   26.73  -0.15
'SDT2b'  0.0  71.0   14.12  10.43
'BB3b'   0.0  64.9  -28.57  32.33
'BB4b'   0.0  64.9  -35.63  23.93
'PB5b'   0.0  90.2  -46.20  12.51
'PB45b'  0.0  90.2  -46.20  12.51
'PB6b'   0.0  73.5   52.41  5.56
0
```

BPIP (Dated: 95086)
BPIP data for SCC Panama City BASELINE 1/18/02

==========
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.

BPIP data for SCC Panama City BASELINE 1/18/02

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
LK1b	18.60	0.00	116.97	116.97
LSKRb	17.10	0.00	116.61	116.61
RB1b	71.00	0.00	116.98	116.98
SDT1b	71.00	0.00	116.97	116.97
RB2b	71.00	0.00	116.98	116.98
SDT2b	71.00	0.00	116.98	116.98
BB3b	64.90	0.00	115.67	115.67
BB4b	64.90	0.00	116.89	116.89
PB5b	90.20	0.00	116.97	116.97
PB45b	90.20	0.00	116.97	116.97
PB6b	73.50	0.00	116.49	116.49

* 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.

BPIP (Dated: 95086)
DATE : 0/ 0/ 0
TIME : 0: 0: 0

BPIP data for SCC Panama City BASELINE 1/18/02

BPIP output is in meters

SO	BUILDHGT	LK1b	0.00	0.00	0.00	0.00	9.14	9.14
SO	BUILDHGT	LK1b	9.14	9.14	65.23	65.23	65.23	45.70
SO	BUILDHGT	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LK1b	0.00	0.00	0.00	0.00	37.57	46.58
SO	BUILDWID	LK1b	54.16	60.10	33.73	34.47	34.16	48.65
SO	BUILDWID	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LK1b	0.00	0.00	0.00	0.00	63.06	63.40
SO	BUILDLEN	LK1b	61.81	58.34	31.97	29.23	25.61	63.25
SO	BUILDLEN	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LK1b	0.00	0.00	0.00	0.00	-85.81	-86.72
SO	XBADJ	LK1b	-84.99	-80.68	-158.85	-159.96	-156.21	-159.41
SO	XBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LK1b	0.00	0.00	0.00	0.00	13.50	3.73
SO	YBADJ	LK1b	-6.15	-15.85	26.76	1.55	-23.71	-40.34
SO	YBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LK1b	0.00	0.00	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	0.00	25.30	25.30	25.30	25.30
SO	BUILDHGT	LSKRb	25.30	25.30	25.30	65.23	65.23	52.73
SO	BUILDHGT	LSKRb	45.70	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	21.64	21.64	21.64	21.64
SO	BUILDWID	LSKRb	0.00	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	73.13	34.26	33.74	41.07
SO	BUILDWID	LSKRb	73.45	69.40	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	43.36	44.36	44.00	42.31
SO	BUILDLEN	LSKRb	0.00	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	71.34	29.23	31.97	41.37
SO	BUILDLEN	LSKRb	40.41	44.46	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	35.17	39.34	42.31	44.00
SO	XBADJ	LSKRb	0.00	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	-188.66	29.23	-155.84	-162.90
SO	XBADJ	LSKRb	-155.90	-150.40	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	-81.30	-84.73	-85.58	-83.83
SO	YBADJ	LSKRb	0.00	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	31.93	29.23	3.80	-25.10
SO	YBADJ	LSKRb	-32.44	-55.91	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	13.30	2.04	-9.29	-20.34

SO	BUILDHGT	RB1b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	RB1b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB1b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	RB1b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	RB1b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB1b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	RB1b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	RB1b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB1b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	RB1b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	RB1b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB1b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	RB1b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	RB1b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB1b	55.17	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	RB1b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	RB1b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB1b	55.17	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	RB1b	-8.69	-7.53	-6.15	-4.58	-7.73	-10.65
SO	XBADJ	RB1b	-13.25	-15.45	-8.08	-8.10	-7.87	-7.40
SO	XBADJ	RB1b	-18.59	-11.10	-15.16	-18.76	-21.78	-31.79
SO	XBADJ	RB1b	-31.73	-36.93	-42.50	-46.79	-52.43	-56.47
SO	XBADJ	RB1b	-27.16	-25.92	-23.89	-21.14	-17.74	-13.80
SO	XBADJ	RB1b	-36.58	-10.10	-10.45	-10.47	-10.18	-9.58
SO	YBADJ	RB1b	-18.34	-15.67	-12.52	-8.99	-3.46	2.18
SO	YBADJ	RB1b	9.29	10.35	7.28	8.55	9.55	10.26
SO	YBADJ	RB1b	21.10	10.74	10.49	9.92	9.05	3.35
SO	YBADJ	RB1b	18.34	15.67	12.52	8.99	3.46	-2.18
SO	YBADJ	RB1b	-9.29	-10.35	-7.29	-8.55	-9.55	-10.26
SO	YBADJ	RB1b	-21.10	-10.74	-10.49	-9.92	-9.05	-3.35
SO	BUILDHGT	SDT1b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	SDT1b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT1b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	SDT1b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	SDT1b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT1b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	SDT1b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	SDT1b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT1b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	SDT1b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	SDT1b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT1b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	SDT1b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	SDT1b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT1b	55.17	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	SDT1b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	SDT1b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT1b	55.17	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	SDT1b	-16.92	-13.16	-9.00	-4.58	-4.87	-5.02
SO	XBADJ	SDT1b	-5.02	-4.87	4.53	6.16	7.60	8.81
SO	XBADJ	SDT1b	-2.13	5.11	0.31	-4.50	-9.18	-21.21
SO	XBADJ	SDT1b	-23.50	-31.30	-39.65	-46.79	-55.28	-62.10
SO	XBADJ	SDT1b	-35.39	-36.50	-36.50	-35.39	-33.21	-30.01
SO	XBADJ	SDT1b	-53.04	-26.31	-25.91	-24.73	-22.79	-20.16
SO	YBADJ	SDT1b	-32.60	-31.14	-28.73	-25.45	-19.67	-13.29
SO	YBADJ	SDT1b	-4.97	-2.26	-3.29	0.32	3.92	7.40
SO	YBADJ	SDT1b	21.10	13.60	16.12	18.15	19.63	15.97
SO	YBADJ	SDT1b	32.60	31.14	28.73	25.45	19.67	13.29
SO	YBADJ	SDT1b	4.97	2.26	3.29	-0.32	-3.92	-7.40
SO	YBADJ	SDT1b	-21.10	-13.60	-16.12	-18.15	-19.63	-15.96
SO	BUILDHGT	RB2b	45.70	45.70	45.70	45.70	45.70	45.70

SO	BUILDHGT	RB2b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB2b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	RB2b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	RB2b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB2b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	RB2b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	RB2b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB2b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	RB2b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	RB2b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB2b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	RB2b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	RB2b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB2b	55.17	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	RB2b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	RB2b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB2b	55.17	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	RB2b	-27.16	-27.58	-27.15	-25.91	-28.73	-30.70
SO	XBADJ	RB2b	-31.73	-31.79	-21.79	-18.76	-15.16	-11.10
SO	XBADJ	RB2b	-18.59	-7.40	-7.86	-8.09	-8.07	-15.45
SO	XBADJ	RB2b	-13.25	-16.89	-21.50	-25.46	-31.42	-36.43
SO	XBADJ	RB2b	-8.69	-9.58	-10.18	-10.47	-10.45	-10.10
SO	XBADJ	RB2b	-36.58	-13.81	-17.74	-21.14	-23.89	-25.92
SO	YBADJ	RB2b	-7.68	-8.37	-8.82	-8.99	-7.16	-5.12
SO	YBADJ	RB2b	-1.38	-3.36	-9.06	-9.93	-10.49	-10.74
SO	YBADJ	RB2b	-0.23	-10.27	-9.55	-8.55	-7.29	-10.35
SO	YBADJ	RB2b	7.68	8.37	8.82	8.99	7.16	5.12
SO	YBADJ	RB2b	1.38	3.36	9.06	9.93	10.49	10.74
SO	YBADJ	RB2b	0.23	10.27	9.55	8.55	7.29	10.35
SO	BUILDHGT	SDT2b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	SDT2b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT2b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	SDT2b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	SDT2b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT2b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	SDT2b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	SDT2b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT2b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	SDT2b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	SDT2b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT2b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	SDT2b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	SDT2b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT2b	55.17	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	SDT2b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	SDT2b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT2b	55.17	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	SDT2b	-35.39	-33.20	-30.01	-25.91	-25.88	-25.07
SO	XBADJ	SDT2b	-23.49	-21.21	-9.18	-4.50	0.31	5.11
SO	XBADJ	SDT2b	-2.13	8.81	7.60	6.16	4.54	-4.87
SO	XBADJ	SDT2b	-5.02	-11.26	-18.64	-25.46	-34.28	-42.06
SO	XBADJ	SDT2b	-16.92	-20.16	-22.79	-24.73	-25.91	-26.31
SO	XBADJ	SDT2b	-53.04	-30.02	-33.21	-35.39	-36.50	-36.50
SO	YBADJ	SDT2b	-21.93	-23.84	-25.03	-25.45	-23.37	-20.58
SO	YBADJ	SDT2b	-15.63	-15.97	-19.64	-18.16	-16.12	-13.60
SO	YBADJ	SDT2b	-0.23	-7.41	-3.92	-0.32	3.29	2.26
SO	YBADJ	SDT2b	21.93	23.84	25.03	25.45	23.37	20.58
SO	YBADJ	SDT2b	15.63	15.97	19.63	18.16	16.12	13.60
SO	YBADJ	SDT2b	0.23	7.41	3.92	0.32	-3.29	-2.26
SO	BUILDHGT	BB3b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB3b	25.30	25.30	52.73	65.23	65.23	65.23
SO	BUILDHGT	BB3b	45.70	65.23	65.23	65.23	52.73	25.30

SO	BUILDHGT	BB3b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB3b	25.30	25.30	52.73	65.23	65.23	65.23
SO	BUILDHGT	BB3b	45.70	65.23	65.23	65.23	52.73	25.30
SO	BUILDWID	BB3b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB3b	51.82	51.80	41.37	33.63	33.63	32.82
SO	BUILDWID	BB3b	51.37	32.83	33.63	33.63	41.37	51.79
SO	BUILDWID	BB3b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB3b	51.82	51.80	41.37	33.63	33.63	32.82
SO	BUILDWID	BB3b	51.37	32.83	33.63	33.63	41.37	51.79
SO	BUILDLEN	BB3b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB3b	47.07	50.19	41.07	29.23	25.61	21.20
SO	BUILDLEN	BB3b	55.17	21.20	25.61	29.23	41.07	50.20
SO	BUILDLEN	BB3b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB3b	47.07	50.19	41.07	29.23	25.61	21.20
SO	BUILDLEN	BB3b	55.17	21.20	25.61	29.23	41.07	50.20
SO	XBADJ	BB3b	-52.62	-48.54	-42.98	-36.12	-35.57	-33.94
SO	XBADJ	BB3b	-31.28	-27.67	24.41	29.23	25.61	53.03
SO	XBADJ	BB3b	44.65	53.03	25.61	29.23	24.41	4.90
SO	XBADJ	BB3b	5.54	6.01	6.30	6.40	-1.10	-8.58
SO	XBADJ	BB3b	-15.79	-22.52	-65.48	29.23	25.61	-74.23
SO	XBADJ	BB3b	-99.82	-74.23	25.61	29.23	-65.48	-55.10
SO	YBADJ	BB3b	-7.84	-12.77	-17.32	-21.33	-24.70	-27.32
SO	YBADJ	BB3b	-29.11	-30.01	-37.71	29.23	25.61	-11.22
SO	YBADJ	BB3b	10.44	11.22	25.61	29.23	37.71	2.68
SO	YBADJ	BB3b	7.84	12.77	17.32	21.33	24.70	27.32
SO	YBADJ	BB3b	29.11	30.01	37.71	29.23	25.61	11.22
SO	YBADJ	BB3b	-10.44	-11.22	25.61	29.23	-37.71	-2.68
SO	BUILDHGT	BB4b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB4b	25.30	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	BB4b	45.70	65.23	65.23	45.70	25.30	25.30
SO	BUILDHGT	BB4b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB4b	25.30	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	BB4b	45.70	65.23	65.23	45.70	25.30	25.30
SO	BUILDWID	BB4b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB4b	51.82	41.07	33.73	34.44	34.16	32.82
SO	BUILDWID	BB4b	51.37	32.83	34.17	72.06	50.19	51.79
SO	BUILDWID	BB4b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB4b	51.82	41.07	33.73	34.44	34.16	32.82
SO	BUILDWID	BB4b	51.37	32.83	34.17	72.06	50.19	51.79
SO	BUILDLEN	BB4b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB4b	47.07	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	BB4b	55.17	21.20	25.61	42.59	51.80	50.20
SO	BUILDLEN	BB4b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB4b	47.07	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	BB4b	55.17	21.20	25.61	42.59	51.80	50.20
SO	XBADJ	BB4b	-43.12	-38.23	-32.18	-25.15	-24.77	-23.63
SO	XBADJ	BB4b	-21.78	25.44	40.57	29.23	51.67	54.94
SO	XBADJ	BB4b	44.66	51.13	44.17	25.57	-2.94	-3.50
SO	XBADJ	BB4b	-3.96	-4.29	-4.50	-4.57	-11.91	-18.89
SO	XBADJ	BB4b	-25.30	-66.81	-72.54	29.23	-77.28	-76.15
SO	XBADJ	BB4b	-99.83	-72.34	-69.78	-68.17	-48.86	-46.70
SO	YBADJ	BB4b	-13.34	-16.54	-19.23	-21.34	-22.80	-23.57
SO	YBADJ	BB4b	-23.63	-37.90	-33.13	29.23	-11.79	-0.42
SO	YBADJ	BB4b	21.41	22.02	32.41	54.67	5.84	9.74
SO	YBADJ	BB4b	13.34	16.54	19.23	21.34	22.80	23.57
SO	YBADJ	BB4b	23.63	37.90	33.13	29.23	11.79	0.42
SO	YBADJ	BB4b	-21.41	-22.02	-32.41	-54.67	-5.84	-9.74
SO	BUILDHGT	PB5b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	PB5b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	PB5b	45.70	45.70	25.30	25.30	25.30	25.30
SO	BUILDHGT	PB5b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	PB5b	52.73	52.73	65.23	65.23	65.23	65.23

SO	BUILDHGT	PB5b	45.70	45.70	25.30	25.30	25.30	25.30
SO	BUILDWID	PB5b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	PB5b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	PB5b	51.37	60.15	42.52	47.07	50.19	51.79
SO	BUILDWID	PB5b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	PB5b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	PB5b	51.37	60.15	42.52	47.07	50.19	51.79
SO	BUILDLEN	PB5b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	PB5b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	PB5b	55.17	52.53	50.27	51.82	51.80	50.20
SO	BUILDLEN	PB5b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	PB5b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	PB5b	55.17	52.53	50.27	51.82	51.80	50.20
SO	XBADJ	PB5b	-30.04	-23.88	-17.00	-9.61	-9.33	-8.77
SO	XBADJ	PB5b	32.48	37.83	51.14	55.26	57.70	58.39
SO	XBADJ	PB5b	45.41	37.48	-6.17	-9.40	-12.35	-14.92
SO	XBADJ	PB5b	-17.04	-18.64	-19.68	-20.11	-27.35	-33.76
SO	XBADJ	PB5b	-72.89	-79.20	-83.11	-84.49	-83.31	-79.59
SO	XBADJ	PB5b	-100.58	-90.00	-44.10	-42.42	-39.45	-35.28
SO	YBADJ	PB5b	-21.76	-22.56	-22.67	-22.10	-20.85	-18.97
SO	YBADJ	PB5b	-38.22	-28.49	-21.71	-9.73	2.55	14.76
SO	YBADJ	PB5b	36.95	49.07	12.49	15.60	18.23	20.31
SO	YBADJ	PB5b	21.76	22.56	22.67	22.10	20.85	18.97
SO	YBADJ	PB5b	38.22	28.49	21.71	9.73	-2.55	-14.76
SO	YBADJ	PB5b	-36.95	-49.07	-12.49	-15.60	-18.23	-20.31
SO	BUILDHGT	PB45b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	PB45b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	PB45b	45.70	45.70	25.30	25.30	25.30	25.30
SO	BUILDHGT	PB45b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	PB45b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	PB45b	45.70	45.70	25.30	25.30	25.30	25.30
SO	BUILDWID	PB45b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	PB45b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	PB45b	51.37	60.15	42.52	47.07	50.19	51.79
SO	BUILDWID	PB45b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	PB45b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	PB45b	51.37	60.15	42.52	47.07	50.19	51.79
SO	BUILDLEN	PB45b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	PB45b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	PB45b	55.17	52.53	50.27	51.82	51.80	50.20
SO	BUILDLEN	PB45b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	PB45b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	PB45b	55.17	52.53	50.27	51.82	51.80	50.20
SO	XBADJ	PB45b	-30.04	-23.88	-17.00	-9.61	-9.33	-8.77
SO	XBADJ	PB45b	32.48	37.83	51.14	55.26	57.70	58.39
SO	XBADJ	PB45b	45.41	37.48	-6.17	-9.40	-12.35	-14.92
SO	XBADJ	PB45b	-17.04	-18.64	-19.68	-20.11	-27.35	-33.76
SO	XBADJ	PB45b	-72.89	-79.20	-83.11	-84.49	-83.31	-79.59
SO	XBADJ	PB45b	-100.58	-90.00	-44.10	-42.42	-39.45	-35.28
SO	YBADJ	PB45b	-21.76	-22.56	-22.67	-22.10	-20.85	-18.97
SO	YBADJ	PB45b	-38.22	-28.49	-21.71	-9.73	2.55	14.76
SO	YBADJ	PB45b	36.95	49.07	12.49	15.60	18.23	20.31
SO	YBADJ	PB45b	21.76	22.56	22.67	22.10	20.85	18.97
SO	YBADJ	PB45b	38.22	28.49	21.71	9.73	-2.55	-14.76
SO	YBADJ	PB45b	-36.95	-49.07	-12.49	-15.60	-18.23	-20.31
SO	BUILDHGT	PB6b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	PB6b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	PB6b	45.70	45.70	45.70	45.70	65.23	52.73
SO	BUILDHGT	PB6b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	PB6b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	PB6b	45.70	45.70	45.70	45.70	65.23	52.73
SO	BUILDWID	PB6b	73.45	69.40	63.25	55.17	52.53	48.29

SO	BUILDWID	PB6b	39.52	41.07	33.73	34.17	34.16	32.82
SO	BUILDWID	PB6b	51.37	60.15	67.13	72.06	33.74	41.07
SO	BUILDWID	PB6b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	PB6b	39.52	41.07	33.73	34.17	34.16	32.82
SO	BUILDWID	PB6b	51.37	60.15	67.13	72.06	33.74	41.07
SO	BUILDLEN	PB6b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	PB6b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	PB6b	55.17	52.53	48.29	42.59	31.97	41.37
SO	BUILDLEN	PB6b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	PB6b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	PB6b	55.17	52.53	48.29	42.59	31.97	41.37
SO	XBADJ	PB6b	-37.24	-41.72	-44.94	-46.79	-52.08	-55.79
SO	XBADJ	PB6b	-57.81	-58.07	-47.47	29.23	-37.34	-30.49
SO	XBADJ	PB6b	-34.59	-31.23	-26.93	-21.80	-6.91	-9.74
SO	XBADJ	PB6b	-3.17	-2.74	-3.71	-4.58	-8.08	-11.33
SO	XBADJ	PB6b	17.40	16.70	15.50	29.23	11.73	9.28
SO	XBADJ	PB6b	-20.58	-21.30	-21.37	-20.79	-25.06	-31.63
SO	YBADJ	PB6b	16.62	13.81	10.57	7.01	4.97	2.78
SO	YBADJ	PB6b	2.04	-4.52	-14.77	29.23	-24.64	-28.53
SO	YBADJ	PB6b	-21.11	-22.00	-22.23	-21.78	-33.57	-36.03
SO	YBADJ	PB6b	-16.62	-13.81	-10.57	-7.01	-4.97	-2.78
SO	YBADJ	PB6b	-2.04	4.52	14.77	29.23	24.64	28.53
SO	YBADJ	PB6b	21.11	22.00	22.23	21.78	33.57	36.03

APPENDIX D

SOURCE AND MONITOR LOCATIONS USED IN THE SO_2 BACKGROUND DETERMINATIONS

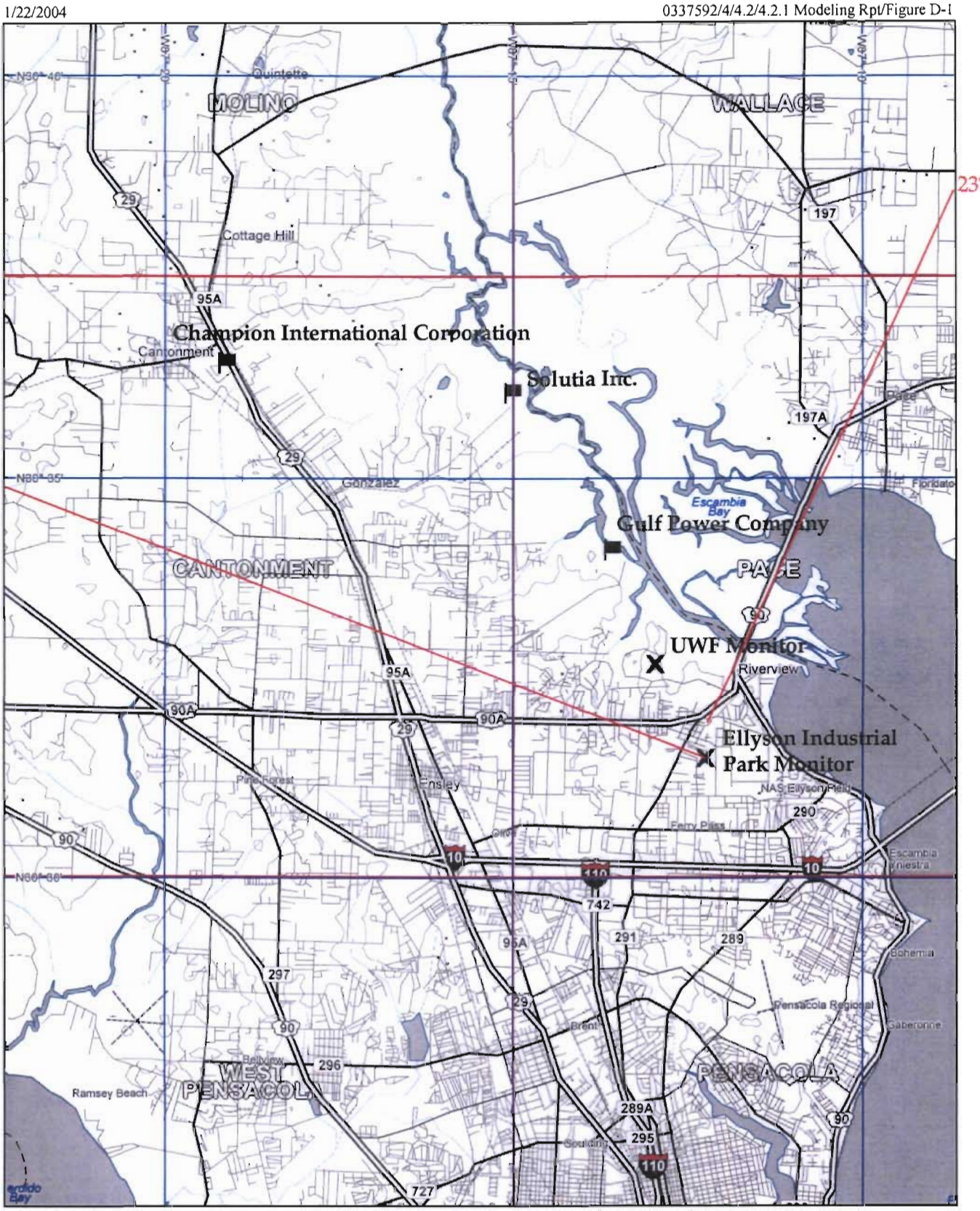

FIGURE D-1
Location of SO_2 sources and monitors considered in the background determination for Stone Container Corporation.

Golder Associates

APPENDIX E

SUMMARIES OF THE ISC-PRIME RESULTS AND EXAMPLE MODEL INPUT FILES

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :SO2SIG.086
PRIME OUTPUT FILE NUMBER 2 :SO2SIG.087
PRIME OUTPUT FILE NUMBER 3 :SO2SIG.088
PRIME OUTPUT FILE NUMBER 4 :SO2SIG.089
PRIME OUTPUT FILE NUMBER 5 :SO2SIG.090
First title for last output file is: 1986 STONE CONTAINER,PANAMA CITY,SO2 SIG ANALYSIS 12/17/03
Second title for last output file is: BB3 AND BB4 402 lb/hr E.R. INCREASE, SEPARATE SOURCE GROUPS

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	BB3				
Annual					
	1986	2.55017	320.00	1100.00	86123124
	1987	2.28839	300.00	1100.00	87123124
	1988	3.44416	300.00	1500.00	88123124
	1989	3.13254	310.00	1500.00	89123124
	1990	4.67333	300.00	1500.00	90123124
HIGH 24-Hour					
	1986	31.66959	320.00	1100.00	86051024
	1987	40.08838	300.00	1100.00	87032424
	1988	32.78091	141.63	787.89	88112824
	1989	30.51060	300.00	1500.00	89021524
	1990	42.87849	300.00	1500.00	90052624
HIGH 3-Hour					
	1986	99.81429	300.00	800.00	86041912
	1987	116.95898	300.00	800.00	87031715
	1988	93.26498	320.00	800.00	88072012
	1989	110.55420	310.00	1100.00	89072615
	1990	111.56954	300.00	1100.00	90072012
SOURCE GROUP ID:	BB4				
Annual					
	1986	2.11932	310.00	1500.00	86123124
	1987	2.19318	300.00	1500.00	87123124
	1988	3.36190	300.00	1500.00	88123124
	1989	2.96100	310.00	1500.00	89123124
	1990	4.57757	300.00	1500.00	90123124
HIGH 24-Hour					
	1986	22.92393	130.71	640.38	86012724
	1987	36.50856	290.00	1500.00	87111624
	1988	30.24541	300.00	1500.00	88032924
	1989	24.88552	310.00	1100.00	89060124
	1990	40.06638	300.00	1500.00	90052624
HIGH 3-Hour					
	1986	90.70673	300.00	800.00	86032512
	1987	106.15981	300.00	800.00	87031715
	1988	105.26617	330.00	800.00	88091715
	1989	105.70758	310.00	1100.00	89072615
	1990	106.64611	300.00	1100.00	90072012

All receptor computations reported with respect to a user-specified origin
GRID 0.00 0.00
DISCRETE 0.00 0.00

```
CO STARTING
CO TITLEONE 1986 STONE CONTAINER,PANAMA CITY,SO2 SIG ANALYSIS   12/17/03
CO TITLETWO BB3 AND BB4 402 lb/hr E.R. INCREASE, SEPARATE SOURCE GROUPS
CO MODELOPT DFAULT CONC   RURAL
CO AVERTIME  PERIOD 24 3
CO POLLUTID SO2
CO DCAYCOEF    .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING
** Source Location Cards:
**          SRCID SRCTYP        XS            YS            ZS
**                             (m)           (m)           (m)
** ALL STACK AND BUILDING DATA BASED ON TN COORDINATE SYSTEM

** POINT SOURCES
** DUMMY SOURCE FOR ORIGIN LOCATION
SO LOCATION  ORIGIN  POINT       0.0         0.0         .0000
SO SRCPARAM ORIGIN    0.0         10.0    300.0      20.00    1.00

** POINT SOURCES
**          SRCID SRCTYP        XS       YS           ZS
**                             (m)      (m)          (m)
SO LOCATION BB3      POINT    -28.16    17.66       .0000
SO LOCATION BB4      POINT    -33.45    11.35       .0000

** Source Parameter Cards:
** POINT:   SRCID          QS         HS      TS        VS        DS
**                       (g/s)       (m)     (K)      (m/s)     (m)
**********************************************************************
**                                                                   *
** BB3 INCREASED BY 402 LB/HR, RESULTS IN BB3INC SOURCE GROUP        *
** BB4 INCREASED BY 402 LB/HR, RESULTS IN BB4INC SOURCE GROUP        *
**                                                                   *
**********************************************************************
SO SRCPARAM BB3      50.65       64.9    337.6     30.41     2.39
SO SRCPARAM BB4      50.65       64.9    336.5     32.29     2.39


SO BUILDHGT BB3        25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB3        25.30   25.30   52.73   65.23   65.23   65.23
SO BUILDHGT BB3        65.23   65.23   65.23   65.23   52.73   25.30
SO BUILDHGT BB3        25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB3        25.30   25.30   52.73   65.23   65.23   65.23
SO BUILDHGT BB3        65.23   65.23   65.23   65.23   52.73   25.30
SO BUILDWID BB3        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB3        51.82   51.80   41.37   33.63   33.63   32.82
SO BUILDWID BB3        30.49   32.83   33.63   33.63   41.37   51.79
SO BUILDWID BB3        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB3        51.82   51.80   41.37   33.63   33.63   32.82
SO BUILDWID BB3        30.49   32.83   33.63   33.63   41.37   51.79
SO BUILDLEN BB3        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB3        47.07   50.19   41.07   29.23   25.61   21.20
SO BUILDLEN BB3        16.16   21.20   25.61   29.23   41.07   50.20
SO BUILDLEN BB3        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB3        47.07   50.19   41.07   29.23   25.61   21.20
SO BUILDLEN BB3        16.16   21.20   25.61   29.23   41.07   50.20
SO XBADJ    BB3       -52.62  -48.54  -42.98  -36.12  -35.57  -33.94
SO XBADJ    BB3       -31.28  -27.67   24.41   29.23   25.61   53.03
SO XBADJ    BB3        56.53   53.03   25.61   29.23   24.41    4.90
SO XBADJ    BB3         5.54    6.01    6.30    6.40   -1.10   -8.58
SO XBADJ    BB3       -15.79  -22.52  -65.48   29.23   25.61  -74.23
SO XBADJ    BB3       -72.69  -74.23   25.61   29.23  -65.48  -55.10
SO YBADJ    BB3        -7.84  -12.77  -17.32  -21.33  -24.70  -27.32
SO YBADJ    BB3       -29.11  -30.01  -37.71   29.23   25.61  -11.22
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23.6

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SO YBADJ    BB3         0.00   11.22   25.61   29.23   37.71    2.68
SO YBADJ    BB3         7.84   12.77   17.32   21.33   24.70   27.32
SO YBADJ    BB3        29.11   30.01   37.71   29.23   25.61   11.22
SO YBADJ    BB3         0.00  -11.22   25.61   29.23  -37.71   -2.68

SO BUILDHGT BB4        25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB4        25.30   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT BB4        65.23   65.23   65.23   52.73   25.30   25.30
SO BUILDHGT BB4        25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB4        25.30   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT BB4        65.23   65.23   65.23   52.73   25.30   25.30
SO BUILDWID BB4        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB4        51.82   41.07   33.73   34.44   34.16   32.82
SO BUILDWID BB4        30.49   32.83   34.17   40.41   50.19   51.79
SO BUILDWID BB4        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB4        51.82   41.07   33.73   34.44   34.16   32.82
SO BUILDWID BB4        30.49   32.83   34.17   40.41   50.19   51.79
SO BUILDLEN BB4        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB4        47.07   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN BB4        16.16   21.20   25.61   39.52   51.80   50.20
SO BUILDLEN BB4        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB4        47.07   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN BB4        16.16   21.20   25.61   39.52   51.80   50.20
SO XBADJ    BB4       -43.12  -38.23  -32.18  -25.15  -24.77  -23.63
SO XBADJ    BB4       -21.78   25.44   40.57   29.23   51.67   54.94
SO XBADJ    BB4        56.54   51.13   44.17   25.57   -2.94   -3.50
SO XBADJ    BB4        -3.96   -4.29   -4.50   -4.57  -11.91  -18.89
SO XBADJ    BB4       -25.30  -66.81  -72.54   29.23  -77.28  -76.15
SO XBADJ    BB4       -72.70  -72.34  -69.78  -65.09  -48.86  -46.70
SO YBADJ    BB4       -13.34  -16.54  -19.23  -21.34  -22.80  -23.57
SO YBADJ    BB4       -23.63  -37.90  -33.13   29.23  -11.79   -0.42
SO YBADJ    BB4        10.97   22.02   32.41   38.84    5.84    9.74
SO YBADJ    BB4        13.34   16.54   19.23   21.34   22.80   23.57
SO YBADJ    BB4        23.63   37.90   33.13   29.23   11.79    0.42
SO YBADJ    BB4       -10.97  -22.02  -32.41  -38.84   -5.84   -9.74

SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
SO SRCGROUP BB3 BB3
SO SRCGROUP BB4 BB4
SO FINISHED

RE STARTING
RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG   0.0     0.0
RE GRIDPOLR POL DIST  2000. 2500. 3000. 3500. 4000. 4500. 5000. 6000.
RE GRIDPOLR POL DIST  7000. 8000. 9000. 10000. 12000.  14000.  16000.  18000.
RE GRIDPOLR POL DIST  20000.  22000. 24000. 26000.  28000.  30000.
RE GRIDPOLR POL GDIR  36   10.00   10.00
RE GRIDPOLR POL END
RE DISCPOLR ORIGIN      500.        10
RE DISCPOLR ORIGIN      800.        10
RE DISCPOLR ORIGIN     1100.        10
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RE DISCPOLR ORIGIN      200.        20
RE DISCPOLR ORIGIN      500.        20
RE DISCPOLR ORIGIN      800.        20
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RE DISCPOLR ORIGIN     1100.        20
RE DISCPOLR ORIGIN     1500.        20
RE DISCPOLR ORIGIN      200.        20
RE DISCPOLR ORIGIN      500.        20
RE DISCPOLR ORIGIN      800.        20
RE DISCPOLR ORIGIN     1100.        20
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RE DISCPOLR ORIGIN      200.        20
RE DISCPOLR ORIGIN      500.        20
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RE DISCPOLR ORIGIN     1500.        20
RE DISCPOLR ORIGIN      100.        30
RE DISCPOLR ORIGIN      200.        30
RE DISCPOLR ORIGIN      500.        30
RE DISCPOLR ORIGIN      800.        30
RE DISCPOLR ORIGIN     1100.        30
RE DISCPOLR ORIGIN     1500.        30
RE DISCPOLR ORIGIN      100.        40
RE DISCPOLR ORIGIN      200.        40
RE DISCPOLR ORIGIN      500.        40
RE DISCPOLR ORIGIN      800.        40
RE DISCPOLR ORIGIN     1100.        40
RE DISCPOLR ORIGIN     1500.        40
RE DISCPOLR ORIGIN      100.        50
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RE DISCPOLR ORIGIN     1100.        50
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RE DISCPOLR ORIGIN     1500.       330
RE DISCPOLR ORIGIN      500.       340
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RE DISCPOLR ORIGIN      800.       340
RE DISCPOLR ORIGIN     1100.       340
RE DISCPOLR ORIGIN     1500.       340
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RE DISCPOLR ORIGIN     1100.       350
RE DISCPOLR ORIGIN     1500.       350
RE DISCPOLR ORIGIN      500.       360
RE DISCPOLR ORIGIN      800.       360
RE DISCPOLR ORIGIN     1100.       360
RE DISCPOLR ORIGIN     1500.       360

**  FENCELINE RECEPTORS AT 100-M INTERVALS
RE DISCCART     -224.3     382.8
RE DISCCART     -124.3     382.8
RE DISCCART      -76.8     330.4
RE DISCCART      -33.0     274.1
RE DISCCART       48.4     254.6
RE DISCCART       53.1     154.7
RE DISCCART       15.4      71.3
RE DISCCART       60.6       4.4
RE DISCCART      121.5      26.7
RE DISCCART      159.5      39.9
RE DISCCART      171.5     -34.4
RE DISCCART      207.0      -6.8
RE DISCCART      266.1      43.6
RE DISCCART      315.3     116.5
RE DISCCART      414.0     120.7
RE DISCCART      476.2      82.2
RE DISCCART      478.0     -17.8
RE DISCCART      479.9    -117.8
RE DISCCART      481.7    -217.8
RE DISCCART      483.6    -317.7
RE DISCCART      485.4    -417.7
RE DISCCART      487.3    -517.7
RE DISCCART      489.1    -617.7
RE DISCCART      478.9    -697.4
RE DISCCART      390.4    -653.5
RE DISCCART      291.3    -664.7
RE DISCCART      192.8    -681.6
RE DISCCART       93.6    -691.2
RE DISCCART       -6.4    -689.4
RE DISCCART     -103.8    -670.3
RE DISCCART     -200.1    -643.4
RE DISCCART     -288.4    -599.6
RE DISCCART     -363.6    -537.7
RE DISCCART     -454.2    -503.4
RE DISCCART     -454.2    -603.4
RE DISCCART     -487.7    -622.4
RE DISCCART     -487.7    -522.4
RE DISCCART     -559.6    -534.5
RE DISCCART     -643.6    -588.9
RE DISCCART     -727.5    -643.2
RE DISCCART     -814.1    -688.4
RE DISCCART     -897.5    -743.7
RE DISCCART     -990.0    -775.9
RE DISCCART    -1084.8    -754.8
RE DISCCART    -1164.0    -695.1
RE DISCCART    -1238.6    -629.5
RE DISCCART    -1309.1    -558.6
RE DISCCART    -1379.6    -487.7
RE DISCCART    -1328.7    -450.5
RE DISCCART    -1234.1    -420.9
RE DISCCART    -1151.2    -365.3
RE DISCCART    -1061.6    -320.8
RE DISCCART     -972.0    -276.4
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RE DISCCART     -887.2    -248.9
RE DISCCART     -820.8    -320.5
RE DISCCART     -721.8    -328.0
RE DISCCART     -634.7    -283.0
RE DISCCART     -538.8    -259.6
RE DISCCART     -460.6    -236.6
RE DISCCART     -438.9    -149.3
RE DISCCART     -423.7    -148.8
RE DISCCART     -335.9    -158.5
RE DISCCART     -277.2     -89.6
RE DISCCART     -234.2      -0.4
RE DISCCART     -239.6      93.0
RE DISCCART     -179.0     172.5
RE DISCCART     -188.0     263.9
RE DISCCART     -223.1     356.5
RE FINISHED
**
ME STARTING
ME INPUTFIL  H:\MET\PNSAQQ86.MET
ME ANEMHGHT  22 FEET
ME SURFDATA  13899  1986          PENSACOLA
ME UAIRDATA  12832  1986          APALACHICOLA
ME WINDCATS  1.54    3.09    5.14    8.23   10.80
ME FINISHED
**
OU STARTING
OU RECTABLE ALLAVE FIRST
OU FINISHED
```

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :NOXSIG.086
PRIME OUTPUT FILE NUMBER 2 :NOXSIG.087
PRIME OUTPUT FILE NUMBER 3 :NOXSIG.088
PRIME OUTPUT FILE NUMBER 4 :NOXSIG.089
PRIME OUTPUT FILE NUMBER 5 :NOXSIG.090
First title for last output file is: 1986 STONE CONTAINER,PANAMA CITY,NOX SIG ANALYSIS 1/6/04
Second title for last output file is: BB3 AND BB4 402 lb/hr E.R. INCREASE, SEPARATE SOURCE GROUPS

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: BB3					
Annual					
	1986	0.140	320.00	1100.00	86123124
	1987	0.126	300.00	1100.00	87123124
	1988	0.190	300.00	1500.00	88123124
	1989	0.173	310.00	1500.00	89123124
	1990	0.257	300.00	1500.00	90123124
SOURCE GROUP ID: BB4					
Annual					
	1986	0.117	310.00	1500.00	86123124
	1987	0.121	300.00	1500.00	87123124
	1988	0.185	300.00	1500.00	88123124
	1989	0.163	310.00	1500.00	89123124
	1990	0.252	300.00	1500.00	90123124

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

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CO STARTING
CO TITLEONE 1986 STONE CONTAINER,PANAMA CITY,NOX SIG ANALYSIS   1/6/04
CO TITLETWO BB3 AND BB4 402 lb/hr E.R. INCREASE, SEPARATE SOURCE GROUPS
CO MODELOPT DFAULT CONC   RURAL
CO AVERTIME  PERIOD
CO POLLUTID NOX
CO DCAYCOEF    .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING
** Source Location Cards:
**          SRCID SRCTYP        XS            YS            ZS
**                             (m)           (m)           (m)
** ALL STACK AND BUILDING DATA BASED ON TN COORDINATE SYSTEM

** POINT SOURCES
** DUMMY SOURCE FOR ORIGIN LOCATION
SO LOCATION  ORIGIN  POINT       0.0         0.0         .0000
SO SRCPARAM ORIGIN    0.0         10.0    300.0      20.00    1.00

** POINT SOURCES
**          SRCID SRCTYP        XS       YS          ZS
**                             (m)      (m)         (m)
SO LOCATION BB3      POINT    -28.16    17.66       .0000
SO LOCATION BB4      POINT    -33.45    11.35       .0000

** Source Parameter Cards:
** POINT:   SRCID          QS         HS      TS        VS        DS
**                       (g/s)       (m)     (K)      (m/s)     (m)
**************************************************************************
**                                                                      *
** BB3 INCREASED BY 97.1 TPY, RESULTS IN BB3INC SOURCE GROUP            *
** BB4 INCREASED BY 97.1 TPY, RESULTS IN BB4INC SOURCE GROUP            *
**                                                                      *
**************************************************************************
SO SRCPARAM BB3       2.79       64.9    337.6     30.41     2.39
SO SRCPARAM BB4       2.79       64.9    336.5     32.29     2.39


SO BUILDHGT BB3        25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB3        25.30   25.30   52.73   65.23   65.23   65.23
SO BUILDHGT BB3        65.23   65.23   65.23   65.23   52.73   25.30
SO BUILDHGT BB3        25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB3        25.30   25.30   52.73   65.23   65.23   65.23
SO BUILDHGT BB3        65.23   65.23   65.23   65.23   52.73   25.30
SO BUILDWID BB3        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB3        51.82   51.80   41.37   33.63   33.63   32.82
SO BUILDWID BB3        30.49   32.83   33.63   33.63   41.37   51.79
SO BUILDWID BB3        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB3        51.82   51.80   41.37   33.63   33.63   32.82
SO BUILDWID BB3        30.49   32.83   33.63   33.63   41.37   51.79
SO BUILDLEN BB3        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB3        47.07   50.19   41.07   29.23   25.61   21.20
SO BUILDLEN BB3        16.16   21.20   25.61   29.23   41.07   50.20
SO BUILDLEN BB3        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB3        47.07   50.19   41.07   29.23   25.61   21.20
SO BUILDLEN BB3        16.16   21.20   25.61   29.23   41.07   50.20
SO XBADJ    BB3       -52.62  -48.54  -42.98  -36.12  -35.57  -33.94
SO XBADJ    BB3       -31.28  -27.67   24.41   29.23   25.61   53.03
SO XBADJ    BB3        56.53   53.03   25.61   29.23   24.41    4.90
SO XBADJ    BB3         5.54    6.01    6.30    6.40   -1.10   -8.58
SO XBADJ    BB3       -15.79  -22.52  -65.48   29.23   25.61  -74.23
SO XBADJ    BB3       -72.69  -74.23   25.61   29.23  -65.48  -55.10
SO YBADJ    BB3        -7.84  -12.77  -17.32  -21.33  -24.70  -27.32
SO YBADJ    BB3       -29.11  -30.01  -37.71   29.23   25.61  -11.22
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SO YBADJ     BB3          0.00   11.22   25.61   29.23   37.71    2.68
SO YBADJ     BB3          7.84   12.77   17.32   21.33   24.70   27.32
SO YBADJ     BB3         29.11   30.01   37.71   29.23   25.61   11.22
SO YBADJ     BB3          0.00  -11.22   25.61   29.23  -37.71   -2.68


SO BUILDHGT BB4         25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB4         25.30   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT BB4         65.23   65.23   65.23   52.73   25.30   25.30
SO BUILDHGT BB4         25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB4         25.30   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT BB4         65.23   65.23   65.23   52.73   25.30   25.30
SO BUILDWID BB4         51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB4         51.82   41.07   33.73   34.44   34.16   32.82
SO BUILDWID BB4         30.49   32.83   34.17   40.41   50.19   51.79
SO BUILDWID BB4         51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB4         51.82   41.07   33.73   34.44   34.16   32.82
SO BUILDWID BB4         30.49   32.83   34.17   40.41   50.19   51.79
SO BUILDLEN BB4         47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB4         47.07   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN BB4         16.16   21.20   25.61   39.52   51.80   50.20
SO BUILDLEN BB4         47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB4         47.07   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN BB4         16.16   21.20   25.61   39.52   51.80   50.20
SO XBADJ     BB4        -43.12  -38.23  -32.18  -25.15  -24.77  -23.63
SO XBADJ     BB4        -21.78   25.44   40.57   29.23   51.67   54.94
SO XBADJ     BB4         56.54   51.13   44.17   25.57   -2.94   -3.50
SO XBADJ     BB4         -3.96   -4.29   -4.50   -4.57  -11.91  -18.89
SO XBADJ     BB4        -25.30  -66.81  -72.54   29.23  -77.28  -76.15
SO XBADJ     BB4        -72.70  -72.34  -69.78  -65.09  -48.86  -46.70
SO YBADJ     BB4        -13.34  -16.54  -19.23  -21.34  -22.80  -23.57
SO YBADJ     BB4        -23.63  -37.90  -33.13   29.23  -11.79   -0.42
SO YBADJ     BB4         10.97   22.02   32.41   38.84    5.84    9.74
SO YBADJ     BB4         13.34   16.54   19.23   21.34   22.80   23.57
SO YBADJ     BB4         23.63   37.90   33.13   29.23   11.79    0.42
SO YBADJ     BB4        -10.97  -22.02  -32.41  -38.84   -5.84   -9.74


SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
SO SRCGROUP BB3 BB3
SO SRCGROUP BB4 BB4
SO FINISHED

RE STARTING
RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG   0.0     0.0
RE GRIDPOLR POL DIST  2000. 2500. 3000. 3500. 4000. 4500. 5000. 6000.
RE GRIDPOLR POL DIST  7000. 8000. 9000. 10000. 12000.  14000.  16000.  18000.
RE GRIDPOLR POL DIST  20000.  22000. 24000. 26000.  28000.  30000.
RE GRIDPOLR POL GDIR  36   10.00   10.00
RE GRIDPOLR POL END
RE DISCPOLR ORIGIN      500.        10
RE DISCPOLR ORIGIN      800.        10
RE DISCPOLR ORIGIN     1100.        10
RE DISCPOLR ORIGIN     1500.        10
RE DISCPOLR ORIGIN      500.        10
RE DISCPOLR ORIGIN      800.        10
RE DISCPOLR ORIGIN     1100.        10
RE DISCPOLR ORIGIN     1500.        10
RE DISCPOLR ORIGIN      500.        10
RE DISCPOLR ORIGIN      800.        10
RE DISCPOLR ORIGIN     1100.        10
RE DISCPOLR ORIGIN     1500.        10
RE DISCPOLR ORIGIN      200.        20
RE DISCPOLR ORIGIN      500.        20
RE DISCPOLR ORIGIN      800.        20
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RE DISCPOLR ORIGIN     1100.        20
RE DISCPOLR ORIGIN     1500.        20
RE DISCPOLR ORIGIN      200.        20
RE DISCPOLR ORIGIN      500.        20
RE DISCPOLR ORIGIN      800.        20
RE DISCPOLR ORIGIN     1100.        20
RE DISCPOLR ORIGIN     1500.        20
RE DISCPOLR ORIGIN      200.        20
RE DISCPOLR ORIGIN      500.        20
RE DISCPOLR ORIGIN      800.        20
RE DISCPOLR ORIGIN     1100.        20
RE DISCPOLR ORIGIN     1500.        20
RE DISCPOLR ORIGIN      100.        30
RE DISCPOLR ORIGIN      200.        30
RE DISCPOLR ORIGIN      500.        30
RE DISCPOLR ORIGIN      800.        30
RE DISCPOLR ORIGIN     1100.        30
RE DISCPOLR ORIGIN     1500.        30
RE DISCPOLR ORIGIN      100.        40
RE DISCPOLR ORIGIN      200.        40
RE DISCPOLR ORIGIN      500.        40
RE DISCPOLR ORIGIN      800.        40
RE DISCPOLR ORIGIN     1100.        40
RE DISCPOLR ORIGIN     1500.        40
RE DISCPOLR ORIGIN      100.        50
RE DISCPOLR ORIGIN      200.        50
RE DISCPOLR ORIGIN      500.        50
RE DISCPOLR ORIGIN      800.        50
RE DISCPOLR ORIGIN     1100.        50
RE DISCPOLR ORIGIN     1500.        50
RE DISCPOLR ORIGIN      100.        60
RE DISCPOLR ORIGIN      200.        60
RE DISCPOLR ORIGIN      500.        60
RE DISCPOLR ORIGIN      800.        60
RE DISCPOLR ORIGIN     1100.        60
RE DISCPOLR ORIGIN     1500.        60
RE DISCPOLR ORIGIN      500.        70
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RE DISCPOLR ORIGIN      800.        70
RE DISCPOLR ORIGIN     1100.        70
RE DISCPOLR ORIGIN     1500.        70
RE DISCPOLR ORIGIN      500.        80
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RE DISCPOLR ORIGIN      800.        80
RE DISCPOLR ORIGIN     1100.        80
RE DISCPOLR ORIGIN     1500.        80
RE DISCPOLR ORIGIN      500.        80
RE DISCPOLR ORIGIN      800.        80
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RE DISCPOLR ORIGIN     1100.     80
RE DISCPOLR ORIGIN     1500.     80
RE DISCPOLR ORIGIN      500.     80
RE DISCPOLR ORIGIN      800.     80
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RE DISCPOLR ORIGIN      500.    100
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RE DISCPOLR ORIGIN     1500.    100
RE DISCPOLR ORIGIN      800.    110
RE DISCPOLR ORIGIN     1100.    110
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RE DISCPOLR ORIGIN      800.    120
RE DISCPOLR ORIGIN     1100.    120
RE DISCPOLR ORIGIN     1500.    120
RE DISCPOLR ORIGIN      800.    130
RE DISCPOLR ORIGIN     1100.    130
RE DISCPOLR ORIGIN     1500.    130
RE DISCPOLR ORIGIN      800.    140
RE DISCPOLR ORIGIN     1100.    140
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RE DISCPOLR ORIGIN      800.    150
RE DISCPOLR ORIGIN     1100.    150
RE DISCPOLR ORIGIN     1500.    150
RE DISCPOLR ORIGIN      800.    160
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RE DISCPOLR ORIGIN     1100.       160
RE DISCPOLR ORIGIN     1500.       160
RE DISCPOLR ORIGIN      800.       170
RE DISCPOLR ORIGIN     1100.       170
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RE DISCPOLR ORIGIN      800.       180
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RE DISCPOLR ORIGIN      800.       190
RE DISCPOLR ORIGIN     1100.       190
RE DISCPOLR ORIGIN     1500.       190
RE DISCPOLR ORIGIN      800.       200
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RE DISCPOLR ORIGIN      800.       210
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RE DISCPOLR ORIGIN     1500.       210
RE DISCPOLR ORIGIN      800.       220
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RE DISCPOLR ORIGIN     1100.       220
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RE DISCPOLR ORIGIN     1100.       220
RE DISCPOLR ORIGIN     1500.       220
RE DISCPOLR ORIGIN     1500.       230
RE DISCPOLR ORIGIN     1500.       240
RE DISCPOLR ORIGIN     1500.       250
RE DISCPOLR ORIGIN     1500.       250
RE DISCPOLR ORIGIN     1500.       250
RE DISCPOLR ORIGIN     1500.       250
RE DISCPOLR ORIGIN     1500.       250
RE DISCPOLR ORIGIN      500.       260
RE DISCPOLR ORIGIN      800.       260
RE DISCPOLR ORIGIN     1100.       260
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RE DISCPOLR ORIGIN      500.       290
RE DISCPOLR ORIGIN      800.       290
RE DISCPOLR ORIGIN     1100.       290
RE DISCPOLR ORIGIN     1500.       290
RE DISCPOLR ORIGIN      500.       300
RE DISCPOLR ORIGIN      800.       300
RE DISCPOLR ORIGIN     1100.       300
RE DISCPOLR ORIGIN     1500.       300
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RE DISCPOLR ORIGIN      800.       310
RE DISCPOLR ORIGIN     1100.       310
RE DISCPOLR ORIGIN     1500.       310
RE DISCPOLR ORIGIN      500.       320
RE DISCPOLR ORIGIN      800.       320
RE DISCPOLR ORIGIN     1100.       320
RE DISCPOLR ORIGIN     1500.       320
RE DISCPOLR ORIGIN      500.       330
RE DISCPOLR ORIGIN      800.       330
RE DISCPOLR ORIGIN     1100.       330
RE DISCPOLR ORIGIN     1500.       330
RE DISCPOLR ORIGIN      500.       340
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RE DISCPOLR ORIGIN      800.       340
RE DISCPOLR ORIGIN     1100.       340
RE DISCPOLR ORIGIN     1500.       340
RE DISCPOLR ORIGIN      500.       350
RE DISCPOLR ORIGIN      800.       350
RE DISCPOLR ORIGIN     1100.       350
RE DISCPOLR ORIGIN     1500.       350
RE DISCPOLR ORIGIN      500.       360
RE DISCPOLR ORIGIN      800.       360
RE DISCPOLR ORIGIN     1100.       360
RE DISCPOLR ORIGIN     1500.       360

**  FENCELINE RECEPTORS AT 100-M INTERVALS
RE DISCCART     -224.3     382.8
RE DISCCART     -124.3     382.8
RE DISCCART      -76.8     330.4
RE DISCCART      -33.0     274.1
RE DISCCART       48.4     254.6
RE DISCCART       53.1     154.7
RE DISCCART       15.4      71.3
RE DISCCART       60.6       4.4
RE DISCCART      121.5      26.7
RE DISCCART      159.5      39.9
RE DISCCART      171.5     -34.4
RE DISCCART      207.0      -6.8
RE DISCCART      266.1      43.6
RE DISCCART      315.3     116.5
RE DISCCART      414.0     120.7
RE DISCCART      476.2      82.2
RE DISCCART      478.0     -17.8
RE DISCCART      479.9    -117.8
RE DISCCART      481.7    -217.8
RE DISCCART      483.6    -317.7
RE DISCCART      485.4    -417.7
RE DISCCART      487.3    -517.7
RE DISCCART      489.1    -617.7
RE DISCCART      478.9    -697.4
RE DISCCART      390.4    -653.5
RE DISCCART      291.3    -664.7
RE DISCCART      192.8    -681.6
RE DISCCART       93.6    -691.2
RE DISCCART       -6.4    -689.4
RE DISCCART     -103.8    -670.3
RE DISCCART     -200.1    -643.4
RE DISCCART     -288.4    -599.6
RE DISCCART     -363.6    -537.7
RE DISCCART     -454.2    -503.4
RE DISCCART     -454.2    -603.4
RE DISCCART     -487.7    -622.4
RE DISCCART     -487.7    -522.4
RE DISCCART     -559.6    -534.5
RE DISCCART     -643.6    -588.9
RE DISCCART     -727.5    -643.2
RE DISCCART     -814.1    -688.4
RE DISCCART     -897.5    -743.7
RE DISCCART     -990.0    -775.9
RE DISCCART    -1084.8    -754.8
RE DISCCART    -1164.0    -695.1
RE DISCCART    -1238.6    -629.5
RE DISCCART    -1309.1    -558.6
RE DISCCART    -1379.6    -487.7
RE DISCCART    -1328.7    -450.5
RE DISCCART    -1234.1    -420.9
RE DISCCART    -1151.2    -365.3
RE DISCCART    -1061.6    -320.8
RE DISCCART     -972.0    -276.4
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RE DISCCART     -887.2    -248.9
RE DISCCART     -820.8    -320.5
RE DISCCART     -721.8    -328.0
RE DISCCART     -634.7    -283.0
RE DISCCART     -538.8    -259.6
RE DISCCART     -460.6    -236.6
RE DISCCART     -438.9    -149.3
RE DISCCART     -423.7    -148.8
RE DISCCART     -335.9    -158.5
RE DISCCART     -277.2     -89.6
RE DISCCART     -234.2      -0.4
RE DISCCART     -239.6      93.0
RE DISCCART     -179.0     172.5
RE DISCCART     -188.0     263.9
RE DISCCART     -223.1     356.5
RE FINISHED
**
ME STARTING
ME INPUTFIL  H:\MET\PNSAQQ86.MET
ME ANEMHGHT  22 FEET
ME SURFDATA  13899  1986          PENSACOLA
ME UAIRDATA  12832  1986          APALACHICOLA
ME WINDCATS  1.54    3.09    5.14    8.23   10.80
ME FINISHED
**
OU STARTING
OU RECTABLE ALLAVE FIRST
OU FINISHED
```

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :SO2AQS03.086
PRIME OUTPUT FILE NUMBER 2 :SO2AQS03.087
PRIME OUTPUT FILE NUMBER 3 :SO2AQS03.088
PRIME OUTPUT FILE NUMBER 4 :SO2AQS03.089
PRIME OUTPUT FILE NUMBER 5 :SO2AQS03.090
First title for last output file is: 1986 STONE CONTAINER,PANAMA CITY,SO2 AAQS SCREENING ANAL. 12/25/02
Second title for last output file is: PENSACOLA/APALACHICOLA 86-87, APAL/APAL 88-90 MET DATA, 3 HOUR ER

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: BB3IN					
HIGH 3-Hour					
	1986	720.523	300.00	800.00	86041912
	1987	905.096	300.00	800.00	87032403
	1988	707.193	320.00	800.00	88072012
	1989	760.455	310.00	1100.00	89072615
	1990	780.627	300.00	1100.00	90072012
HSH 3-Hour					
	1986	642.211	300.00	1100.00	86060412
	1987	806.026	300.00	1100.00	87011724
	1988	621.850	310.00	1100.00	88050315
	1989	759.279	310.00	1100.00	89090615
	1990	667.642	300.00	1100.00	90031215
SOURCE GROUP ID: BB4IN					
HIGH 3-Hour					
	1986	707.877	300.00	800.00	86041912
	1987	877.915	300.00	800.00	87032403
	1988	712.100	320.00	800.00	88072012
	1989	756.837	310.00	1100.00	89072615
	1990	776.419	300.00	1100.00	90072012
HSH 3-Hour					
	1986	635.460	300.00	1100.00	86060412
	1987	792.867	300.00	1100.00	87011724
	1988	627.390	330.00	1100.00	88080612
	1989	749.368	310.00	1100.00	89090615
	1990	661.586	300.00	1100.00	90031215

All receptor computations reported with respect to a user-specified origin
GRID 0.00 0.00
DISCRETE 0.00 0.00

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :SO2AQ03R.087
PRIME OUTPUT FILE NUMBER 2 :SO2AQ03R.089
First title for last output file is: 1987 STONE CONTAINER,PANAMA CITY,SO2 AAQS REFINED ANAL. 12/25/02
Second title for last output file is: PENSACOLA/APALACHICOLA 86-87, APAL/APAL 88-90 MET DATA, 3 HOUR ER

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: BB3IN					
HIGH 3-Hour					
	1987	1045.27246	298.00	800.00	87032403
	1989	802.23322	312.00	1100.00	89072615
HSH 3-Hour					
	1987	806.02643	300.00	1100.00	87011724
	1989	761.69073	314.00	1000.00	89060115
SOURCE GROUP ID: BB4IN					
HIGH 3-Hour					
	1987	1026.60095	298.00	800.00	87032403
	1989	794.97754	312.00	1100.00	89072615
HSH 3-Hour					
	1987	792.86725	300.00	1100.00	87011724
	1989	752.64227	314.00	1000.00	89072615

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

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CO STARTING
CO TITLEONE 1986 STONE CONTAINER,PANAMA CITY,SO2 AAQS SCREENING ANAL. 12/25/02
CO TITLETWO PENSACOLA/APALACHICOLA 86-87, APAL/APAL 88-90 MET DATA, 3 HOUR ER
CO MODELOPT DFAULT CONC   RURAL NOCMPL
CO AVERTIME  3
CO POLLUTID SO2
CO DCAYCOEF    .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING
** Source Location Cards:
**          SRCID SRCTYP        XS            YS            ZS
**                             (m)           (m)           (m)
** ALL STACK AND BUILDING DATA BASED ON TN COORDINATE SYSTEM

** STONE POINT SOURCES
** DUMMY SOURCE FOR ORIGIN LOCATION
SO LOCATION  ORIGIN  POINT       0.0         0.0          .0000
SO SRCPARAM ORIGIN    0.0         10.0    300.0      20.00    1.00

** MODEL ID--------------------STONE POINT SOURCES----------------------------------------
** RB1                          NO.1 RECOVERY BOILER
** RB2                          NO.2 RECOVERY BOILER
** SDT1                         NO.1 SMELT DISSOLVING TANK
** SDT2                         NO.2 SMELT DISSOLVING TANK
** LK1                          LIME KILN
** BB3                          NO.3 COMBINATION BOILER
** BB4                          NO.4 COMBINATION BOILER
*************************************************************************
**                                                                      *
** BB3REV - BB3 INCREASED BY 402 LB/HR, RESULTS IN BB3INC SOURCE GROUP  *
** BB4REV - BB4 INCREASED BY 402 LB/HR, RESULTS IN BB4INC SOURCE GROUP  *
**                                                                      *
*************************************************************************
**          SRCID SRCTYP        XS       YS           ZS
**                             (m)      (m)          (m)
SO LOCATION RB1      POINT     13.02   -16.49       .0000
SO LOCATION RB2      POINT     26.73    -0.15       .0000
SO LOCATION SDT1     POINT      0.41    -5.91       .0000
SO LOCATION SDT2     POINT     14.12    10.43       .0000
SO LOCATION LK1      POINT    163.79   -35.97       .0000
SO LOCATION BB3      POINT    -28.57    32.33       .0000
SO LOCATION BB3REV   POINT    -28.57    32.33       .0000
SO LOCATION BB4      POINT    -35.63    23.93       .0000
SO LOCATION BB4REV   POINT    -35.63    23.93       .0000

** OTHER SOURCES                                    #            MODEL ID NAME
** ------------------------------------------------------------------------------
** 0050001 ARIZONA CHEMICAL COMPANY
** BOILER #1                                       1            ARIZCHM1
** BOILER #2                                       2            ARIZCHM2
** GRANGER ASPHALT PAVING                                       GRANGER
** GULF ASPHALT CORPORATION                                     GLFASPHT
** TRIANGLE CONSTRUCTION & ROAD BUILDING                        TRIANGLE
** 0050014 GULF POWER CO. (LANSING SMITH PLANT)
** LANSING SMITH UNITS 1 & 2                      1,2           GULFPW12
** PEAKING TURBINES                                PK           GULFPWPK
** 0050031 BAY COUNTY ENERGY SYSTEMS
** BOILERS #1 & #2                                1,2           BAYENRGY
** 0630014 GULF POWER CO. (SCHOLZ PLANT)
** UNITS 1 & 2 (ESP)                              1,2           SCH12

SO LOCATION ARIZCHM1 POINT       79.      74.       .0000
SO LOCATION ARIZCHM2 POINT       79.      74.       .0000
SO LOCATION GRANGER  POINT    -4710.    5180.       .0000
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SO LOCATION GLFASPHT POINT     2100.     8600.        .0000
SO LOCATION TRIANGLE POINT     6000.    11900.        .0000
SO LOCATION GULFPW12 POINT    -7600.    14000.        .0000
SO LOCATION GULFPWPK POINT    -7600.    14000.        .0000
SO LOCATION BAYENRGY POINT    11200.    13800.        .0000
SO LOCATION SCH12    POINT    69600.    60700.        .0000

** Source Parameter Cards:
** POINT:   SRCID          QS         HS       TS        VS        DS
**                       (g/s)        (m)      (K)      (m/s)     (m)
** STONE POINT SOURCES
SO SRCPARAM RB1          16.35       71.0    421.0     26.50     1.96
SO SRCPARAM RB2          16.35       71.0    428.0     27.48     1.96
SO SRCPARAM SDT1          0.13       71.0    347.4      5.25     1.83
SO SRCPARAM SDT2          0.13       71.0    347.4      4.56     1.83
SO SRCPARAM LK1           0.59       18.6    348.0     11.84     2.44
SO SRCPARAM BB3         149.99       64.9    337.6     30.41     2.39
SO SRCPARAM BB3REV      200.64       64.9    337.6     30.41     2.39
SO SRCPARAM BB4          98.41       64.9    336.5     32.29     2.39
SO SRCPARAM BB4REV      149.06       64.9    336.5     32.29     2.39

** OTHER SOURCES
SO SRCPARAM ARIZCHM1     17.64       30.5    510.9     22.75     1.22
SO SRCPARAM ARIZCHM2     17.64       30.5    466.5     17.64     1.22
SO SRCPARAM GRANGER       7.14        8.5    405.4      2.57     3.05
SO SRCPARAM GLFASPHT      7.44        7.6    327.6     11.40     1.22
SO SRCPARAM TRIANGLE      3.62       10.7    349.8     14.25     1.01
SO SRCPARAM GULFPW12   3258.20       60.7    441.0     31.30     5.49
SO SRCPARAM GULFPWPK     34.50       10.1    922.0     36.90     4.18
SO SRCPARAM BAYENRGY      9.02       38.1    477.6     17.50     1.37
SO SRCPARAM SCH12       912.74       45.7    438.7     12.19     4.11


SO BUILDHGT LK1          0.00    0.00    0.00    0.00    8.69    8.69
SO BUILDHGT LK1          8.69    8.69   65.23   65.23   65.23    0.00
SO BUILDHGT LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1          0.00    0.00    0.00    0.00   37.57   46.58
SO BUILDWID LK1         54.16   60.10   33.73   34.47   34.16    0.00
SO BUILDWID LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN LK1          0.00    0.00    0.00    0.00   63.06   63.40
SO BUILDLEN LK1         61.81   58.34   31.97   29.23   25.61    0.00
SO BUILDLEN LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    LK1          0.00    0.00    0.00    0.00  -85.81  -86.72
SO XBADJ    LK1        -84.99  -80.68 -158.85 -159.96 -156.21    0.00
SO XBADJ    LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    LK1          0.00    0.00    0.00    0.00   13.50    3.73
SO YBADJ    LK1         -6.15  -15.85   26.76    1.55  -23.71    0.00
SO YBADJ    LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    LK1          0.00    0.00    0.00    0.00    0.00    0.00


SO BUILDHGT RB1         52.73   52.73   52.73   52.73   52.73   52.73
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SO BUILDHGT RB1        52.73   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT RB1        65.23   65.23   65.23   65.23   65.23   52.73
SO BUILDHGT RB1        52.73   52.73   52.73   52.73   52.73   52.73
SO BUILDHGT RB1        52.73   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT RB1        65.23   65.23   65.23   65.23   65.23   52.73
SO BUILDWID RB1        39.52   36.77   32.91   28.04   32.91   36.77
SO BUILDWID RB1        39.52   41.07   33.73   34.47   34.16   32.82
SO BUILDWID RB1        30.49   32.83   34.17   34.48   33.74   41.07
SO BUILDWID RB1        39.52   36.77   32.91   28.04   32.91   36.77
SO BUILDWID RB1        39.52   41.07   33.73   34.47   34.16   32.82
SO BUILDWID RB1        30.49   32.83   34.17   34.48   33.74   41.07
SO BUILDLEN RB1        40.41   38.23   34.88   30.48   34.88   38.23
SO BUILDLEN RB1        40.41   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN RB1        16.16   21.20   25.61   29.23   31.97   41.37
SO BUILDLEN RB1        40.41   38.23   34.88   30.48   34.88   38.23
SO BUILDLEN RB1        40.41   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN RB1        16.16   21.20   25.61   29.23   31.97   41.37
SO XBADJ    RB1        -8.69   -7.53   -6.15   -4.57   -7.73  -10.65
SO XBADJ    RB1       -13.25  -15.45   -8.08   -8.10   -7.87   -7.40
SO XBADJ    RB1        -6.71  -11.10  -15.16  -18.76  -21.78  -31.79
SO XBADJ    RB1       -31.73  -30.70  -28.74  -25.90  -27.15  -27.57
SO XBADJ    RB1       -27.16  -25.92  -23.89  -21.14  -17.74  -13.80
SO XBADJ    RB1        -9.45  -10.10  -10.45  -10.47  -10.18   -9.58
SO YBADJ    RB1        -1.37    0.65    2.65    4.57    6.35    7.94
SO YBADJ    RB1         9.29   10.35    7.28    8.55    9.55   10.26
SO YBADJ    RB1        10.66   10.74   10.49    9.92    9.05    3.35
SO YBADJ    RB1         1.37   -0.65   -2.65   -4.57   -6.35   -7.94
SO YBADJ    RB1        -9.29  -10.35   -7.29   -8.55   -9.55  -10.26
SO YBADJ    RB1       -10.66  -10.74  -10.49   -9.92   -9.05   -3.35


SO BUILDHGT RB2        52.73   52.73   52.73   52.73   52.73   52.73
SO BUILDHGT RB2        52.73   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT RB2        65.23   65.23   65.23   65.23   65.23   52.73
SO BUILDHGT RB2        52.73   52.73   52.73   52.73   52.73   52.73
SO BUILDHGT RB2        52.73   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT RB2        65.23   65.23   65.23   65.23   65.23   52.73
SO BUILDWID RB2        39.52   36.77   32.91   28.04   32.91   36.77
SO BUILDWID RB2        39.52   41.07   33.73   34.47   34.16   32.82
SO BUILDWID RB2        30.49   32.83   34.17   34.48   33.74   41.07
SO BUILDWID RB2        39.52   36.77   32.91   28.04   32.91   36.77
SO BUILDWID RB2        39.52   41.07   33.73   34.47   34.16   32.82
SO BUILDWID RB2        30.49   32.83   34.17   34.48   33.74   41.07
SO BUILDLEN RB2        40.41   38.23   34.88   30.48   34.88   38.23
SO BUILDLEN RB2        40.41   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN RB2        16.16   21.20   25.61   29.23   31.97   41.37
SO BUILDLEN RB2        40.41   38.23   34.88   30.48   34.88   38.23
SO BUILDLEN RB2        40.41   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN RB2        16.16   21.20   25.61   29.23   31.97   41.37
SO XBADJ    RB2       -27.16  -27.58  -27.15  -25.90  -28.73  -30.70
SO XBADJ    RB2       -31.73  -31.79  -21.79  -18.76  -15.16  -11.10
SO XBADJ    RB2        -6.71   -7.40   -7.86   -8.09   -8.07  -15.45
SO XBADJ    RB2       -13.25  -10.65   -7.73   -4.57   -6.15   -7.53
SO XBADJ    RB2        -8.69   -9.58  -10.18  -10.47  -10.45  -10.10
SO XBADJ    RB2        -9.45  -13.81  -17.74  -21.14  -23.89  -25.92
SO YBADJ    RB2         9.29    7.94    6.35    4.57    2.65    0.64
SO YBADJ    RB2        -1.38   -3.36   -9.06   -9.93  -10.49  -10.74
SO YBADJ    RB2       -10.67  -10.27   -9.55   -8.55   -7.29  -10.35
SO YBADJ    RB2        -9.29   -7.94   -6.35   -4.57   -2.65   -0.64
SO YBADJ    RB2         1.38    3.36    9.06    9.93   10.49   10.74
SO YBADJ    RB2        10.67   10.27    9.55    8.55    7.29   10.35


SO BUILDHGT SDT1       52.73   52.73   52.73   52.73   52.73   52.73
SO BUILDHGT SDT1       52.73   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT SDT1       65.23   65.23   65.23   65.23   65.23   52.73
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SO BUILDHGT SDT1       52.73   52.73   52.73   52.73   52.73   52.73
SO BUILDHGT SDT1       52.73   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT SDT1       65.23   65.23   65.23   65.23   65.23   52.73
SO BUILDWID SDT1       39.52   36.77   32.91   28.04   32.91   36.77
SO BUILDWID SDT1       39.52   41.07   33.73   34.47   34.16   32.82
SO BUILDWID SDT1       30.49   32.83   34.17   34.48   33.74   41.07
SO BUILDWID SDT1       39.52   36.77   32.91   28.04   32.91   36.77
SO BUILDWID SDT1       39.52   41.07   33.73   34.47   34.16   32.82
SO BUILDWID SDT1       30.49   32.83   34.17   34.48   33.74   41.07
SO BUILDLEN SDT1       40.41   38.23   34.88   30.48   34.88   38.23
SO BUILDLEN SDT1       40.41   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN SDT1       16.16   21.20   25.61   29.23   31.97   41.37
SO BUILDLEN SDT1       40.41   38.23   34.88   30.48   34.88   38.23
SO BUILDLEN SDT1       40.41   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN SDT1       16.16   21.20   25.61   29.23   31.97   41.37
SO XBADJ    SDT1      -16.92  -13.16   -9.00   -4.57   -4.87   -5.02
SO XBADJ    SDT1       -5.02   -4.87    4.53    6.16    7.60    8.81
SO XBADJ    SDT1        9.75    5.11    0.31   -4.50   -9.18  -21.21
SO XBADJ    SDT1      -23.50  -25.07  -25.88  -25.91  -30.01  -33.20
SO XBADJ    SDT1      -35.39  -36.50  -36.50  -35.39  -33.21  -30.01
SO XBADJ    SDT1      -25.91  -26.31  -25.91  -24.73  -22.79  -20.16
SO YBADJ    SDT1      -15.63  -14.82  -13.56  -11.89   -9.86   -7.53
SO YBADJ    SDT1       -4.97   -2.26   -3.29    0.32    3.92    7.40
SO YBADJ    SDT1       10.66   13.60   16.12   18.15   19.63   15.97
SO YBADJ    SDT1       15.63   14.82   13.56   11.89    9.86    7.53
SO YBADJ    SDT1        4.97    2.26    3.29   -0.32   -3.92   -7.40
SO YBADJ    SDT1      -10.66  -13.60  -16.12  -18.15  -19.63  -15.96

SO BUILDHGT SDT2       52.73   52.73   52.73   52.73   52.73   52.73
SO BUILDHGT SDT2       52.73   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT SDT2       65.23   65.23   65.23   65.23   65.23   52.73
SO BUILDHGT SDT2       52.73   52.73   52.73   52.73   52.73   52.73
SO BUILDHGT SDT2       52.73   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT SDT2       65.23   65.23   65.23   65.23   65.23   52.73
SO BUILDWID SDT2       39.52   36.77   32.91   28.04   32.91   36.77
SO BUILDWID SDT2       39.52   41.07   33.73   34.47   34.16   32.82
SO BUILDWID SDT2       30.49   32.83   34.17   34.48   33.74   41.07
SO BUILDWID SDT2       39.52   36.77   32.91   28.04   32.91   36.77
SO BUILDWID SDT2       39.52   41.07   33.73   34.47   34.16   32.82
SO BUILDWID SDT2       30.49   32.83   34.17   34.48   33.74   41.07
SO BUILDLEN SDT2       40.41   38.23   34.88   30.48   34.88   38.23
SO BUILDLEN SDT2       40.41   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN SDT2       16.16   21.20   25.61   29.23   31.97   41.37
SO BUILDLEN SDT2       40.41   38.23   34.88   30.48   34.88   38.23
SO BUILDLEN SDT2       40.41   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN SDT2       16.16   21.20   25.61   29.23   31.97   41.37
SO XBADJ    SDT2      -35.39  -33.20  -30.01  -25.90  -25.88  -25.07
SO XBADJ    SDT2      -23.49  -21.21   -9.18   -4.50    0.31    5.11
SO XBADJ    SDT2        9.76    8.81    7.60    6.16    4.54   -4.87
SO XBADJ    SDT2       -5.02   -5.02   -4.87   -4.58   -9.01  -13.16
SO XBADJ    SDT2      -16.92  -20.16  -22.79  -24.73  -25.91  -26.31
SO XBADJ    SDT2      -25.91  -30.02  -33.21  -35.39  -36.50  -36.50
SO YBADJ    SDT2       -4.97   -7.53   -9.86  -11.89  -13.56  -14.82
SO YBADJ    SDT2      -15.63  -15.97  -19.64  -18.16  -16.12  -13.60
SO YBADJ    SDT2      -10.67   -7.41   -3.92   -0.32    3.29    2.26
SO YBADJ    SDT2        4.97    7.53    9.86   11.89   13.56   14.82
SO YBADJ    SDT2       15.63   15.97   19.63   18.16   16.12   13.60
SO YBADJ    SDT2       10.67    7.41    3.92    0.32   -3.29   -2.26

SO BUILDHGT BB3        25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB3        25.30   25.30   52.73   65.23   65.23   65.23
SO BUILDHGT BB3        65.23   65.23   65.23   65.23   52.73   25.30
SO BUILDHGT BB3        25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB3        25.30   25.30   52.73   65.23   65.23   65.23
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SO BUILDHGT BB3        65.23   65.23   65.23   65.23   52.73   25.30
SO BUILDWID BB3        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB3        51.82   51.80   41.37   33.63   33.63   32.82
SO BUILDWID BB3        30.49   32.83   33.63   33.63   41.37   51.79
SO BUILDWID BB3        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB3        51.82   51.80   41.37   33.63   33.63   32.82
SO BUILDWID BB3        30.49   32.83   33.63   33.63   41.37   51.79
SO BUILDLEN BB3        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB3        47.07   50.19   41.07   29.23   25.61   21.20
SO BUILDLEN BB3        16.16   21.20   25.61   29.23   41.07   50.20
SO BUILDLEN BB3        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB3        47.07   50.19   41.07   29.23   25.61   21.20
SO BUILDLEN BB3        16.16   21.20   25.61   29.23   41.07   50.20
SO XBADJ    BB3       -52.62  -48.54  -42.98  -36.12  -35.57  -33.94
SO XBADJ    BB3       -31.28  -27.67   24.41   29.23   25.61   53.03
SO XBADJ    BB3        56.53   53.03   25.61   29.23   24.41    4.90
SO XBADJ    BB3         5.54    6.01    6.30    6.40   -1.10   -8.58
SO XBADJ    BB3       -15.79  -22.52  -65.48   29.23   25.61  -74.23
SO XBADJ    BB3       -72.69  -74.23   25.61   29.23  -65.48  -55.10
SO YBADJ    BB3        -7.84  -12.77  -17.32  -21.33  -24.70  -27.32
SO YBADJ    BB3       -29.11  -30.01  -37.71   29.23   25.61  -11.22
SO YBADJ    BB3         0.00   11.22   25.61   29.23   37.71    2.68
SO YBADJ    BB3         7.84   12.77   17.32   21.33   24.70   27.32
SO YBADJ    BB3        29.11   30.01   37.71   29.23   25.61   11.22
SO YBADJ    BB3         0.00  -11.22   25.61   29.23  -37.71   -2.68


SO BUILDHGT BB4        25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB4        25.30   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT BB4        65.23   65.23   65.23   52.73   25.30   25.30
SO BUILDHGT BB4        25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB4        25.30   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT BB4        65.23   65.23   65.23   52.73   25.30   25.30
SO BUILDWID BB4        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB4        51.82   41.07   33.73   34.44   34.16   32.82
SO BUILDWID BB4        30.49   32.83   34.17   40.41   50.19   51.79
SO BUILDWID BB4        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB4        51.82   41.07   33.73   34.44   34.16   32.82
SO BUILDWID BB4        30.49   32.83   34.17   40.41   50.19   51.79
SO BUILDLEN BB4        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB4        47.07   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN BB4        16.16   21.20   25.61   39.52   51.80   50.20
SO BUILDLEN BB4        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB4        47.07   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN BB4        16.16   21.20   25.61   39.52   51.80   50.20
SO XBADJ    BB4       -43.12  -38.23  -32.18  -25.15  -24.77  -23.63
SO XBADJ    BB4       -21.78   25.44   40.57   29.23   51.67   54.94
SO XBADJ    BB4        56.54   51.13   44.17   25.57   -2.94   -3.50
SO XBADJ    BB4        -3.96   -4.29   -4.50   -4.57  -11.91  -18.89
SO XBADJ    BB4       -25.30  -66.81  -72.54   29.23  -77.28  -76.15
SO XBADJ    BB4       -72.70  -72.34  -69.78  -65.09  -48.86  -46.70
SO YBADJ    BB4       -13.34  -16.54  -19.23  -21.34  -22.80  -23.57
SO YBADJ    BB4       -23.63  -37.90  -33.13   29.23  -11.79   -0.42
SO YBADJ    BB4        10.97   22.02   32.41   38.84    5.84    9.74
SO YBADJ    BB4        13.34   16.54   19.23   21.34   22.80   23.57
SO YBADJ    BB4        23.63   37.90   33.13   29.23   11.79    0.42
SO YBADJ    BB4       -10.97  -22.02  -32.41  -38.84   -5.84   -9.74

SO BUILDHGT BB3REV     25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB3REV     25.30   25.30   52.73   65.23   65.23   65.23
SO BUILDHGT BB3REV     65.23   65.23   65.23   65.23   52.73   25.30
SO BUILDHGT BB3REV     25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB3REV     25.30   25.30   52.73   65.23   65.23   65.23
SO BUILDHGT BB3REV     65.23   65.23   65.23   65.23   52.73   25.30
SO BUILDWID BB3REV     51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB3REV     51.82   51.80   41.37   33.63   33.63   32.82
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SO BUILDWID BB3REV        30.49   32.83   33.63   33.63   41.37   51.79
SO BUILDWID BB3REV        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB3REV        51.82   51.80   41.37   33.63   33.63   32.82
SO BUILDWID BB3REV        30.49   32.83   33.63   33.63   41.37   51.79
SO BUILDLEN BB3REV        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB3REV        47.07   50.19   41.07   29.23   25.61   21.20
SO BUILDLEN BB3REV        16.16   21.20   25.61   29.23   41.07   50.20
SO BUILDLEN BB3REV        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB3REV        47.07   50.19   41.07   29.23   25.61   21.20
SO BUILDLEN BB3REV        16.16   21.20   25.61   29.23   41.07   50.20
SO XBADJ    BB3REV       -52.62  -48.54  -42.98  -36.12  -35.57  -33.94
SO XBADJ    BB3REV       -31.28  -27.67   24.41   29.23   25.61   53.03
SO XBADJ    BB3REV        56.53   53.03   25.61   29.23   24.41    4.90
SO XBADJ    BB3REV         5.54    6.01    6.30    6.40   -1.10   -8.58
SO XBADJ    BB3REV       -15.79  -22.52  -65.48   29.23   25.61  -74.23
SO XBADJ    BB3REV       -72.69  -74.23   25.61   29.23  -65.48  -55.10
SO YBADJ    BB3REV        -7.84  -12.77  -17.32  -21.33  -24.70  -27.32
SO YBADJ    BB3REV       -29.11  -30.01  -37.71   29.23   25.61  -11.22
SO YBADJ    BB3REV         0.00   11.22   25.61   29.23   37.71    2.68
SO YBADJ    BB3REV         7.84   12.77   17.32   21.33   24.70   27.32
SO YBADJ    BB3REV        29.11   30.01   37.71   29.23   25.61   11.22
SO YBADJ    BB3REV         0.00  -11.22   25.61   29.23  -37.71   -2.68


SO BUILDHGT BB4REV        25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB4REV        25.30   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT BB4REV        65.23   65.23   65.23   52.73   25.30   25.30
SO BUILDHGT BB4REV        25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB4REV        25.30   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT BB4REV        65.23   65.23   65.23   52.73   25.30   25.30
SO BUILDWID BB4REV        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB4REV        51.82   41.07   33.73   34.44   34.16   32.82
SO BUILDWID BB4REV        30.49   32.83   34.17   40.41   50.19   51.79
SO BUILDWID BB4REV        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB4REV        51.82   41.07   33.73   34.44   34.16   32.82
SO BUILDWID BB4REV        30.49   32.83   34.17   40.41   50.19   51.79
SO BUILDLEN BB4REV        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB4REV        47.07   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN BB4REV        16.16   21.20   25.61   39.52   51.80   50.20
SO BUILDLEN BB4REV        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB4REV        47.07   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN BB4REV        16.16   21.20   25.61   39.52   51.80   50.20
SO XBADJ    BB4REV       -43.12  -38.23  -32.18  -25.15  -24.77  -23.63
SO XBADJ    BB4REV       -21.78   25.44   40.57   29.23   51.67   54.94
SO XBADJ    BB4REV        56.54   51.13   44.17   25.57   -2.94   -3.50
SO XBADJ    BB4REV        -3.96   -4.29   -4.50   -4.57  -11.91  -18.89
SO XBADJ    BB4REV       -25.30  -66.81  -72.54   29.23  -77.28  -76.15
SO XBADJ    BB4REV       -72.70  -72.34  -69.78  -65.09  -48.86  -46.70
SO YBADJ    BB4REV       -13.34  -16.54  -19.23  -21.34  -22.80  -23.57
SO YBADJ    BB4REV       -23.63  -37.90  -33.13   29.23  -11.79   -0.42
SO YBADJ    BB4REV        10.97   22.02   32.41   38.84    5.84    9.74
SO YBADJ    BB4REV        13.34   16.54   19.23   21.34   22.80   23.57
SO YBADJ    BB4REV        23.63   37.90   33.13   29.23   11.79    0.42
SO YBADJ    BB4REV       -10.97  -22.02  -32.41  -38.84   -5.84   -9.74

SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
SO SRCGROUP BB3INC RB1 RB2 SDT1 SDT2 LK1 BB3REV BB4 ARIZCHM1 ARIZCHM2
SO SRCGROUP BB3INC GULFPW12 GULFPWPK BAYENRGY FCPLKSDT FCPRB567 FCPPB9 SCH12
SO SRCGROUP BB3INC GRANGER  GLFASPHT TRIANGLE
SO SRCGROUP BB4INC RB1 RB2 SDT1 SDT2 LK1 BB3 BB4REV ARIZCHM1 ARIZCHM2
SO SRCGROUP BB4INC GULFPW12 GULFPWPK BAYENRGY FCPLKSDT FCPRB567 FCPPB9 SCH12
SO SRCGROUP BB4INC GRANGER  GLFASPHT TRIANGLE
SO FINISHED


RE STARTING
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RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG   0.0     0.0
RE GRIDPOLR POL DIST  2000. 2500. 3000. 3500. 4000. 4500. 5000.
RE GRIDPOLR POL DIST  7000. 9000. 12000. 15000. 18000. 21000. 24000.
RE GRIDPOLR POL GDIR  36   10.00   10.00
RE GRIDPOLR POL END
RE DISCPOLR ORIGIN     500.        10
RE DISCPOLR ORIGIN     800.        10
RE DISCPOLR ORIGIN    1100.        10
RE DISCPOLR ORIGIN    1500.        10
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RE DISCPOLR ORIGIN    1500.        10
RE DISCPOLR ORIGIN     200.        20
RE DISCPOLR ORIGIN     500.        20
RE DISCPOLR ORIGIN     800.        20
RE DISCPOLR ORIGIN    1100.        20
RE DISCPOLR ORIGIN    1500.        20
RE DISCPOLR ORIGIN     200.        20
RE DISCPOLR ORIGIN     500.        20
RE DISCPOLR ORIGIN     800.        20
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RE DISCPOLR ORIGIN    1500.        20
RE DISCPOLR ORIGIN     200.        20
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RE DISCPOLR ORIGIN     800.        20
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RE DISCPOLR ORIGIN    1500.        20
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RE DISCPOLR ORIGIN     800.        30
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RE DISCPOLR ORIGIN    1100.        70
RE DISCPOLR ORIGIN    1500.        70
RE DISCPOLR ORIGIN     500.        70
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RE DISCPOLR ORIGIN      800.         70
RE DISCPOLR ORIGIN     1100.         70
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RE DISCPOLR ORIGIN      500.        100
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RE DISCPOLR ORIGIN      500.        100
RE DISCPOLR ORIGIN      800.        100
RE DISCPOLR ORIGIN     1100.        100
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RE DISCPOLR ORIGIN     1500.       100
RE DISCPOLR ORIGIN      500.       100
RE DISCPOLR ORIGIN      800.       100
RE DISCPOLR ORIGIN     1100.       100
RE DISCPOLR ORIGIN     1500.       100
RE DISCPOLR ORIGIN      800.       110
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RE DISCPOLR ORIGIN     1500.       250
RE DISCPOLR ORIGIN      500.       260
RE DISCPOLR ORIGIN      800.       260
RE DISCPOLR ORIGIN     1100.       260
RE DISCPOLR ORIGIN     1500.       260
RE DISCPOLR ORIGIN      500.       270
RE DISCPOLR ORIGIN      800.       270
RE DISCPOLR ORIGIN     1100.       270
RE DISCPOLR ORIGIN     1500.       270
RE DISCPOLR ORIGIN      500.       280
RE DISCPOLR ORIGIN      800.       280
RE DISCPOLR ORIGIN     1100.       280
RE DISCPOLR ORIGIN     1500.       280
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RE DISCPOLR ORIGIN      500.       290
RE DISCPOLR ORIGIN      800.       290
RE DISCPOLR ORIGIN     1100.       290
RE DISCPOLR ORIGIN     1500.       290
RE DISCPOLR ORIGIN      500.       300
RE DISCPOLR ORIGIN      800.       300
RE DISCPOLR ORIGIN     1100.       300
RE DISCPOLR ORIGIN     1500.       300
RE DISCPOLR ORIGIN      500.       310
RE DISCPOLR ORIGIN      800.       310
RE DISCPOLR ORIGIN     1100.       310
RE DISCPOLR ORIGIN     1500.       310
RE DISCPOLR ORIGIN      500.       320
RE DISCPOLR ORIGIN      800.       320
RE DISCPOLR ORIGIN     1100.       320
RE DISCPOLR ORIGIN     1500.       320
RE DISCPOLR ORIGIN      500.       330
RE DISCPOLR ORIGIN      800.       330
RE DISCPOLR ORIGIN     1100.       330
RE DISCPOLR ORIGIN     1500.       330
RE DISCPOLR ORIGIN      500.       340
RE DISCPOLR ORIGIN      800.       340
RE DISCPOLR ORIGIN     1100.       340
RE DISCPOLR ORIGIN     1500.       340
RE DISCPOLR ORIGIN      500.       350
RE DISCPOLR ORIGIN      800.       350
RE DISCPOLR ORIGIN     1100.       350
RE DISCPOLR ORIGIN     1500.       350
RE DISCPOLR ORIGIN      500.       360
RE DISCPOLR ORIGIN      800.       360
RE DISCPOLR ORIGIN     1100.       360
RE DISCPOLR ORIGIN     1500.       360

**  FENCELINE RECEPTORS AT 100-M INTERVALS
RE DISCCART     -224.3     382.8
RE DISCCART     -124.3     382.8
RE DISCCART      -76.8     330.4
RE DISCCART      -33.0     274.1
RE DISCCART       48.4     254.6
RE DISCCART       53.1     154.7
RE DISCCART       15.4      71.3
RE DISCCART       60.6       4.4
RE DISCCART      121.5      26.7
RE DISCCART      159.5      39.9
RE DISCCART      171.5     -34.4
RE DISCCART      207.0      -6.8
RE DISCCART      266.1      43.6
RE DISCCART      315.3     116.5
RE DISCCART      414.0     120.7
RE DISCCART      476.2      82.2
RE DISCCART      478.0     -17.8
RE DISCCART      479.9    -117.8
RE DISCCART      481.7    -217.8
RE DISCCART      483.6    -317.7
RE DISCCART      485.4    -417.7
RE DISCCART      487.3    -517.7
RE DISCCART      489.1    -617.7
RE DISCCART      478.9    -697.4
RE DISCCART      390.4    -653.5
RE DISCCART      291.3    -664.7
RE DISCCART      192.8    -681.6
RE DISCCART       93.6    -691.2
RE DISCCART       -6.4    -689.4
RE DISCCART     -103.8    -670.3
RE DISCCART     -200.1    -643.4
RE DISCCART     -288.4    -599.6
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RE DISCCART     -363.6    -537.7
RE DISCCART     -454.2    -503.4
RE DISCCART     -454.2    -603.4
RE DISCCART     -487.7    -622.4
RE DISCCART     -487.7    -522.4
RE DISCCART     -559.6    -534.5
RE DISCCART     -643.6    -588.9
RE DISCCART     -727.5    -643.2
RE DISCCART     -814.1    -688.4
RE DISCCART     -897.5    -743.7
RE DISCCART     -990.0    -775.9
RE DISCCART    -1084.8    -754.8
RE DISCCART    -1164.0    -695.1
RE DISCCART    -1238.6    -629.5
RE DISCCART    -1309.1    -558.6
RE DISCCART    -1379.6    -487.7
RE DISCCART    -1328.7    -450.5
RE DISCCART    -1234.1    -420.9
RE DISCCART    -1151.2    -365.3
RE DISCCART    -1061.6    -320.8
RE DISCCART     -972.0    -276.4
RE DISCCART     -887.2    -248.9
RE DISCCART     -820.8    -320.5
RE DISCCART     -721.8    -328.0
RE DISCCART     -634.7    -283.0
RE DISCCART     -538.8    -259.6
RE DISCCART     -460.6    -236.6
RE DISCCART     -438.9    -149.3
RE DISCCART     -423.7    -148.8
RE DISCCART     -335.9    -158.5
RE DISCCART     -277.2     -89.6
RE DISCCART     -234.2      -0.4
RE DISCCART     -239.6      93.0
RE DISCCART     -179.0     172.5
RE DISCCART     -188.0     263.9
RE DISCCART     -223.1     356.5
RE FINISHED

ME STARTING
ME INPUTFIL  D:\MET\PNSAQQ86.MET
ME ANEMHGHT  22 FEET
ME SURFDATA  13899  1986          PENSACOLA
ME UAIRDATA  12832  1986          APALACHICOLA
ME WINDCATS  1.54    3.09    5.14    8.23   10.80
ME FINISHED
**
OU STARTING
OU RECTABLE ALLAVE FIRST SECOND
OU FINISHED
```

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :SO2AQS24.086
PRIME OUTPUT FILE NUMBER 2 :SO2AQS24.087
PRIME OUTPUT FILE NUMBER 3 :SO2AQS24.088
PRIME OUTPUT FILE NUMBER 4 :SO2AQS24.089
PRIME OUTPUT FILE NUMBER 5 :SO2AQS24.090
First title for last output file is: 1986 STONE CONTAINER,PANAMA CITY,SO2 AAQS SCREENING ANAL. 12/25/02
Second title for last output file is: PENSACOLA/APALACHICOLA 86-87, APAL/APAL 88-90 MET DATA, 24 HOUR ER

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: BB3IN					
Annual					
	1986	20.712	320.00	1100.00	86123124
	1987	21.410	300.00	1500.00	87123124
	1988	25.665	300.00	1500.00	88123124
	1989	23.647	310.00	1100.00	89123124
	1990	33.305	300.00	1500.00	90123124
HIGH 24-Hour					
	1986	184.164	130.00	1100.00	86012724
	1987	231.615	300.00	1100.00	87032424
	1988	197.639	140.00	1100.00	88112824
	1989	197.302	130.00	1100.00	89022324
	1990	241.815	300.00	1500.00	90052624
HSH 24-Hour					
	1986	174.563	130.00	1100.00	86012624
	1987	177.421	300.00	800.00	87031724
	1988	139.334	310.00	1100.00	88052924
	1989	159.150	140.00	800.00	89022324
	1990	187.256	300.00	1100.00	90052524
SOURCE GROUP ID: BB4IN					
Annual					
	1986	20.026	320.00	1100.00	86123124
	1987	21.333	300.00	1500.00	87123124
	1988	25.598	300.00	1500.00	88123124
	1989	23.428	310.00	1100.00	89123124
	1990	33.235	300.00	1500.00	90123124
HIGH 24-Hour					
	1986	180.366	130.00	1100.00	86012724
	1987	226.360	300.00	1100.00	87032424
	1988	183.990	140.00	1100.00	88112824
	1989	192.515	130.00	1100.00	89022324
	1990	239.006	300.00	1500.00	90052624
HSH 24-Hour					
	1986	171.452	130.00	1100.00	86012624
	1987	190.631	290.00	1100.00	87120724
	1988	137.611	310.00	1100.00	88052924
	1989	154.179	150.00	1500.00	89022324
	1990	184.744	300.00	1500.00	90060124

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :SO2AQ24R.086
PRIME OUTPUT FILE NUMBER 2 :SO2AQ24R.087
PRIME OUTPUT FILE NUMBER 3 :SO2AQ24R.090
First title for last output file is: 1986 STONE CONTAINER,PANAMA CITY,SO2 AAQS REFINED ANAL. 12/25/02
Second title for last output file is: PENSACOLA/APALACHICOLA 86-87, APAL/APAL 88-90 MET DATA, 24 HOUR ER

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: BB3IN					
Annual					
	1986	13.40911	130.00	1100.00	86123124
	1987	21.55966	300.00	1300.00	87123124
	1990	35.18256	304.00	1300.00	90123124
HIGH 24-Hour					
	1986	190.25096	132.00	1000.00	86012724
	1987	231.61455	300.00	1100.00	87032424
	1990	241.81528	300.00	1500.00	90052624
HSH 24-Hour					
	1986	174.88496	130.00	1200.00	86012624
	1987	201.17627	302.00	1400.00	87031824
	1990	210.82248	302.00	1400.00	90060124
SOURCE GROUP ID: BB4IN					
Annual					
	1986	13.27589	130.00	1100.00	86123124
	1987	21.47680	300.00	1300.00	87123124
	1990	34.87655	304.00	1300.00	90123124
HIGH 24-Hour					
	1986	185.36395	132.00	1000.00	86012724
	1987	226.44786	300.00	1200.00	87032424
	1990	239.00598	300.00	1500.00	90052624
HSH 24-Hour					
	1986	172.00673	130.00	1200.00	86012624
	1987	198.05225	302.00	1400.00	87031824
	1990	207.17354	302.00	1400.00	90060124

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

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CO STARTING
CO TITLEONE 1986 STONE CONTAINER,PANAMA CITY,SO2 AAQS SCREENING ANAL. 12/25/02
CO TITLETWO PENSACOLA/APALACHICOLA 86-87, APAL/APAL 88-90 MET DATA, 24 HOUR ER
CO MODELOPT DFAULT CONC   RURAL NOCMPL
CO AVERTIME  PERIOD 24
CO POLLUTID SO2
CO DCAYCOEF    .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING
** Source Location Cards:
**          SRCID SRCTYP        XS            YS            ZS
**                             (m)           (m)           (m)
** ALL STACK AND BUILDING DATA BASED ON TN COORDINATE SYSTEM

** STONE POINT SOURCES
** DUMMY SOURCE FOR ORIGIN LOCATION
SO LOCATION  ORIGIN  POINT       0.0         0.0         .0000
SO SRCPARAM ORIGIN    0.0         10.0    300.0      20.00    1.00

** MODEL ID--------------------STONE POINT SOURCES---------------------------------------
** RB1                          NO.1 RECOVERY BOILER
** RB2                          NO.2 RECOVERY BOILER
** SDT1                         NO.1 SMELT DISSOLVING TANK
** SDT2                         NO.2 SMELT DISSOLVING TANK
** LK1                          LIME KILN
** BB3                          NO.3 COMBINATION BOILER
** BB4                          NO.4 COMBINATION BOILER
*************************************************************************
**                                                                      *
** BB3REV - BB3 INCREASED BY 402 LB/HR, RESULTS IN BB3INC SOURCE GROUP  *
** BB4REV - BB4 INCREASED BY 402 LB/HR, RESULTS IN BB4INC SOURCE GROUP  *
**                                                                      *
*************************************************************************
**          SRCID SRCTYP        XS        YS          ZS
**                             (m)       (m)         (m)
SO LOCATION RB1      POINT     13.02   -16.49       .0000
SO LOCATION RB2      POINT     26.73    -0.15       .0000
SO LOCATION SDT1     POINT      0.41    -5.91       .0000
SO LOCATION SDT2     POINT     14.12    10.43       .0000
SO LOCATION LK1      POINT    163.79   -35.97       .0000
SO LOCATION BB3      POINT    -28.57    32.33       .0000
SO LOCATION BB3REV   POINT    -28.57    32.33       .0000
SO LOCATION BB4      POINT    -35.63    23.93       .0000
SO LOCATION BB4REV   POINT    -35.63    23.93       .0000

** OTHER SOURCES                                    #          MODEL ID NAME
** ------------------------------------------------------------------------------
** 0050001 ARIZONA CHEMICAL COMPANY
** BOILER #1                                       1          ARIZCHM1
** BOILER #2                                       2          ARIZCHM2
** GRANGER ASPHALT PAVING                                     GRANGER
** GULF ASPHALT CORPORATION                                   GLFASPHT
** TRIANGLE CONSTRUCTION & ROAD BUILDING                      TRIANGLE
** 0050014 GULF POWER CO. (LANSING SMITH PLANT)
** LANSING SMITH UNITS 1 & 2                      1,2         GULFPW12
** PEAKING TURBINES                               PK          GULFPWPK
** 0050031 BAY COUNTY ENERGY SYSTEMS
** BOILERS #1 & #2                                1,2         BAYENRGY
** 0630014 GULF POWER CO. (SCHOLZ PLANT)
** UNITS 1 & 2 (ESP)                              1,2         SCH12

SO LOCATION ARIZCHM1 POINT       79.      74.       .0000
SO LOCATION ARIZCHM2 POINT       79.      74.       .0000
SO LOCATION GRANGER  POINT    -4710.    5180.       .0000
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SO LOCATION GLFASPHT POINT     2100.     8600.        .0000
SO LOCATION TRIANGLE POINT     6000.    11900.        .0000
SO LOCATION GULFPW12 POINT    -7600.    14000.        .0000
SO LOCATION GULFPWPK POINT    -7600.    14000.        .0000
SO LOCATION BAYENRGY POINT    11200.    13800.        .0000
SO LOCATION SCH12    POINT    69600.    60700.        .0000

** Source Parameter Cards:
** POINT:   SRCID          QS         HS       TS        VS        DS
**                       (g/s)       (m)      (K)      (m/s)     (m)
** STONE POINT SOURCES
SO SRCPARAM RB1          16.35       71.0    421.0     26.50     1.96
SO SRCPARAM RB2          16.35       71.0    428.0     27.48     1.96
SO SRCPARAM SDT1          0.13       71.0    347.4      5.25     1.83
SO SRCPARAM SDT2          0.13       71.0    347.4      4.56     1.83
SO SRCPARAM LK1           0.59       18.6    348.0     11.84     2.44
SO SRCPARAM BB3          61.11       64.9    337.6     30.41     2.39
SO SRCPARAM BB3REV      111.96       64.9    337.6     30.41     2.39
SO SRCPARAM BB4          98.41       64.9    336.5     32.29     2.39
SO SRCPARAM BB4REV      149.06       64.9    336.5     32.29     2.39

** OTHER SOURCES
SO SRCPARAM ARIZCHM1     17.64       30.5    510.9     22.75     1.22
SO SRCPARAM ARIZCHM2     17.64       30.5    466.5     17.64     1.22
SO SRCPARAM GRANGER       7.14        8.5    405.4      2.57     3.05
SO SRCPARAM GLFASPHT      7.44        7.6    327.6     11.40     1.22
SO SRCPARAM TRIANGLE      3.62       10.7    349.8     14.25     1.01
SO SRCPARAM GULFPW12   3258.20       60.7    441.0     31.30     5.49
SO SRCPARAM GULFPWPK     34.50       10.1    922.0     36.90     4.18
SO SRCPARAM BAYENRGY      9.02       38.1    477.6     17.50     1.37
SO SRCPARAM SCH12       912.74       45.7    438.7     12.19     4.11


SO BUILDHGT LK1         0.00    0.00    0.00    0.00    8.69    8.69
SO BUILDHGT LK1         8.69    8.69   65.23   65.23   65.23    0.00
SO BUILDHGT LK1         0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LK1         0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LK1         0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LK1         0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1         0.00    0.00    0.00    0.00   37.57   46.58
SO BUILDWID LK1        54.16   60.10   33.73   34.47   34.16    0.00
SO BUILDWID LK1         0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1         0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1         0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1         0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN LK1         0.00    0.00    0.00    0.00   63.06   63.40
SO BUILDLEN LK1        61.81   58.34   31.97   29.23   25.61    0.00
SO BUILDLEN LK1         0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN LK1         0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN LK1         0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN LK1         0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    LK1         0.00    0.00    0.00    0.00  -85.81  -86.72
SO XBADJ    LK1       -84.99  -80.68 -158.85 -159.96 -156.21    0.00
SO XBADJ    LK1         0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    LK1         0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    LK1         0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    LK1         0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    LK1         0.00    0.00    0.00    0.00   13.50    3.73
SO YBADJ    LK1        -6.15  -15.85   26.76    1.55  -23.71    0.00
SO YBADJ    LK1         0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    LK1         0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    LK1         0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    LK1         0.00    0.00    0.00    0.00    0.00    0.00


SO BUILDHGT RB1        52.73   52.73   52.73   52.73   52.73   52.73
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SO	BUILDHGT	RB1	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB1	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	RB1	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	RB1	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB1	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	RB1	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	RB1	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB1	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	RB1	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	RB1	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB1	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	RB1	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	RB1	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB1	16.16	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	RB1	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	RB1	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB1	16.16	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	RB1	-8.69	-7.53	-6.15	-4.57	-7.73	-10.65
SO	XBADJ	RB1	-13.25	-15.45	-8.08	-8.10	-7.87	-7.40
SO	XBADJ	RB1	-6.71	-11.10	-15.16	-18.76	-21.78	-31.79
SO	XBADJ	RB1	-31.73	-30.70	-28.74	-25.90	-27.15	-27.57
SO	XBADJ	RB1	-27.16	-25.92	-23.89	-21.14	-17.74	-13.80
SO	XBADJ	RB1	-9.45	-10.10	-10.45	-10.47	-10.18	-9.58
SO	YBADJ	RB1	-1.37	0.65	2.65	4.57	6.35	7.94
SO	YBADJ	RB1	9.29	10.35	7.28	8.55	9.55	10.26
SO	YBADJ	RB1	10.66	10.74	10.49	9.92	9.05	3.35
SO	YBADJ	RB1	1.37	-0.65	-2.65	-4.57	-6.35	-7.94
SO	YBADJ	RB1	-9.29	-10.35	-7.29	-8.55	-9.55	-10.26
SO	YBADJ	RB1	-10.66	-10.74	-10.49	-9.92	-9.05	-3.35
SO	BUILDHGT	RB2	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	RB2	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB2	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	RB2	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	RB2	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB2	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	RB2	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	RB2	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB2	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	RB2	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	RB2	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB2	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	RB2	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	RB2	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB2	16.16	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	RB2	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	RB2	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB2	16.16	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	RB2	-27.16	-27.58	-27.15	-25.90	-28.73	-30.70
SO	XBADJ	RB2	-31.73	-31.79	-21.79	-18.76	-15.16	-11.10
SO	XBADJ	RB2	-6.71	-7.40	-7.86	-8.09	-8.07	-15.45
SO	XBADJ	RB2	-13.25	-10.65	-7.73	-4.57	-6.15	-7.53
SO	XBADJ	RB2	-8.69	-9.58	-10.18	-10.47	-10.45	-10.10
SO	XBADJ	RB2	-9.45	-13.81	-17.74	-21.14	-23.89	-25.92
SO	YBADJ	RB2	9.29	7.94	6.35	4.57	2.65	0.64
SO	YBADJ	RB2	-1.38	-3.36	-9.06	-9.93	-10.49	-10.74
SO	YBADJ	RB2	-10.67	-10.27	-9.55	-8.55	-7.29	-10.35
SO	YBADJ	RB2	-9.29	-7.94	-6.35	-4.57	-2.65	-0.64
SO	YBADJ	RB2	1.38	3.36	9.06	9.93	10.49	10.74
SO	YBADJ	RB2	10.67	10.27	9.55	8.55	7.29	10.35
SO	BUILDHGT	SDT1	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	SDT1	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT1	65.23	65.23	65.23	65.23	65.23	52.73

SO	BUILDHGT	SDT1	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	SDT1	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT1	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	SDT1	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	SDT1	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT1	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	SDT1	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	SDT1	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT1	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	SDT1	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	SDT1	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT1	16.16	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	SDT1	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	SDT1	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT1	16.16	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	SDT1	-16.92	-13.16	-9.00	-4.57	-4.87	-5.02
SO	XBADJ	SDT1	-5.02	-4.87	4.53	6.16	7.60	8.81
SO	XBADJ	SDT1	9.75	5.11	0.31	-4.50	-9.18	-21.21
SO	XBADJ	SDT1	-23.50	-25.07	-25.88	-25.91	-30.01	-33.20
SO	XBADJ	SDT1	-35.39	-36.50	-36.50	-35.39	-33.21	-30.01
SO	XBADJ	SDT1	-25.91	-26.31	-25.91	-24.73	-22.79	-20.16
SO	YBADJ	SDT1	-15.63	-14.82	-13.56	-11.89	-9.86	-7.53
SO	YBADJ	SDT1	-4.97	-2.26	-3.29	0.32	3.92	7.40
SO	YBADJ	SDT1	10.66	13.60	16.12	18.15	19.63	15.97
SO	YBADJ	SDT1	15.63	14.82	13.56	11.89	9.86	7.53
SO	YBADJ	SDT1	4.97	2.26	3.29	-0.32	-3.92	-7.40
SO	YBADJ	SDT1	-10.66	-13.60	-16.12	-18.15	-19.63	-15.96
SO	BUILDHGT	SDT2	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	SDT2	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT2	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	SDT2	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	SDT2	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT2	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	SDT2	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	SDT2	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT2	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	SDT2	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	SDT2	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT2	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	SDT2	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	SDT2	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT2	16.16	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	SDT2	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	SDT2	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT2	16.16	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	SDT2	-35.39	-33.20	-30.01	-25.90	-25.88	-25.07
SO	XBADJ	SDT2	-23.49	-21.21	-9.18	-4.50	0.31	5.11
SO	XBADJ	SDT2	9.76	8.81	7.60	6.16	4.54	-4.87
SO	XBADJ	SDT2	-5.02	-5.02	-4.87	-4.58	-9.01	-13.16
SO	XBADJ	SDT2	-16.92	-20.16	-22.79	-24.73	-25.91	-26.31
SO	XBADJ	SDT2	-25.91	-30.02	-33.21	-35.39	-36.50	-36.50
SO	YBADJ	SDT2	-4.97	-7.53	-9.86	-11.89	-13.56	-14.82
SO	YBADJ	SDT2	-15.63	-15.97	-19.64	-18.16	-16.12	-13.60
SO	YBADJ	SDT2	-10.67	-7.41	-3.92	-0.32	3.29	2.26
SO	YBADJ	SDT2	4.97	7.53	9.86	11.89	13.56	14.82
SO	YBADJ	SDT2	15.63	15.97	19.63	18.16	16.12	13.60
SO	YBADJ	SDT2	10.67	7.41	3.92	0.32	-3.29	-2.26
SO	BUILDHGT	BB3	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB3	25.30	25.30	52.73	65.23	65.23	65.23
SO	BUILDHGT	BB3	65.23	65.23	65.23	65.23	52.73	25.30
SO	BUILDHGT	BB3	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB3	25.30	25.30	52.73	65.23	65.23	65.23

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SO BUILDHGT BB3        65.23   65.23   65.23   65.23   52.73   25.30
SO BUILDWID BB3        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB3        51.82   51.80   41.37   33.63   33.63   32.82
SO BUILDWID BB3        30.49   32.83   33.63   33.63   41.37   51.79
SO BUILDWID BB3        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB3        51.82   51.80   41.37   33.63   33.63   32.82
SO BUILDWID BB3        30.49   32.83   33.63   33.63   41.37   51.79
SO BUILDLEN BB3        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB3        47.07   50.19   41.07   29.23   25.61   21.20
SO BUILDLEN BB3        16.16   21.20   25.61   29.23   41.07   50.20
SO BUILDLEN BB3        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB3        47.07   50.19   41.07   29.23   25.61   21.20
SO BUILDLEN BB3        16.16   21.20   25.61   29.23   41.07   50.20
SO XBADJ    BB3       -52.62  -48.54  -42.98  -36.12  -35.57  -33.94
SO XBADJ    BB3       -31.28  -27.67   24.41   29.23   25.61   53.03
SO XBADJ    BB3        56.53   53.03   25.61   29.23   24.41    4.90
SO XBADJ    BB3         5.54    6.01    6.30    6.40   -1.10   -8.58
SO XBADJ    BB3       -15.79  -22.52  -65.48   29.23   25.61  -74.23
SO XBADJ    BB3       -72.69  -74.23   25.61   29.23  -65.48  -55.10
SO YBADJ    BB3        -7.84  -12.77  -17.32  -21.33  -24.70  -27.32
SO YBADJ    BB3       -29.11  -30.01  -37.71   29.23   25.61  -11.22
SO YBADJ    BB3         0.00   11.22   25.61   29.23   37.71    2.68
SO YBADJ    BB3         7.84   12.77   17.32   21.33   24.70   27.32
SO YBADJ    BB3        29.11   30.01   37.71   29.23   25.61   11.22
SO YBADJ    BB3         0.00  -11.22   25.61   29.23  -37.71   -2.68


SO BUILDHGT BB4        25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB4        25.30   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT BB4        65.23   65.23   65.23   52.73   25.30   25.30
SO BUILDHGT BB4        25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB4        25.30   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT BB4        65.23   65.23   65.23   52.73   25.30   25.30
SO BUILDWID BB4        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB4        51.82   41.07   33.73   34.44   34.16   32.82
SO BUILDWID BB4        30.49   32.83   34.17   40.41   50.19   51.79
SO BUILDWID BB4        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB4        51.82   41.07   33.73   34.44   34.16   32.82
SO BUILDWID BB4        30.49   32.83   34.17   40.41   50.19   51.79
SO BUILDLEN BB4        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB4        47.07   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN BB4        16.16   21.20   25.61   39.52   51.80   50.20
SO BUILDLEN BB4        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB4        47.07   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN BB4        16.16   21.20   25.61   39.52   51.80   50.20
SO XBADJ    BB4       -43.12  -38.23  -32.18  -25.15  -24.77  -23.63
SO XBADJ    BB4       -21.78   25.44   40.57   29.23   51.67   54.94
SO XBADJ    BB4        56.54   51.13   44.17   25.57   -2.94   -3.50
SO XBADJ    BB4        -3.96   -4.29   -4.50   -4.57  -11.91  -18.89
SO XBADJ    BB4       -25.30  -66.81  -72.54   29.23  -77.28  -76.15
SO XBADJ    BB4       -72.70  -72.34  -69.78  -65.09  -48.86  -46.70
SO YBADJ    BB4       -13.34  -16.54  -19.23  -21.34  -22.80  -23.57
SO YBADJ    BB4       -23.63  -37.90  -33.13   29.23  -11.79   -0.42
SO YBADJ    BB4        10.97   22.02   32.41   38.84    5.84    9.74
SO YBADJ    BB4        13.34   16.54   19.23   21.34   22.80   23.57
SO YBADJ    BB4        23.63   37.90   33.13   29.23   11.79    0.42
SO YBADJ    BB4       -10.97  -22.02  -32.41  -38.84   -5.84   -9.74

SO BUILDHGT BB3REV     25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB3REV     25.30   25.30   52.73   65.23   65.23   65.23
SO BUILDHGT BB3REV     65.23   65.23   65.23   65.23   52.73   25.30
SO BUILDHGT BB3REV     25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB3REV     25.30   25.30   52.73   65.23   65.23   65.23
SO BUILDHGT BB3REV     65.23   65.23   65.23   65.23   52.73   25.30
SO BUILDWID BB3REV     51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB3REV     51.82   51.80   41.37   33.63   33.63   32.82
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SO BUILDWID BB3REV        30.49   32.83   33.63   33.63   41.37   51.79
SO BUILDWID BB3REV        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB3REV        51.82   51.80   41.37   33.63   33.63   32.82
SO BUILDWID BB3REV        30.49   32.83   33.63   33.63   41.37   51.79
SO BUILDLEN BB3REV        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB3REV        47.07   50.19   41.07   29.23   25.61   21.20
SO BUILDLEN BB3REV        16.16   21.20   25.61   29.23   41.07   50.20
SO BUILDLEN BB3REV        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB3REV        47.07   50.19   41.07   29.23   25.61   21.20
SO BUILDLEN BB3REV        16.16   21.20   25.61   29.23   41.07   50.20
SO XBADJ    BB3REV       -52.62  -48.54  -42.98  -36.12  -35.57  -33.94
SO XBADJ    BB3REV       -31.28  -27.67   24.41   29.23   25.61   53.03
SO XBADJ    BB3REV        56.53   53.03   25.61   29.23   24.41    4.90
SO XBADJ    BB3REV         5.54    6.01    6.30    6.40   -1.10   -8.58
SO XBADJ    BB3REV       -15.79  -22.52  -65.48   29.23   25.61  -74.23
SO XBADJ    BB3REV       -72.69  -74.23   25.61   29.23  -65.48  -55.10
SO YBADJ    BB3REV        -7.84  -12.77  -17.32  -21.33  -24.70  -27.32
SO YBADJ    BB3REV       -29.11  -30.01  -37.71   29.23   25.61  -11.22
SO YBADJ    BB3REV         0.00   11.22   25.61   29.23   37.71    2.68
SO YBADJ    BB3REV         7.84   12.77   17.32   21.33   24.70   27.32
SO YBADJ    BB3REV        29.11   30.01   37.71   29.23   25.61   11.22
SO YBADJ    BB3REV         0.00  -11.22   25.61   29.23  -37.71   -2.68


SO BUILDHGT BB4REV        25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB4REV        25.30   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT BB4REV        65.23   65.23   65.23   52.73   25.30   25.30
SO BUILDHGT BB4REV        25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB4REV        25.30   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT BB4REV        65.23   65.23   65.23   52.73   25.30   25.30
SO BUILDWID BB4REV        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB4REV        51.82   41.07   33.73   34.44   34.16   32.82
SO BUILDWID BB4REV        30.49   32.83   34.17   40.41   50.19   51.79
SO BUILDWID BB4REV        51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB4REV        51.82   41.07   33.73   34.44   34.16   32.82
SO BUILDWID BB4REV        30.49   32.83   34.17   40.41   50.19   51.79
SO BUILDLEN BB4REV        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB4REV        47.07   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN BB4REV        16.16   21.20   25.61   39.52   51.80   50.20
SO BUILDLEN BB4REV        47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB4REV        47.07   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN BB4REV        16.16   21.20   25.61   39.52   51.80   50.20
SO XBADJ    BB4REV       -43.12  -38.23  -32.18  -25.15  -24.77  -23.63
SO XBADJ    BB4REV       -21.78   25.44   40.57   29.23   51.67   54.94
SO XBADJ    BB4REV        56.54   51.13   44.17   25.57   -2.94   -3.50
SO XBADJ    BB4REV        -3.96   -4.29   -4.50   -4.57  -11.91  -18.89
SO XBADJ    BB4REV       -25.30  -66.81  -72.54   29.23  -77.28  -76.15
SO XBADJ    BB4REV       -72.70  -72.34  -69.78  -65.09  -48.86  -46.70
SO YBADJ    BB4REV       -13.34  -16.54  -19.23  -21.34  -22.80  -23.57
SO YBADJ    BB4REV       -23.63  -37.90  -33.13   29.23  -11.79   -0.42
SO YBADJ    BB4REV        10.97   22.02   32.41   38.84    5.84    9.74
SO YBADJ    BB4REV        13.34   16.54   19.23   21.34   22.80   23.57
SO YBADJ    BB4REV        23.63   37.90   33.13   29.23   11.79    0.42
SO YBADJ    BB4REV       -10.97  -22.02  -32.41  -38.84   -5.84   -9.74

SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
SO SRCGROUP BB3INC RB1 RB2 SDT1 SDT2 LK1 BB3REV BB4 ARIZCHM1 ARIZCHM2
SO SRCGROUP BB3INC GULFPW12 GULFPWPK BAYENRGY FCPLKSDT FCPRB567 FCPPB9 SCH12
SO SRCGROUP BB3INC GRANGER  GLFASPHT TRIANGLE
SO SRCGROUP BB4INC RB1 RB2 SDT1 SDT2 LK1 BB3 BB4REV ARIZCHM1 ARIZCHM2
SO SRCGROUP BB4INC GULFPW12 GULFPWPK BAYENRGY FCPLKSDT FCPRB567 FCPPB9 SCH12
SO SRCGROUP BB4INC GRANGER  GLFASPHT TRIANGLE
SO FINISHED


RE STARTING
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RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG   0.0     0.0
RE GRIDPOLR POL DIST  2000. 2500. 3000. 3500. 4000. 4500. 5000.
RE GRIDPOLR POL DIST  7000. 9000. 12000. 15000. 18000. 21000. 24000.
RE GRIDPOLR POL GDIR  36   10.00   10.00
RE GRIDPOLR POL END
RE DISCPOLR ORIGIN      500.        10
RE DISCPOLR ORIGIN      800.        10
RE DISCPOLR ORIGIN     1100.        10
RE DISCPOLR ORIGIN     1500.        10
RE DISCPOLR ORIGIN      500.        10
RE DISCPOLR ORIGIN      800.        10
RE DISCPOLR ORIGIN     1100.        10
RE DISCPOLR ORIGIN     1500.        10
RE DISCPOLR ORIGIN      500.        10
RE DISCPOLR ORIGIN      800.        10
RE DISCPOLR ORIGIN     1100.        10
RE DISCPOLR ORIGIN     1500.        10
RE DISCPOLR ORIGIN      200.        20
RE DISCPOLR ORIGIN      500.        20
RE DISCPOLR ORIGIN      800.        20
RE DISCPOLR ORIGIN     1100.        20
RE DISCPOLR ORIGIN     1500.        20
RE DISCPOLR ORIGIN      200.        20
RE DISCPOLR ORIGIN      500.        20
RE DISCPOLR ORIGIN      800.        20
RE DISCPOLR ORIGIN     1100.        20
RE DISCPOLR ORIGIN     1500.        20
RE DISCPOLR ORIGIN      200.        20
RE DISCPOLR ORIGIN      500.        20
RE DISCPOLR ORIGIN      800.        20
RE DISCPOLR ORIGIN     1100.        20
RE DISCPOLR ORIGIN     1500.        20
RE DISCPOLR ORIGIN      100.        30
RE DISCPOLR ORIGIN      200.        30
RE DISCPOLR ORIGIN      500.        30
RE DISCPOLR ORIGIN      800.        30
RE DISCPOLR ORIGIN     1100.        30
RE DISCPOLR ORIGIN     1500.        30
RE DISCPOLR ORIGIN      100.        40
RE DISCPOLR ORIGIN      200.        40
RE DISCPOLR ORIGIN      500.        40
RE DISCPOLR ORIGIN      800.        40
RE DISCPOLR ORIGIN     1100.        40
RE DISCPOLR ORIGIN     1500.        40
RE DISCPOLR ORIGIN      100.        50
RE DISCPOLR ORIGIN      200.        50
RE DISCPOLR ORIGIN      500.        50
RE DISCPOLR ORIGIN      800.        50
RE DISCPOLR ORIGIN     1100.        50
RE DISCPOLR ORIGIN     1500.        50
RE DISCPOLR ORIGIN      100.        60
RE DISCPOLR ORIGIN      200.        60
RE DISCPOLR ORIGIN      500.        60
RE DISCPOLR ORIGIN      800.        60
RE DISCPOLR ORIGIN     1100.        60
RE DISCPOLR ORIGIN     1500.        60
RE DISCPOLR ORIGIN      500.        70
RE DISCPOLR ORIGIN      800.        70
RE DISCPOLR ORIGIN     1100.        70
RE DISCPOLR ORIGIN     1500.        70
RE DISCPOLR ORIGIN      500.        70
RE DISCPOLR ORIGIN      800.        70
RE DISCPOLR ORIGIN     1100.        70
RE DISCPOLR ORIGIN     1500.        70
RE DISCPOLR ORIGIN      500.        70
```

```
RE DISCCART     -363.6    -537.7
RE DISCCART     -454.2    -503.4
RE DISCCART     -454.2    -603.4
RE DISCCART     -487.7    -622.4
RE DISCCART     -487.7    -522.4
RE DISCCART     -559.6    -534.5
RE DISCCART     -643.6    -588.9
RE DISCCART     -727.5    -643.2
RE DISCCART     -814.1    -688.4
RE DISCCART     -897.5    -743.7
RE DISCCART     -990.0    -775.9
RE DISCCART    -1084.8    -754.8
RE DISCCART    -1164.0    -695.1
RE DISCCART    -1238.6    -629.5
RE DISCCART    -1309.1    -558.6
RE DISCCART    -1379.6    -487.7
RE DISCCART    -1328.7    -450.5
RE DISCCART    -1234.1    -420.9
RE DISCCART    -1151.2    -365.3
RE DISCCART    -1061.6    -320.8
RE DISCCART     -972.0    -276.4
RE DISCCART     -887.2    -248.9
RE DISCCART     -820.8    -320.5
RE DISCCART     -721.8    -328.0
RE DISCCART     -634.7    -283.0
RE DISCCART     -538.8    -259.6
RE DISCCART     -460.6    -236.6
RE DISCCART     -438.9    -149.3
RE DISCCART     -423.7    -148.8
RE DISCCART     -335.9    -158.5
RE DISCCART     -277.2     -89.6
RE DISCCART     -234.2      -0.4
RE DISCCART     -239.6      93.0
RE DISCCART     -179.0     172.5
RE DISCCART     -188.0     263.9
RE DISCCART     -223.1     356.5
RE FINISHED

ME STARTING
ME INPUTFIL  D:\MET\PNSAQQ86.MET
ME ANEMHGHT  22 FEET
ME SURFDATA  13899  1986          PENSACOLA
ME UAIRDATA  12832  1986          APALACHICOLA
ME WINDCATS  1.54    3.09    5.14    8.23   10.80
ME FINISHED
**
OU STARTING
OU RECTABLE ALLAVE FIRST SECOND
OU FINISHED
```

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :SO2CL203.086
PRIME OUTPUT FILE NUMBER 2 :SO2CL203.087
PRIME OUTPUT FILE NUMBER 3 :SO2CL203.088
PRIME OUTPUT FILE NUMBER 4 :SO2CL203.089
PRIME OUTPUT FILE NUMBER 5 :SO2CL203.090
First title for last output file is: 1986 STONE CONTAINER,SO2 PSD CLASS II SCREENING ANALYSIS 1/14/04
Second title for last output file is: PENSACOLA/APALACHICOLA 86-87, APAL/APAL 88-90 MET DATA, 3 E.R.

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: BB3IN					
HIGH 3-Hour					
	1986	342.34692	300.00	800.00	86092912
	1987	391.44009	210.00	1500.00	87090215
	1988	395.50403	300.00	1500.00	88020315
	1989	362.37097	310.00	800.00	89081115
	1990	435.12732	300.00	800.00	90072012
HSH 3-Hour					
	1986	322.74600	300.00	800.00	86060412
	1987	324.13586	300.00	800.00	87032403
	1988	332.13193	300.00	1500.00	88080218
	1989	349.73044	310.00	800.00	89032712
	1990	332.47989	300.00	800.00	90080515
SOURCE GROUP ID: BB4IN					
HIGH 3-Hour					
	1986	341.42557	300.00	800.00	86092912
	1987	391.93677	210.00	1500.00	87090215
	1988	396.86853	300.00	1500.00	88020315
	1989	360.72025	310.00	800.00	89081115
	1990	427.93335	300.00	800.00	90072012
HSH 3-Hour					
	1986	310.94238	300.00	800.00	86060412
	1987	315.48898	300.00	800.00	87060912
	1988	334.50143	300.00	1500.00	88080218
	1989	351.20810	310.00	800.00	89032712
	1990	330.09268	300.00	800.00	90080515

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :SO2C203R.089
First title for last output file is: 1989 STONE CONTAINER,SO2 PSD CLASS II REFINED ANALYSIS 1/15/03
Second title for last output file is: PENSACOLA/APALACHICOLA 86-87, APAL/APAL 88-90 MET DATA, 3 E.R.

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: BB3IN					
HIGH 3-Hour					
	1989	377.43405	314.00	800.00	89060115
HSH 3-Hour					
	1989	352.94458	310.00	900.00	89072615
SOURCE GROUP ID: BB4IN					
HIGH 3-Hour					
	1989	378.47525	314.00	800.00	89060115
HSH 3-Hour					
	1989	351.20813	310.00	800.00	89032712

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

```
CO STARTING
CO TITLEONE 1986 STONE CONTAINER,SO2 PSD CLASS II SCREENING ANALYSIS  1/14/04
CO TITLETWO PENSACOLA/APALACHICOLA 86-87, APAL/APAL 88-90 MET DATA, 3 E.R.
CO MODELOPT DFAULT CONC   RURAL NOCMPL
CO AVERTIME 3
CO POLLUTID SO2
CO DCAYCOEF    .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING
** Source Location Cards:
**          SRCID SRCTYP        XS            YS          ZS
**                             (m)           (m)         (m)
** ALL STACK AND BUILDING DATA BASED ON TN COORDINATE SYSTEM

** STONE POINT SOURCES
** DUMMY SOURCE FOR ORIGIN LOCATION
SO LOCATION  ORIGIN  POINT       0.0         0.0         .0000
SO SRCPARAM ORIGIN    0.0         10.0    300.0      20.00    1.00

** MODEL ID----------------------STONE POINT SOURCES-----------------------------------------
** RB1                          NO.1 RECOVERY BOILER
** RB2                          NO.2 RECOVERY BOILER
** SDT1                         NO.1 SMELT DISSOLVING TANK
** SDT2                         NO.2 SMELT DISSOLVING TANK
** LK1                          LIME KILN
** BB3                          NO.3 COMBINATION BOILER
** BB4                          NO.4 COMBINATION BOILER
*************************************************************************
**                                                                      *
** BB3REV - BB3 INCREASED BY 402 LB/HR, RESULTS IN BB3INC SOURCE GROUP  *
** BB4REV - BB4 INCREASED BY 402 LB/HR, RESULTS IN BB4INC SOURCE GROUP  *
**                                                                      *
*************************************************************************
**          SRCID SRCTYP        XS       YS          ZS
**                             (m)       (m)         (m)
** FUTURE SOURCES
SO LOCATION RB1       POINT     13.02   -16.49       .0000
SO LOCATION RB2       POINT     26.73    -0.15       .0000
SO LOCATION SDT1      POINT      0.41    -5.91       .0000
SO LOCATION SDT2      POINT     14.12    10.43       .0000
SO LOCATION LK1       POINT    163.79   -35.97       .0000
SO LOCATION BB3       POINT    -28.57    32.33       .0000
SO LOCATION BB3REV    POINT    -28.57    32.33       .0000
SO LOCATION BB4       POINT    -35.63    23.93       .0000
SO LOCATION BB4REV    POINT    -35.63    23.93       .0000
**1974 PSD BASELINE SOURCES
SO LOCATION RB1b      POINT     13.02   -16.49       .0000
SO LOCATION RB2b      POINT     26.73    -0.15       .0000
SO LOCATION SDT1b     POINT      0.41    -5.91       .0000
SO LOCATION SDT2b     POINT     14.12    10.43       .0000
SO LOCATION LK1b      POINT    163.79   -35.97       .0000
SO LOCATION BB3b      POINT    -28.57    32.33       .0000
SO LOCATION BB4b      POINT    -35.63    23.93       .0000
SO LOCATION PB45b     POINT    -46.20    12.51       .0000
SO LOCATION PB6b      POINT     52.41     5.56       .0000
** OTHER PSD AFFECTING SOURCES
SO LOCATION BAYENRGY POINT    11200.    13800.       .0000

** OTHER BASELINE SOURCES
SO LOCATION FCPLKSDT POINT    30000.   -36100.       .0000
SO LOCATION FCPRB567 POINT    30000.   -36100.       .0000

** Source Parameter Cards:
** POINT:   SRCID          QS         HS      TS        VS        DS
```

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**                        (g/s)        (m)       (K)       (m/s)      (m)
** STONE POINT SOURCES
SO SRCPARAM RB1           16.35        71.0      421.0      26.50      1.96
SO SRCPARAM RB2           16.35        71.0      428.0      27.48      1.96
SO SRCPARAM SDT1           0.13        71.0      347.4       5.25      1.83
SO SRCPARAM SDT2           0.13        71.0      347.4       4.56      1.83
SO SRCPARAM LK1            0.59        18.6      348.0      11.84      2.44
SO SRCPARAM BB3          149.99        64.9      337.6      30.41      2.39
SO SRCPARAM BB3REV       200.64        64.9      337.6      30.41      2.39
SO SRCPARAM BB4           98.41        64.9      336.5      32.29      2.39
SO SRCPARAM BB4REV       149.06        64.9      336.5      32.29      2.39

** 1974 PSD BASELINE SOURCES
SO SRCPARAM RB1b          -15.3        71.0      428.0      26.82      1.96
SO SRCPARAM RB2b          -15.3        71.0      433.0      24.78      1.96
SO SRCPARAM SDT1b          -0.9        71.0      339.0       5.15      1.83
SO SRCPARAM SDT2b          -0.9        71.0      333.0       5.30      1.83
SO SRCPARAM LK1b           -0.4        18.6      344.0      10.24      2.44
SO SRCPARAM PB45b         -52.6        90.2      478.0       7.56      3.66
SO SRCPARAM PB6b          -66.0        73.5      494.0      10.85      2.44
SO SRCPARAM BB3b          -43.2        45.7      500.0      14.69      2.59
SO SRCPARAM BB4b          -68.8        45.7      516.0      18.47      2.24

** OTHER BASELINE SOURCES
SO SRCPARAM FCPLKSDT       -3.10       30.5      367.6       2.25      2.38
SO SRCPARAM FCPRB567      -86.61       38.1      394.3       9.10      2.56

** OTHER SOURCES
SO SRCPARAM BAYENRGY        9.02       38.1      477.6      17.50      1.37

** FUTURE BPIP
SO BUILDHGT LK1           0.00    0.00    0.00    0.00    8.69    8.69
SO BUILDHGT LK1           8.69    8.69   65.23   65.23   65.23    0.00
SO BUILDHGT LK1           0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LK1           0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LK1           0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LK1           0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1           0.00    0.00    0.00    0.00   37.57   46.58
SO BUILDWID LK1          54.16   60.10   33.73   34.47   34.16    0.00
SO BUILDWID LK1           0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1           0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1           0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1           0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN LK1           0.00    0.00    0.00    0.00   63.06   63.40
SO BUILDLEN LK1          61.81   58.34   31.97   29.23   25.61    0.00
SO BUILDLEN LK1           0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN LK1           0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN LK1           0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN LK1           0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    LK1           0.00    0.00    0.00    0.00  -85.81  -86.72
SO XBADJ    LK1         -84.99  -80.68 -158.85 -159.96 -156.21    0.00
SO XBADJ    LK1           0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    LK1           0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    LK1           0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    LK1           0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    LK1           0.00    0.00    0.00    0.00   13.50    3.73
SO YBADJ    LK1          -6.15  -15.85   26.76    1.55  -23.71    0.00
SO YBADJ    LK1           0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    LK1           0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    LK1           0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    LK1           0.00    0.00    0.00    0.00    0.00    0.00


SO BUILDHGT RB1          52.73   52.73   52.73   52.73   52.73   52.73
SO BUILDHGT RB1          52.73   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT RB1          65.23   65.23   65.23   65.23   65.23   52.73
```

SO	BUILDHGT	RB1	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	RB1	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB1	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	RB1	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	RB1	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB1	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	RB1	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	RB1	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB1	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	RB1	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	RB1	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB1	16.16	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	RB1	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	RB1	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB1	16.16	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	RB1	-8.69	-7.53	-6.15	-4.57	-7.73	-10.65
SO	XBADJ	RB1	-13.25	-15.45	-8.08	-8.10	-7.87	-7.40
SO	XBADJ	RB1	-6.71	-11.10	-15.16	-18.76	-21.78	-31.79
SO	XBADJ	RB1	-31.73	-30.70	-28.74	-25.90	-27.15	-27.57
SO	XBADJ	RB1	-27.16	-25.92	-23.89	-21.14	-17.74	-13.80
SO	XBADJ	RB1	-9.45	-10.10	-10.45	-10.47	-10.18	-9.58
SO	YBADJ	RB1	-1.37	0.65	2.65	4.57	6.35	7.94
SO	YBADJ	RB1	9.29	10.35	7.28	8.55	9.55	10.26
SO	YBADJ	RB1	10.66	10.74	10.49	9.92	9.05	3.35
SO	YBADJ	RB1	1.37	-0.65	-2.65	-4.57	-6.35	-7.94
SO	YBADJ	RB1	-9.29	-10.35	-7.29	-8.55	-9.55	-10.26
SO	YBADJ	RB1	-10.66	-10.74	-10.49	-9.92	-9.05	-3.35
SO	BUILDHGT	RB2	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	RB2	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB2	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	RB2	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	RB2	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB2	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	RB2	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	RB2	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB2	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	RB2	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	RB2	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB2	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	RB2	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	RB2	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB2	16.16	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	RB2	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	RB2	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB2	16.16	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	RB2	-27.16	-27.58	-27.15	-25.90	-28.73	-30.70
SO	XBADJ	RB2	-31.73	-31.79	-21.79	-18.76	-15.16	-11.10
SO	XBADJ	RB2	-6.71	-7.40	-7.86	-8.09	-8.07	-15.45
SO	XBADJ	RB2	-13.25	-10.65	-7.73	-4.57	-6.15	-7.53
SO	XBADJ	RB2	-8.69	-9.58	-10.18	-10.47	-10.45	-10.10
SO	XBADJ	RB2	-9.45	-13.81	-17.74	-21.14	-23.89	-25.92
SO	YBADJ	RB2	9.29	7.94	6.35	4.57	2.65	0.64
SO	YBADJ	RB2	-1.38	-3.36	-9.06	-9.93	-10.49	-10.74
SO	YBADJ	RB2	-10.67	-10.27	-9.55	-8.55	-7.29	-10.35
SO	YBADJ	RB2	-9.29	-7.94	-6.35	-4.57	-2.65	-0.64
SO	YBADJ	RB2	1.38	3.36	9.06	9.93	10.49	10.74
SO	YBADJ	RB2	10.67	10.27	9.55	8.55	7.29	10.35
SO	BUILDHGT	SDT1	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	SDT1	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT1	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	SDT1	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	SDT1	52.73	52.73	65.23	65.23	65.23	65.23

SO	BUILDHGT	SDT1	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	SDT1	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	SDT1	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT1	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	SDT1	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	SDT1	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT1	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	SDT1	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	SDT1	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT1	16.16	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	SDT1	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	SDT1	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT1	16.16	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	SDT1	-16.92	-13.16	-9.00	-4.57	-4.87	-5.02
SO	XBADJ	SDT1	-5.02	-4.87	4.53	6.16	7.60	8.81
SO	XBADJ	SDT1	9.75	5.11	0.31	-4.50	-9.18	-21.21
SO	XBADJ	SDT1	-23.50	-25.07	-25.88	-25.91	-30.01	-33.20
SO	XBADJ	SDT1	-35.39	-36.50	-36.50	-35.39	-33.21	-30.01
SO	XBADJ	SDT1	-25.91	-26.31	-25.91	-24.73	-22.79	-20.16
SO	YBADJ	SDT1	-15.63	-14.82	-13.56	-11.89	-9.86	-7.53
SO	YBADJ	SDT1	-4.97	-2.26	-3.29	0.32	3.92	7.40
SO	YBADJ	SDT1	10.66	13.60	16.12	18.15	19.63	15.97
SO	YBADJ	SDT1	15.63	14.82	13.56	11.89	9.86	7.53
SO	YBADJ	SDT1	4.97	2.26	3.29	-0.32	-3.92	-7.40
SO	YBADJ	SDT1	-10.66	-13.60	-16.12	-18.15	-19.63	-15.96
SO	BUILDHGT	SDT2	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	SDT2	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT2	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	SDT2	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	SDT2	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT2	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	SDT2	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	SDT2	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT2	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	SDT2	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	SDT2	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT2	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	SDT2	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	SDT2	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT2	16.16	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	SDT2	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	SDT2	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT2	16.16	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	SDT2	-35.39	-33.20	-30.01	-25.90	-25.88	-25.07
SO	XBADJ	SDT2	-23.49	-21.21	-9.18	-4.50	0.31	5.11
SO	XBADJ	SDT2	9.76	8.81	7.60	6.16	4.54	-4.87
SO	XBADJ	SDT2	-5.02	-5.02	-4.87	-4.58	-9.01	-13.16
SO	XBADJ	SDT2	-16.92	-20.16	-22.79	-24.73	-25.91	-26.31
SO	XBADJ	SDT2	-25.91	-30.02	-33.21	-35.39	-36.50	-36.50
SO	YBADJ	SDT2	-4.97	-7.53	-9.86	-11.89	-13.56	-14.82
SO	YBADJ	SDT2	-15.63	-15.97	-19.64	-18.16	-16.12	-13.60
SO	YBADJ	SDT2	-10.67	-7.41	-3.92	-0.32	3.29	2.26
SO	YBADJ	SDT2	4.97	7.53	9.86	11.89	13.56	14.82
SO	YBADJ	SDT2	15.63	15.97	19.63	18.16	16.12	13.60
SO	YBADJ	SDT2	10.67	7.41	3.92	0.32	-3.29	-2.26
SO	BUILDHGT	BB3	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB3	25.30	25.30	52.73	65.23	65.23	65.23
SO	BUILDHGT	BB3	65.23	65.23	65.23	65.23	52.73	25.30
SO	BUILDHGT	BB3	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB3	25.30	25.30	52.73	65.23	65.23	65.23
SO	BUILDHGT	BB3	65.23	65.23	65.23	65.23	52.73	25.30
SO	BUILDWID	BB3	51.81	50.26	47.18	42.68	47.19	50.27

SO	BUILDWID	BB3	51.82	51.80	41.37	33.63	33.63	32.82
SO	BUILDWID	BB3	30.49	32.83	33.63	33.63	41.37	51.79
SO	BUILDWID	BB3	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB3	51.82	51.80	41.37	33.63	33.63	32.82
SO	BUILDWID	BB3	30.49	32.83	33.63	33.63	41.37	51.79
SO	BUILDLEN	BB3	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB3	47.07	50.19	41.07	29.23	25.61	21.20
SO	BUILDLEN	BB3	16.16	21.20	25.61	29.23	41.07	50.20
SO	BUILDLEN	BB3	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB3	47.07	50.19	41.07	29.23	25.61	21.20
SO	BUILDLEN	BB3	16.16	21.20	25.61	29.23	41.07	50.20
SO	XBADJ	BB3	-52.62	-48.54	-42.98	-36.12	-35.57	-33.94
SO	XBADJ	BB3	-31.28	-27.67	24.41	29.23	25.61	53.03
SO	XBADJ	BB3	56.53	53.03	25.61	29.23	24.41	4.90
SO	XBADJ	BB3	5.54	6.01	6.30	6.40	-1.10	-8.58
SO	XBADJ	BB3	-15.79	-22.52	-65.48	29.23	25.61	-74.23
SO	XBADJ	BB3	-72.69	-74.23	25.61	29.23	-65.48	-55.10
SO	YBADJ	BB3	-7.84	-12.77	-17.32	-21.33	-24.70	-27.32
SO	YBADJ	BB3	-29.11	-30.01	-37.71	29.23	25.61	-11.22
SO	YBADJ	BB3	0.00	11.22	25.61	29.23	37.71	2.68
SO	YBADJ	BB3	7.84	12.77	17.32	21.33	24.70	27.32
SO	YBADJ	BB3	29.11	30.01	37.71	29.23	25.61	11.22
SO	YBADJ	BB3	0.00	-11.22	25.61	29.23	-37.71	-2.68

SO	BUILDHGT	BB4	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB4	25.30	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	BB4	65.23	65.23	65.23	52.73	25.30	25.30
SO	BUILDHGT	BB4	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB4	25.30	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	BB4	65.23	65.23	65.23	52.73	25.30	25.30
SO	BUILDWID	BB4	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB4	51.82	41.07	33.73	34.44	34.16	32.82
SO	BUILDWID	BB4	30.49	32.83	34.17	40.41	50.19	51.79
SO	BUILDWID	BB4	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB4	51.82	41.07	33.73	34.44	34.16	32.82
SO	BUILDWID	BB4	30.49	32.83	34.17	40.41	50.19	51.79
SO	BUILDLEN	BB4	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB4	47.07	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	BB4	16.16	21.20	25.61	39.52	51.80	50.20
SO	BUILDLEN	BB4	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB4	47.07	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	BB4	16.16	21.20	25.61	39.52	51.80	50.20
SO	XBADJ	BB4	-43.12	-38.23	-32.18	-25.15	-24.77	-23.63
SO	XBADJ	BB4	-21.78	25.44	40.57	29.23	51.67	54.94
SO	XBADJ	BB4	56.54	51.13	44.17	25.57	-2.94	-3.50
SO	XBADJ	BB4	-3.96	-4.29	-4.50	-4.57	-11.91	-18.89
SO	XBADJ	BB4	-25.30	-66.81	-72.54	29.23	-77.28	-76.15
SO	XBADJ	BB4	-72.70	-72.34	-69.78	-65.09	-48.86	-46.70
SO	YBADJ	BB4	-13.34	-16.54	-19.23	-21.34	-22.80	-23.57
SO	YBADJ	BB4	-23.63	-37.90	-33.13	29.23	-11.79	-0.42
SO	YBADJ	BB4	10.97	22.02	32.41	38.84	5.84	9.74
SO	YBADJ	BB4	13.34	16.54	19.23	21.34	22.80	23.57
SO	YBADJ	BB4	23.63	37.90	33.13	29.23	11.79	0.42
SO	YBADJ	BB4	-10.97	-22.02	-32.41	-38.84	-5.84	-9.74

SO	BUILDHGT	BB3REV	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB3REV	25.30	25.30	52.73	65.23	65.23	65.23
SO	BUILDHGT	BB3REV	65.23	65.23	65.23	65.23	52.73	25.30
SO	BUILDHGT	BB3REV	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB3REV	25.30	25.30	52.73	65.23	65.23	65.23
SO	BUILDHGT	BB3REV	65.23	65.23	65.23	65.23	52.73	25.30
SO	BUILDWID	BB3REV	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB3REV	51.82	51.80	41.37	33.63	33.63	32.82
SO	BUILDWID	BB3REV	30.49	32.83	33.63	33.63	41.37	51.79
SO	BUILDWID	BB3REV	51.81	50.26	47.18	42.68	47.19	50.27

SO	BUILDWID	BB3REV	51.82	51.80	41.37	33.63	33.63	32.82
SO	BUILDWID	BB3REV	30.49	32.83	33.63	33.63	41.37	51.79
SO	BUILDLEN	BB3REV	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB3REV	47.07	50.19	41.07	29.23	25.61	21.20
SO	BUILDLEN	BB3REV	16.16	21.20	25.61	29.23	41.07	50.20
SO	BUILDLEN	BB3REV	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB3REV	47.07	50.19	41.07	29.23	25.61	21.20
SO	BUILDLEN	BB3REV	16.16	21.20	25.61	29.23	41.07	50.20
SO	XBADJ	BB3REV	-52.62	-48.54	-42.98	-36.12	-35.57	-33.94
SO	XBADJ	BB3REV	-31.28	-27.67	24.41	29.23	25.61	53.03
SO	XBADJ	BB3REV	56.53	53.03	25.61	29.23	24.41	4.90
SO	XBADJ	BB3REV	5.54	6.01	6.30	6.40	-1.10	-8.58
SO	XBADJ	BB3REV	-15.79	-22.52	-65.48	29.23	25.61	-74.23
SO	XBADJ	BB3REV	-72.69	-74.23	25.61	29.23	-65.48	-55.10
SO	YBADJ	BB3REV	-7.84	-12.77	-17.32	-21.33	-24.70	-27.32
SO	YBADJ	BB3REV	-29.11	-30.01	-37.71	29.23	25.61	-11.22
SO	YBADJ	BB3REV	0.00	11.22	25.61	29.23	37.71	2.68
SO	YBADJ	BB3REV	7.84	12.77	17.32	21.33	24.70	27.32
SO	YBADJ	BB3REV	29.11	30.01	37.71	29.23	25.61	11.22
SO	YBADJ	BB3REV	0.00	-11.22	25.61	29.23	-37.71	-2.68
SO	BUILDHGT	BB4REV	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB4REV	25.30	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	BB4REV	65.23	65.23	65.23	52.73	25.30	25.30
SO	BUILDHGT	BB4REV	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB4REV	25.30	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	BB4REV	65.23	65.23	65.23	52.73	25.30	25.30
SO	BUILDWID	BB4REV	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB4REV	51.82	41.07	33.73	34.44	34.16	32.82
SO	BUILDWID	BB4REV	30.49	32.83	34.17	40.41	50.19	51.79
SO	BUILDWID	BB4REV	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB4REV	51.82	41.07	33.73	34.44	34.16	32.82
SO	BUILDWID	BB4REV	30.49	32.83	34.17	40.41	50.19	51.79
SO	BUILDLEN	BB4REV	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB4REV	47.07	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	BB4REV	16.16	21.20	25.61	39.52	51.80	50.20
SO	BUILDLEN	BB4REV	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB4REV	47.07	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	BB4REV	16.16	21.20	25.61	39.52	51.80	50.20
SO	XBADJ	BB4REV	-43.12	-38.23	-32.18	-25.15	-24.77	-23.63
SO	XBADJ	BB4REV	-21.78	25.44	40.57	29.23	51.67	54.94
SO	XBADJ	BB4REV	56.54	51.13	44.17	25.57	-2.94	-3.50
SO	XBADJ	BB4REV	-3.96	-4.29	-4.50	-4.57	-11.91	-18.89
SO	XBADJ	BB4REV	-25.30	-66.81	-72.54	29.23	-77.28	-76.15
SO	XBADJ	BB4REV	-72.70	-72.34	-69.78	-65.09	-48.86	-46.70
SO	YBADJ	BB4REV	-13.34	-16.54	-19.23	-21.34	-22.80	-23.57
SO	YBADJ	BB4REV	-23.63	-37.90	-33.13	29.23	-11.79	-0.42
SO	YBADJ	BB4REV	10.97	22.02	32.41	38.84	5.84	9.74
SO	YBADJ	BB4REV	13.34	16.54	19.23	21.34	22.80	23.57
SO	YBADJ	BB4REV	23.63	37.90	33.13	29.23	11.79	0.42
SO	YBADJ	BB4REV	-10.97	-22.02	-32.41	-38.84	-5.84	-9.74

** BASELINE BPIP

SO	BUILDHGT	LK1b	0.00	0.00	0.00	0.00	9.14	9.14
SO	BUILDHGT	LK1b	9.14	9.14	65.23	65.23	65.23	45.70
SO	BUILDHGT	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LK1b	0.00	0.00	0.00	0.00	37.57	46.58
SO	BUILDWID	LK1b	54.16	60.10	33.73	34.47	34.16	48.65
SO	BUILDWID	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDWID	LK1b	0.00	0.00	0.00	0.00	0.00	0.00

SO	BUILDLEN	LK1b	0.00	0.00	0.00	0.00	63.06	63.40
SO	BUILDLEN	LK1b	61.81	58.34	31.97	29.23	25.61	63.25
SO	BUILDLEN	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LK1b	0.00	0.00	0.00	0.00	-85.81	-86.72
SO	XBADJ	LK1b	-84.99	-80.68	-158.85	-159.96	-156.21	-159.41
SO	XBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LK1b	0.00	0.00	0.00	0.00	13.50	3.73
SO	YBADJ	LK1b	-6.15	-15.85	26.76	1.55	-23.71	-40.34
SO	YBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	RB1b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	RB1b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB1b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	RB1b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	RB1b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB1b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	RB1b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	RB1b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB1b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	RB1b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	RB1b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB1b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	RB1b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	RB1b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB1b	55.17	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	RB1b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	RB1b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB1b	55.17	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	RB1b	-8.69	-7.53	-6.15	-4.58	-7.73	-10.65
SO	XBADJ	RB1b	-13.25	-15.45	-8.08	-8.10	-7.87	-7.40
SO	XBADJ	RB1b	-18.59	-11.10	-15.16	-18.76	-21.78	-31.79
SO	XBADJ	RB1b	-31.73	-36.93	-42.50	-46.79	-52.43	-56.47
SO	XBADJ	RB1b	-27.16	-25.92	-23.89	-21.14	-17.74	-13.80
SO	XBADJ	RB1b	-36.58	-10.10	-10.45	-10.47	-10.18	-9.58
SO	YBADJ	RB1b	-18.34	-15.67	-12.52	-8.99	-3.46	2.18
SO	YBADJ	RB1b	9.29	10.35	7.28	8.55	9.55	10.26
SO	YBADJ	RB1b	21.10	10.74	10.49	9.92	9.05	3.35
SO	YBADJ	RB1b	18.34	15.67	12.52	8.99	3.46	-2.18
SO	YBADJ	RB1b	-9.29	-10.35	-7.29	-8.55	-9.55	-10.26
SO	YBADJ	RB1b	-21.10	-10.74	-10.49	-9.92	-9.05	-3.35
SO	BUILDHGT	SDT1b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	SDT1b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT1b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	SDT1b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	SDT1b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT1b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	SDT1b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	SDT1b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT1b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	SDT1b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	SDT1b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT1b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	SDT1b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	SDT1b	40.41	41.37	31.97	29.23	25.61	21.20

SO	BUILDLEN	SDT1b	55.17	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	SDT1b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	SDT1b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT1b	55.17	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	SDT1b	-16.92	-13.16	-9.00	-4.58	-4.87	-5.02
SO	XBADJ	SDT1b	-5.02	-4.87	4.53	6.16	7.60	8.81
SO	XBADJ	SDT1b	-2.13	5.11	0.31	-4.50	-9.18	-21.21
SO	XBADJ	SDT1b	-23.50	-31.30	-39.65	-46.79	-55.28	-62.10
SO	XBADJ	SDT1b	-35.39	-36.50	-36.50	-35.39	-33.21	-30.01
SO	XBADJ	SDT1b	-53.04	-26.31	-25.91	-24.73	-22.79	-20.16
SO	YBADJ	SDT1b	-32.60	-31.14	-28.73	-25.45	-19.67	-13.29
SO	YBADJ	SDT1b	-4.97	-2.26	-3.29	0.32	3.92	7.40
SO	YBADJ	SDT1b	21.10	13.60	16.12	18.15	19.63	15.97
SO	YBADJ	SDT1b	32.60	31.14	28.73	25.45	19.67	13.29
SO	YBADJ	SDT1b	4.97	2.26	3.29	-0.32	-3.92	-7.40
SO	YBADJ	SDT1b	-21.10	-13.60	-16.12	-18.15	-19.63	-15.96

SO	BUILDHGT	RB2b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	RB2b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB2b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	RB2b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	RB2b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB2b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	RB2b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	RB2b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB2b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	RB2b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	RB2b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB2b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	RB2b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	RB2b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB2b	55.17	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	RB2b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	RB2b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB2b	55.17	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	RB2b	-27.16	-27.58	-27.15	-25.91	-28.73	-30.70
SO	XBADJ	RB2b	-31.73	-31.79	-21.79	-18.76	-15.16	-11.10
SO	XBADJ	RB2b	-18.59	-7.40	-7.86	-8.09	-8.07	-15.45
SO	XBADJ	RB2b	-13.25	-16.89	-21.50	-25.46	-31.42	-36.43
SO	XBADJ	RB2b	-8.69	-9.58	-10.18	-10.47	-10.45	-10.10
SO	XBADJ	RB2b	-36.58	-13.81	-17.74	-21.14	-23.89	-25.92
SO	YBADJ	RB2b	-7.68	-8.37	-8.82	-8.99	-7.16	-5.12
SO	YBADJ	RB2b	-1.38	-3.36	-9.06	-9.93	-10.49	-10.74
SO	YBADJ	RB2b	-0.23	-10.27	-9.55	-8.55	-7.29	-10.35
SO	YBADJ	RB2b	7.68	8.37	8.82	8.99	7.16	5.12
SO	YBADJ	RB2b	1.38	3.36	9.06	9.93	10.49	10.74
SO	YBADJ	RB2b	0.23	10.27	9.55	8.55	7.29	10.35

SO	BUILDHGT	SDT2b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	SDT2b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT2b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	SDT2b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	SDT2b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT2b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	SDT2b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	SDT2b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT2b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	SDT2b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	SDT2b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT2b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	SDT2b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	SDT2b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT2b	55.17	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	SDT2b	40.41	44.46	48.65	51.37	60.15	67.13

SO	BUILDLEN	SDT2b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT2b	55.17	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	SDT2b	-35.39	-33.20	-30.01	-25.91	-25.88	-25.07
SO	XBADJ	SDT2b	-23.49	-21.21	-9.18	-4.50	0.31	5.11
SO	XBADJ	SDT2b	-2.13	8.81	7.60	6.16	4.54	-4.87
SO	XBADJ	SDT2b	-5.02	-11.26	-18.64	-25.46	-34.28	-42.06
SO	XBADJ	SDT2b	-16.92	-20.16	-22.79	-24.73	-25.91	-26.31
SO	XBADJ	SDT2b	-53.04	-30.02	-33.21	-35.39	-36.50	-36.50
SO	YBADJ	SDT2b	-21.93	-23.84	-25.03	-25.45	-23.37	-20.58
SO	YBADJ	SDT2b	-15.63	-15.97	-19.64	-18.16	-16.12	-13.60
SO	YBADJ	SDT2b	-0.23	-7.41	-3.92	-0.32	3.29	2.26
SO	YBADJ	SDT2b	21.93	23.84	25.03	25.45	23.37	20.58
SO	YBADJ	SDT2b	15.63	15.97	19.63	18.16	16.12	13.60
SO	YBADJ	SDT2b	0.23	7.41	3.92	0.32	-3.29	-2.26
SO	BUILDHGT	BB3b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB3b	25.30	25.30	52.73	65.23	65.23	65.23
SO	BUILDHGT	BB3b	45.70	65.23	65.23	65.23	52.73	25.30
SO	BUILDHGT	BB3b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB3b	25.30	25.30	52.73	65.23	65.23	65.23
SO	BUILDHGT	BB3b	45.70	65.23	65.23	65.23	52.73	25.30
SO	BUILDWID	BB3b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB3b	51.82	51.80	41.37	33.63	33.63	32.82
SO	BUILDWID	BB3b	51.37	32.83	33.63	33.63	41.37	51.79
SO	BUILDWID	BB3b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB3b	51.82	51.80	41.37	33.63	33.63	32.82
SO	BUILDWID	BB3b	51.37	32.83	33.63	33.63	41.37	51.79
SO	BUILDLEN	BB3b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB3b	47.07	50.19	41.07	29.23	25.61	21.20
SO	BUILDLEN	BB3b	55.17	21.20	25.61	29.23	41.07	50.20
SO	BUILDLEN	BB3b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB3b	47.07	50.19	41.07	29.23	25.61	21.20
SO	BUILDLEN	BB3b	55.17	21.20	25.61	29.23	41.07	50.20
SO	XBADJ	BB3b	-52.62	-48.54	-42.98	-36.12	-35.57	-33.94
SO	XBADJ	BB3b	-31.28	-27.67	24.41	29.23	25.61	53.03
SO	XBADJ	BB3b	44.65	53.03	25.61	29.23	24.41	4.90
SO	XBADJ	BB3b	5.54	6.01	6.30	6.40	-1.10	-8.58
SO	XBADJ	BB3b	-15.79	-22.52	-65.48	29.23	25.61	-74.23
SO	XBADJ	BB3b	-99.82	-74.23	25.61	29.23	-65.48	-55.10
SO	YBADJ	BB3b	-7.84	-12.77	-17.32	-21.33	-24.70	-27.32
SO	YBADJ	BB3b	-29.11	-30.01	-37.71	29.23	25.61	-11.22
SO	YBADJ	BB3b	10.44	11.22	25.61	29.23	37.71	2.68
SO	YBADJ	BB3b	7.84	12.77	17.32	21.33	24.70	27.32
SO	YBADJ	BB3b	29.11	30.01	37.71	29.23	25.61	11.22
SO	YBADJ	BB3b	-10.44	-11.22	25.61	29.23	-37.71	-2.68
SO	BUILDHGT	BB4b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB4b	25.30	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	BB4b	45.70	65.23	65.23	45.70	25.30	25.30
SO	BUILDHGT	BB4b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB4b	25.30	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	BB4b	45.70	65.23	65.23	45.70	25.30	25.30
SO	BUILDWID	BB4b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB4b	51.82	41.07	33.73	34.44	34.16	32.82
SO	BUILDWID	BB4b	51.37	32.83	34.17	72.06	50.19	51.79
SO	BUILDWID	BB4b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB4b	51.82	41.07	33.73	34.44	34.16	32.82
SO	BUILDWID	BB4b	51.37	32.83	34.17	72.06	50.19	51.79
SO	BUILDLEN	BB4b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB4b	47.07	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	BB4b	55.17	21.20	25.61	42.59	51.80	50.20
SO	BUILDLEN	BB4b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB4b	47.07	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	BB4b	55.17	21.20	25.61	42.59	51.80	50.20

SO	XBADJ	BB4b	-43.12	-38.23	-32.18	-25.15	-24.77	-23.63
SO	XBADJ	BB4b	-21.78	25.44	40.57	29.23	51.67	54.94
SO	XBADJ	BB4b	44.66	51.13	44.17	25.57	-2.94	-3.50
SO	XBADJ	BB4b	-3.96	-4.29	-4.50	-4.57	-11.91	-18.89
SO	XBADJ	BB4b	-25.30	-66.81	-72.54	29.23	-77.28	-76.15
SO	XBADJ	BB4b	-99.83	-72.34	-69.78	-68.17	-48.86	-46.70
SO	YBADJ	BB4b	-13.34	-16.54	-19.23	-21.34	-22.80	-23.57
SO	YBADJ	BB4b	-23.63	-37.90	-33.13	29.23	-11.79	-0.42
SO	YBADJ	BB4b	21.41	22.02	32.41	54.67	5.84	9.74
SO	YBADJ	BB4b	13.34	16.54	19.23	21.34	22.80	23.57
SO	YBADJ	BB4b	23.63	37.90	33.13	29.23	11.79	0.42
SO	YBADJ	BB4b	-21.41	-22.02	-32.41	-54.67	-5.84	-9.74
SO	BUILDHGT	PB45b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	PB45b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	PB45b	45.70	45.70	25.30	25.30	25.30	25.30
SO	BUILDHGT	PB45b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	PB45b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	PB45b	45.70	45.70	25.30	25.30	25.30	25.30
SO	BUILDWID	PB45b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	PB45b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	PB45b	51.37	60.15	42.52	47.07	50.19	51.79
SO	BUILDWID	PB45b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	PB45b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	PB45b	51.37	60.15	42.52	47.07	50.19	51.79
SO	BUILDLEN	PB45b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	PB45b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	PB45b	55.17	52.53	50.27	51.82	51.80	50.20
SO	BUILDLEN	PB45b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	PB45b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	PB45b	55.17	52.53	50.27	51.82	51.80	50.20
SO	XBADJ	PB45b	-30.04	-23.88	-17.00	-9.61	-9.33	-8.77
SO	XBADJ	PB45b	32.48	37.83	51.14	55.26	57.70	58.39
SO	XBADJ	PB45b	45.41	37.48	-6.17	-9.40	-12.35	-14.92
SO	XBADJ	PB45b	-17.04	-18.64	-19.68	-20.11	-27.35	-33.76
SO	XBADJ	PB45b	-72.89	-79.20	-83.11	-84.49	-83.31	-79.59
SO	XBADJ	PB45b	-100.58	-90.00	-44.10	-42.42	-39.45	-35.28
SO	YBADJ	PB45b	-21.76	-22.56	-22.67	-22.10	-20.85	-18.97
SO	YBADJ	PB45b	-38.22	-28.49	-21.71	-9.73	2.55	14.76
SO	YBADJ	PB45b	36.95	49.07	12.49	15.60	18.23	20.31
SO	YBADJ	PB45b	21.76	22.56	22.67	22.10	20.85	18.97
SO	YBADJ	PB45b	38.22	28.49	21.71	9.73	-2.55	-14.76
SO	YBADJ	PB45b	-36.95	-49.07	-12.49	-15.60	-18.23	-20.31
SO	BUILDHGT	PB6b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	PB6b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	PB6b	45.70	45.70	45.70	45.70	65.23	52.73
SO	BUILDHGT	PB6b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	PB6b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	PB6b	45.70	45.70	45.70	45.70	65.23	52.73
SO	BUILDWID	PB6b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	PB6b	39.52	41.07	33.73	34.17	34.16	32.82
SO	BUILDWID	PB6b	51.37	60.15	67.13	72.06	33.74	41.07
SO	BUILDWID	PB6b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	PB6b	39.52	41.07	33.73	34.17	34.16	32.82
SO	BUILDWID	PB6b	51.37	60.15	67.13	72.06	33.74	41.07
SO	BUILDLEN	PB6b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	PB6b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	PB6b	55.17	52.53	48.29	42.59	31.97	41.37
SO	BUILDLEN	PB6b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	PB6b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	PB6b	55.17	52.53	48.29	42.59	31.97	41.37
SO	XBADJ	PB6b	-37.24	-41.72	-44.94	-46.79	-52.08	-55.79
SO	XBADJ	PB6b	-57.81	-58.07	-47.47	29.23	-37.34	-30.49

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SO XBADJ    PB6b     -34.59  -31.23  -26.93  -21.80   -6.91   -9.74
SO XBADJ    PB6b      -3.17   -2.74   -3.71   -4.58   -8.08  -11.33
SO XBADJ    PB6b      17.40   16.70   15.50   29.23   11.73    9.28
SO XBADJ    PB6b     -20.58  -21.30  -21.37  -20.79  -25.06  -31.63
SO YBADJ    PB6b      16.62   13.81   10.57    7.01    4.97    2.78
SO YBADJ    PB6b       2.04   -4.52  -14.77   29.23  -24.64  -28.53
SO YBADJ    PB6b     -21.11  -22.00  -22.23  -21.78  -33.57  -36.03
SO YBADJ    PB6b     -16.62  -13.81  -10.57   -7.01   -4.97   -2.78
SO YBADJ    PB6b      -2.04    4.52   14.77   29.23   24.64   28.53
SO YBADJ    PB6b      21.11   22.00   22.23   21.78   33.57   36.03


SO EMISUNIT    .100000E+07 (GRAMS/SEC)         (MICROGRAMS/CUBIC-METER)
SO SRCGROUP BB3INC RB1 RB2 SDT1 SDT2 LK1 BB3REV BB4 RB1b RB2b SDT1b SDT2b LK1b
SO SRCGROUP BB3INC PB45b PB6b BB3b BB4b BAYENRGY FCPLKSDT FCPRB567
SO SRCGROUP BB4INC RB1 RB2 SDT1 SDT2 LK1 BB3 BB4REV RB1b RB2b SDT1b SDT2b LK1b
SO SRCGROUP BB4INC PB45b PB6b BB3b BB4b BAYENRGY FCPLKSDT FCPRB567

SO FINISHED

RE STARTING
RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG  0.0     0.0
RE GRIDPOLR POL DIST  2000. 2500. 3000. 3500. 4000. 4500. 5000.
RE GRIDPOLR POL DIST  7000. 9000. 12000. 15000. 18000. 21000. 24000.
RE GRIDPOLR POL GDIR  36   10.00   10.00
RE GRIDPOLR POL END
RE DISCPOLR ORIGIN      500.        10
RE DISCPOLR ORIGIN      800.        10
RE DISCPOLR ORIGIN     1100.        10
RE DISCPOLR ORIGIN     1500.        10
RE DISCPOLR ORIGIN      500.        10
RE DISCPOLR ORIGIN      800.        10
RE DISCPOLR ORIGIN     1100.        10
RE DISCPOLR ORIGIN     1500.        10
RE DISCPOLR ORIGIN      500.        10
RE DISCPOLR ORIGIN      800.        10
RE DISCPOLR ORIGIN     1100.        10
RE DISCPOLR ORIGIN     1500.        10
RE DISCPOLR ORIGIN      200.        20
RE DISCPOLR ORIGIN      500.        20
RE DISCPOLR ORIGIN      800.        20
RE DISCPOLR ORIGIN     1100.        20
RE DISCPOLR ORIGIN     1500.        20
RE DISCPOLR ORIGIN      200.        20
RE DISCPOLR ORIGIN      500.        20
RE DISCPOLR ORIGIN      800.        20
RE DISCPOLR ORIGIN     1100.        20
RE DISCPOLR ORIGIN     1500.        20
RE DISCPOLR ORIGIN      200.        20
RE DISCPOLR ORIGIN      500.        20
RE DISCPOLR ORIGIN      800.        20
RE DISCPOLR ORIGIN     1100.        20
RE DISCPOLR ORIGIN     1500.        20
RE DISCPOLR ORIGIN      100.        30
RE DISCPOLR ORIGIN      200.        30
RE DISCPOLR ORIGIN      500.        30
RE DISCPOLR ORIGIN      800.        30
RE DISCPOLR ORIGIN     1100.        30
RE DISCPOLR ORIGIN     1500.        30
RE DISCPOLR ORIGIN      100.        40
RE DISCPOLR ORIGIN      200.        40
RE DISCPOLR ORIGIN      500.        40
RE DISCPOLR ORIGIN      800.        40
RE DISCPOLR ORIGIN     1100.        40
RE DISCPOLR ORIGIN     1500.        40
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RE DISCCART      207.0      -6.8
RE DISCCART      266.1      43.6
RE DISCCART      315.3     116.5
RE DISCCART      414.0     120.7
RE DISCCART      476.2      82.2
RE DISCCART      478.0     -17.8
RE DISCCART      479.9    -117.8
RE DISCCART      481.7    -217.8
RE DISCCART      483.6    -317.7
RE DISCCART      485.4    -417.7
RE DISCCART      487.3    -517.7
RE DISCCART      489.1    -617.7
RE DISCCART      478.9    -697.4
RE DISCCART      390.4    -653.5
RE DISCCART      291.3    -664.7
RE DISCCART      192.8    -681.6
RE DISCCART       93.6    -691.2
RE DISCCART       -6.4    -689.4
RE DISCCART     -103.8    -670.3
RE DISCCART     -200.1    -643.4
RE DISCCART     -288.4    -599.6
RE DISCCART     -363.6    -537.7
RE DISCCART     -454.2    -503.4
RE DISCCART     -454.2    -603.4
RE DISCCART     -487.7    -622.4
RE DISCCART     -487.7    -522.4
RE DISCCART     -559.6    -534.5
RE DISCCART     -643.6    -588.9
RE DISCCART     -727.5    -643.2
RE DISCCART     -814.1    -688.4
RE DISCCART     -897.5    -743.7
RE DISCCART     -990.0    -775.9
RE DISCCART    -1084.8    -754.8
RE DISCCART    -1164.0    -695.1
RE DISCCART    -1238.6    -629.5
RE DISCCART    -1309.1    -558.6
RE DISCCART    -1379.6    -487.7
RE DISCCART    -1328.7    -450.5
RE DISCCART    -1234.1    -420.9
RE DISCCART    -1151.2    -365.3
RE DISCCART    -1061.6    -320.8
RE DISCCART     -972.0    -276.4
RE DISCCART     -887.2    -248.9
RE DISCCART     -820.8    -320.5
RE DISCCART     -721.8    -328.0
RE DISCCART     -634.7    -283.0
RE DISCCART     -538.8    -259.6
RE DISCCART     -460.6    -236.6
RE DISCCART     -438.9    -149.3
RE DISCCART     -423.7    -148.8
RE DISCCART     -335.9    -158.5
RE DISCCART     -277.2     -89.6
RE DISCCART     -234.2      -0.4
RE DISCCART     -239.6      93.0
RE DISCCART     -179.0     172.5
RE DISCCART     -188.0     263.9
RE DISCCART     -223.1     356.5
RE FINISHED

ME STARTING
ME INPUTFIL  H:\MET\PNSAQQ86.MET
ME ANEMHGHT  22 FEET
ME SURFDATA  13899  1986          PENSACOLA
ME UAIRDATA  12832  1986          APALACHICOLA
ME WINDCATS  1.54    3.09    5.14    8.23   10.80
ME FINISHED
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**
OU STARTING
OU RECTABLE ALLAVE FIRST SECOND
OU FINISHED
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PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :SO2CL224.086
PRIME OUTPUT FILE NUMBER 2 :SO2CL224.087
PRIME OUTPUT FILE NUMBER 3 :SO2CL224.088
PRIME OUTPUT FILE NUMBER 4 :SO2CL224.089
PRIME OUTPUT FILE NUMBER 5 :SO2CL224.090
First title for last output file is: 1986 STONE CONTAINER,SO2 PSD CLASS II SCREENING ANALYSIS 1/14/04
Second title for last output file is: PENSACOLA/APALACHICOLA 86-87, APAL/APAL 88-90 MET DATA, 24 E.R.

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: BB3IN					
Annual					
	1986	2.59761	300.00	1100.00	86123124
	1987	2.72639	300.00	1100.00	87123124
	1988	4.32233	300.00	1100.00	88123124
	1989	3.64133	300.00	1100.00	89123124
	1990	5.84350	300.00	1100.00	90123124
HIGH 24-Hour					
	1986	40.16459	300.00	2000.00	86112424
	1987	50.96548	300.00	1100.00	87032424
	1988	47.93509	300.00	2000.00	88020324
	1989	53.44026	310.00	800.00	89032724
	1990	68.03782	300.00	1100.00	90052624
HSH 24-Hour					
	1986	30.07227	300.00	1500.00	86020324
	1987	36.99577	300.00	1100.00	87092724
	1988	39.36746	300.00	1100.00	88050224
	1989	52.13919	310.00	800.00	89060124
	1990	62.71410	300.00	1100.00	90060124
SOURCE GROUP ID: BB4IN					
Annual					
	1986	2.57468	300.00	1100.00	86123124
	1987	2.63832	300.00	1100.00	87123124
	1988	4.26563	300.00	1100.00	88123124
	1989	3.57407	300.00	1100.00	89123124
	1990	5.80029	300.00	1100.00	90123124
HIGH 24-Hour					
	1986	37.94077	300.00	2000.00	86112424
	1987	45.71068	300.00	1100.00	87032424
	1988	48.25880	300.00	2000.00	88020324
	1989	53.61283	310.00	800.00	89032724
	1990	65.13768	300.00	1100.00	90052624
HSH 24-Hour					
	1986	29.06536	300.00	1500.00	86020324
	1987	35.62096	300.00	1100.00	87092724
	1988	39.80517	300.00	1100.00	88050224
	1989	52.56878	310.00	800.00	89060124
	1990	60.04949	300.00	1100.00	90060124

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

PRIMEBOB RELEASE 001024

PRIME OUTPUT FILE NUMBER 1 :SO2C224R.090
First title for last output file is: 1990 STONE CONTAINER,SO2 PSD CLASS II REFINED ANALYSIS 12/24/03
Second title for last output file is: PENSACOLA/APALACHICOLA 86-87, APAL/APAL 88-90 MET DATA, 24 E.R.

AVERAGING TIME	YEAR	CONC (ug/m3)	DIRECTION (degree)	DISTANCE (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID: BB3IN					
Annual					
	1990	6.27947	302.00	1100.00	90123124
HIGH 24-Hour					
	1990	68.90440	302.00	1100.00	90052624
HSH 24-Hour					
	1990	66.07745	302.00	1100.00	90060124
SOURCE GROUP ID: BB4IN					
Annual					
	1990	6.06303	302.00	1100.00	90123124
HIGH 24-Hour					
	1990	65.60126	300.00	1200.00	90052624
HSH 24-Hour					
	1990	61.76572	302.00	1100.00	90060124

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

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CO STARTING
CO TITLEONE 1986 STONE CONTAINER,SO2 PSD CLASS II SCREENING ANALYSIS  1/14/04
CO TITLETWO PENSACOLA/APALACHICOLA 86-87, APAL/APAL 88-90 MET DATA, 24 E.R.
CO MODELOPT DFAULT CONC   RURAL NOCMPL
CO AVERTIME  PERIOD 24
CO POLLUTID SO2
CO DCAYCOEF    .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING
** Source Location Cards:
**          SRCID SRCTYP        XS            YS            ZS
**                             (m)           (m)           (m)
** ALL STACK AND BUILDING DATA BASED ON TN COORDINATE SYSTEM

** STONE POINT SOURCES
** DUMMY SOURCE FOR ORIGIN LOCATION
SO LOCATION  ORIGIN  POINT       0.0         0.0         .0000
SO SRCPARAM ORIGIN    0.0         10.0    300.0      20.00    1.00

** MODEL ID----------------------STONE POINT SOURCES----------------------------------------
** RB1                           NO.1 RECOVERY BOILER
** RB2                           NO.2 RECOVERY BOILER
** SDT1                          NO.1 SMELT DISSOLVING TANK
** SDT2                          NO.2 SMELT DISSOLVING TANK
** LK1                           LIME KILN
** BB3                           NO.3 COMBINATION BOILER
** BB4                           NO.4 COMBINATION BOILER
*************************************************************************
**                                                                      *
** BB3REV - BB3 INCREASED BY 402 LB/HR, RESULTS IN BB3INC SOURCE GROUP  *
** BB4REV - BB4 INCREASED BY 402 LB/HR, RESULTS IN BB4INC SOURCE GROUP  *
**                                                                      *
*************************************************************************
**          SRCID SRCTYP        XS       YS          ZS
**                             (m)       (m)         (m)
** FUTURE SOURCES
SO LOCATION RB1       POINT     13.02   -16.49       .0000
SO LOCATION RB2       POINT     26.73    -0.15       .0000
SO LOCATION SDT1      POINT      0.41    -5.91       .0000
SO LOCATION SDT2      POINT     14.12    10.43       .0000
SO LOCATION LK1       POINT    163.79   -35.97       .0000
SO LOCATION BB3       POINT    -28.57    32.33       .0000
SO LOCATION BB3REV    POINT    -28.57    32.33       .0000
SO LOCATION BB4       POINT    -35.63    23.93       .0000
SO LOCATION BB4REV    POINT    -35.63    23.93       .0000
**1974 PSD BASELINE SOURCES
SO LOCATION RB1b      POINT     13.02   -16.49       .0000
SO LOCATION RB2b      POINT     26.73    -0.15       .0000
SO LOCATION SDT1b     POINT      0.41    -5.91       .0000
SO LOCATION SDT2b     POINT     14.12    10.43       .0000
SO LOCATION LK1b      POINT    163.79   -35.97       .0000
SO LOCATION BB3b      POINT    -28.57    32.33       .0000
SO LOCATION BB4b      POINT    -35.63    23.93       .0000
SO LOCATION PB45b     POINT    -46.20    12.51       .0000
SO LOCATION PB6b      POINT     52.41     5.56       .0000
** OTHER PSD AFFECTING SOURCES
SO LOCATION BAYENRGY POINT    11200.   13800.       .0000

** OTHER BASELINE SOURCES
SO LOCATION FCPLKSDT POINT    30000.  -36100.       .0000
SO LOCATION FCPRB567 POINT    30000.  -36100.       .0000

** Source Parameter Cards:
** POINT:   SRCID          QS         HS      TS        VS        DS
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**                        (g/s)       (m)      (K)      (m/s)     (m)
** STONE POINT SOURCES
SO SRCPARAM RB1           16.35       71.0     421.0     26.50     1.96
SO SRCPARAM RB2           16.35       71.0     428.0     27.48     1.96
SO SRCPARAM SDT1           0.13       71.0     347.4      5.25     1.83
SO SRCPARAM SDT2           0.13       71.0     347.4      4.56     1.83
SO SRCPARAM LK1            0.59       18.6     348.0     11.84     2.44
SO SRCPARAM BB3           61.11       64.9     337.6     30.41     2.39
SO SRCPARAM BB3REV       111.96       64.9     337.6     30.41     2.39
SO SRCPARAM BB4           98.41       64.9     336.5     32.29     2.39
SO SRCPARAM BB4REV       149.06       64.9     336.5     32.29     2.39

** 1974 PSD BASELINE SOURCES
SO SRCPARAM RB1b         -15.3        71.0     428.0     26.82     1.96
SO SRCPARAM RB2b         -15.3        71.0     433.0     24.78     1.96
SO SRCPARAM SDT1b         -0.9        71.0     339.0      5.15     1.83
SO SRCPARAM SDT2b         -0.9        71.0     333.0      5.30     1.83
SO SRCPARAM LK1b          -0.4        18.6     344.0     10.24     2.44
SO SRCPARAM PB45b        -52.6        90.2     478.0      7.56     3.66
SO SRCPARAM PB6b         -66.0        73.5     494.0     10.85     2.44
SO SRCPARAM BB3b         -43.2        45.7     500.0     14.69     2.59
SO SRCPARAM BB4b         -68.8        45.7     516.0     18.47     2.24

** OTHER BASELINE SOURCES
SO SRCPARAM FCPLKSDT      -3.10       30.5     367.6      2.25     2.38
SO SRCPARAM FCPRB567      -86.61      38.1     394.3      9.10     2.56

** OTHER SOURCES
SO SRCPARAM BAYENRGY       9.02       38.1     477.6     17.50     1.37

** FUTURE BPIP
SO BUILDHGT LK1          0.00    0.00    0.00    0.00    8.69    8.69
SO BUILDHGT LK1          8.69    8.69   65.23   65.23   65.23    0.00
SO BUILDHGT LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1          0.00    0.00    0.00    0.00   37.57   46.58
SO BUILDWID LK1         54.16   60.10   33.73   34.47   34.16    0.00
SO BUILDWID LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN LK1          0.00    0.00    0.00    0.00   63.06   63.40
SO BUILDLEN LK1         61.81   58.34   31.97   29.23   25.61    0.00
SO BUILDLEN LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDLEN LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    LK1          0.00    0.00    0.00    0.00  -85.81  -86.72
SO XBADJ    LK1        -84.99  -80.68 -158.85 -159.96 -156.21    0.00
SO XBADJ    LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO XBADJ    LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    LK1          0.00    0.00    0.00    0.00   13.50    3.73
SO YBADJ    LK1         -6.15  -15.85   26.76    1.55  -23.71    0.00
SO YBADJ    LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    LK1          0.00    0.00    0.00    0.00    0.00    0.00
SO YBADJ    LK1          0.00    0.00    0.00    0.00    0.00    0.00


SO BUILDHGT RB1         52.73   52.73   52.73   52.73   52.73   52.73
SO BUILDHGT RB1         52.73   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT RB1         65.23   65.23   65.23   65.23   65.23   52.73
```

SO	BUILDHGT	RB1	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	RB1	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB1	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	RB1	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	RB1	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB1	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	RB1	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	RB1	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB1	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	RB1	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	RB1	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB1	16.16	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	RB1	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	RB1	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB1	16.16	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	RB1	-8.69	-7.53	-6.15	-4.57	-7.73	-10.65
SO	XBADJ	RB1	-13.25	-15.45	-8.08	-8.10	-7.87	-7.40
SO	XBADJ	RB1	-6.71	-11.10	-15.16	-18.76	-21.78	-31.79
SO	XBADJ	RB1	-31.73	-30.70	-28.74	-25.90	-27.15	-27.57
SO	XBADJ	RB1	-27.16	-25.92	-23.89	-21.14	-17.74	-13.80
SO	XBADJ	RB1	-9.45	-10.10	-10.45	-10.47	-10.18	-9.58
SO	YBADJ	RB1	-1.37	0.65	2.65	4.57	6.35	7.94
SO	YBADJ	RB1	9.29	10.35	7.28	8.55	9.55	10.26
SO	YBADJ	RB1	10.66	10.74	10.49	9.92	9.05	3.35
SO	YBADJ	RB1	1.37	-0.65	-2.65	-4.57	-6.35	-7.94
SO	YBADJ	RB1	-9.29	-10.35	-7.29	-8.55	-9.55	-10.26
SO	YBADJ	RB1	-10.66	-10.74	-10.49	-9.92	-9.05	-3.35
SO	BUILDHGT	RB2	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	RB2	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB2	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	RB2	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	RB2	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB2	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	RB2	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	RB2	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB2	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	RB2	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	RB2	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB2	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	RB2	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	RB2	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB2	16.16	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	RB2	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	RB2	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB2	16.16	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	RB2	-27.16	-27.58	-27.15	-25.90	-28.73	-30.70
SO	XBADJ	RB2	-31.73	-31.79	-21.79	-18.76	-15.16	-11.10
SO	XBADJ	RB2	-6.71	-7.40	-7.86	-8.09	-8.07	-15.45
SO	XBADJ	RB2	-13.25	-10.65	-7.73	-4.57	-6.15	-7.53
SO	XBADJ	RB2	-8.69	-9.58	-10.18	-10.47	-10.45	-10.10
SO	XBADJ	RB2	-9.45	-13.81	-17.74	-21.14	-23.89	-25.92
SO	YBADJ	RB2	9.29	7.94	6.35	4.57	2.65	0.64
SO	YBADJ	RB2	-1.38	-3.36	-9.06	-9.93	-10.49	-10.74
SO	YBADJ	RB2	-10.67	-10.27	-9.55	-8.55	-7.29	-10.35
SO	YBADJ	RB2	-9.29	-7.94	-6.35	-4.57	-2.65	-0.64
SO	YBADJ	RB2	1.38	3.36	9.06	9.93	10.49	10.74
SO	YBADJ	RB2	10.67	10.27	9.55	8.55	7.29	10.35
SO	BUILDHGT	SDT1	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	SDT1	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT1	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	SDT1	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	SDT1	52.73	52.73	65.23	65.23	65.23	65.23

SO	BUILDHGT	SDT1	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	SDT1	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	SDT1	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT1	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	SDT1	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	SDT1	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT1	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	SDT1	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	SDT1	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT1	16.16	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	SDT1	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	SDT1	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT1	16.16	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	SDT1	-16.92	-13.16	-9.00	-4.57	-4.87	-5.02
SO	XBADJ	SDT1	-5.02	-4.87	4.53	6.16	7.60	8.81
SO	XBADJ	SDT1	9.75	5.11	0.31	-4.50	-9.18	-21.21
SO	XBADJ	SDT1	-23.50	-25.07	-25.88	-25.91	-30.01	-33.20
SO	XBADJ	SDT1	-35.39	-36.50	-36.50	-35.39	-33.21	-30.01
SO	XBADJ	SDT1	-25.91	-26.31	-25.91	-24.73	-22.79	-20.16
SO	YBADJ	SDT1	-15.63	-14.82	-13.56	-11.89	-9.86	-7.53
SO	YBADJ	SDT1	-4.97	-2.26	-3.29	0.32	3.92	7.40
SO	YBADJ	SDT1	10.66	13.60	16.12	18.15	19.63	15.97
SO	YBADJ	SDT1	15.63	14.82	13.56	11.89	9.86	7.53
SO	YBADJ	SDT1	4.97	2.26	3.29	-0.32	-3.92	-7.40
SO	YBADJ	SDT1	-10.66	-13.60	-16.12	-18.15	-19.63	-15.96
SO	BUILDHGT	SDT2	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	SDT2	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT2	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	SDT2	52.73	52.73	52.73	52.73	52.73	52.73
SO	BUILDHGT	SDT2	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT2	65.23	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	SDT2	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	SDT2	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT2	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	SDT2	39.52	36.77	32.91	28.04	32.91	36.77
SO	BUILDWID	SDT2	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT2	30.49	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	SDT2	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	SDT2	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT2	16.16	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	SDT2	40.41	38.23	34.88	30.48	34.88	38.23
SO	BUILDLEN	SDT2	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT2	16.16	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	SDT2	-35.39	-33.20	-30.01	-25.90	-25.88	-25.07
SO	XBADJ	SDT2	-23.49	-21.21	-9.18	-4.50	0.31	5.11
SO	XBADJ	SDT2	9.76	8.81	7.60	6.16	4.54	-4.87
SO	XBADJ	SDT2	-5.02	-5.02	-4.87	-4.58	-9.01	-13.16
SO	XBADJ	SDT2	-16.92	-20.16	-22.79	-24.73	-25.91	-26.31
SO	XBADJ	SDT2	-25.91	-30.02	-33.21	-35.39	-36.50	-36.50
SO	YBADJ	SDT2	-4.97	-7.53	-9.86	-11.89	-13.56	-14.82
SO	YBADJ	SDT2	-15.63	-15.97	-19.64	-18.16	-16.12	-13.60
SO	YBADJ	SDT2	-10.67	-7.41	-3.92	-0.32	3.29	2.26
SO	YBADJ	SDT2	4.97	7.53	9.86	11.89	13.56	14.82
SO	YBADJ	SDT2	15.63	15.97	19.63	18.16	16.12	13.60
SO	YBADJ	SDT2	10.67	7.41	3.92	0.32	-3.29	-2.26
SO	BUILDHGT	BB3	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB3	25.30	25.30	52.73	65.23	65.23	65.23
SO	BUILDHGT	BB3	65.23	65.23	65.23	65.23	52.73	25.30
SO	BUILDHGT	BB3	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB3	25.30	25.30	52.73	65.23	65.23	65.23
SO	BUILDHGT	BB3	65.23	65.23	65.23	65.23	52.73	25.30
SO	BUILDWID	BB3	51.81	50.26	47.18	42.68	47.19	50.27

SO	BUILDWID	BB3	51.82	51.80	41.37	33.63	33.63	32.82
SO	BUILDWID	BB3	30.49	32.83	33.63	33.63	41.37	51.79
SO	BUILDWID	BB3	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB3	51.82	51.80	41.37	33.63	33.63	32.82
SO	BUILDWID	BB3	30.49	32.83	33.63	33.63	41.37	51.79
SO	BUILDLEN	BB3	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB3	47.07	50.19	41.07	29.23	25.61	21.20
SO	BUILDLEN	BB3	16.16	21.20	25.61	29.23	41.07	50.20
SO	BUILDLEN	BB3	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB3	47.07	50.19	41.07	29.23	25.61	21.20
SO	BUILDLEN	BB3	16.16	21.20	25.61	29.23	41.07	50.20
SO	XBADJ	BB3	-52.62	-48.54	-42.98	-36.12	-35.57	-33.94
SO	XBADJ	BB3	-31.28	-27.67	24.41	29.23	25.61	53.03
SO	XBADJ	BB3	56.53	53.03	25.61	29.23	24.41	4.90
SO	XBADJ	BB3	5.54	6.01	6.30	6.40	-1.10	-8.58
SO	XBADJ	BB3	-15.79	-22.52	-65.48	29.23	25.61	-74.23
SO	XBADJ	BB3	-72.69	-74.23	25.61	29.23	-65.48	-55.10
SO	YBADJ	BB3	-7.84	-12.77	-17.32	-21.33	-24.70	-27.32
SO	YBADJ	BB3	-29.11	-30.01	-37.71	29.23	25.61	-11.22
SO	YBADJ	BB3	0.00	11.22	25.61	29.23	37.71	2.68
SO	YBADJ	BB3	7.84	12.77	17.32	21.33	24.70	27.32
SO	YBADJ	BB3	29.11	30.01	37.71	29.23	25.61	11.22
SO	YBADJ	BB3	0.00	-11.22	25.61	29.23	-37.71	-2.68

SO	BUILDHGT	BB4	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB4	25.30	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	BB4	65.23	65.23	65.23	52.73	25.30	25.30
SO	BUILDHGT	BB4	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB4	25.30	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	BB4	65.23	65.23	65.23	52.73	25.30	25.30
SO	BUILDWID	BB4	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB4	51.82	41.07	33.73	34.44	34.16	32.82
SO	BUILDWID	BB4	30.49	32.83	34.17	40.41	50.19	51.79
SO	BUILDWID	BB4	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB4	51.82	41.07	33.73	34.44	34.16	32.82
SO	BUILDWID	BB4	30.49	32.83	34.17	40.41	50.19	51.79
SO	BUILDLEN	BB4	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB4	47.07	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	BB4	16.16	21.20	25.61	39.52	51.80	50.20
SO	BUILDLEN	BB4	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB4	47.07	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	BB4	16.16	21.20	25.61	39.52	51.80	50.20
SO	XBADJ	BB4	-43.12	-38.23	-32.18	-25.15	-24.77	-23.63
SO	XBADJ	BB4	-21.78	25.44	40.57	29.23	51.67	54.94
SO	XBADJ	BB4	56.54	51.13	44.17	25.57	-2.94	-3.50
SO	XBADJ	BB4	-3.96	-4.29	-4.50	-4.57	-11.91	-18.89
SO	XBADJ	BB4	-25.30	-66.81	-72.54	29.23	-77.28	-76.15
SO	XBADJ	BB4	-72.70	-72.34	-69.78	-65.09	-48.86	-46.70
SO	YBADJ	BB4	-13.34	-16.54	-19.23	-21.34	-22.80	-23.57
SO	YBADJ	BB4	-23.63	-37.90	-33.13	29.23	-11.79	-0.42
SO	YBADJ	BB4	10.97	22.02	32.41	38.84	5.84	9.74
SO	YBADJ	BB4	13.34	16.54	19.23	21.34	22.80	23.57
SO	YBADJ	BB4	23.63	37.90	33.13	29.23	11.79	0.42
SO	YBADJ	BB4	-10.97	-22.02	-32.41	-38.84	-5.84	-9.74

SO	BUILDHGT	BB3REV	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB3REV	25.30	25.30	52.73	65.23	65.23	65.23
SO	BUILDHGT	BB3REV	65.23	65.23	65.23	65.23	52.73	25.30
SO	BUILDHGT	BB3REV	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB3REV	25.30	25.30	52.73	65.23	65.23	65.23
SO	BUILDHGT	BB3REV	65.23	65.23	65.23	65.23	52.73	25.30
SO	BUILDWID	BB3REV	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB3REV	51.82	51.80	41.37	33.63	33.63	32.82
SO	BUILDWID	BB3REV	30.49	32.83	33.63	33.63	41.37	51.79
SO	BUILDWID	BB3REV	51.81	50.26	47.18	42.68	47.19	50.27

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SO BUILDWID BB3REV      51.82   51.80   41.37   33.63   33.63   32.82
SO BUILDWID BB3REV      30.49   32.83   33.63   33.63   41.37   51.79
SO BUILDLEN BB3REV      47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB3REV      47.07   50.19   41.07   29.23   25.61   21.20
SO BUILDLEN BB3REV      16.16   21.20   25.61   29.23   41.07   50.20
SO BUILDLEN BB3REV      47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB3REV      47.07   50.19   41.07   29.23   25.61   21.20
SO BUILDLEN BB3REV      16.16   21.20   25.61   29.23   41.07   50.20
SO XBADJ    BB3REV     -52.62  -48.54  -42.98  -36.12  -35.57  -33.94
SO XBADJ    BB3REV     -31.28  -27.67   24.41   29.23   25.61   53.03
SO XBADJ    BB3REV      56.53   53.03   25.61   29.23   24.41    4.90
SO XBADJ    BB3REV       5.54    6.01    6.30    6.40   -1.10   -8.58
SO XBADJ    BB3REV     -15.79  -22.52  -65.48   29.23   25.61  -74.23
SO XBADJ    BB3REV     -72.69  -74.23   25.61   29.23  -65.48  -55.10
SO YBADJ    BB3REV      -7.84  -12.77  -17.32  -21.33  -24.70  -27.32
SO YBADJ    BB3REV     -29.11  -30.01  -37.71   29.23   25.61  -11.22
SO YBADJ    BB3REV       0.00   11.22   25.61   29.23   37.71    2.68
SO YBADJ    BB3REV       7.84   12.77   17.32   21.33   24.70   27.32
SO YBADJ    BB3REV      29.11   30.01   37.71   29.23   25.61   11.22
SO YBADJ    BB3REV       0.00  -11.22   25.61   29.23  -37.71   -2.68


SO BUILDHGT BB4REV      25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB4REV      25.30   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT BB4REV      65.23   65.23   65.23   52.73   25.30   25.30
SO BUILDHGT BB4REV      25.30   25.30   25.30   25.30   25.30   25.30
SO BUILDHGT BB4REV      25.30   52.73   65.23   65.23   65.23   65.23
SO BUILDHGT BB4REV      65.23   65.23   65.23   52.73   25.30   25.30
SO BUILDWID BB4REV      51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB4REV      51.82   41.07   33.73   34.44   34.16   32.82
SO BUILDWID BB4REV      30.49   32.83   34.17   40.41   50.19   51.79
SO BUILDWID BB4REV      51.81   50.26   47.18   42.68   47.19   50.27
SO BUILDWID BB4REV      51.82   41.07   33.73   34.44   34.16   32.82
SO BUILDWID BB4REV      30.49   32.83   34.17   40.41   50.19   51.79
SO BUILDLEN BB4REV      47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB4REV      47.07   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN BB4REV      16.16   21.20   25.61   39.52   51.80   50.20
SO BUILDLEN BB4REV      47.08   42.52   36.68   29.72   36.68   42.52
SO BUILDLEN BB4REV      47.07   41.37   31.97   29.23   25.61   21.20
SO BUILDLEN BB4REV      16.16   21.20   25.61   39.52   51.80   50.20
SO XBADJ    BB4REV     -43.12  -38.23  -32.18  -25.15  -24.77  -23.63
SO XBADJ    BB4REV     -21.78   25.44   40.57   29.23   51.67   54.94
SO XBADJ    BB4REV      56.54   51.13   44.17   25.57   -2.94   -3.50
SO XBADJ    BB4REV      -3.96   -4.29   -4.50   -4.57  -11.91  -18.89
SO XBADJ    BB4REV     -25.30  -66.81  -72.54   29.23  -77.28  -76.15
SO XBADJ    BB4REV     -72.70  -72.34  -69.78  -65.09  -48.86  -46.70
SO YBADJ    BB4REV     -13.34  -16.54  -19.23  -21.34  -22.80  -23.57
SO YBADJ    BB4REV     -23.63  -37.90  -33.13   29.23  -11.79   -0.42
SO YBADJ    BB4REV      10.97   22.02   32.41   38.84    5.84    9.74
SO YBADJ    BB4REV      13.34   16.54   19.23   21.34   22.80   23.57
SO YBADJ    BB4REV      23.63   37.90   33.13   29.23   11.79    0.42
SO YBADJ    BB4REV     -10.97  -22.02  -32.41  -38.84   -5.84   -9.74

** BASELINE BPIP
SO BUILDHGT LK1b        0.00    0.00    0.00    0.00    9.14    9.14
SO BUILDHGT LK1b        9.14    9.14   65.23   65.23   65.23   45.70
SO BUILDHGT LK1b        0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LK1b        0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LK1b        0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LK1b        0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1b        0.00    0.00    0.00    0.00   37.57   46.58
SO BUILDWID LK1b       54.16   60.10   33.73   34.47   34.16   48.65
SO BUILDWID LK1b        0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1b        0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1b        0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LK1b        0.00    0.00    0.00    0.00    0.00    0.00
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SO	BUILDLEN	LK1b	0.00	0.00	0.00	0.00	63.06	63.40
SO	BUILDLEN	LK1b	61.81	58.34	31.97	29.23	25.61	63.25
SO	BUILDLEN	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDLEN	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LK1b	0.00	0.00	0.00	0.00	-85.81	-86.72
SO	XBADJ	LK1b	-84.99	-80.68	-158.85	-159.96	-156.21	-159.41
SO	XBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	XBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LK1b	0.00	0.00	0.00	0.00	13.50	3.73
SO	YBADJ	LK1b	-6.15	-15.85	26.76	1.55	-23.71	-40.34
SO	YBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	YBADJ	LK1b	0.00	0.00	0.00	0.00	0.00	0.00
SO	BUILDHGT	RB1b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	RB1b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB1b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	RB1b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	RB1b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB1b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	RB1b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	RB1b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB1b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	RB1b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	RB1b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB1b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	RB1b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	RB1b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB1b	55.17	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	RB1b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	RB1b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB1b	55.17	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	RB1b	-8.69	-7.53	-6.15	-4.58	-7.73	-10.65
SO	XBADJ	RB1b	-13.25	-15.45	-8.08	-8.10	-7.87	-7.40
SO	XBADJ	RB1b	-18.59	-11.10	-15.16	-18.76	-21.78	-31.79
SO	XBADJ	RB1b	-31.73	-36.93	-42.50	-46.79	-52.43	-56.47
SO	XBADJ	RB1b	-27.16	-25.92	-23.89	-21.14	-17.74	-13.80
SO	XBADJ	RB1b	-36.58	-10.10	-10.45	-10.47	-10.18	-9.58
SO	YBADJ	RB1b	-18.34	-15.67	-12.52	-8.99	-3.46	2.18
SO	YBADJ	RB1b	9.29	10.35	7.28	8.55	9.55	10.26
SO	YBADJ	RB1b	21.10	10.74	10.49	9.92	9.05	3.35
SO	YBADJ	RB1b	18.34	15.67	12.52	8.99	3.46	-2.18
SO	YBADJ	RB1b	-9.29	-10.35	-7.29	-8.55	-9.55	-10.26
SO	YBADJ	RB1b	-21.10	-10.74	-10.49	-9.92	-9.05	-3.35
SO	BUILDHGT	SDT1b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	SDT1b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT1b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	SDT1b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	SDT1b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT1b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	SDT1b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	SDT1b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT1b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	SDT1b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	SDT1b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT1b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	SDT1b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	SDT1b	40.41	41.37	31.97	29.23	25.61	21.20

SO	BUILDLEN	SDT1b	55.17	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	SDT1b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	SDT1b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT1b	55.17	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	SDT1b	-16.92	-13.16	-9.00	-4.58	-4.87	-5.02
SO	XBADJ	SDT1b	-5.02	-4.87	4.53	6.16	7.60	8.81
SO	XBADJ	SDT1b	-2.13	5.11	0.31	-4.50	-9.18	-21.21
SO	XBADJ	SDT1b	-23.50	-31.30	-39.65	-46.79	-55.28	-62.10
SO	XBADJ	SDT1b	-35.39	-36.50	-36.50	-35.39	-33.21	-30.01
SO	XBADJ	SDT1b	-53.04	-26.31	-25.91	-24.73	-22.79	-20.16
SO	YBADJ	SDT1b	-32.60	-31.14	-28.73	-25.45	-19.67	-13.29
SO	YBADJ	SDT1b	-4.97	-2.26	-3.29	0.32	3.92	7.40
SO	YBADJ	SDT1b	21.10	13.60	16.12	18.15	19.63	15.97
SO	YBADJ	SDT1b	32.60	31.14	28.73	25.45	19.67	13.29
SO	YBADJ	SDT1b	4.97	2.26	3.29	-0.32	-3.92	-7.40
SO	YBADJ	SDT1b	-21.10	-13.60	-16.12	-18.15	-19.63	-15.96

SO	BUILDHGT	RB2b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	RB2b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB2b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	RB2b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	RB2b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	RB2b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	RB2b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	RB2b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB2b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	RB2b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	RB2b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	RB2b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	RB2b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	RB2b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB2b	55.17	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	RB2b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	RB2b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	RB2b	55.17	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	RB2b	-27.16	-27.58	-27.15	-25.91	-28.73	-30.70
SO	XBADJ	RB2b	-31.73	-31.79	-21.79	-18.76	-15.16	-11.10
SO	XBADJ	RB2b	-18.59	-7.40	-7.86	-8.09	-8.07	-15.45
SO	XBADJ	RB2b	-13.25	-16.89	-21.50	-25.46	-31.42	-36.43
SO	XBADJ	RB2b	-8.69	-9.58	-10.18	-10.47	-10.45	-10.10
SO	XBADJ	RB2b	-36.58	-13.81	-17.74	-21.14	-23.89	-25.92
SO	YBADJ	RB2b	-7.68	-8.37	-8.82	-8.99	-7.16	-5.12
SO	YBADJ	RB2b	-1.38	-3.36	-9.06	-9.93	-10.49	-10.74
SO	YBADJ	RB2b	-0.23	-10.27	-9.55	-8.55	-7.29	-10.35
SO	YBADJ	RB2b	7.68	8.37	8.82	8.99	7.16	5.12
SO	YBADJ	RB2b	1.38	3.36	9.06	9.93	10.49	10.74
SO	YBADJ	RB2b	0.23	10.27	9.55	8.55	7.29	10.35

SO	BUILDHGT	SDT2b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	SDT2b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT2b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDHGT	SDT2b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	SDT2b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	SDT2b	45.70	65.23	65.23	65.23	65.23	52.73
SO	BUILDWID	SDT2b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	SDT2b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT2b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDWID	SDT2b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	SDT2b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	SDT2b	51.37	32.83	34.17	34.48	33.74	41.07
SO	BUILDLEN	SDT2b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	SDT2b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT2b	55.17	21.20	25.61	29.23	31.97	41.37
SO	BUILDLEN	SDT2b	40.41	44.46	48.65	51.37	60.15	67.13

SO	BUILDLEN	SDT2b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	SDT2b	55.17	21.20	25.61	29.23	31.97	41.37
SO	XBADJ	SDT2b	-35.39	-33.20	-30.01	-25.91	-25.88	-25.07
SO	XBADJ	SDT2b	-23.49	-21.21	-9.18	-4.50	0.31	5.11
SO	XBADJ	SDT2b	-2.13	8.81	7.60	6.16	4.54	-4.87
SO	XBADJ	SDT2b	-5.02	-11.26	-18.64	-25.46	-34.28	-42.06
SO	XBADJ	SDT2b	-16.92	-20.16	-22.79	-24.73	-25.91	-26.31
SO	XBADJ	SDT2b	-53.04	-30.02	-33.21	-35.39	-36.50	-36.50
SO	YBADJ	SDT2b	-21.93	-23.84	-25.03	-25.45	-23.37	-20.58
SO	YBADJ	SDT2b	-15.63	-15.97	-19.64	-18.16	-16.12	-13.60
SO	YBADJ	SDT2b	-0.23	-7.41	-3.92	-0.32	3.29	2.26
SO	YBADJ	SDT2b	21.93	23.84	25.03	25.45	23.37	20.58
SO	YBADJ	SDT2b	15.63	15.97	19.63	18.16	16.12	13.60
SO	YBADJ	SDT2b	0.23	7.41	3.92	0.32	-3.29	-2.26

SO	BUILDHGT	BB3b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB3b	25.30	25.30	52.73	65.23	65.23	65.23
SO	BUILDHGT	BB3b	45.70	65.23	65.23	65.23	52.73	25.30
SO	BUILDHGT	BB3b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB3b	25.30	25.30	52.73	65.23	65.23	65.23
SO	BUILDHGT	BB3b	45.70	65.23	65.23	65.23	52.73	25.30
SO	BUILDWID	BB3b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB3b	51.82	51.80	41.37	33.63	33.63	32.82
SO	BUILDWID	BB3b	51.37	32.83	33.63	33.63	41.37	51.79
SO	BUILDWID	BB3b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB3b	51.82	51.80	41.37	33.63	33.63	32.82
SO	BUILDWID	BB3b	51.37	32.83	33.63	33.63	41.37	51.79
SO	BUILDLEN	BB3b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB3b	47.07	50.19	41.07	29.23	25.61	21.20
SO	BUILDLEN	BB3b	55.17	21.20	25.61	29.23	41.07	50.20
SO	BUILDLEN	BB3b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB3b	47.07	50.19	41.07	29.23	25.61	21.20
SO	BUILDLEN	BB3b	55.17	21.20	25.61	29.23	41.07	50.20
SO	XBADJ	BB3b	-52.62	-48.54	-42.98	-36.12	-35.57	-33.94
SO	XBADJ	BB3b	-31.28	-27.67	24.41	29.23	25.61	53.03
SO	XBADJ	BB3b	44.65	53.03	25.61	29.23	24.41	4.90
SO	XBADJ	BB3b	5.54	6.01	6.30	6.40	-1.10	-8.58
SO	XBADJ	BB3b	-15.79	-22.52	-65.48	29.23	25.61	-74.23
SO	XBADJ	BB3b	-99.82	-74.23	25.61	29.23	-65.48	-55.10
SO	YBADJ	BB3b	-7.84	-12.77	-17.32	-21.33	-24.70	-27.32
SO	YBADJ	BB3b	-29.11	-30.01	-37.71	29.23	25.61	-11.22
SO	YBADJ	BB3b	10.44	11.22	25.61	29.23	37.71	2.68
SO	YBADJ	BB3b	7.84	12.77	17.32	21.33	24.70	27.32
SO	YBADJ	BB3b	29.11	30.01	37.71	29.23	25.61	11.22
SO	YBADJ	BB3b	-10.44	-11.22	25.61	29.23	-37.71	-2.68

SO	BUILDHGT	BB4b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB4b	25.30	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	BB4b	45.70	65.23	65.23	45.70	25.30	25.30
SO	BUILDHGT	BB4b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	BB4b	25.30	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	BB4b	45.70	65.23	65.23	45.70	25.30	25.30
SO	BUILDWID	BB4b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB4b	51.82	41.07	33.73	34.44	34.16	32.82
SO	BUILDWID	BB4b	51.37	32.83	34.17	72.06	50.19	51.79
SO	BUILDWID	BB4b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	BB4b	51.82	41.07	33.73	34.44	34.16	32.82
SO	BUILDWID	BB4b	51.37	32.83	34.17	72.06	50.19	51.79
SO	BUILDLEN	BB4b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB4b	47.07	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	BB4b	55.17	21.20	25.61	42.59	51.80	50.20
SO	BUILDLEN	BB4b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	BB4b	47.07	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	BB4b	55.17	21.20	25.61	42.59	51.80	50.20

SO	XBADJ	BB4b	-43.12	-38.23	-32.18	-25.15	-24.77	-23.63
SO	XBADJ	BB4b	-21.78	25.44	40.57	29.23	51.67	54.94
SO	XBADJ	BB4b	44.66	51.13	44.17	25.57	-2.94	-3.50
SO	XBADJ	BB4b	-3.96	-4.29	-4.50	-4.57	-11.91	-18.89
SO	XBADJ	BB4b	-25.30	-66.81	-72.54	29.23	-77.28	-76.15
SO	XBADJ	BB4b	-99.83	-72.34	-69.78	-68.17	-48.86	-46.70
SO	YBADJ	BB4b	-13.34	-16.54	-19.23	-21.34	-22.80	-23.57
SO	YBADJ	BB4b	-23.63	-37.90	-33.13	29.23	-11.79	-0.42
SO	YBADJ	BB4b	21.41	22.02	32.41	54.67	5.84	9.74
SO	YBADJ	BB4b	13.34	16.54	19.23	21.34	22.80	23.57
SO	YBADJ	BB4b	23.63	37.90	33.13	29.23	11.79	0.42
SO	YBADJ	BB4b	-21.41	-22.02	-32.41	-54.67	-5.84	-9.74
SO	BUILDHGT	PB45b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	PB45b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	PB45b	45.70	45.70	25.30	25.30	25.30	25.30
SO	BUILDHGT	PB45b	25.30	25.30	25.30	25.30	25.30	25.30
SO	BUILDHGT	PB45b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	PB45b	45.70	45.70	25.30	25.30	25.30	25.30
SO	BUILDWID	PB45b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	PB45b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	PB45b	51.37	60.15	42.52	47.07	50.19	51.79
SO	BUILDWID	PB45b	51.81	50.26	47.18	42.68	47.19	50.27
SO	BUILDWID	PB45b	39.52	41.07	33.73	34.47	34.16	32.82
SO	BUILDWID	PB45b	51.37	60.15	42.52	47.07	50.19	51.79
SO	BUILDLEN	PB45b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	PB45b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	PB45b	55.17	52.53	50.27	51.82	51.80	50.20
SO	BUILDLEN	PB45b	47.08	42.52	36.68	29.72	36.68	42.52
SO	BUILDLEN	PB45b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	PB45b	55.17	52.53	50.27	51.82	51.80	50.20
SO	XBADJ	PB45b	-30.04	-23.88	-17.00	-9.61	-9.33	-8.77
SO	XBADJ	PB45b	32.48	37.83	51.14	55.26	57.70	58.39
SO	XBADJ	PB45b	45.41	37.48	-6.17	-9.40	-12.35	-14.92
SO	XBADJ	PB45b	-17.04	-18.64	-19.68	-20.11	-27.35	-33.76
SO	XBADJ	PB45b	-72.89	-79.20	-83.11	-84.49	-83.31	-79.59
SO	XBADJ	PB45b	-100.58	-90.00	-44.10	-42.42	-39.45	-35.28
SO	YBADJ	PB45b	-21.76	-22.56	-22.67	-22.10	-20.85	-18.97
SO	YBADJ	PB45b	-38.22	-28.49	-21.71	-9.73	2.55	14.76
SO	YBADJ	PB45b	36.95	49.07	12.49	15.60	18.23	20.31
SO	YBADJ	PB45b	21.76	22.56	22.67	22.10	20.85	18.97
SO	YBADJ	PB45b	38.22	28.49	21.71	9.73	-2.55	-14.76
SO	YBADJ	PB45b	-36.95	-49.07	-12.49	-15.60	-18.23	-20.31
SO	BUILDHGT	PB6b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	PB6b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	PB6b	45.70	45.70	45.70	45.70	65.23	52.73
SO	BUILDHGT	PB6b	45.70	45.70	45.70	45.70	45.70	45.70
SO	BUILDHGT	PB6b	52.73	52.73	65.23	65.23	65.23	65.23
SO	BUILDHGT	PB6b	45.70	45.70	45.70	45.70	65.23	52.73
SO	BUILDWID	PB6b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	PB6b	39.52	41.07	33.73	34.17	34.16	32.82
SO	BUILDWID	PB6b	51.37	60.15	67.13	72.06	33.74	41.07
SO	BUILDWID	PB6b	73.45	69.40	63.25	55.17	52.53	48.29
SO	BUILDWID	PB6b	39.52	41.07	33.73	34.17	34.16	32.82
SO	BUILDWID	PB6b	51.37	60.15	67.13	72.06	33.74	41.07
SO	BUILDLEN	PB6b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	PB6b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	PB6b	55.17	52.53	48.29	42.59	31.97	41.37
SO	BUILDLEN	PB6b	40.41	44.46	48.65	51.37	60.15	67.13
SO	BUILDLEN	PB6b	40.41	41.37	31.97	29.23	25.61	21.20
SO	BUILDLEN	PB6b	55.17	52.53	48.29	42.59	31.97	41.37
SO	XBADJ	PB6b	-37.24	-41.72	-44.94	-46.79	-52.08	-55.79
SO	XBADJ	PB6b	-57.81	-58.07	-47.47	29.23	-37.34	-30.49

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SO XBADJ     PB6b      -34.59  -31.23  -26.93  -21.80   -6.91   -9.74
SO XBADJ     PB6b       -3.17   -2.74   -3.71   -4.58   -8.08  -11.33
SO XBADJ     PB6b       17.40   16.70   15.50   29.23   11.73    9.28
SO XBADJ     PB6b      -20.58  -21.30  -21.37  -20.79  -25.06  -31.63
SO YBADJ     PB6b       16.62   13.81   10.57    7.01    4.97    2.78
SO YBADJ     PB6b        2.04   -4.52  -14.77   29.23  -24.64  -28.53
SO YBADJ     PB6b      -21.11  -22.00  -22.23  -21.78  -33.57  -36.03
SO YBADJ     PB6b      -16.62  -13.81  -10.57   -7.01   -4.97   -2.78
SO YBADJ     PB6b       -2.04    4.52   14.77   29.23   24.64   28.53
SO YBADJ     PB6b       21.11   22.00   22.23   21.78   33.57   36.03


SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
SO SRCGROUP BB3INC RB1 RB2 SDT1 SDT2 LK1 BB3REV BB4 RB1b RB2b SDT1b SDT2b LK1b
SO SRCGROUP BB3INC PB45b PB6b BB3b BB4b BAYENRGY FCPLKSDT FCPRB567
SO SRCGROUP BB4INC RB1 RB2 SDT1 SDT2 LK1 BB3 BB4REV RB1b RB2b SDT1b SDT2b LK1b
SO SRCGROUP BB4INC PB45b PB6b BB3b BB4b BAYENRGY FCPLKSDT FCPRB567

SO FINISHED

RE STARTING
RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG   0.0      0.0
RE GRIDPOLR POL DIST  2000. 2500. 3000. 3500. 4000. 4500. 5000.
RE GRIDPOLR POL DIST  7000. 9000. 12000. 15000. 18000. 21000. 24000.
RE GRIDPOLR POL GDIR  36   10.00   10.00
RE GRIDPOLR POL END
RE DISCPOLR ORIGIN      500.         10
RE DISCPOLR ORIGIN      800.         10
RE DISCPOLR ORIGIN     1100.         10
RE DISCPOLR ORIGIN     1500.         10
RE DISCPOLR ORIGIN      500.         10
RE DISCPOLR ORIGIN      800.         10
RE DISCPOLR ORIGIN     1100.         10
RE DISCPOLR ORIGIN     1500.         10
RE DISCPOLR ORIGIN      500.         10
RE DISCPOLR ORIGIN      800.         10
RE DISCPOLR ORIGIN     1100.         10
RE DISCPOLR ORIGIN     1500.         10
RE DISCPOLR ORIGIN      200.         20
RE DISCPOLR ORIGIN      500.         20
RE DISCPOLR ORIGIN      800.         20
RE DISCPOLR ORIGIN     1100.         20
RE DISCPOLR ORIGIN     1500.         20
RE DISCPOLR ORIGIN      200.         20
RE DISCPOLR ORIGIN      500.         20
RE DISCPOLR ORIGIN      800.         20
RE DISCPOLR ORIGIN     1100.         20
RE DISCPOLR ORIGIN     1500.         20
RE DISCPOLR ORIGIN      200.         20
RE DISCPOLR ORIGIN      500.         20
RE DISCPOLR ORIGIN      800.         20
RE DISCPOLR ORIGIN     1100.         20
RE DISCPOLR ORIGIN     1500.         20
RE DISCPOLR ORIGIN      100.         30
RE DISCPOLR ORIGIN      200.         30
RE DISCPOLR ORIGIN      500.         30
RE DISCPOLR ORIGIN      800.         30
RE DISCPOLR ORIGIN     1100.         30
RE DISCPOLR ORIGIN     1500.         30
RE DISCPOLR ORIGIN      100.         40
RE DISCPOLR ORIGIN      200.         40
RE DISCPOLR ORIGIN      500.         40
RE DISCPOLR ORIGIN      800.         40
RE DISCPOLR ORIGIN     1100.         40
RE DISCPOLR ORIGIN     1500.         40
```

```
RE DISCCART      207.0      -6.8
RE DISCCART      266.1      43.6
RE DISCCART      315.3     116.5
RE DISCCART      414.0     120.7
RE DISCCART      476.2      82.2
RE DISCCART      478.0     -17.8
RE DISCCART      479.9    -117.8
RE DISCCART      481.7    -217.8
RE DISCCART      483.6    -317.7
RE DISCCART      485.4    -417.7
RE DISCCART      487.3    -517.7
RE DISCCART      489.1    -617.7
RE DISCCART      478.9    -697.4
RE DISCCART      390.4    -653.5
RE DISCCART      291.3    -664.7
RE DISCCART      192.8    -681.6
RE DISCCART       93.6    -691.2
RE DISCCART       -6.4    -689.4
RE DISCCART     -103.8    -670.3
RE DISCCART     -200.1    -643.4
RE DISCCART     -288.4    -599.6
RE DISCCART     -363.6    -537.7
RE DISCCART     -454.2    -503.4
RE DISCCART     -454.2    -603.4
RE DISCCART     -487.7    -622.4
RE DISCCART     -487.7    -522.4
RE DISCCART     -559.6    -534.5
RE DISCCART     -643.6    -588.9
RE DISCCART     -727.5    -643.2
RE DISCCART     -814.1    -688.4
RE DISCCART     -897.5    -743.7
RE DISCCART     -990.0    -775.9
RE DISCCART    -1084.8    -754.8
RE DISCCART    -1164.0    -695.1
RE DISCCART    -1238.6    -629.5
RE DISCCART    -1309.1    -558.6
RE DISCCART    -1379.6    -487.7
RE DISCCART    -1328.7    -450.5
RE DISCCART    -1234.1    -420.9
RE DISCCART    -1151.2    -365.3
RE DISCCART    -1061.6    -320.8
RE DISCCART     -972.0    -276.4
RE DISCCART     -887.2    -248.9
RE DISCCART     -820.8    -320.5
RE DISCCART     -721.8    -328.0
RE DISCCART     -634.7    -283.0
RE DISCCART     -538.8    -259.6
RE DISCCART     -460.6    -236.6
RE DISCCART     -438.9    -149.3
RE DISCCART     -423.7    -148.8
RE DISCCART     -335.9    -158.5
RE DISCCART     -277.2     -89.6
RE DISCCART     -234.2      -0.4
RE DISCCART     -239.6      93.0
RE DISCCART     -179.0     172.5
RE DISCCART     -188.0     263.9
RE DISCCART     -223.1     356.5
RE FINISHED

ME STARTING
ME INPUTFIL  H:\MET\PNSAQQ86.MET
ME ANEMHGHT  22 FEET
ME SURFDATA  13899  1986          PENSACOLA
ME UAIRDATA  12832  1986          APALACHICOLA
ME WINDCATS  1.54    3.09    5.14    8.23   10.80
ME FINISHED
```

```
**
OU STARTING
OU RECTABLE ALLAVE FIRST SECOND
OU FINISHED
```

```
STONE CONTAINER, CALPUFF, SO2 SIG IMPACT, EMISSIONS INCREASE ON BB3  1/12/04
RECEPTORS AT ST. MARKS AND BRADWELL BAY PSD CLASS I AREAS
W. FL CALMET WIND FIELD, 1990
---------------- Run title (3 lines) ------------------------------------------

                    CALPUFF MODEL CONTROL FILE
                    --------------------------

------------------------------------------------------------------------------

INPUT GROUP: 0 -- Input and Output File Names

--------------
Default Name  Type          File Name
------------  ----          ---------
CALMET.DAT    input    * METDAT =             *
   or
ISCMET.DAT    input    * ISCDAT =             *
   or
PLMMET.DAT    input    * PLMDAT =             *
   or
PROFILE.DAT   input    * PRFDAT =             *
SURFACE.DAT   input    * SFCDAT =             *
RESTARTB.DAT  input    * RSTARTB=             *
------------------------------------------------------------------------------
CALPUFF.LST   output   ! PUFLST =PUFFBB3.LST   !
CONC.DAT      output   ! CONDAT =PUFFBB3.CON   !
DFLX.DAT      output   * DFDAT  =             *
WFLX.DAT      output   * WFDAT  =             *

VISB.DAT      output   * VISDAT =             *
RESTARTE.DAT  output   * RSTARTE=             *
------------------------------------------------------------------------------
Emission Files
--------------
PTEMARB.DAT   input    * PTDAT  =             *
VOLEMARB.DAT  input    * VOLDAT =             *
BAEMARB.DAT   input    * ARDAT  =             *
LNEMARB.DAT   input    * LNDAT  =             *
------------------------------------------------------------------------------
Other Files
-----------
OZONE.DAT     input    * OZDAT  =             *
VD.DAT        input    * VDDAT  =             *
CHEM.DAT      input    * CHEMDAT=             *
H2O2.DAT      input    * H2O2DAT=             *
HILL.DAT      input    * HILDAT=              *
HILLRCT.DAT   input    * RCTDAT=              *
COASTLN.DAT   input    * CSTDAT=              *
FLUXBDY.DAT   input    * BDYDAT=              *
BCON.DAT      input    * BCNDAT=              *
DEBUG.DAT     output   * DEBUG =              *
MASSFLX.DAT   output   * FLXDAT=              *
MASSBAL.DAT   output   * BALDAT=              *
FOG.DAT       output   * FOGDAT=              *
------------------------------------------------------------------------------
All file names will be converted to lower case if LCFILES = T
Otherwise, if LCFILES = F, file names will be converted to UPPER CASE
         T = lower case      ! LCFILES = T !
         F = UPPER CASE
NOTE: (1) file/path names can be up to 70 characters in length


Provision for multiple input files
----------------------------------
```

```
     Number of CALMET.DAT files for run (NMETDAT)
                                  Default: 1       ! NMETDAT =   12  !

     Number of PTEMARB.DAT files for run (NPTDAT)
                                  Default: 0       ! NPTDAT =  0  !

     Number of BAEMARB.DAT files for run (NARDAT)
                                  Default: 0       ! NARDAT =  0  !

     Number of VOLEMARB.DAT files for run (NVOLDAT)
                                  Default: 0       ! NVOLDAT =  0  !

!END!

-------------
Subgroup (0a)
-------------

  The following CALMET.DAT filenames are processed in sequence if NMETDAT>1

Default Name  Type          File Name
------------  ----          ---------
CALMET.DAT    input    ! METDAT =G:\calmet\STMARKS90\JAN90.DAT ! !END!
CALMET.DAT    input    ! METDAT =G:\calmet\STMARKS90\FEB90.DAT ! !END!
CALMET.DAT    input    ! METDAT =G:\calmet\STMARKS90\MAR90.DAT ! !END!
CALMET.DAT    input    ! METDAT =G:\calmet\STMARKS90\APR90.DAT ! !END!
CALMET.DAT    input    ! METDAT =G:\calmet\STMARKS90\MAY90.DAT ! !END!
CALMET.DAT    input    ! METDAT =G:\calmet\STMARKS90\JUN90.DAT ! !END!
CALMET.DAT    input    ! METDAT =G:\calmet\STMARKS90\JUL90.DAT ! !END!
CALMET.DAT    input    ! METDAT =G:\calmet\STMARKS90\AUG90.DAT ! !END!
CALMET.DAT    input    ! METDAT =G:\calmet\STMARKS90\SEP90.DAT ! !END!
CALMET.DAT    input    ! METDAT =G:\calmet\STMARKS90\OCT90.DAT ! !END!
CALMET.DAT    input    ! METDAT =G:\calmet\STMARKS90\NOV90.DAT ! !END!
CALMET.DAT    input    ! METDAT =G:\calmet\STMARKS90\DEC90.DAT ! !END!


--------------------------------------------------------------------------------

INPUT GROUP: 1 -- General run control parameters
--------------

    Option to run all periods found
    in the met. file     (METRUN)   Default: 0       ! METRUN =   0  !

        METRUN = 0 - Run period explicitly defined below
        METRUN = 1 - Run all periods in met. file

     Starting date:   Year (IBYR) -- No default       ! IBYR =  1990 !
     (used only if   Month (IBMO) -- No default       ! IBMO =  1    !
      METRUN = 0)      Day (IBDY) -- No default       ! IBDY =  6    !
                      Hour (IBHR) -- No default       ! IBHR =  0    !

     Base time zone        (XBTZ) -- No default       ! XBTZ =  6    !
        PST = 8., MST = 7.
        CST = 6., EST = 5.

     Length of run (hours) (IRLG) -- No default       ! IRLG = 8616 !

     Number of chemical species (NSPEC)
                                  Default: 5       ! NSPEC = 6    !

     Number of chemical species
     to be emitted  (NSE)         Default: 3       ! NSE =   4    !

     Flag to stop run after
     SETUP phase (ITEST)          Default: 2       ! ITEST =  2   !
```

```
     (Used to allow checking
     of the model inputs, files, etc.)
          ITEST = 1 - STOPS program after SETUP phase
          ITEST = 2 - Continues with execution of program
                      after SETUP

     Restart Configuration:

        Control flag (MRESTART)      Default: 0       ! MRESTART =  0   !

          0 = Do not read or write a restart file
          1 = Read a restart file at the beginning of
              the run
          2 = Write a restart file during run
          3 = Read a restart file at beginning of run
              and write a restart file during run

        Number of periods in Restart
        output cycle (NRESPD)        Default: 0       ! NRESPD =  0   !

          0 = File written only at last period
         >0 = File updated every NRESPD periods

     Meteorological Data Format (METFM)
                                  Default: 1       ! METFM =  1   !

          METFM = 1 - CALMET binary file (CALMET.MET)
          METFM = 2 - ISC ASCII file (ISCMET.MET)
          METFM = 3 - AUSPLUME ASCII file (PLMMET.MET)
          METFM = 4 - CTDM plus tower file (PROFILE.DAT) and
                      surface parameters file (SURFACE.DAT)

     PG sigma-y is adjusted by the factor (AVET/PGTIME)**0.2
     Averaging Time (minutes) (AVET)
                                  Default: 60.0    ! AVET = 60.   !
     PG Averaging Time (minutes) (PGTIME)
                                  Default: 60.0    ! PGTIME = 60. !


!END!


--------------------------------------------------------------------------------

INPUT GROUP: 2 -- Technical options
--------------


     Vertical distribution used in the
     near field (MGAUSS)                  Default: 1     ! MGAUSS =  1   !
        0 = uniform
        1 = Gaussian

     Terrain adjustment method
     (MCTADJ)                             Default: 3     ! MCTADJ =  3   !
        0 = no adjustment
        1 = ISC-type of terrain adjustment
        2 = simple, CALPUFF-type of terrain
            adjustment
        3 = partial plume path adjustment

     Subgrid-scale complex terrain
     flag (MCTSG)                         Default: 0     ! MCTSG =  0   !
        0 = not modeled
        1 = modeled
```

```
Near-field puffs modeled as
elongated 0 (MSLUG)                  Default: 0     ! MSLUG =  0   !
   0 = no
   1 = yes (slug model used)

Transitional plume rise modeled ?
(MTRANS)                             Default: 1     ! MTRANS =  1   !
   0 = no  (i.e., final rise only)
   1 = yes (i.e., transitional rise computed)

Stack tip downwash? (MTIP)           Default: 1     ! MTIP =  1  !
   0 = no  (i.e., no stack tip downwash)
   1 = yes (i.e., use stack tip downwash)

Method used to simulate building
downwash? (MBDW)                     Default: 1     ! MBDW =  1   !
   1 = ISC method
   2 = PRIME method

Vertical wind shear modeled above
stack top? (MSHEAR)                  Default: 0     ! MSHEAR =  0  !
   0 = no  (i.e., vertical wind shear not modeled)
   1 = yes (i.e., vertical wind shear modeled)

Puff splitting allowed? (MSPLIT)     Default: 0     ! MSPLIT =  0  !
   0 = no (i.e., puffs not split)
   1 = yes (i.e., puffs are split)

Chemical mechanism flag (MCHEM)      Default: 1     ! MCHEM =  1   !
   0 = chemical transformation not
       modeled
   1 = transformation rates computed
       internally (MESOPUFF II scheme)
   2 = user-specified transformation
       rates used
   3 = transformation rates computed
       internally (RIVAD/ARM3 scheme)
   4 = secondary organic aerosol formation
       computed (MESOPUFF II scheme for OH)

Aqueous phase transformation flag (MAQCHEM)
(Used only if MCHEM = 1, or 3)       Default: 0     ! MAQCHEM =  0   !
   0 = aqueous phase transformation
       not modeled
   1 = transformation rates adjusted
       for aqueous phase reactions

Wet removal modeled ? (MWET)         Default: 1     ! MWET =  1   !
   0 = no
   1 = yes

Dry deposition modeled ? (MDRY)      Default: 1     ! MDRY =  1   !
   0 = no
   1 = yes
   (dry deposition method specified
    for each species in Input Group 3)

Method used to compute dispersion
coefficients (MDISP)                 Default: 3     ! MDISP =  3   !

   1 = dispersion coefficients computed from measured values
       of turbulence, sigma v, sigma w
   2 = dispersion coefficients from internally calculated
       sigma v, sigma w using micrometeorological variables
       (u*, w*, L, etc.)
   3 = PG dispersion coefficients for RURAL areas (computed using
```

```
        the ISCST multi-segment approximation) and MP coefficients in
        urban areas
     4 = same as 3 except PG coefficients computed using
        the MESOPUFF II eqns.
     5 = CTDM sigmas used for stable and neutral conditions.
        For unstable conditions, sigmas are computed as in
        MDISP = 3, described above.  MDISP = 5 assumes that
        measured values are read

  Sigma-v/sigma-theta, sigma-w measurements used? (MTURBVW)
  (Used only if MDISP = 1 or 5)          Default: 3     ! MTURBVW =  3  !
     1 = use sigma-v or sigma-theta measurements
        from PROFILE.DAT to compute sigma-y
        (valid for METFM = 1, 2, 3, 4)
     2 = use sigma-w measurements
        from PROFILE.DAT to compute sigma-z
        (valid for METFM = 1, 2, 3, 4)
     3 = use both sigma-(v/theta) and sigma-w
        from PROFILE.DAT to compute sigma-y and sigma-z
        (valid for METFM = 1, 2, 3, 4)
     4 = use sigma-theta measurements
        from PLMMET.DAT to compute sigma-y
        (valid only if METFM = 3)

  Back-up method used to compute dispersion
  when measured turbulence data are
  missing (MDISP2)                       Default: 3     ! MDISP2 =  3  !
  (used only if MDISP = 1 or 5)
     2 = dispersion coefficients from internally calculated
        sigma v, sigma w using micrometeorological variables
        (u*, w*, L, etc.)
     3 = PG dispersion coefficients for RURAL areas (computed using
        the ISCST multi-segment approximation) and MP coefficients in
        urban areas
     4 = same as 3 except PG coefficients computed using
        the MESOPUFF II eqns.

  PG sigma-y,z adj. for roughness?       Default: 0     ! MROUGH =  0  !
  (MROUGH)
     0 = no
     1 = yes

  Partial plume penetration of           Default: 1     ! MPARTL =  1  !
  elevated inversion?
  (MPARTL)
     0 = no
     1 = yes

  Strength of temperature inversion      Default: 0     ! MTINV =  0  !
  provided in PROFILE.DAT extended records?
  (MTINV)
     0 = no (computed from measured/default gradients)
     1 = yes

  PDF used for dispersion under convective conditions?
                                         Default: 0     ! MPDF =  0  !
  (MPDF)
     0 = no
     1 = yes

  Sub-Grid TIBL module used for shore line?
                                         Default: 0     ! MSGTIBL = 0  !
  (MSGTIBL)
     0 = no
     1 = yes
```

Boundary conditions (concentration) modeled?
Default: 0 ! MBCON = 0 !
(MBCON)
0 = no
1 = yes, using formatted BCON.DAT file
2 = yes, using unformatted CONC.DAT file

Note: MBCON > 0 requires that the last species modeled be 'BCON'. Mass is placed in species BCON when generating boundary condition puffs so that clean air entering the modeling domain can be simulated in the same way as polluted air. Specify zero emission of species BCON for all regular sources.

Analyses of fogging and icing impacts due to emissions from arrays of mechanically-forced cooling towers can be performed using CALPUFF in conjunction with a cooling tower emissions processor (CTEMISS) and its associated postprocessors. Hourly emissions of water vapor and temperature from each cooling tower cell are computed for the current cell configuration and ambient conditions by CTEMISS. CALPUFF models the dispersion of these emissions and provides cloud information in a specialized format for further analysis. Output to FOG.DAT is provided in either 'plume mode' or 'receptor mode' format.

Configure for FOG Model output?
Default: 0 ! MFOG = 0 !
(MFOG)
0 = no
1 = yes - report results in PLUME Mode format
2 = yes - report results in RECEPTOR Mode format

Test options specified to see if they conform to regulatory values? (MREG) Default: 1 ! MREG = 1 !

0 = NO checks are made
1 = Technical options must conform to USEPA Long Range Transport (LRT) guidance

METFM	1 or 2
AVET	60. (min)
PGTIME	60. (min)
MGAUSS	1
MCTADJ	3
MTRANS	1
MTIP	1
MCHEM	1 or 3 (if modeling SOx, NOx)
MWET	1
MDRY	1
MDISP	2 or 3
MPDF	0 if MDISP=3 1 if MDISP=2
MROUGH	0
MPARTL	1
SYTDEP	550. (m)
MHFTSZ	0

!END!

INPUT GROUP: 3a, 3b -- Species list

Subgroup (3a)

The following species are modeled:

```
! CSPEC =          SO2 !         !END!
! CSPEC =          SO4 !         !END!
! CSPEC =          NOX !         !END!
! CSPEC =         HNO3 !         !END!
! CSPEC =          NO3 !         !END!
! CSPEC =         PM10 !         !END!
```

SPECIES NAME (Limit: 12 Characters in length)	MODELED (0=NO, 1=YES)	EMITTED (0=NO, 1=YES)	Dry DEPOSITED (0=NO, 1=COMPUTED-GAS, 2=COMPUTED-PARTICLE, 3=USER-SPECIFIED)	OUTPUT GROUP NUMBER (0=NONE, 1=1st CGRUP, 2=2nd CGRUP, 3= etc.)
SO2	1	1	1	0
SO4	1	1	2	0
NOX	1	1	1	0
HNO3	1	0	1	0
NO3	1	0	2	0
PM10	1	1	2	0

```
!END!
```

Subgroup (3b)

The following names are used for Species-Groups in which results for certain species are combined (added) prior to output. The CGRUP name will be used as the species name in output files. Use this feature to model specific particle-size distributions by treating each size-range as a separate species. Order must be consistent with 3(a) above.

```
* CGRUP =          PMF *     *END*
```

INPUT GROUP: 4 -- Map Projection and Grid control parameters

Projection for all (X,Y):

Map projection
(PMAP) Default: UTM ! PMAP = UTM !

UTM : Universal Transverse Mercator
TTM : Tangential Transverse Mercator
LCC : Lambert Conformal Conic
PS : Polar Stereographic
EM : Equatorial Mercator
LAZA : Lambert Azimuthal Equal Area

False Easting and Northing (km) at the projection origin
(Used only if PMAP= TTM, LCC, or LAZA)
(FEAST) Default=0.0 ! FEAST = 0.000 !
(FNORTH) Default=0.0 ! FNORTH = 0.000 !

UTM zone (1 to 60)
(Used only if PMAP=UTM)

```
(IUTMZN)                    No Default      ! IUTMZN =  16   !

Hemisphere for UTM projection?
(Used only if PMAP=UTM)
(UTMHEM)                    Default: N      ! UTMHEM = N  !
    N   :  Northern hemisphere projection
    S   :  Southern hemisphere projection

Latitude and Longitude (decimal degrees) of projection origin
(Used only if PMAP= TTM, LCC, PS, EM, or LAZA)
(RLATO)                     No Default      ! RLATO =  48.7N !
(RLONO)                     No Default      ! RLONO = 138.8W !

    TTM :  RLONO identifies central (true N/S) meridian of projection
           RLATO selected for convenience
    LCC :  RLONO identifies central (true N/S) meridian of projection
           RLATO selected for convenience
    PS  :  RLONO identifies central (grid N/S) meridian of projection
           RLATO selected for convenience
    EM  :  RLONO identifies central meridian of projection
           RLATO is REPLACED by 0.0N (Equator)
    LAZA:  RLONO identifies longitude of tangent-point of mapping plane
           RLATO identifies latitude of tangent-point of mapping plane

Matching parallel(s) of latitude (decimal degrees) for projection
(Used only if PMAP= LCC or PS)
(XLAT1)                     No Default      ! XLAT1 = 30N  !
(XLAT2)                     No Default      ! XLAT2 = 60N  !

    LCC :  Projection cone slices through Earth's surface at XLAT1 and XLAT2
    PS  :  Projection plane slices through Earth at XLAT1
           (XLAT2 is not used)

----------
Note:  Latitudes and longitudes should be positive, and include a
       letter N,S,E, or W indicating north or south latitude, and
       east or west longitude.  For example,
       35.9  N Latitude  =  35.9N
       118.7 E Longitude = 118.7E


Datum-region
------------

The Datum-Region for the coordinates is identified by a character
string.  Many mapping products currently available use the model of the
Earth known as the World Geodetic System 1984 (WGS-G ).  Other local
models may be in use, and their selection in CALMET will make its output
consistent with local mapping products.  The list of Datum-Regions with
official transformation parameters is provided by the National Imagery and
Mapping Agency (NIMA).

NIMA Datum - Regions(Examples)
------------------------------------------------------------------------------
WGS-G     WGS-84 GRS 80 Spheroid, Global coverage (WGS84)
NAS-C     NORTH AMERICAN 1927 Clarke 1866 Spheroid, MEAN FOR CONUS (NAD27)
NWS-27    NWS 6370KM Radius, Sphere
NWS-84    NWS 6370KM Radius, Sphere
ESR-S     ESRI REFERENCE 6371KM Radius, Sphere

Datum-region for output coordinates
(DATUM)                     Default: WGS-G     ! DATUM = NAS-C !


METEOROLOGICAL Grid:
```

```
          No. X grid cells (NX)      No default     ! NX =  133   !
          No. Y grid cells (NY)      No default     ! NY =   75   !
       No. vertical layers (NZ)      No default     ! NZ =  10    !

         Grid spacing (DGRIDKM)      No default     ! DGRIDKM = 4. !
                                     Units: km

              Cell face heights
                  (ZFACE(nz+1))      No defaults
                                     Units: m
     ! ZFACE = 0.,20.,40.,80.,160.,300.,600.,1000.,1500.,2200.,3000. !

          Reference Coordinates
        of SOUTHWEST corner of
             grid cell(1, 1):

          X coordinate (XORIGKM)     No default     ! XORIGKM = 452. !
          Y coordinate (YORIGKM)     No default     ! YORIGKM = 3236. !
                                    Units: km
```

COMPUTATIONAL Grid:

The computational grid is identical to or a subset of the MET. grid. The lower left (LL) corner of the computational grid is at grid point (IBCOMP, JBCOMP) of the MET. grid. The upper right (UR) corner of the computational grid is at grid point (IECOMP, JECOMP) of the MET. grid. The grid spacing of the computational grid is the same as the MET. grid.

```
   X index of LL corner (IBCOMP)      No default     ! IBCOMP =  1   !
             (1 <= IBCOMP <= NX)

   Y index of LL corner (JBCOMP)      No default     ! JBCOMP =  1   !
             (1 <= JBCOMP <= NY)


   X index of UR corner (IECOMP)      No default     ! IECOMP =  133  !
             (1 <= IECOMP <= NX)

   Y index of UR corner (JECOMP)      No default     ! JECOMP =   75  !
             (1 <= JECOMP <= NY)
```

SAMPLING Grid (GRIDDED RECEPTORS):

The lower left (LL) corner of the sampling grid is at grid point (IBSAMP, JBSAMP) of the MET. grid. The upper right (UR) corner of the sampling grid is at grid point (IESAMP, JESAMP) of the MET. grid. The sampling grid must be identical to or a subset of the computational grid. It may be a nested grid inside the computational grid. The grid spacing of the sampling grid is DGRIDKM/MESHDN.

```
   Logical flag indicating if gridded
   receptors are used (LSAMP)         Default: T     ! LSAMP = F !
   (T=yes, F=no)

   X index of LL corner (IBSAMP)      No default     ! IBSAMP =  1   !
    (IBCOMP <= IBSAMP <= IECOMP)

   Y index of LL corner (JBSAMP)      No default     ! JBSAMP =  1   !
    (JBCOMP <= JBSAMP <= JECOMP)


   X index of UR corner (IESAMP)      No default     ! IESAMP =  133  !
    (IBCOMP <= IESAMP <= IECOMP)
```

```
        Y index of UR corner (JESAMP)      No default     ! JESAMP =   75  !
         (JBCOMP <= JESAMP <= JECOMP)


       Nesting factor of the sampling
        grid (MESHDN)                      Default: 1     ! MESHDN =  1  !
        (MESHDN is an integer >= 1)

!END!
```

```
INPUT GROUP: 5 -- Output Options
--------------
                                        *                        *
     FILE                        DEFAULT VALUE             VALUE THIS RUN
     ----                        -------------             --------------

   Concentrations (ICON)               1                   !  ICON =  1   !
   Dry Fluxes (IDRY)                   1                   !  IDRY =  0   !
   Wet Fluxes (IWET)                   1                   !  IWET =  0   !
   Relative Humidity (IVIS)            1                   !  IVIS =  0   !
    (relative humidity file is
     required for visibility
     analysis)
   Use data compression option in output file?
   (LCOMPRS)                           Default: T          ! LCOMPRS = T !

   *
    0 = Do not create file, 1 = create file


    DIAGNOSTIC MASS FLUX OUTPUT OPTIONS:

       Mass flux across specified boundaries
       for selected species reported hourly?
       (IMFLX)                         Default: 0          ! IMFLX =  0  !
         0 = no
         1 = yes (FLUXBDY.DAT and MASSFLX.DAT filenames
                  are specified in Input Group 0)

       Mass balance for each species
       reported hourly?
       (IMBAL)                         Default: 0          ! IMBAL =  0  !
         0 = no
         1 = yes (MASSBAL.DAT filename is
              specified in Input Group 0)


    LINE PRINTER OUTPUT OPTIONS:

       Print concentrations (ICPRT)    Default: 0          ! ICPRT =  0   !
       Print dry fluxes (IDPRT)        Default: 0          ! IDPRT =  0   !
       Print wet fluxes (IWPRT)        Default: 0          ! IWPRT =  0   !
       (0 = Do not print, 1 = Print)

       Concentration print interval
       (ICFRQ) in hours                Default: 1          ! ICFRQ =  24   !
       Dry flux print interval
       (IDFRQ) in hours                Default: 1          ! IDFRQ =  1   !
       Wet flux print interval
       (IWFRQ) in hours                Default: 1          ! IWFRQ =  1   !
```

```
      Units for Line Printer Output
      (IPRTU)                          Default: 1        ! IPRTU =  3   !
                    for              for
                Concentration    Deposition
          1 =       g/m**3          g/m**2/s
          2 =      mg/m**3         mg/m**2/s
          3 =      ug/m**3         ug/m**2/s
          4 =      ng/m**3         ng/m**2/s
          5 =     Odour Units

      Messages tracking progress of run
      written to the screen ?
      (IMESG)                          Default: 2        ! IMESG =  2   !
        0 = no
        1 = yes (advection step, puff ID)
        2 = yes (YYYYJJJHH, # old puffs, # emitted puffs)


    SPECIES (or GROUP for combined species) LIST FOR OUTPUT OPTIONS

                ---- CONCENTRATIONS ----   ------ DRY FLUXES ------   ------ WET FLUXES ------   -- MASS FLUX --
 SPECIES
 /GROUP    PRINTED? SAVED ON DISK? PRINTED?  SAVED ON DISK?   PRINTED?  SAVED ON DISK?   SAVED ON DISK?
 -------   ---------------------- ----------------------   ----------------------   ---------------
!          SO2 =     0,           1,          0,          1,          0,          1,          0  !
!          SO4 =     0,           1,          0,          1,          0,          1,          0  !
!          NOX =     0,           1,          0,          1,          0,          1,          0  !
!         HNO3 =     0,           1,          0,          1,          0,          1,          0  !
!          NO3 =     0,           1,          0,          1,          0,          1,          0  !
!         PM10 =     0,           1,          0,          1,          0,          1,          0  !

  Note:  Species BCON (for MBCON > 0) does not need to be saved on disk.


    OPTIONS FOR PRINTING "DEBUG" QUANTITIES (much output)

      Logical for debug output
      (LDEBUG)                                 Default: F     ! LDEBUG = F !

      First puff to track
      (IPFDEB)                                 Default: 1     ! IPFDEB =  1  !

      Number of puffs to track
      (NPFDEB)                                 Default: 1     ! NPFDEB =  1  !

      Met. period to start output
      (NN1)                                    Default: 1     ! NN1 =  1   !

      Met. period to end output
      (NN2)                                    Default: 10    ! NN2 =  10  !

!END!


--------------------------------------------------------------------------------


INPUT GROUP: 6a, 6b, & 6c -- Subgrid scale complex terrain inputs
-------------------------

---------------
Subgroup (6a)
---------------
      Number of terrain features (NHILL)       Default: 0     ! NHILL =  0   !

      Number of special complex terrain
```

```
       receptors  (NCTREC)                    Default: 0     ! NCTREC =  0   !

       Terrain and CTSG Receptor data for
       CTSG hills input in CTDM format ?
       (MHILL)                                No Default     ! MHILL =  2   !
       1 = Hill and Receptor data created
           by CTDM processors & read from
           HILL.DAT and HILLRCT.DAT files
       2 = Hill data created by OPTHILL &
           input below in Subgroup (6b);
           Receptor data in Subgroup (6c)

       Factor to convert horizontal dimensions  Default: 1.0   ! XHILL2M = 1. !
       to meters (MHILL=1)

       Factor to convert vertical dimensions    Default: 1.0   ! ZHILL2M = 1. !
       to meters (MHILL=1)

       X-origin of CTDM system relative to      No Default     ! XCTDMKM = 0.0E00 !
       CALPUFF coordinate system, in Kilometers (MHILL=1)

       Y-origin of CTDM system relative to      No Default     ! YCTDMKM = 0.0E00 !
       CALPUFF coordinate system, in Kilometers (MHILL=1)

! END !

---------------
Subgroup (6b)
---------------

                    1 **
     HILL information


HILL          XC        YC       THETAH  ZGRID  RELIEF    EXPO 1    EXPO 2   SCALE 1    SCALE 2    AMAX1      AMAX2
 NO.         (km)      (km)      (deg.)   (m)     (m)       (m)       (m)       (m)        (m)       (m)        (m)
----         ----      ----      ------  -----  ------    ------    ------   -------    -------    -----      -----

---------------
Subgroup (6c)
---------------

    COMPLEX TERRAIN RECEPTOR INFORMATION

                   XRCT        YRCT        ZRCT         XHH
                   (km)        (km)         (m)
                  ------      -----       ------       ----


-------------------
1
     Description of Complex Terrain Variables:
          XC, YC  = Coordinates of center of hill
          THETAH  = Orientation of major axis of hill (clockwise from
                    North)
          ZGRID   = Height of the  0  of the grid above mean sea
                    level
          RELIEF  = Height of the crest of the hill above the grid elevation
          EXPO 1  = Hill-shape exponent for the major axis
          EXPO 2  = Hill-shape exponent for the major axis
          SCALE 1 = Horizontal length scale along the major axis
          SCALE 2 = Horizontal length scale along the minor axis
          AMAX    = Maximum allowed axis length for the major axis
          BMAX    = Maximum allowed axis length for the major axis

          XRCT, YRCT = Coordinates of the complex terrain receptors
```

ZRCT = Height of the ground (MSL) at the complex terrain
Receptor
XHH = Hill number associated with each complex terrain receptor
(NOTE: MUST BE ENTERED AS A REAL NUMBER)

**
NOTE: DATA for each hill and CTSG receptor are treated as a separate
input subgroup and therefore must end with an input group terminator.

INPUT GROUP: 7 -- Chemical parameters for dry deposition of gases

	SPECIES NAME	DIFFUSIVITY (cm**2/s)	ALPHA STAR	REACTIVITY	MESOPHYLL RESISTANCE (s/cm)	HENRY'S LAW COEFFICIENT (dimensionless)	
!	SO2 =	0.1509,	1000.,	8.,	0.,	.04	!
!	NOX =	0.1656,	1.,	8.,	5.,	3.5	!
!	HNO3 =	0.1628,	1.,	18.,	0.,	8E-8	!

!END!

INPUT GROUP: 8 -- Size parameters for dry deposition of particles

For SINGLE SPECIES, the mean and standard deviation are used to
compute a deposition velocity for NINT (see group 9) size-ranges,
and these are then averaged to obtain a mean deposition velocity.

For GROUPED SPECIES, the size distribution should be explicitly
specified (by the 'species' in the group), and the standard deviation
for each should be entered as 0. The model will then use the
deposition velocity for the stated mean diameter.

	SPECIES NAME	GEOMETRIC MASS MEAN DIAMETER (microns)	GEOMETRIC STANDARD DEVIATION (microns)	
!	SO4 =	0.48,	2.	!
!	NO3 =	0.48,	2.	!
!	PM10 =	0.48,	2.	!

!END!

INPUT GROUP: 9 -- Miscellaneous dry deposition parameters

Reference cuticle resistance (s/cm)
(RCUTR) Default: 30 ! RCUTR = 30.0 !
Reference ground resistance (s/cm)
(RGR) Default: 10 ! RGR = 10.0 !
Reference pollutant reactivity
(REACTR) Default: 8 ! REACTR = 8.0 !

Number of particle-size intervals used to
evaluate effective particle deposition velocity

```
     (NINT)                          Default: 9     !   NINT =  9  !

     Vegetation state in unirrigated areas
     (IVEG)                          Default: 1     !   IVEG =  1  !
        IVEG=1 for active and unstressed vegetation
        IVEG=2 for active and stressed vegetation
        IVEG=3 for inactive vegetation

!END!

------------------------------------------------------------------------------


INPUT GROUP: 10 -- Wet Deposition Parameters
---------------

                     Scavenging Coefficient -- Units: (sec)**(-1)

       Pollutant      Liquid Precip.       Frozen Precip.
       ---------      --------------       --------------
!          SO2 =         3.0E-05,             0.0E00 !
!          SO4 =         1.0E-04,            3.0E-05 !
!         HNO3 =         6.0E-05,             0.0E00 !
!          NO3 =         1.0E-04,            3.0E-05 !
!         PM10 =         1.0E-04,            3.0E-05 !

!END!

------------------------------------------------------------------------------


INPUT GROUP: 11 -- Chemistry Parameters
---------------

     Ozone data input option (MOZ)     Default: 1           ! MOZ =  0   !
     (Used only if MCHEM = 1, 3, or 4)
        0 = use a monthly background ozone value
        1 = read hourly ozone concentrations from
            the OZONE.DAT data file

     Monthly ozone concentrations
     (Used only if MCHEM = 1, 3, or 4 and
      MOZ = 0 or MOZ = 1 and all hourly O3 data missing)
     (BCKO3) in ppb                    Default: 12*80.
     !  BCKO3 = 12*50. !

     Monthly ammonia concentrations
     (Used only if MCHEM = 1, or 3)
     (BCKNH3) in ppb                   Default: 12*10.
     !  BCKNH3 = 12*1. !

     Nighttime SO2 loss rate (RNITE1)
     in percent/hour                   Default: 0.2         ! RNITE1 = .2 !

     Nighttime NOx loss rate (RNITE2)
     in percent/hour                   Default: 2.0         ! RNITE2 = 2.0 !

     Nighttime HNO3 formation rate (RNITE3)
     in percent/hour                   Default: 2.0         ! RNITE3 = 2.0 !

     H2O2 data input option (MH2O2)    Default: 1           ! MH2O2 =  1   !
     (Used only if MAQCHEM = 1)
        0 = use a monthly background H2O2 value
```

```
      1 = read hourly H2O2 concentrations from
          the H2O2.DAT data file

    Monthly H2O2 concentrations
    (Used only if MQACHEM = 1 and
     MH2O2 = 0 or MH2O2 = 1 and all hourly H2O2 data missing)
    (BCKH2O2) in ppb                  Default: 12*1.
    !  BCKH2O2 = 12*1 !


--- Data for SECONDARY ORGANIC AEROSOL (SOA) Option
    (used only if MCHEM = 4)

    The SOA module uses monthly values of:
         Fine particulate concentration in ug/m^3 (BCKPMF)
         Organic fraction of fine particulate     (OFRAC)
         VOC / NOX ratio (after reaction)         (VCNX)
    to characterize the air mass when computing
    the formation of SOA from VOC emissions.
    Typical values for several distinct air mass types are:

       Month    1    2    3    4    5    6    7    8    9   10   11   12
              Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec

    Clean Continental
       BCKPMF   1.   1.   1.   1.   1.   1.   1.   1.   1.   1.   1.   1.
       OFRAC  .15  .15  .20  .20  .20  .20  .20  .20  .20  .20  .20  .15
       VCNX    50.  50.  50.  50.  50.  50.  50.  50.  50.  50.  50.  50.

    Clean Marine (surface)
       BCKPMF  .5   .5   .5   .5   .5   .5   .5   .5   .5   .5   .5   .5
       OFRAC  .25  .25  .30  .30  .30  .30  .30  .30  .30  .30  .30  .25
       VCNX    50.  50.  50.  50.  50.  50.  50.  50.  50.  50.  50.  50.

    Urban - low biogenic (controls present)
       BCKPMF  30.  30.  30.  30.  30.  30.  30.  30.  30.  30.  30.  30.
       OFRAC  .20  .20  .25  .25  .25  .25  .25  .25  .20  .20  .20  .20
       VCNX     4.   4.   4.   4.   4.   4.   4.   4.   4.   4.   4.   4.

    Urban - high biogenic (controls present)
       BCKPMF  60.  60.  60.  60.  60.  60.  60.  60.  60.  60.  60.  60.
       OFRAC  .25  .25  .30  .30  .30  .55  .55  .55  .35  .35  .35  .25
       VCNX    15.  15.  15.  15.  15.  15.  15.  15.  15.  15.  15.  15.

    Regional Plume
       BCKPMF  20.  20.  20.  20.  20.  20.  20.  20.  20.  20.  20.  20.
       OFRAC  .20  .20  .25  .35  .25  .40  .40  .40  .30  .30  .30  .20
       VCNX    15.  15.  15.  15.  15.  15.  15.  15.  15.  15.  15.  15.

    Urban - no controls present
       BCKPMF 100. 100. 100. 100. 100. 100. 100. 100. 100. 100. 100. 100.
       OFRAC  .30  .30  .35  .35  .35  .55  .55  .55  .35  .35  .35  .30
       VCNX     2.   2.   2.   2.   2.   2.   2.   2.   2.   2.   2.   2.

    Default: Clean Continental
    !  BCKPMF = 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00 !
    !  OFRAC  = 0.15, 0.15, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.15 !
    !  VCNX   = 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00 !

!END!

-------------------------------------------------------------------------------
```

INPUT GROUP: 12 -- Misc. Dispersion and Computational Parameters

Horizontal size of puff (m) beyond which
time-dependent dispersion equations (Heffter)
are used to determine sigma-y and
sigma-z (SYTDEP) Default: 550. ! SYTDEP = 5.5E02 !

Switch for using Heffter equation for sigma z
as above (0 = Not use Heffter; 1 = use Heffter
(MHFTSZ) Default: 0 ! MHFTSZ = 0 !

Stability class used to determine plume
growth rates for puffs above the boundary
layer (JSUP) Default: 5 ! JSUP = 5 !

Vertical dispersion constant for stable
conditions (k1 in Eqn. 2.7-3) (CONK1) Default: 0.01 ! CONK1 = .01 !

Vertical dispersion constant for neutral/
unstable conditions (k2 in Eqn. 2.7-4)
(CONK2) Default: 0.1 ! CONK2 = .1 !

Factor for determining Transition-point from
Schulman-Scire to Huber-Snyder Building Downwash
scheme (SS used for Hs < Hb + TBD * HL)
(TBD) Default: 0.5 ! TBD = .5 !
TBD < 0 ==> always use Huber-Snyder
TBD = 1.5 ==> always use Schulman-Scire
TBD = 0.5 ==> ISC Transition-point

Range of land use categories for which
urban dispersion is assumed
(IURB1, IURB2) Default: 10 ! IURB1 = 10 !
19 ! IURB2 = 19 !

Site characterization parameters for single-point Met data files ---------
(needed for METFM = 2,3,4)

Land use category for modeling domain
(ILANDUIN) Default: 20 ! ILANDUIN = 20 !

Roughness length (m) for modeling domain
(ZOIN) Default: 0.25 ! ZOIN = .25 !

Leaf area index for modeling domain
(XLAIIN) Default: 3.0 ! XLAIIN = 3.0 !

Elevation above sea level (m)
(ELEVIN) Default: 0.0 ! ELEVIN = .0 !

Latitude (degrees) for met location
(XLATIN) Default: -999. ! XLATIN = -999.0 !

Longitude (degrees) for met location
(XLONIN) Default: -999. ! XLONIN = -999.0 !

Specialized information for interpreting single-point Met data files -----

Anemometer height (m) (Used only if METFM = 2,3)
(ANEMHT) Default: 10. ! ANEMHT = 10.0 !

Form of lateral turbulance data in PROFILE.DAT file
(Used only if METFM = 4 or MTURBVW = 1 or 3)
(ISIGMAV) Default: 1 ! ISIGMAV = 1 !
0 = read sigma-theta

```
        1 = read sigma-v

    Choice of mixing heights (Used only if METFM = 4)
    (IMIXCTDM)                          Default: 0      ! IMIXCTDM =  0  !
        0 = read PREDICTED mixing heights
        1 = read OBSERVED mixing heights

Maximum length of a slug (met. grid units)
(XMXLEN)                                Default: 1.0    ! XMXLEN = 1.0 !

Maximum travel distance of a puff/slug (in
grid units) during one sampling step
(XSAMLEN)                               Default: 1.0    ! XSAMLEN = 1.0 !

Maximum Number of slugs/puffs release from
one source during one time step
(MXNEW)                                 Default: 99     ! MXNEW =  99   !

Maximum Number of sampling steps for
one puff/slug during one time step
(MXSAM)                                 Default: 99     ! MXSAM =  99   !

Number of iterations used when computing
the transport wind for a sampling step
that includes gradual rise (for CALMET
and PROFILE winds)
(NCOUNT)                                Default: 2      ! NCOUNT =  2   !

Minimum sigma y for a new puff/slug (m)
(SYMIN)                                 Default: 1.0    ! SYMIN = 1.0  !

Minimum sigma z for a new puff/slug (m)
(SZMIN)                                 Default: 1.0    ! SZMIN = 1.0  !

Default minimum turbulence velocities
sigma-v and sigma-w for each
stability class (m/s)
(SVMIN(6) and SWMIN(6))     Default SVMIN : .50,  .50,  .50,  .50,  .50,  .50
                            Default SWMIN : .20,  .12,  .08,  .06,  .03,  .016

                          Stability Class :  A     B     C     D     E     F
                                            ---   ---   ---   ---   ---   ---
                                 ! SVMIN = 0.500, 0.500, 0.500, 0.500, 0.500, 0.500!
                                 ! SWMIN = 0.200, 0.120, 0.080, 0.060, 0.030, 0.016!

Divergence criterion for dw/dz across puff
used to initiate adjustment for horizontal
convergence (1/s)
Partial adjustment starts at CDIV(1), and
full adjustment is reached at CDIV(2)
(CDIV(2))                               Default: 0.0,0.0  ! CDIV = .0, .0 !

Minimum wind speed (m/s) allowed for
non-calm conditions. Also used as minimum
speed returned when using power-law
extrapolation toward surface
(WSCALM)                                Default: 0.5    ! WSCALM = .5 !

Maximum mixing height (m)
(XMAXZI)                                Default: 3000.  ! XMAXZI = 3000.0 !

Minimum mixing height (m)
(XMINZI)                                Default: 50.    ! XMINZI = 50.0 !

Default wind speed classes --
5 upper bounds (m/s) are entered;
```

```
the 6th class has no upper limit
(WSCAT(5))                      Default   :
                                ISC RURAL : 1.54, 3.09, 5.14, 8.23, 10.8 (10.8+)

                          Wind Speed Class :  1     2     3     4     5
                                             ---   ---   ---   ---   ---
                                  ! WSCAT = 1.54, 3.09, 5.14, 8.23, 10.80 !

Default wind speed profile power-law
exponents for stabilities 1-6
(PLXO(6))                       Default   : ISC RURAL values
                                ISC RURAL : .07, .07, .10, .15, .35, .55
                                ISC URBAN : .15, .15, .20, .25, .30, .30

                           Stability Class :  A     B     C     D     E     F
                                             ---   ---   ---   ---   ---   ---
                                  ! PLXO = 0.07, 0.07, 0.10, 0.15, 0.35, 0.55 !

Default potential temperature gradient
for stable classes E, F (degK/m)
(PTGO(2))                       Default: 0.020, 0.035
                                   ! PTGO = 0.020,   0.035 !

Default plume path coefficients for
each stability class (used when option
for partial plume height terrain adjustment
is selected -- MCTADJ=3)
(PPC(6))                   Stability Class :  A     B     C     D     E     F
                              Default  PPC : .50,  .50,  .50,  .50,  .35,  .35
                                             ---   ---   ---   ---   ---   ---
                                   !  PPC = 0.50, 0.50, 0.50, 0.50, 0.35, 0.35 !

Slug-to-puff transition criterion factor
equal to sigma-y/length of slug
(SL2PF)                              Default: 10.        ! SL2PF = 10.0 !

Puff-splitting control variables ------------------------

  VERTICAL SPLIT
  --------------

  Number of puffs that result every time a puff
  is split - nsplit=2 means that 1 puff splits
  into 2
  (NSPLIT)                           Default:   3        ! NSPLIT =  3  !

  Time(s) of a day when split puffs are eligible to
  be split once again; this is typically set once
  per day, around sunset before nocturnal shear develops.
  24 values: 0 is midnight (00:00) and 23 is 11 PM (23:00)
  0=do not re-split    1=eligible for re-split
  (IRESPLIT(24))                     Default:  Hour 17 = 1
  !  IRESPLIT = 0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,1,0,0,0,0,0,0,0 !

  Split is allowed only if last hour's mixing
  height (m) exceeds a minimum value
  (ZISPLIT)                          Default: 100.       ! ZISPLIT = 100.0 !

  Split is allowed only if ratio of last hour's
  mixing ht to the maximum mixing ht experienced
  by the puff is less than a maximum value (this
  postpones a split until a nocturnal layer develops)
  (ROLDMAX)                          Default: 0.25       ! ROLDMAX = 0.25 !


  HORIZONTAL SPLIT
```

```
      ----------------

      Number of puffs that result every time a puff
      is split - nsplith=5 means that 1 puff splits
      into 5
      (NSPLITH)                       Default:   5        ! NSPLITH =  5  !

      Minimum sigma-y (Grid Cells Units) of puff
      before it may be split
      (SYSPLITH)                      Default:  1.0       ! SYSPLITH = 1.0 !

      Minimum puff elongation rate (SYSPLITH/hr) due to
      wind shear, before it may be split
      (SHSPLITH)                      Default:  2.        ! SHSPLITH = 2.0 !

      Minimum concentration (g/m^3) of each
      species in puff before it may be split
      Enter array of NSPEC values; if a single value is
      entered, it will be used for ALL species
      (CNSPLITH)                      Default:  1.0E-07   ! CNSPLITH = 1.0E-07 !

    Integration control variables ------------------------

      Fractional convergence criterion for numerical SLUG
      sampling integration
      (EPSSLUG)                       Default:   1.0e-04  ! EPSSLUG = 1.0E-04 !

      Fractional convergence criterion for numerical AREA
      source integration
      (EPSAREA)                       Default:   1.0e-06  ! EPSAREA = 1.0E-06 !

      Trajectory step-length (m) used for numerical rise
      integration
      (DSRISE)                        Default:   1.0      ! DSRISE = 1.0 !

    Boundary Condition (BC) Puff control variables -------------------------

      Minimum height (m) to which BC puffs are mixed as they are emitted
      (MBCON=2 ONLY).  Actual height is reset to the current mixing height
      at the release point if greater than this minimum.
      (HTMINBC)                       Default:   500.     ! HTMINBC = 500. !

      Search radius (km) about a receptor for sampling nearest BC puff.
      BC puffs are typically emitted with a spacing of one grid cell
      length, so the search radius should be greater than DGRIDKM.
      (RSAMPBC)                       Default:   10.      ! RSAMPBC = 10. !

      Near-Surface depletion adjustment to concentration profile used when
      sampling BC puffs?
      (MDEPBC)                        Default:   1        ! MDEPBC = 0. !
         0 = Concentration is NOT adjusted for depletion
         1 = Adjust Concentration for depletion

!END!


------------------------------------------------------------------------------


INPUT GROUPS: 13a, 13b, 13c, 13d -- Point source parameters
-------------------------------


---------------
Subgroup (13a)
---------------
```

```
     Number of point sources with
     parameters provided below      (NPT1)  No default  !  NPT1 =  1  !

     Units used for point source
     emissions below                (IPTU)  Default: 1  !  IPTU =  3  !
           1 =        g/s
           2 =       kg/hr
           3 =       lb/hr
           4 =     tons/yr
           5 =     Odour Unit * m**3/s  (vol. flux of odour compound)
           6 =     Odour Unit * m**3/min
           7 =     metric tons/yr

     Number of source-species
     combinations with variable
     emissions scaling factors
     provided below in (13d)        (NSPT1) Default: 0  !  NSPT1 =  0  !

     Number of point sources with
     variable emission parameters
     provided in external file      (NPT2)  No default  !  NPT2 =  0  !

     (If NPT2 > 0, these point
     source emissions are read from
     the file: PTEMARB.DAT)

!END!

---------------
Subgroup (13b)
---------------
                                    a
          POINT SOURCE: CONSTANT DATA
          ---------------------------
                                                                        b          c
  Source      X UTM      Y UTM      Stack   Base      Stack    Exit  Exit     Bldg.  Emission
   No.     Coordinate Coordinate Height Elevation Diameter  Vel.  Temp.    Dwash   Rates
              (km)       (km)       (m)      (m)       (m)  (m/s) (deg. K)
  ------   ---------- ---------- ------  ------   -------- ----- -------- ----- --------

Subgroup (13b)

*****************   EMISSION RATES ARE IN LB/HR  ************************
Subgroup (13b)
              X      Y       SH    Z     SD    SV    ST   DW   SO2   SAM  NOX HNO3  NO3  PM10
  1  ! SRCNAM = BB3        !
  1  ! X =   632.8,  3335.1, 64.9, 0.0, 2.39, 30.41, 337.6, 1.0, 402., 0.0, 22.2, 0.0, 0.0, 0.0 !
 !END!
  2  * SRCNAM = BB4        *
  2  * X =   632.8,  3335.1, 64.9, 0.0, 2.39, 32.29, 336.5, 1.0, 402., 0.0, 22.2, 0.0, 0.0, 0.0 *
 *END*
--------

    a
     Data for each source are treated as a separate input subgroup
     and therefore must end with an input group terminator.

     SRCNAM  is a 12-character name for a source
             (No default)
     X       is an array holding the source data listed by the column headings
             (No default)
     SIGYZI  is an array holding the initial sigma-y and sigma-z (m)
             (Default: 0.,0.)
     FMFAC   is a vertical momentum flux factor (0. or 1.0) used to represent
             the effect of rain-caps or other physical configurations that
             reduce momentum rise associated with the actual exit velocity.
```

(Default: 1.0 -- full momentum used)

b
0. = No building downwash modeled, 1. = downwash modeled
NOTE: must be entered as a REAL number (i.e., with decimal point)

c
An emission rate must be entered for every pollutant modeled.
Enter emission rate of zero for secondary pollutants that are
modeled, but not emitted. Units are specified by IPTU
(e.g. 1 for g/s).

Subgroup (13c)

BUILDING DIMENSION DATA FOR SOURCES SUBJECT TO DOWNWASH

Source a
No. Effective building width and height (in meters) every 10 degrees
---

```
      1  ! SRCNAM = BB3 !
 1  !  HEIGHT =  25.30,  25.30,  25.30,  25.30,  25.30,  25.30,
               25.30,  25.30,  52.73,  65.23,  65.23,  65.23,
               65.23,  65.23,  65.23,  65.23,  52.73,  25.30,
               25.30,  25.30,  25.30,  25.30,  25.30,  25.30,
               25.30,  25.30,  52.73,  65.23,  65.23,  65.23,
               65.23,  65.23,  65.23,  65.23,  52.73,  25.30 !
 1  !  WIDTH =   51.81,  50.26,  47.18,  42.68,  47.19,  50.27,
               51.82,  51.80,  41.37,  33.63,  33.63,  32.82,
               30.49,  32.83,  33.63,  33.63,  41.37,  51.79,
               51.81,  50.26,  47.18,  42.68,  47.19,  50.27,
               51.82,  51.80,  41.37,  33.63,  33.63,  32.82,
               30.49,  32.83,  33.63,  33.63,  41.37,  51.79 !
!END!
      2  * SRCNAM = BB4 *
 2  *  HEIGHT =  25.30   25.30   25.30   25.30   25.30   25.30,
               25.30   52.73   65.23   65.23   65.23   65.23,
               65.23   65.23   65.23   52.73   25.30   25.30,
               25.30   25.30   25.30   25.30   25.30   25.30,
               25.30   52.73   65.23   65.23   65.23   65.23,
               65.23   65.23   65.23   52.73   25.30   25.30 *
 2  *  WIDTH =   51.81   50.26   47.18   42.68   47.19   50.27,
               51.82   41.07   33.73   34.44   34.16   32.82,
               30.49   32.83   34.17   40.41   50.19   51.79,
               51.81   50.26   47.18   42.68   47.19   50.27,
               51.82   41.07   33.73   34.44   34.16   32.82,
               30.49   32.83   34.17   40.41   50.19   51.79 *
*END*
```

Subgroup (13d)
---

a
POINT SOURCE: VARIABLE EMISSIONS DATA

Use this subgroup to describe temporal variations in the emission
rates given in 13b. Factors entered multiply the rates in 13b.
Skip sources here that have constant emissions. For more elaborate
variation in source parameters, use PTEMARB.DAT and NPT2 > 0.

IVARY determines the type of variation, and is source-specific:
(IVARY) Default: 0
0 = Constant
1 = Diurnal cycle (24 scaling factors: hours 1-24)
2 = Monthly cycle (12 scaling factors: months 1-12)

```
          3 =       Hour & Season (4 groups of 24 hourly scaling factors,
                                   where first group is DEC-JAN-FEB)
          4 =       Speed & Stab. (6 groups of 6 scaling factors, where
                                   first group is Stability Class A,
                                   and the speed classes have upper
                                   bounds (m/s) defined in Group 12
          5 =       Temperature   (12 scaling factors, where temperature
                                   classes have upper bounds (C) of:
                                   0, 5, 10, 15, 20, 25, 30, 35, 40,
                                   45, 50, 50+)



--------
    a
     Data for each species are treated as a separate input subgroup
     and therefore must end with an input group terminator.


------------------------------------------------------------------------------


INPUT GROUPS: 14a, 14b, 14c, 14d -- Area source parameters
---------------------------------

---------------
Subgroup (14a)
---------------

     Number of polygon area sources with
     parameters specified below (NAR1)       No default  !  NAR1 =  0   !

     Units used for area source
     emissions below           (IARU)       Default: 1  !  IARU =   1  !
          1 =        g/m**2/s
          2 =       kg/m**2/hr
          3 =       lb/m**2/hr
          4 =     tons/m**2/yr
          5 =     Odour Unit * m/s  (vol. flux/m**2 of odour compound)
          6 =     Odour Unit * m/min
          7 =     metric tons/m**2/yr

     Number of source-species
     combinations with variable
     emissions scaling factors
     provided below in (14d)        (NSAR1) Default: 0  !  NSAR1 =  0  !

     Number of buoyant polygon area sources
     with variable location and emission
     parameters (NAR2)                      No default  !  NAR2 =  0   !
     (If NAR2 > 0, ALL parameter data for
     these sources are read from the file: BAEMARB.DAT)

!END!

---------------
Subgroup (14b)
---------------
                                   a
          AREA SOURCE: CONSTANT DATA
          --------------------------
                                                          b
Source          Effect.    Base      Initial    Emission
 No.            Height   Elevation   Sigma z     Rates
                  (m)       (m)        (m)
-------         ------    ------     --------   ---------
```

---

a
Data for each source are treated as a separate input subgroup
and therefore must end with an input group terminator.

b
An emission rate must be entered for every pollutant modeled.
Enter emission rate of zero for secondary pollutants that are
modeled, but not emitted. Units are specified by IARU
(e.g. 1 for g/m**2/s).

Subgroup (14c)

COORDINATES (UTM-km) FOR EACH VERTEX(4) OF EACH POLYGON

Source a
No. Ordered list of X followed by list of Y, grouped by source

---

a
Data for each source are treated as a separate input subgroup
and therefore must end with an input group terminator.

Subgroup (14d)

---

a
AREA SOURCE: VARIABLE EMISSIONS DATA

Use this subgroup to describe temporal variations in the emission
rates given in 14b. Factors entered multiply the rates in 14b.
Skip sources here that have constant emissions. For more elaborate
variation in source parameters, use BAEMARB.DAT and NAR2 > 0.

IVARY determines the type of variation, and is source-specific:
(IVARY) Default: 0

0 = Constant
1 = Diurnal cycle (24 scaling factors: hours 1-24)
2 = Monthly cycle (12 scaling factors: months 1-12)
3 = Hour & Season (4 groups of 24 hourly scaling factors,
where first group is DEC-JAN-FEB)
4 = Speed & Stab. (6 groups of 6 scaling factors, where
first group is Stability Class A,
and the speed classes have upper
bounds (m/s) defined in Group 12
5 = Temperature (12 scaling factors, where temperature
classes have upper bounds (C) of:
0, 5, 10, 15, 20, 25, 30, 35, 40,
45, 50, 50+)

---

a
Data for each species are treated as a separate input subgroup
and therefore must end with an input group terminator.

INPUT GROUPS: 15a, 15b, 15c -- Line source parameters

Subgroup (15a)

Number of buoyant line sources with variable location and emission parameters (NLN2) No default ! NLN2 = 0 !

(If NLN2 > 0, ALL parameter data for these sources are read from the file: LNEMARB.DAT)

Number of buoyant line sources (NLINES) No default ! NLINES = 0 !

Units used for line source emissions below (ILNU) Default: 1 ! ILNU = 1 !

1 = g/s
2 = kg/hr
3 = lb/hr
4 = tons/yr
5 = Odour Unit * m**3/s (vol. flux of odour compound)
6 = Odour Unit * m**3/min
7 = metric tons/yr

Number of source-species combinations with variable emissions scaling factors provided below in (15c) (NSLN1) Default: 0 ! NSLN1 = 0 !

Maximum number of segments used to model each line (MXNSEG) Default: 7 ! MXNSEG = 7 !

The following variables are required only if NLINES > 0. They are used in the buoyant line source plume rise calculations.

Number of distances at which transitional rise is computed	Default: 6	! NLRISE = 6 !
Average building length (XL)	No default (in meters)	! XL = .0 !
Average building height (HBL)	No default (in meters)	! HBL = .0 !
Average building width (WBL)	No default (in meters)	! WBL = .0 !
Average line source width (WML)	No default (in meters)	! WML = .0 !
Average separation between buildings (DXL)	No default (in meters)	! DXL = .0 !
Average buoyancy parameter (FPRIMEL)	No default (in m**4/s**3)	! FPRIMEL = .0 !

!END!

Subgroup (15b)

BUOYANT LINE SOURCE: CONSTANT DATA

Source No.	Beg. X Coordinate (km)	Beg. Y Coordinate (km)	End. X Coordinate (km)	End. Y Coordinate (km)	Release Height (m)	Base Elevation (m)	Emission Rates [a]

---

a
Data for each source are treated as a separate input subgroup
and therefore must end with an input group terminator.

b
An emission rate must be entered for every pollutant modeled.
Enter emission rate of zero for secondary pollutants that are
modeled, but not emitted. Units are specified by ILNTU
(e.g. 1 for g/s).

Subgroup (15c)

BUOYANT LINE SOURCE: VARIABLE EMISSIONS DATA [a]

Use this subgroup to describe temporal variations in the emission
rates given in 15b. Factors entered multiply the rates in 15b.
Skip sources here that have constant emissions.

IVARY determines the type of variation, and is source-specific:
(IVARY) Default: 0

- 0 = Constant
- 1 = Diurnal cycle (24 scaling factors: hours 1-24)
- 2 = Monthly cycle (12 scaling factors: months 1-12)
- 3 = Hour & Season (4 groups of 24 hourly scaling factors, where first group is DEC-JAN-FEB)
- 4 = Speed & Stab. (6 groups of 6 scaling factors, where first group is Stability Class A, and the speed classes have upper bounds (m/s) defined in Group 12
- 5 = Temperature (12 scaling factors, where temperature classes have upper bounds (C) of: 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 50+)

---

a
Data for each species are treated as a separate input subgroup
and therefore must end with an input group terminator.

INPUT GROUPS: 16a, 16b, 16c -- Volume source parameters

Subgroup (16a)

Number of volume sources with
parameters provided in 16b,c (NVL1) No default ! NVL1 = 0 !

Units used for volume source
emissions below in 16b (IVLU) Default: 1 ! IVLU = 1 !
1 = g/s
2 = kg/hr
3 = lb/hr
4 = tons/yr
5 = Odour Unit * m**3/s (vol. flux of odour compound)
6 = Odour Unit * m**3/min
7 = metric tons/yr

Number of source-species
combinations with variable
emissions scaling factors
provided below in (16c) (NSVL1) Default: 0 ! NSVL1 = 0 !

Number of volume sources with
variable location and emission
parameters (NVL2) No default ! NVL2 = 0 !

(If NVL2 > 0, ALL parameter data for
these sources are read from the VOLEMARB.DAT file(s))

!END!

Subgroup (16b)

---

a

VOLUME SOURCE: CONSTANT DATA

X UTM Coordinate (km)	Y UTM Coordinate (km)	Effect. Height (m)	Base Elevation (m)	Initial Sigma y (m)	Initial Sigma z (m)	Emission Rates b

---

a
Data for each source are treated as a separate input subgroup
and therefore must end with an input group terminator.

b
An emission rate must be entered for every pollutant modeled.
Enter emission rate of zero for secondary pollutants that are
modeled, but not emitted. Units are specified by IVLU
(e.g. 1 for g/s).

Subgroup (16c)

---

a

VOLUME SOURCE: VARIABLE EMISSIONS DATA

Use this subgroup to describe temporal variations in the emission
rates given in 16b. Factors entered multiply the rates in 16b.
Skip sources here that have constant emissions. For more elaborate
variation in source parameters, use VOLEMARB.DAT and NVL2 > 0.

IVARY determines the type of variation, and is source-specific:
(IVARY) Default: 0
0 = Constant
1 = Diurnal cycle (24 scaling factors: hours 1-24)
2 = Monthly cycle (12 scaling factors: months 1-12)

```
          3 =       Hour & Season (4 groups of 24 hourly scaling factors,
                                   where first group is DEC-JAN-FEB)
          4 =       Speed & Stab. (6 groups of 6 scaling factors, where
                                   first group is Stability Class A,
                                   and the speed classes have upper
                                   bounds (m/s) defined in Group 12
          5 =       Temperature   (12 scaling factors, where temperature
                                   classes have upper bounds (C) of:
                                   0, 5, 10, 15, 20, 25, 30, 35, 40,
                                   45, 50, 50+)



--------
    a
     Data for each species are treated as a separate input subgroup
     and therefore must end with an input group terminator.


-------------------------------------------------------------------------------

INPUT GROUPS: 17a & 17b -- Non-gridded (discrete) receptor information
-----------------------

---------------
Subgroup (17a)
---------------

     Number of non-gridded receptors (NREC)  No default  !  NREC = 143 !

!END!

---------------
Subgroup (17b)
---------------
                                              a
           NON-GRIDDED (DISCRETE) RECEPTOR DATA
           ------------------------------------

                  X UTM       Y UTM        Ground        Height   b
Receptor       Coordinate   Coordinate   Elevation   Above Ground
  No.             (km)         (km)         (m)           (m)
--------       ----------   ----------   ---------   ------------
eastern portion of St. Marks Wilderness Area
       1  ! X =   769.6600,  3334.3799,     0.000 !  !END!
       2  ! X =   770.0000,  3333.4800,     0.000 !  !END!
       3  ! X =   770.4200,  3332.9199,     0.000 !  !END!
       4  ! X =   771.0600,  3332.3501,     0.000 !  !END!
       5  ! X =   771.8500,  3332.1101,     0.000 !  !END!
       6  ! X =   772.1000,  3332.7100,     0.000 !  !END!
       7  ! X =   772.3800,  3332.1599,     0.000 !  !END!
       8  ! X =   772.2300,  3331.4399,     0.000 !  !END!
       9  ! X =   771.5700,  3331.0500,     0.000 !  !END!
      10  ! X =   771.4500,  3330.5300,     0.000 !  !END!
      11  ! X =   771.7000,  3330.2200,     0.000 !  !END!
      12  ! X =   772.4200,  3329.8101,     0.000 !  !END!
      13  ! X =   773.3500,  3329.8701,     0.000 !  !END!
      14  ! X =   774.0000,  3330.2300,     0.000 !  !END!
      15  ! X =   774.2700,  3331.0200,     0.000 !  !END!
      16  ! X =   774.1000,  3330.0400,     0.000 !  !END!
      17  ! X =   774.7400,  3330.4800,     0.000 !  !END!
      18  ! X =   775.3700,  3330.9099,     0.000 !  !END!
      19  ! X =   776.1400,  3331.2400,     0.000 !  !END!
      20  ! X =   776.2200,  3331.8799,     0.000 !  !END!
      21  ! X =   776.4900,  3332.3999,     0.000 !  !END!
      22  ! X =   776.4400,  3333.0100,     0.000 !  !END!
```

```
 23  ! X =   777.3700,  3332.2500,     0.000 !  !END!
 24  ! X =   770.0000,  3338.0000,     0.000 !  !END!
 25  ! X =   770.0000,  3336.0000,     0.000 !  !END!
 26  ! X =   772.0000,  3336.0000,     0.000 !  !END!
 27  ! X =   772.0000,  3333.0000,     0.000 !  !END!
 28  ! X =   772.0000,  3331.0000,     0.000 !  !END!
 29  ! X =   775.0000,  3333.0000,     0.000 !  !END!
 30  ! X =   775.0000,  3331.0000,     0.000 !  !END!
 31  ! X =   777.0000,  3333.0000,     0.000 !  !END!
 32  ! X =   770.2000,  3339.0000,     0.000 !  !END!
 33  ! X =   770.2000,  3338.0000,     0.000 !  !END!
 34  ! X =   770.2000,  3337.2000,     0.000 !  !END!
 35  ! X =   774.4000,  3336.1001,     0.000 !  !END!
 36  ! X =   770.4000,  3333.0000,     0.000 !  !END!
 37  ! X =   768.9000,  3337.6001,     0.000 !  !END!
 38  ! X =   769.1000,  3336.8000,     0.000 !  !END!
 39  ! X =   768.8000,  3338.3999,     0.000 !  !END!
 40  ! X =   769.3000,  3338.8000,     0.000 !  !END!
 41  ! X =   769.8000,  3339.1001,     0.000 !  !END!
 42  ! X =   768.7550,  3338.4109,     0.000 !  !END!
 43  ! X =   769.0980,  3338.7129,     0.000 !  !END!
 44  ! X =   769.3990,  3338.9021,     0.000 !  !END!
 45  ! X =   769.7170,  3339.1050,     0.000 !  !END!
 46  ! X =   770.2570,  3339.2190,     0.000 !  !END!
 47  ! X =   769.2000,  3336.0000,     0.000 !  !END!
 48  ! X =   769.7000,  3335.0000,     0.000 !  !END!
 49  ! X =   770.0000,  3334.0000,     0.000 !  !END!
 50  ! X =   771.0000,  3332.0000,     0.000 !  !END!
 51  ! X =   773.0000,  3330.5000,     0.000 !  !END!
 52  ! X =   774.0000,  3330.5000,     0.000 !  !END!
 53  ! X =   771.0000,  3336.0000,     0.000 !  !END!
 54  ! X =   773.0000,  3336.0000,     0.000 !  !END!
 55  ! X =   774.0000,  3336.0000,     0.000 !  !END!
 56  ! X =   775.0000,  3335.0000,     0.000 !  !END!
 57  ! X =   775.0000,  3334.0000,     0.000 !  !END!
 58  ! X =   775.0000,  3333.0000,     0.000 !  !END!
 59  ! X =   776.0000,  3333.0000,     0.000 !  !END!
 60  ! X =   776.0000,  3331.0000,     0.000 !  !END!
 61  ! X =   778.0000,  3333.5000,     0.000 !  !END!
 62  ! X =   779.0000,  3334.0000,     0.000 !  !END!
 63  ! X =   789.0000,  3333.0000,     0.000 !  !END!
 64  ! X =   794.3680,  3328.4546,     0.000 !  !END!
 65  ! X =   778.3720,  3332.2686,     0.000 !  !END!
 66  ! X =   778.8825,  3332.1907,     0.000 !  !END!
 67  ! X =   779.6612,  3332.6753,     0.000 !  !END!
 68  ! X =   780.3881,  3332.5801,     0.000 !  !END!
 69  ! X =   780.7428,  3332.3638,     0.000 !  !END!
 70  ! X =   781.2192,  3332.4246,     0.000 !  !END!
 71  ! X =   781.8681,  3332.9524,     0.000 !  !END!
 72  ! X =   782.3354,  3332.9871,     0.000 !  !END!
 73  ! X =   782.9843,  3333.4714,     0.000 !  !END!
 74  ! X =   783.1920,  3333.3589,     0.000 !  !END!
 75  ! X =   783.9361,  3333.4890,     0.000 !  !END!
 76  ! X =   784.5850,  3333.6272,     0.000 !  !END!
 77  ! X =   785.1734,  3333.2034,     0.000 !  !END!
 78  ! X =   785.5970,  3333.7483,     0.000 !  !END!
 79  ! X =   786.1594,  3333.6445,     0.000 !  !END!
 80  ! X =   787.0000,  3333.7500,     0.000 !  !END!
 81  ! X =   788.0000,  3333.2188,     0.000 !  !END!
 82  ! X =   782.0000,  3335.3901,     0.000 !  !END!
 83  ! X =   781.0000,  3335.2683,     0.000 !  !END!
 84  ! X =   780.0000,  3333.9390,     0.000 !  !END!
 85  ! X =   789.5000,  3331.5120,     0.000 !  !END!
 86  ! X =   791.0980,  3330.3750,     0.000 !  !END!
 87  ! X =   790.0980,  3330.8469,     0.000 !  !END!
 88  ! X =   794.0980,  3329.2739,     0.000 !  !END!
```

```
     89  ! X =   793.0980,  3329.1831,     0.000 !  !END!
     90  ! X =   792.0980,  3329.6060,     0.000 !  !END!
     91  ! X =   791.2440,  3330.5491,     0.000 !  !END!
     92  ! X =   791.3050,  3333.3660,     0.000 !  !END!
     93  ! X =   790.9150,  3335.0000,     0.000 !  !END!
     94  ! X =   791.3420,  3337.1589,     0.000 !  !END!
     95  ! X =   789.0000,  3337.9141,     0.000 !  !END!
     96  ! X =   788.0000,  3337.1819,     0.000 !  !END!
     97  ! X =   787.0000,  3336.4761,     0.000 !  !END!
     98  ! X =   786.0000,  3336.4150,     0.000 !  !END!
     99  ! X =   785.0000,  3336.2439,     0.000 !  !END!
    100  ! X =   784.0000,  3336.1831,     0.000 !  !END!
    101  ! X =   783.0000,  3336.1709,     0.000 !  !END!
    102  ! X =   791.6460,  3336.5850,     0.000 !  !END!
    103  ! X =   791.4390,  3338.2439,     0.000 !  !END!
    104  ! X =   789.4310,  3338.3049,     0.000 !  !END!
    105  ! X =   791.3000,  3332.2593,     0.000 !  !END!
    106  ! X =   791.3000,  3331.4685,     0.000 !  !END!
    107  ! X =   790.4430,  3338.2993,     0.000 !  !END!
    108  ! X =   791.2576,  3335.7861,     0.000 !  !END!

western portion boundary (Thoms Is.) of St. Marks Wilderness Area
    109  ! X =   744.7000,  3322.3999,     0.000 !  !END!
    110  ! X =   745.4000,  3321.3999,     0.000 !  !END!
    111  ! X =   746.5000,  3321.3999,     0.000 !  !END!
    112  ! X =   747.1000,  3320.5000,     0.000 !  !END!
    113  ! X =   746.4000,  3319.8999,     0.000 !  !END!
    114  ! X =   746.2000,  3318.8000,     0.000 !  !END!
    115  ! X =   745.6000,  3318.0000,     0.000 !  !END!
    116  ! X =   745.2000,  3319.2000,     0.000 !  !END!
    117  ! X =   745.2000,  3320.3999,     0.000 !  !END!
    118  ! X =   744.1000,  3321.5000,     0.000 !  !END!
    119  ! X =   744.7000,  3321.0000,     0.000 !  !END!
    120  ! X =   744.7000,  3321.7000,     0.000 !  !END!
    121  ! X =   745.4000,  3321.0000,     0.000 !  !END!
    122  ! X =   745.4000,  3322.0000,     0.000 !  !END!
    123  ! X =   746.0000,  3319.5000,     0.000 !  !END!
    124  ! X =   746.0000,  3320.5000,     0.000 !  !END!
    125  ! X =   746.0000,  3321.2000,     0.000 !  !END!

Bradwell Bay Wilderness Area
    126  ! X =   728.0,  3343.0,     0.000 !  !END!
    127  ! X =   728.0,  3341.0,     0.000 !  !END!
    128  ! X =   731.0,  3343.0,     0.000 !  !END!
    129  ! X =   731.0,  3341.0,     0.000 !  !END!
    130  ! X =   731.0,  3338.0,     0.000 !  !END!
    131  ! X =   733.0,  3343.0,     0.000 !  !END!
    132  ! X =   733.0,  3341.0,     0.000 !  !END!
    133  ! X =   733.0,  3338.0,     0.000 !  !END!
    134  ! X =   733.0,  3336.0,     0.000 !  !END!
    135  ! X =   733.0,  3333.0,     0.000 !  !END!
    136  ! X =   736.0,  3346.0,     0.000 !  !END!
    137  ! X =   736.0,  3343.0,     0.000 !  !END!
    138  ! X =   736.0,  3341.0,     0.000 !  !END!
    139  ! X =   736.0,  3338.0,     0.000 !  !END!
    140  ! X =   736.0,  3336.0,     0.000 !  !END!
    141  ! X =   738.0,  3343.0,     0.000 !  !END!
    142  ! X =   738.0,  3341.0,     0.000 !  !END!
    143  ! X =   741.0,  3341.0,     0.000 !  !END!
-------------
```

a

Data for each receptor are treated as a separate input subgroup and therefore must end with an input group terminator.

b

Receptor height above ground is optional. If no value is entered,