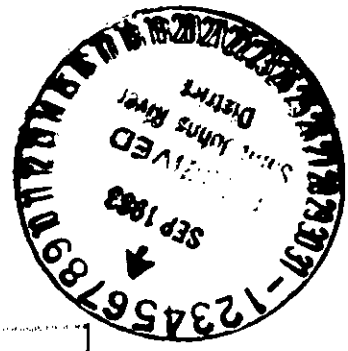


DER

SEP 9 1983

BAQM

ESE ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

AIR CONSTRUCTION PERMIT
APPLICATION AND PSD REPORT
KISSIMMEE UTILITIES
49.9 MW COMBINED CYCLE UNIT

Prepared for:

KISSIMMEE UTILITIES
Kissimmee, Florida

Prepared by:

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.
Gainesville, Florida 32602

ESE No. 81-613-200

August 1983

TABLE OF CONTENTS

SECTION I AIR CONSTRUCTION PERMIT APPLICATION

SECTION II PSD REPORT

LIST OF TABLES IN PSD REPORT

Addendum to Air Construction Permit Application and PSD Report

Kissimmee Utilities Combined Cycle Unit

This addendum explains changes which have been made in the permit application since the original application was submitted to DER in August 1981. Additional information provided with this application is also discussed. The purpose of this addendum is to enhance understanding of the new revised application, and therefore facilitate the review process. Changes/additions are discussed in order as they appear in the document.

1. In Section III.C. of the application, pollutant emission rates for particulate matter (PM), nitrogen oxides (NOx), and carbon monoxide (CO) have changed. These changes are documented in Attachment B of the application. In the case of CO and PM when firing oil in the gas turbine, manufacturers emission data were used since those estimates were greater than AP42 emission factors. In addition, revised AP42 factors for Volatile Organic Compound (VOC) emissions when burning natural gas and fuel oil in the Heat Recovery Steam Generator (HRSG), for CO emissions when burning natural gas in the HRSG, and for PM emissions when burning natural gas in the HRSG, have been incorporated into the calculations. For NOx, emissions are based upon the NSPS limit of 129 ppm NOx in the turbine exhaust gas stream. This results in a substantial decrease in NOx emissions compared to the previous application. For PM and CO, the revised emission factors result in an increase in maximum hourly emissions for these pollutants.

2. In Section III.H., stack parameters are shown for both the main stack and the turbine bypass stack. The bypass stack would be used only when the HRSG units are not in operation. Under these conditions, the exhaust gases are at a much higher temperature (about $1000^{o}F$), and at a much larger flow rate. It is also noted that the stack height of the main stack is increased from 30 feet to 60 feet and the stack diameter has increased from 8 feet to 12 feet. Since the model results shown in Attachment D of the application where based upon a 30 foot stack height, those results are conservative. Maximum air quality impacts are not expected when using the bypass stack,because the much larger flow rate and exhaust gas temperature under these conditions will result in much greater plume rise.

3. In Attachment A of the application, a plot plan for the new combined cycle unit is shown.

4. In Attachment B, the estimated exhaust gas flow of the turbine only at 15 percent oxygen is shown in DSCFM. These flows for gas firing and oil firing were used with the 129 ppm NSPS emission rate in order to calculate NOx emission due to turbine operation only. The table of annual emissions in Attachment D has been expanded to show the contributions of the gas turbine and the HRSG supplemental firing to the total estimated emissions.

5. In Attachment C, Control Technolgy, a description of the water injection system for the gas turbine has been included.

6. The PSD report has not been revised although emissions of CO and PM have increased compared to the previous application. As shown in Table 2 of the PSD report, PM and CO impacts were minimal from the proposed combined cycle unit. These impacts are not expected to increase significantly based upon the revised emission rates and increased stack height. NOx impacts would decrease since emissions have decreased and stack height has been increased compared to the previous application. Similarly, sulfur dioxide (SO_2) emissions have not changed but the increased stack height will result in decreased impacts.

7. The emission inventory presented in the PSD report was reviewed for currentness. From this review, two new increment consuming sources were identified; Southern Fruit and Orlando Utilities Commission - Stanton Energy Center. Southern Fruit is located approximately 24 kilometers from Kissimmee Utilities and OUC-Stanton is located approximately 32 kilometers from Kissimmee Utilities. Based upon the methodology presented in the PSD report, these sources would not have been included in the short term modeling analysis. These sources are primarily sulfur dioxide emitters. As shown in Table 2 of the report, short term SO_2 impacts were predicted to be well below air quality standards, therefore no revision of the report was considered necessary.

In addition to the changes in the permit application, some revisions to the conditions contained in the expired construction permit are requested. Specific Condition 2 of the permit states that maximum emissions shall not exceed those listed in Table 2 of the Preliminary Determination. For NOx, a fixed emission limit for the gas turbine and boiler combined of 250 lbs per hour is specified. In reality, actual mass emissions from the turbine may vary depending on the actual heat rate of the unit and the actual exhaust flow rate for the unit during testing. As a result, it is requested that if testing shows that the fixed mass emission limit cannot be met, that the gas turbine exhaust only be tested as an alternative means of demonstrating compliance. This is in the spirit of the Subpart GG NSPS, which only applies to the gas turbine emissions. The NOx emission limit for the gas turbine only would be variable, depending upon the heat rate of the unit, and compliance would be demonstrated by the NSPS formula.

Specific Condition 3 states that the plant be allowed to operate 8,736 hours per year. It is requested that this be revised to read 8,760 hours per year or 365 days per year operation.

Specific Condition 6 states maximum No. 2 fuel oil consumption to be 78 barrels per hour. It is requested that this condition be deleted so that more quantities of No. 2 fuel oil be allowed to be burned when sulfur content is less than 0.8 percent. The only limiting condition on fuel oil consumption should be the SO_2 emission limit of 388 pounds per hour.

Specific Condition 7.h. is not clear on where testing should be conducted in accordance with Subpart GG of the NSPS. Subpart GG only applies to the gas turbine portion of the combined cycle operation. It is suggested that compliance be determined by measuring total mass emissions at the main stack outlet with the heat recovery steam generator system in operation. However, if compliance with the mass emission limitation cannot be demonstrated at the main stack, then compliance can be demonstrated by measuring only the gas turbine exhaust for NOx concentration with comparison to the standard based on the NSPS formula.

AIR CONSTRUCTION PERMIT APPLICATION

AC 49-74856

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803

DER
SEP 9 1983
BAQM

BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY
ALEX SENKEVICH
DISTRICT MANAGER

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Combustion Turbine [X] New[1] [ ] Existing[1]

APPLICATION TYPE: [X] Construction [ ] Operation [ ] Modification

COMPANY NAME: Kissimmee Utilities COUNTY: Osceola

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Combined Cycle Unit #1

SOURCE LOCATION: Street 112 Ruby Street City Kissimmee

UTM: East 17-460.1 North 3129.3

Latitude 28 ° 17 ' 20 "N Longitude 81 ° 24 ' 20 "W

APPLICANT NAME AND TITLE: James C. Welsh, Utilities Director

APPLICANT ADDRESS: Post Office Box 1608, Kissimmee, Florida 32741

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Kissimmee Utilities

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

*Attach letter of authorization

Signed: James C. Welsh

James C. Welsh, Utilities Director
Name and Title (Please Type)

Date: 8/26/83 Telephone No. (305) 847-2821

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

[1] See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed David A. Buff

David A. Buff
Name (Please Type)

ESE, Inc.
Company Name (Please Type)

P.O. Box ESE, Gainesville, Fl 32602
Mailing Address (Please Type)

Florida Registration No. 19011 Date: 8-25-83 Telephone No. (904) 372-3318

SECTION II: GENERAL PROJECT INFORMATION

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

New 30.9 MW combustion turbine fired with natural gas or No. 2 fuel oil. NO_x control by water injection. Waste heat used to produce steam to drive two 9.5 MW steam turbines for total net generation of 46.5 MW and a gross generation capacity of 49.9 MW. Supplemental firing of natural gas or No. 2 oil in waste heat boiler to meet steam requirements. (See Attachment A.)

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

Start of Construction September 1981 Completion of Construction December 1983

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

Additional capital cost of water injection system is $60,000.

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

Not Applicable-- New Source

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;

if power plant, hrs/yr 8,760; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? No

   a. If yes, has "offset" been applied? _____

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

   c. If yes, list non-attainment pollutants. _____

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

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

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

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

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

   a. If yes, for what pollutants? _____

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

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

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

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

1. Total Process Input Rate (lbs/hr): _____

2. Product Weight (lbs/hr): _____

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

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
SO_2	388	21	NA	NA	388	1,702	Attach. A
PM	22	28	NA	NA	22	96	
NO_x	235	1,004	NA	NA	446	1,954	
HC (as CH_4)	19	83	NA	NA	19	83	
CO	80	231	NA	NA	80	349	

[1]See Section V, Item 2.

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

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Water Injection	NO_x	48%	NA	Attach. C

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
No. 2 Fuel Oil	78	78	441.7
Natural Gas	0.491	0.491	441.7

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

Fuel Analysis: Fuel Oil

Percent Sulfur: 0.8 maximum Percent Ash: < .01

Density: 7.4 lbs/gal Typical Percent Nitrogen: < .25

Heat Capacity: 19,350 BTU/lb 143,200 BTU/gal

Other Fuel Contaminants (which may cause air pollution):

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

Annual Average NA Maximum

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

Boiler blowdown will be directed to city waste water treatment facility

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

Stack Height: 60.0/33.1 ft. Stack Diameter: Main Stack/By pass stack 12.0/18.9 x 10.25 ft.

Gas Flow Rate: 377,000/686,000 ACFM 238,000/225,000 DSCFM Gas Exit Temperature: 300/950-1000 °F.

Water Vapor Content: 5 to 8 by vol. % Velocity: 56/59 FPS

SECTION IV: INCINERATOR INFORMATION NA

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

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

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

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

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

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

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

_____

_____

_____

_____

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

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

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

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

[X] Yes [ ] No

Contaminant	Rate or Concentration
Nitrogen Oxides	% by vol= 0.0075 (14.4/Y) + F
	Y = heat rate at peak load (kj/watt-hr)
	F = fuel-bound nitrogen allowance
Sulfur Dioxide	150 ppm or less than 0.8% sulfur fuel by weight

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

[X] Yes [ ] No

Contaminant	Rate or Concentration
Nitrogen Oxides	See Attachment D
Sulfur Dioxide	See Attachment D

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

Contaminant	Rate or Concentration
Nitrogen Oxides	NSPS: % by volume = 0.0075 (14.4Y) + F
Sulfur Dioxide	0.8% max fuel sulfur content by weight

D. Describe the existing control and treatment technology (if any). Nitrogen Oxides (see Item B

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

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

Nitrogen Oxides

a. Height: ft. b. Diameter: ft.

c. Flow Rate: ACFM d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device: Water injection

b. Operating Principles: Lower combustion temperature

c. Efficiency:[1] 48%

d. Capital Cost: $60,000.

e. Useful Life: 30 years

f. Operating Cost: Additional fuel at 18.1×10^6 Btu/hr

g. Energy:[2] Increases heat rate by 140 Btu/KWH

h. Maintenance Cost: No additional maintenance costs.

i. Availability of construction materials and process chemicals:
Can be purchased as package with turbine unit.

j. Applicability to manufacturing processes: Specifically designed for package unit.

k. Ability to construct with control device, install in available space, and operate within proposed levels:
Available as package from turbine manufacturer.

2. Ability to meet emission levels documented in Attachment C.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency. See Attachment C
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device: Water injection (see Item E)

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes: See Attachment D.

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency. See Attachment C.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. **Reason for selection and description of systems:** Add-on NO_x controls are currently in the experimental phase. The proposed water injection rate will reduce NO_x emissions by 48 percent and will meet NSPS without significantly reducing thermal efficiency. Impacts from the new source are predicted to be insignificant, less than 1 $\mu g/m^3$ on an annual average. Therefore, further reduction in NO_x emissions is not justified.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____no. sites _____ TSP _____( ) SO^{2}* _____ Wind spd/dir

Period of Monitoring _____/_____/_____ to _____/_____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

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

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft. b. Diameter: ft.

c. Flow Rate: ACFM d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device: Wet scrubber

b. Operating Principles: SO_2 is absorbed by alkaline solution. Sludge is separated and treated for disposal.

c. Efficiency:[1] 90% +

d. Capital Cost:$4 million

e. Useful Life: 5 to 10 years

f. Operating Cost: Annualized cost approx. $2.5 million

g. Energy:[2] 2,500 kw

h. Maintenance Cost:

i. Availability of construction materials and process chemicals: Assumed Available.

j. Applicability to manufacturing processes: Has not been applied to cumbustion turbines.

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

2.

a. Control Device: low sulfur fuel

b. Operating Principles: Lower sulfur fuel replaces higher sulfur fuel

c. Efficiency:[1] Variable

d. Capital Cost: NA

e. Useful Life: NA

f. Operating Cost: Price differential over high sulfur fuel approx. $6-8/bbl

g. Energy:[2] NA

h. Maintenance Cost: NA

i. Availability of construction materials and process chemicals: Currently available at premium.

[1]Explain method of determining efficiency. Published literature.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes: Widely applied.

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected: Maximum sulfur content of fuel oil = 0.8%

1. Control Device: Low sulfur fuel

2. Efficiency:[1] Variable

3. Capital Cost: NA

4. Useful Life: NA

5. Operating Cost: Price differential between low and high sulfur fuel approx. $6-8/bbl

6. Energy:[2] NA

7. Maintenance Cost: NA

8. Manufacturer: NA

9. Other locations where employed on similar processes: See Attachment D.

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems: The primary fuel will be natural gas and actual emissions are expected to be approximately 21 ton/year. When fuel oil is burned, ground level impacts are expected to be below de minimis levels. The additional capital and operating costs for an add-on scrubber system are not justified from the standpoint of improving air quality or reducing emissions on a long-term basis. The BACT chosen for this facility is low-sulfur fuel (0.8% max). Lower sulfur fuel is not justified since fuel oil burned will be minimized and environmental impacts at 0.8% sulfur fuel are not significant. Economic penalty would also be incurred with burning of lower sulfur fuel.

SECTION VII – PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data NA

1. _____ no. sites _____ TSP _____ ( ) SO_2* _____ Wind spd/dir

Period of Monitoring ___/___/___ to ___/___/___
month day year month day year

Other data recorded No monitoring data available in vicinity of site

Attach all data or statistical summaries to this application.

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

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

2. Instrumentation, Field and Laboratory NA

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

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. 5 Year(s) of data from 01 / 01 / 74 (month / day / year) to 12 / 31 / 78 (month / day / year)

2. Surface data obtained from (location) Orlando

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

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

C. Computer Models Used

1. CRSTER Modified? If yes, attach description.

2. ISCST Modified? If yes, attach description.

3. ISCLT Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

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

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
TSP	1.98	grams/sec
SO^2	48.9	grams/sec

E. Emission Data Used in Modeling Attached PSD analysis

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

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

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

Proposed project will provide more reliable electrical power to the Kissimmee Utilities service area. Dependence on purchased power will be reduced, possibly offsetting fuel oil consumption at other generating stations owned by Orlando Utilities Commission. The city has projected savings to consumers in excess of $10 million through 1985.

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

PM, HC, CO, Hg, Be

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

10. Reason for selection and description of systems:

The impacts of TSP, HC, CO, Hg, and Be are all predicted to be below air quality de minimis levels (Table 5 of PSD report) and impacts of TSP, Hg, and Be are below air quality significance levels.
The cost of add-on particulate control equipment is not justified by any reduction in environmental impacts.

There are no demonstrated add-on control methods for HC, CO, Hg, or Be emissions from combustion turbines.

BACT proposed for HC and CO is proper combustion technique.

*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

PERMIT ATTACHMENT A

SOURCE DESCRIPTION

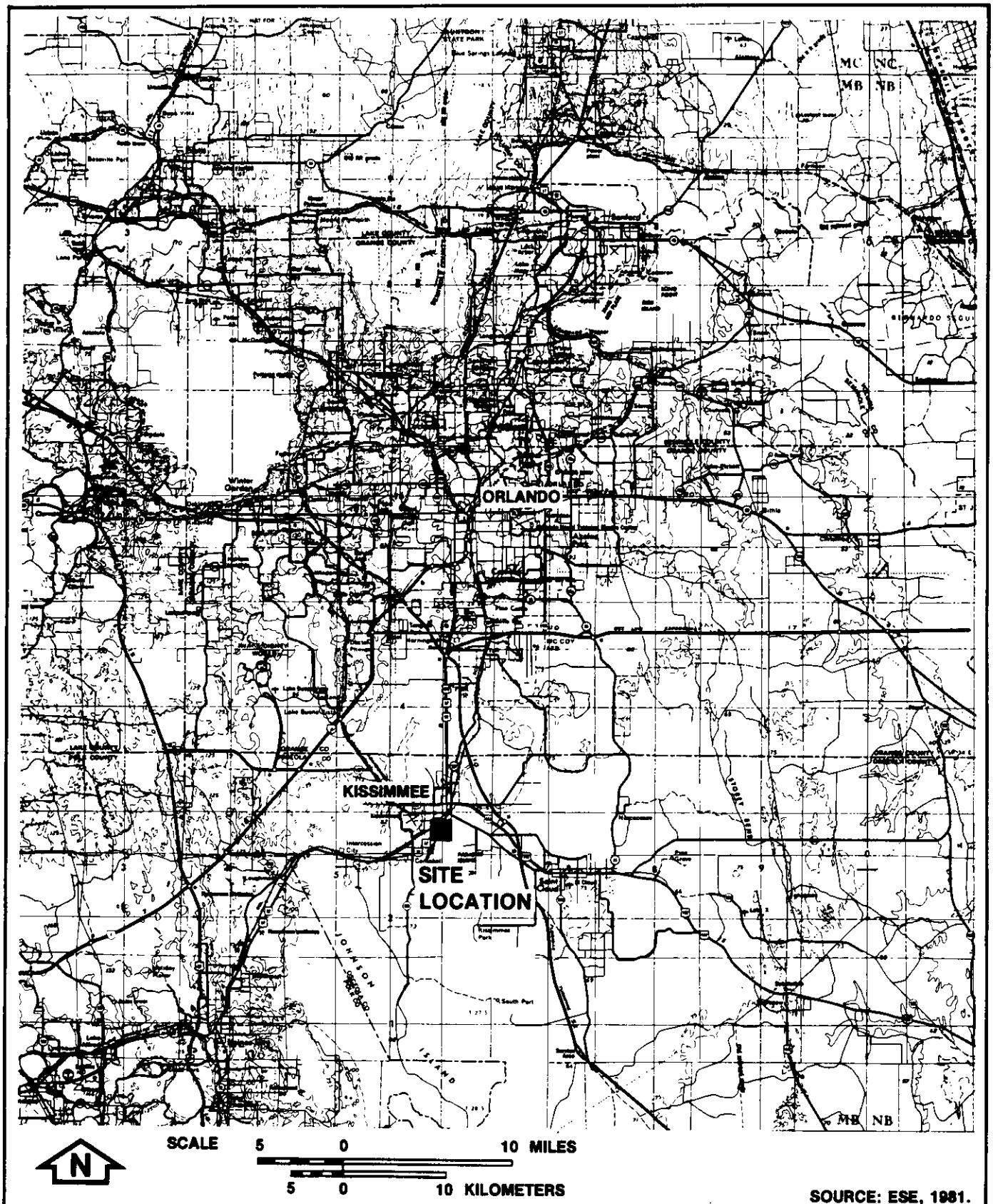


Figure A-1
CITY OF KISSIMMEE AND SURROUNDING AREA

Prepared for:
CITY OF KISSIMMEE

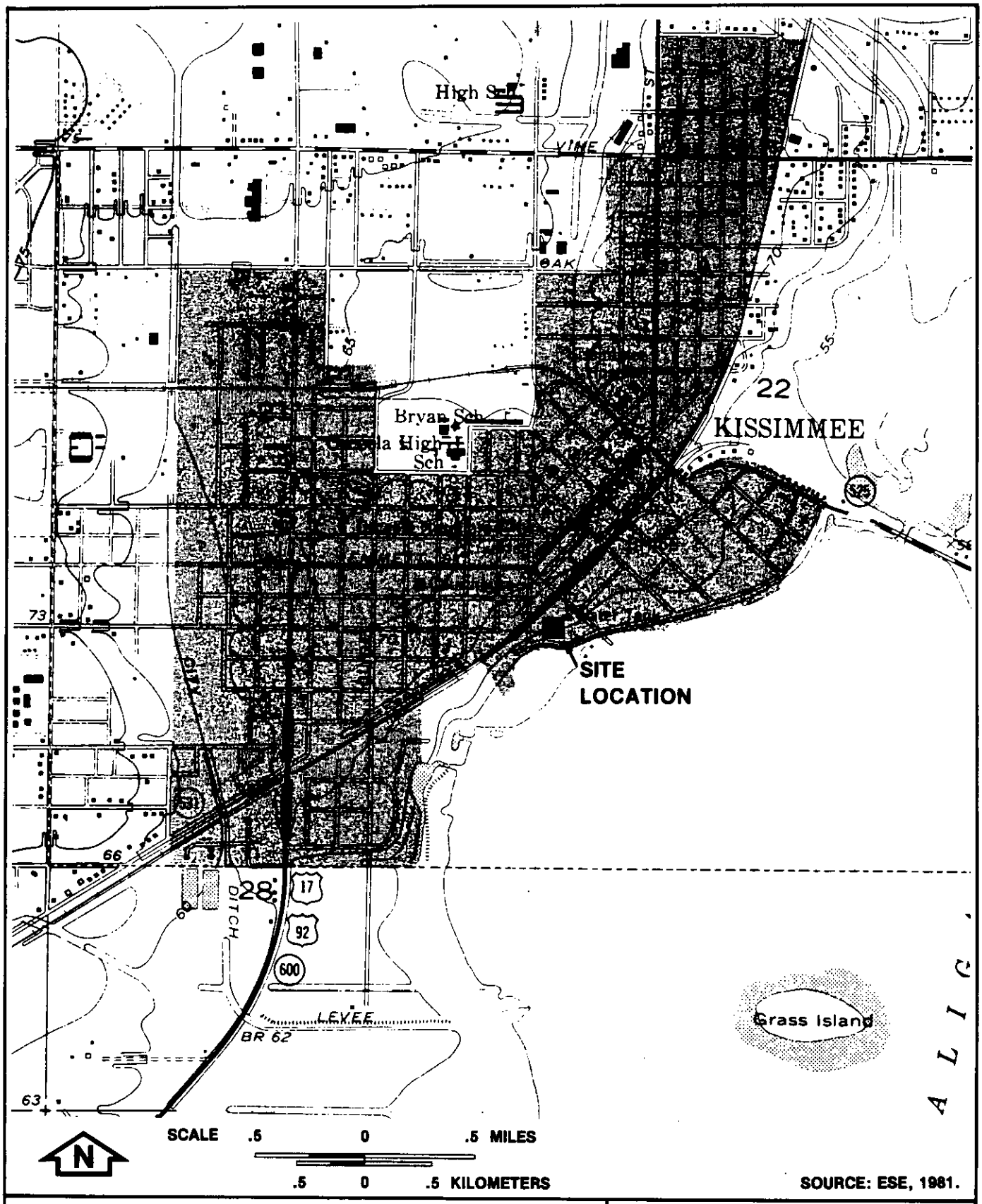


Figure A-2
LOCATION OF KISSIMMEE UTILITIES GENERATING STATION

Prepared for:
CITY OF KISSIMMEE

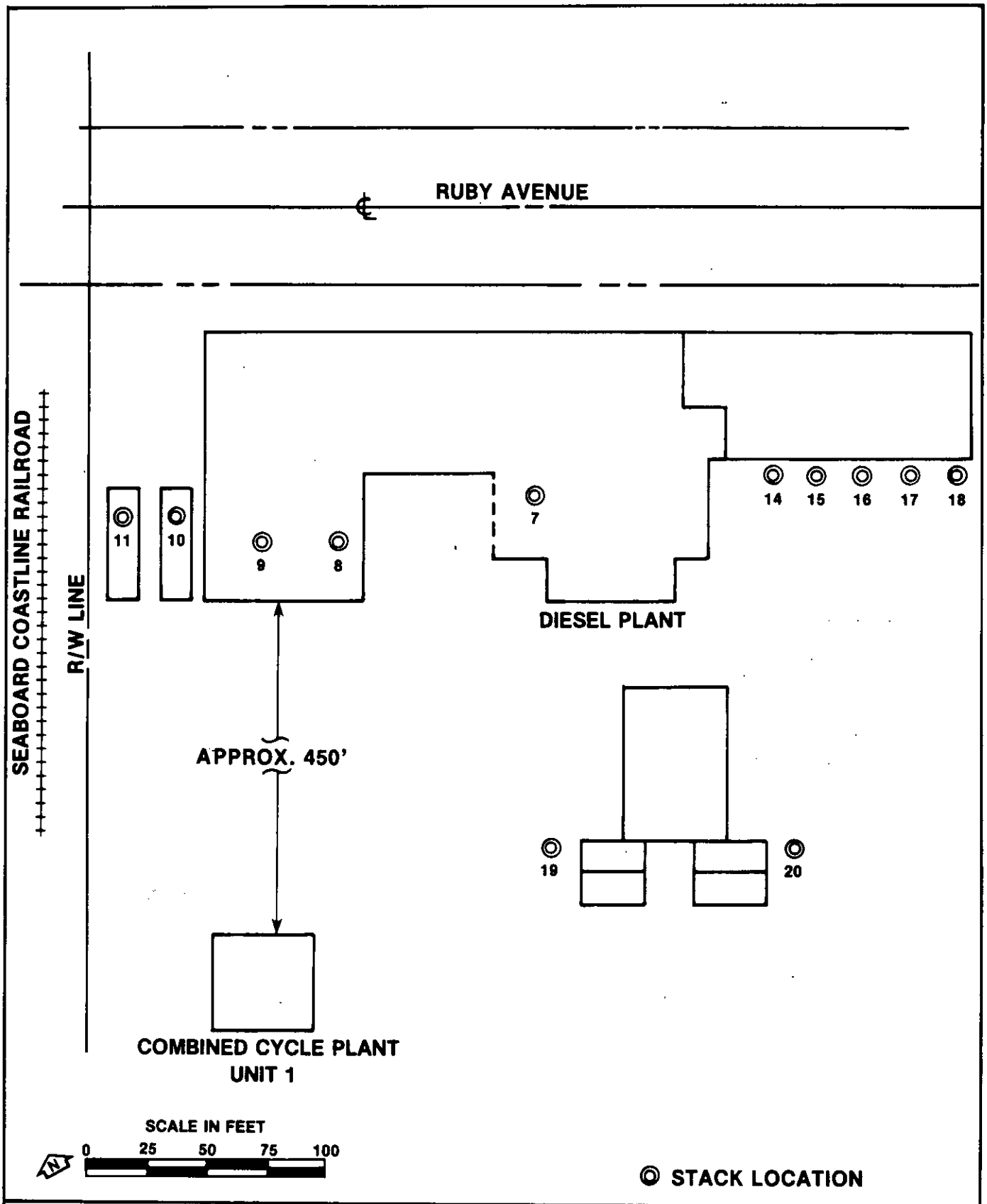


Figure A-3

PLOT PLAN FOR ROY HANSEL GENERATING STATION

SOURCE: KISSIMMEE UTILITIES, 1981.

Prepared For:
CITY OF KISSIMMEE

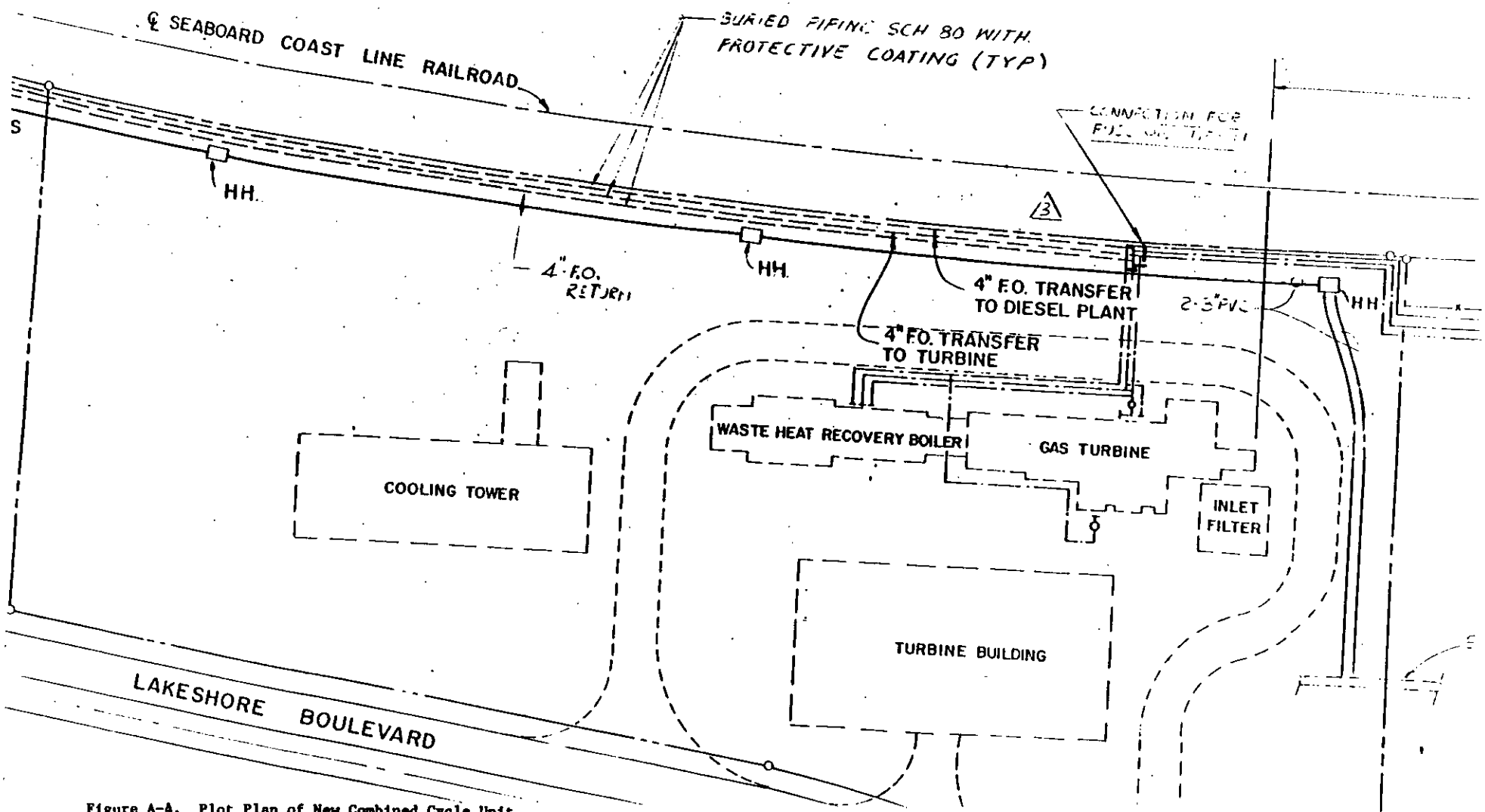
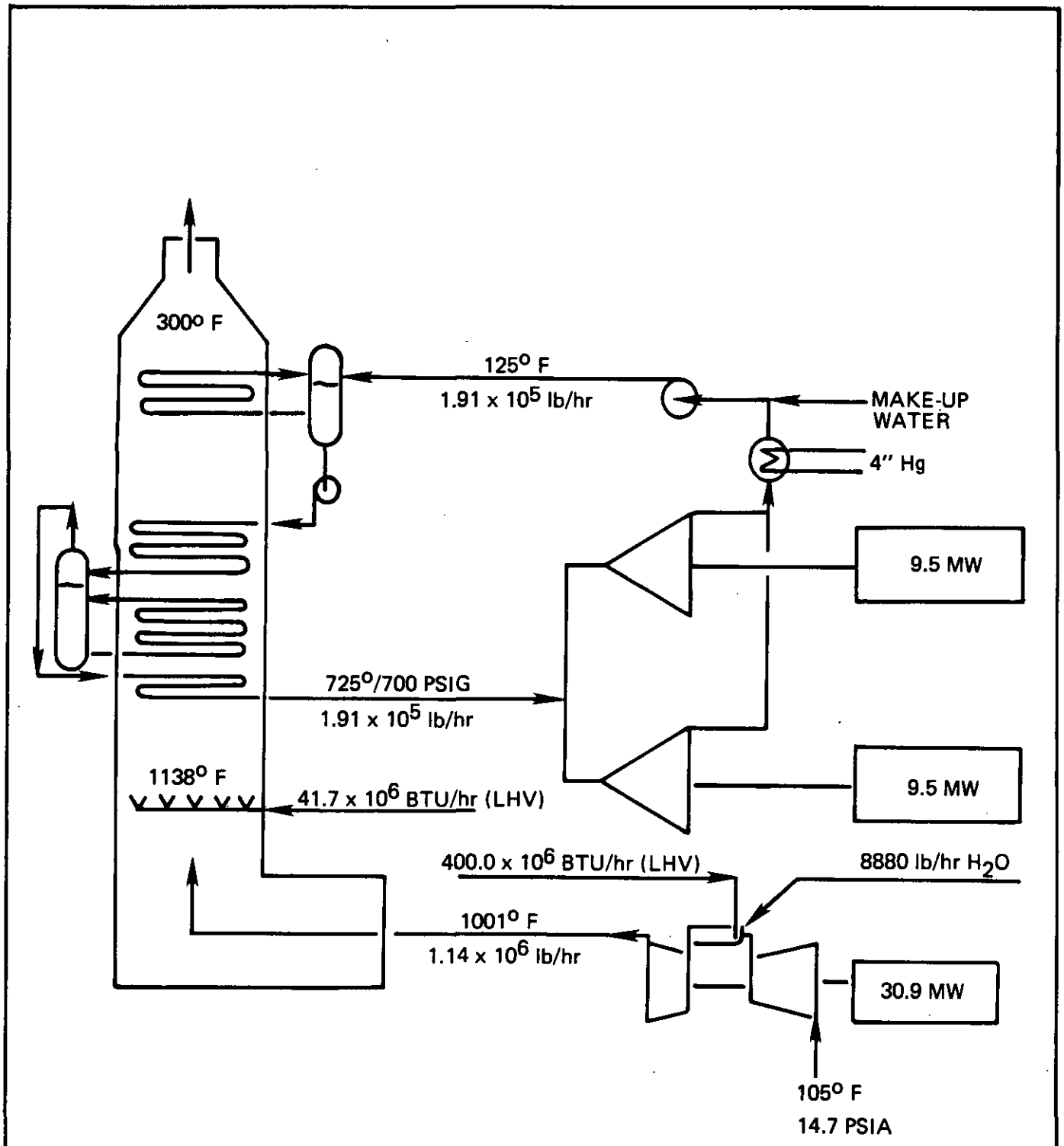


Figure A-4. Plot Plan of New Combined Cycle Unit



$$\text{HEAT RATE (LHV)} = \frac{(41.7 + 400.0)10^6}{(49.9)10^3} = 8852 \text{ BTU/KW-HR (GROSS)}$$

Figure A- 5

SCHEMATIC FLOW DIAGRAM OF COMBINED CYCLE WITH WATER INJECTION

SOURCE: KISSIMMEE UTILITIES, 1981.

Prepared For:
CITY OF KISSIMMEE

PERMIT ATTACHMENT B

EMISSION CALCULATIONS

SYSTEM CONSTANTS (See Figure A-4)

Heat Input to Turbine	400 x 10^6 Btu/hr (LHV)
Heat Input for Supplemental Heat	41.7 x 10^6 Btu/hr (LHV)
Heat Rate of Combined Cycle Plant	8,852 Btu/kW-hr (LHV) (9.34 kJ/Watt-hr)
Heat Rate of Gas Turbine Only	12,945 Btu/kW-hr (LHV) (13.66 kJ/Watt-hr)
Water Injected into Turbine	8,880 lb/hr
Total Mass Flow at Turbine Exit	1.14 x 10^6 lb/hr

ASSUMED FUEL CHARACTERISTICS

NATURAL GAS	
Density	0.049 lb/SCF
Heating Value	1,000 Btu/SCF (HHV); 900 Btu/SCF (LHV)
Water Produced by Combustion at Theoretical Air	1.92 lb H_2O/lb fuel
Theoretical Air	14.7 lb/lb fuel
Excess Air for Supplemental Heating	15%
NO. 2 FUEL OIL	
API Gravity at 60°F	28°
Density	7.4 lb/gal
Heating Value	19,350 Btu/lb (HHV) 18,200 Btu/lb (LHV)
Theoretical Air	14.2 lb/lb fuel
Excess Air for Supplemental Heating	25%
Water Producted by Combustion at Theoretical Air	1.09 lb H_2O/lb fuel
Molecular Weight of Combustion Products	29 lb/lb-mole

NSPS EMISSION LIMITATIONS

SULFUR DIOXIDE	0.015% by volume or $\leq$0.8% fuel sulfur content
NITROGEN OXIDES	$0.0075 \frac{14.4}{Y}$ + F [% by volume]

Y = Manufacturer's rated heat rate at rated load (gas turbine only): 13.66 kJ/Watt-hr

F = Allowance for fuel-bound nitrogen: 0.005 (assume N$\geq$0.25% by weight for worst-case emissions)

$$0.0075 \frac{14.4}{13.66} + 0.005 = 0.0129\%$$

$$= \underline{129 \text{ ppm}}$$

FUEL USAGE AND COMBUSTION GAS RATES--NATURAL GAS

Fuel for Supplemental Heat:

(41.7×10^6) (1 SCF/900 Btu) = 46,300 SCFH
(46,300 SCF/hr)(0.049 lb/SCF) = 2,270 lb/hr

Air for Supplemental Heat @ 115% Theoretical:

(2,269) (14.7) (1.15) = 38,360 lb/hr

Water from Combustion (Supplemental Heat):

(2,270) (1.92) = 4,360 lb/hr

Fuel for turbine:

(400×10^6) (1 SCF/900 Btu) = 444,400 SCFH
(444,400 SCF/hr) (0.049 lb/SCF) = 21,780 lb/hr

Water from Combustion (Turbine):

(21,700) (1.92) = 41,800 lb/hr

Air Supply for Primary Combustion is Determined by System Requirement of 1.14×10^6 lb/hr (39,310 lb-mole/hr) Mass Flow Rate Through Turbine.

Total Mass of Combustion Products =

	1.14×10^6
+	2,270 supplemental fuel
+	38,360 supplemental air
	1,181,000 lb/hr
	(40,700 lb-mole/hr)

Total Mass of Water in Combustion Gases =

4,360	supplemental
41,800	turbine (2,322 lb-mole/hr)
8,880	injection (493 lb-mole/hr)
55,040	lb/hr
(3,060	lb-mole/hr)

Volumetric Flow Rate, $V = \frac{nRT}{P}$

Total Flow at Stack Exit = $\frac{(40,700)\ (1,545.3)\ (760)}{(14.7 \times 144)\ (60)}$ = 376,300 ACFM

Dry Flow at Standard Conditions = $\frac{(40,700 - 3,060)\ (1,545.3)\ (520)}{(14.7 \times 144)\ (60)}$ = 238,000 DSCFM

Gas Flow, Turbine Only, Assumed at 15 percent O_2 = $\frac{(39,310 - 2,322 - 493)(1,545.3)(520)}{(14.7 \times 144)(60)}$ = 230,900 DSCFM

FUEL USAGE AND COMBUSTION GAS RATES--FUEL OIL

Fuel for Supplemental Heat:

(41.7×10^6) (1 lb/18,200 Btu) = 2,290 lb/hr

Air for Supplemental Heat at 125% Theoretical:

(2,290) (14.2) (1.25) = 40,650 lb/hr

Water from Combustion (Supplemental Heat):

(2,290) (1.09) = 2,500 lb/hr

Fuel for Turbine:

(400×10^6) (1 lb/18,200 Btu) = 22,000 lb/hr

Water from Combustion (Turbine):

(22,000) (1.09) = 24,000 lb/hr

Air Supply for Primary Combustion is determined by System Requirement of 1.14×10^6 lb/hr (39,310 lb-mole/hr) Mass Flow Rate Through Turbine.

Total Mass of Combustion Products =

	1.14×10^6
+	2,290 supplemental fuel
+	40,650 supplemental air
	1,183,000 lb/hr
	(40,800 lb-mole/hr)

Total Mass of Water in Combustion Gases =

2,500	supplemental
24,000	turbine (1,333 lb-mole/hr)
8,880	injection (493 lb-mole/hr)
35,400	lb/hr
(1,970	lb-mole/hr)

Volumetric Flow Rate, $V = \frac{nRT}{P}$

Total Flow at Stack Exit = $\frac{(40,800)\ (1,545.3)\ (760)}{(14.7 \times 144)\ (60)}$ = 377,000 ACFM

Dry Flow at Standard Conditions = $\frac{(40,800 - 1,970)\ (1,545.3)\ (520)}{(14.7 \times 144)\ (60)}$ = 246,000 DSCFM

Gas Flow, Turbine Only, Assumed at 15 Percent O_2 = $\frac{(39,310 - 1,333 - 493)(1,545.3)(520)}{(14.7 \times 144)\ (60)}$ = 237,150 DSCFM

BASIS FOR POTENTIAL EMISSIONS

TURBINE: AP-42, Table 3.3.1-2 (See Attachment C)

	Volatile Organics	Carbon Monoxide	Particulate
Gas Fired ($lb/10^6$ ft^3 gas)	42	115	14
Oil Fired ($lb/10^3$ gal oil)	5.57	78.1 lb/hr*	21.2 lb/hr*

SUPPLEMENTAL HEATER: AP-42, Supplement 13, Table 1.3-1 and 1.4-1

Natural Gas ($lb/10^6$ ft^3)	5.8	35	1 to 5
Fuel Oil ($lb/10^3$ gal oil)	0.25	5	2

SULFUR DIOXIDE: Conversion of all sulfur in fuel to SO_2 was assumed.

NITROGEN OXIDES: Based upon actual NO_x emissions and assuming 48 percent removal efficiency by water injection system.

NONCRITERIA POLLUTANTS: Ackerman et al., 1980. Health Impacts, Emissions, and Emission Factors for Noncriteria Pollutants Subject to de minimis Guidelines and Emitted from Stationary Conventional Combustion Processes (see Table 4-4), EPA-450/2-80-074.

	Mercury	Beryllium
Natural Gas ($lb/10^{12}$ Btu)	11.42	Nil
Distillate Oil ($lb/10^{12}$ Btu)	0.91	0.33

* Manufacturer's data used since those estimates were greater than AP-42 estimates.

ANNUAL EMISSIONS (TPY)†

Pollutant	Gas-Fired			Fuel-Oil Fired			PSD Significant Emission Rate*
	Turbine	Supplemental Firing	Total	Turbine	Supplemental Firing	Total	
Potential NO_x††	1877	28	1905	1927	27	1954	—
Actual NO_x	976**	28	1004	1002**	27	1029	40
Hydrocarbons (as CH_4)	82	1	83	73	<1	73	40
Carbon Monoxide	224	7	231	342	7	349	100
Particulate	27	1	28	93	3	96	25
Sulfur Dioxide†††	19	2	21	1,542	160	1,702	40
Mercury	0.02	—	0.02	0.002	—	0.002	0.01
Beryllium	—	—	—	0.0006	—	0.0006	0.0004

† Assumes 8,760 hr/yr operation.

* Federal Register, Vol. 45, No. 154, 1980.

†† Based upon actual NO_x emissions and assuming 48 percent removal in turbine by water injection system.

** Based upon turbine gas flow rate and 129 ppm NO_x, according to the following equation:
(DSCFM) (166 ppm) (2,000 ug/m^3-ppm) (0.0283 m^3/ft^3) (10^{-6} g/ug)
(60 min/hr) (8,760 hr/yr) (1 lb/454 g) (1 ton/2,000 lb).

††† Assumed that natural gas has 0.01 percent sulfur content. Fuel oil calculation based on total conversion of 0.8 percent sulfur oil.

NOTE: Emission rates assume continuous firing of 100 percent gas or 100 percent fuel oil.

Potential and maximum emissions in Section IIIC are reported as the greater of the two fuels. Actual emissions are based on gas combustion.

PERMIT ATTACHMENT C

CONTROL TECHNOLOGY

3.3 OFF-HIGHWAY STATIONARY SOURCES

In general, engines included in this category are internal combustion engines used in applications similar to those associated with external combustion sources (see Chapter 1). The major engines within this category are gas turbines and large, heavy-duty, general utility reciprocating engines. Emission data currently available for these engines are limited to gas turbines and natural-gas-fired, heavy-duty, general utility engines. Most stationary internal combustion engines are used to generate electric power, to pump gas or other fluids, or to compress air for pneumatic machinery.

3.3.1 Stationary Gas Turbines for Electric Utility Power Plants

3.3.1.1 General — Stationary gas turbines find application in electric power generators, in gas pipeline pump and compressor drives, and in various process industries. The majority of these engines are used in electrical generation for continuous, peaking, or standby power.[1] The primary fuels used are natural gas and No. 2 (distillate) fuel oil, although residual oil is used in a few applications.

3.3.1.2 Emissions — Data on gas turbines were gathered and summarized under an EPA contract.[2] The contractor found that several investigators had reported data on emissions from gas turbines used in electrical generation but that little agreement existed among the investigators regarding the terms in which the emissions were expressed. The efforts represented by this section include acquisition of the data and their conversion to uniform terms. Because many sets of measurements reported by the contractor were not complete, this conversion often involved assumptions on engine air flow or fuel flow rates (based on manufacturers' data). Another shortcoming of the available information was that relatively few data were obtained at loads below maximum rated (or base) load.

Available data on the population and usage of gas turbines in electric utility power plants are fairly extensive, and information from the various sources appears to be in substantial agreement. The source providing the most complete information is the Federal Power Commission; which requres major utilities (electric revenues of $1 million or more) to submit operating and financial data on an annual basis. Sawyer and Farmer[3] employed these data to develop statistics on the use of gas turbines for electric generation in 1971. Although their report involved only the major, publicly owned utilities (not the private or investor-owned companies), the statistics do appear to include about 87 percent of the gas turbine power used for electric generation in 1971.

Of the 253 generating stations listed by Sawyer and Farmer, 137 have more than one turbine-generator unit. From the available data, it is not possible to know how many hours *each* turbine was operated during 1971 for these multiple-turbine plants. The remaining 116 (single-turbine) units, however, were operated an average of 1196 hours during 1971 (or 13.7 percent of the time), and their average load factor (percent of rated load) during operation was 86.8 percent. This information alone is not adequate for determining a representative operating pattern for electric utility turbines, but it should help prevent serious errors.

Using 1196 hours of operation per year and 250 starts per year as normal, the resulting average operating day is about 4.8 hours long. One hour of no-load time per day would represent about 21 percent of operating time, which is considered somewhat excessive. For economy considerations, turbines are not run at off-design conditions any longer than necessary, so time spent at intermediate power points is probably minimal. The bulk of turbine operation must be at base or peak load to achieve the high load factor already mentioned.

If it is assumed that time spent at off-design conditions includes 15 percent at zero load and 2 percent each at 25 percent, 50 percent, and 75 percent load, then the percentages of operating time at rated load (100 percent) and peak load (assumed to be 125 percent of rated) can be calculated to produce an 86.8 percent load factor. These percentages turn out to be 19 percent at peak load and 60 percent at rated load; the postulated cycle based on this line of reasoning is summarized in Table 3.3.1-1.

Table 3.3.1-1. TYPICAL OPERATING CYCLE FOR ELECTRIC UTILITY TURBINES

Condition, % of rated power	Percent operating time spent at condition	Time at condition based on 4.8-hr day		Contribution to load factor at condition
		hours	minutes	
0	15	0.72	43	0.00 x 0.15 = 0.0
25	2	0.10	6	0.25 x 0.02 = 0.005
50	2	0.10	6	0.50 x 0.02 = 0.010
75	2	0.10	6	0.75 x 0.02 = 0.015
100 (base)	60	2.88	173	1.0 x 0.60 = 0.60
125 (peak)	19	0.91	55	1.25 x 0.19 = 0.238
		4.81	289	Load factor = 0.868

The operating cycle in Table 3.3.1-1 is used to compute emission factors, although it is only an estimate of actual operating patterns.

The operating cycle in Table 3.3.1-1 is used to compute emission factors, although it is only an estimate of actual operating patterns. Table 3.3.1-2 is the resultant composite emission factors based on the operating cycle of Table 3.3.1-1 and the 1971 population of electric utility turbines.

Different values for time at base and peak loads are obtained by changing the total time at lower loads (0 through 75 percent) or by changing the distribution of time spent at lower loads. The cycle given in Table 3.3.1-1 seems reasonable, however, considering the fixed load factor and the economies of turbine operation. Note that the cycle determines *only* the importance of each load condition in computing composite emission factors for each type of turbine, *not* overall operating hours.

The top portion of Table 3.3.1-2 gives separate factors for gas-fired and oil-fired units, and the bottom portion gives fuel-based factors that can be used to estimate emission rates when overall fuel consumption data are available. Fuel-based emission factors on a mode basis would also be useful, but present fuel consumption data are not adequate for this purpose.

3.3.1.3 Nitrogen Oxide Control[4,5]—Nitrogen oxide emissions from gas turbines are reduced by injecting water or steam into the primary flame zone of the combustion system. Moisture is added to the fuel or combustion air, or is injected directly into the combustion chamber. The addition of water limits the combustion temperature and thereby controls the formation of nitrogen oxide.

Water and steam injection rates, commonly expressed as a water-to-fuel ratio (by weight), have an effect on turbine efficiency. Injection of water and fuel with a ratio of 1 *reduces* gas turbine efficiency by approximately 1 percent. Injection of steam at the same ratio *increases* efficiency by 1 percent. For a combined-cycle turbine using steam from the waste-heat boiler, there is an overall reduction in efficiency of 1 percent at a steam/fuel injection ratio of 1. The incremental effectiveness of injecting either steam or water is sharply reduced at water/fuel ratios above 1. Table 3.3.1-3 gives average percentages of nitrogen oxide emission reduction for various water-to-fuel ratios.

Another possible means of controlling nitrogen oxide emissions is the modification of operations and system designs to include catalysts in the combustion and catalytic cleaning in the exhaust stream. These improvements, still in the experimental stage, would be used in addition to the water-injection methods.

Table 3.3.1-2. COMPOSITE EMISSION FACTORS FOR 1971 POPULATION OF ELECTRIC UTILITY TURBINES
EMISSION FACTOR RATING: B

Time basis	Nitrogen oxides	Organics (CH^4)	Carbon Monoxide	Particulate	Sulfur oxides
Entire population					
lb/hr rated load[a]	8.84	0.79	2.18	0.52	0.33
kg/hr rated load	4.01	0.36	0.99	0.24	0.15
Gas-fired only					
lb/hr rated load	7.81	0.79	2.18	0.27	0.098
kg/hr rated load	3.54	0.36	0.99	0.12	0.044
Oil-fired only					
lb/hr rated load	9.60	0.79	2.18	0.71	0.50
kg/hr rated load	4.35	0.36	0.99	0.32	0.23
Fuel basis					
Gas-fired only					
lb/10^6 ft^3 gas	413.	42.	115.	14.	940S[b]
kg/10^6 m^3 gas	6615.	673.	1842.	224.	15,000S
Oil-fired only					
lb/10^3 gal oil	67.8	5.57	15.4	5.0	140S
kg/10^3 liter oil	8.13	0.668	1.85	0.60	16.8S

[a]Rated load expressed in megawatts.

[b]S is the percentage sulfur. Example: If the factor is 940 and the sulfur content is 0.01 percent, the sulfur oxides emitted would be 940 times 0.01, or 9.4 lb/10^6 ft^3 gas.

Table 3.3.1-3. PERCENT REDUCTION OF NO_x EMISSIONS FROM WATER OR STEAM INJECTION[a]

EMISSION FACTOR RATING: B

Water-to-fuel ratio	Percent reduction of NO_x emissions
0.2	28
0.4	48
0.6	63
0.8	73
1.0	79
1.2	84
1.4	88
1.6	90
1.8	92
2.0	92

[a]Not corrected for efficiency variations.

References for Section 3.3.1

1. O'Keefe, W. and R. G. Schwieger. Prime Movers. *115*:522-531, November 1971.

2. Hare, C. T. and K. J. Springer. Exhaust Emissions from Uncontrolled Vehicles and Related Equipment Using Internal Combustion Engines, Final Report, Part 6: Gas Turbine Electric Utility Power Plants. Southwest Research Institute, San Antonio, Tx. Prepared for U.S. Environmental Protection Agency, Research Triangle Park, N.C., under Contract No. EHS 70-108. February 1974.

3. Sawyer, V. W. and R. C. Farmer. Gas Turbines in U.S. Electric Utilities. Gas Turbine International. January-April 1973.

4. Durkee, K. R., E. A. Noble, and R. Jenkins. An Investigation of the Best Systems of Emission Reduction for Stationary Gas Turbines — Standards Support and Environmental Impact Statement. U.S. Environmental Protection Agency, Research Triangle Park, N.C. Publication No. EPA-450/2-77-017a. 1977.

5. Control Techniques for Nitrogen Oxide Emissions from Stationary Sources. Acurex Corporation, Aerotherm Division. Prepared for U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. Contract No. 68-02-2611. Publication No. EPA-450/1-78-001. January 1978.

Westinghouse Electric Corporation
Power Generation Group

Combustion Turbine Systems Division
Box 251
Concordville Pennsylvania 19331

July 22, 1981

Mr. M. H. Dybevick
Environmental Science and Engineering
P. O. Box E.S.E.
Gainsville, Florida 32602

Dear Mr. Dybevick:

In response to your request regarding the City of Kissimee, we are enclosing the following information on water injection in combustion turbines:

1. One-page summary

2. Write-up from Instruction Book I.B. 50-114A (5 pages)

3. Schematic (2 pages)

4. Cutaway of nozzle PDL-15A. Note: Water injection would be made through the atomizing air port in the cutaway.

We hope this information is what you want. If any additional details are desired, please let us know.

Sincerely,

Dale Stephenson
CTSD Marketing

cc: W Jacksonville, Fla Ofc - D. Goodling

CTSD 180 - R. L. Wolfinger

W-501 WATER INJECTION SYSTEM

Each combustion turbine can be equipped with an automatic water injection system. The water used in the system must be relatively free from contaminants. (The total contaminants of the fuel and water must be below a specified limit. Please refer to the section on fuel treatment for allowable contaminant levels). The injection system is started automatically by the combustion turbine control system when the generator breaker closes. When water pressure reaches a sufficient level, the water injection pump pressure switch opens the water isolation valve allowing the water to flow to the combustors through the air atomization piping network. (The air atomization network is used only during starting and the nozzles are located in precisely the correct location in the combustor for maximum water injection benefit). The air and water systems are separated by a series of check valves in appropriate places to prevent potential water contamination in the plant compressed air system and to prevent backflow from the combustion turbine. The amount of water injected is a function of load and is regulated by means of an analog control signal from the Control System and feedback signal from the water flowmeter.

The Water Injection System is provided for the purpose of reducing NO_X (Oxides of Nitrogen) in the combustion turbine exhaust gases. The level of NO_X emissions is proportional to combustion turbine power output. The system is shown schematically in Figure 1.

Water of proper quality and free of contaminants, supplied by the customer, enters into the system through a strainer (Item 1) and then to a three phase, 460 VAC motor driven centrifugal pump (Item 2). The high pressure water passes through a filter (Item 3) and continues through a flowmeter (Item 4), water control valve (Item 5), and isolation valve (Item 6). The control valve regulates the flow as a function of load using the flowmeter as a feedback signal to the controller (Item 7). The water isolation valve provides redundant and positive shut-off protection. Redundant check valves (Item 8), downstream of the water isolation valve, prevents backflow from the turbine. The water is pumped through the atomizing air manifold (Item 9), and into the turbine combustion system via the atomizing air nozzle passages. Two check valves (Item 10, 11) for redundancy, are provided in the atomizing air line to prevent water from entering the compressed air supply (Item 12). A water drain valve (Item 13), is provided, which has a delayed opening during turbine shutdown, to drain water from the air/water manifold. An atomizing air purge valve (Not associated with water injection), (Item 14), opens with the closure of the atomizing air isolation/regulation valve to provide continuous purge of the nozzle air passages during turbine run. The purge valve must be closed during water injection to prevent water from backflowing into the purge air line. A high pressure selector valve (Item 15) (located in the pressure switch and gauge cabinet) passes signal air to the purge valve when atomizing air or water injection is used.

Combustion switch/lamps are located on the operator's panel decaled WATER INJEC ON and WATER INJEC OFF. The selection is made by the operator any time before starting or during turbine operation. If the choice is to use water injection, the system is started automatically by the controller when the generator breaker closes. A CCO to the water pump motor starter closes, thus energizing the motor and starting the water pump. The water injection pump discharge pressure switch, 63-WI, reads pump pressure and activates at a set operating level - opening the water injection isolation valve and closing the purge system valve, via solenoid valve 20-WI located in the Pressure Switch and Gauge Cabinet. If 63-WI does not activate within 15 seconds, the water pump motor will be de-energized. The pump motor will also be de-energized if 63-WI is de-activated when the system is running in a steady state condition.

NOTE

If the pump shuts down due to an abnormal condition, a pushbutton switch on the water injection panel of the motor control center must be pressed to reset the system before the next starting attempt.

The water isolation valve is equipped with a limit switch which indicates an open or closed valve. The limit switch is wired to the Control System as a CCI and gives an alarm signal, WATER INJECTION TROUBLE, when it is in the wrong position for the turbine operating condition.

When the CCO to the water pump motor starter is closed, the Control System generates an analog signal voltage as a function of MW load. This analog output is transmitted to the controller via the water isolation valve limit switch. The limit switch prevents the analog signal from opening the water control valve until the isolation valve is open. When the isolation valve is open, a pneumatic controller (Item 7) compares the analog signal with the flowmeter feedback signal and changes the position of the water control valve accordingly.

The analog signal feeds into a voltage to pressure transducer (Item 16) and then through a high limit relay (Item 17) (Limits control signal as a function of maximum system water flow) before

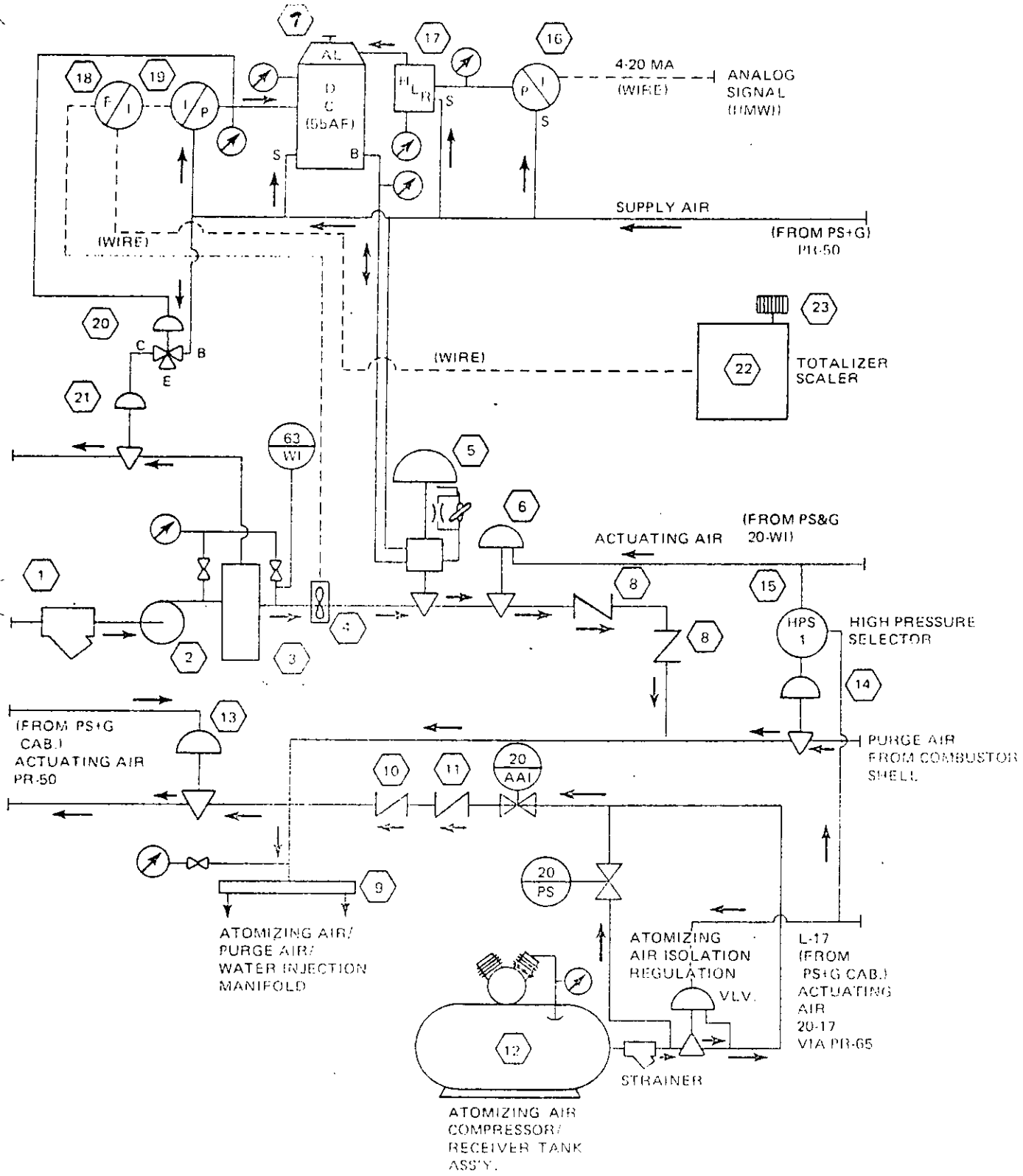


Figure 1. Water Injection System Schematic

input to the controller. The flow meter feedback circuit consists of a frequency to current transducer (Item 18) into a current pressure transducer (Item 19) before input to the other side of the controller.

The flowmeter feedback signal is also directed to a totalizer scaler (Item 22) installed in the control package. The totalizer processes the signal to advance the counter (Item 23) which indicates the total of water used.

A three-way pressure operated pilot valve (Item 20), receiving its signal pressure from the flowmeter input, closes at a pre-set pressure (approximately with generator breaker closure) directing actuating air to the customer water return valve (Item 21) closing it, thus diverting full water injection system flow to the turbine instead of back to the customer water supply tank.

During shutdown, simultaneous with closing of the fuel valve, two solenoid valves 20-PS and 20-AAI, are opened and the purge valve (Item 14) is closed. This will allow a high pressure surge of air to pass through the water injection manifold and fuel nozzles to clear them. Residual fuel in the nozzle will also be eliminated. After a short time interval, the solenoid valves are closed. Then the water drain valve (Item 13) is opened to keep the piping clear.

The water injection system will shut down if:

1) Pressure switch 63/WI (water pump discharge pressure) deactivates with loss of pressure.

2) The blade path thermocouple spread exceeds a specified limit.

3) The blade path thermocouple average is below a specified limit.

NOTE

When either 2 or 3 (above) occur, the operator can manually reset and restart the water injection system two times in a one-hour period.

The water isolation valve will close if:

1) The overspeed trip relay is not set.

2) Pressure switch 63/WI is open.

3) When a turbine shutdown occurs, the water isolation valve closes simultaneously with the fuel overspeed trip valve, and the water system is automatically de-energized.

SYSTEM COMPONENTS

Components of this system and their function are as follows:

STRAINER

This coarse strainer at the entrance of the system keeps foreign objects from entering the water injection pump.

WATER INJECTION PUMP

This is a high-speed centrifugal type pump driven by a 60 HP, 460 VAC, 3-phase, 60 Hz motor with a normal speed of 3500 rpm. A step-up gearbox is used to increase motor speed. The maximum pump capability is 136 gpm at 393 psig. Minimum inlet pressure is 15 psig which must be supplied by customer. The minimum discharge flow of 36 gpm is necessary to prevent overheating the pump.

FILTER

This is a 50 micron fibrous-medium cartridge filter that removes particles to protect the flowmeter, control valves, and turbine nozzles.

FLOWMETER

This fluidic-type meter has no moving parts. It generates an electronic pulse that is sent to frequency-to-current converter. The flow meter output varies linearly with rate of flow.

CONTROL VALVE

This is a diaphragm type, plug valve that controls water flow to the turbine. The valve is pneumatically actuated by a signal from the controller located in the control box to limit water flow.

ISOLATION VALVE

This is a pneumatically-operated diaphragm, plug-type valve that is opened when the generator breaker is closed and closes when breaker opens. Actuating air is supplied through solenoid valve, 20-WI, in pressure switch and gauge cabinet. A limit switch will cause an alarm should the valve close during turbine operation.

CHECK VALVES

A check valve on the water injection skid and one on the turbine are located in series with isolation valve to prevent pressurized air from entering water system. Redundant check valves are installed on the atomizing air line to prevent water from entering the air system.

BYPASS VALVE

This is a pneumatically-operated diaphragm valve to allow a minimum water flow through the pump. The valve is controlled by a pilot valve and water is returned to storage. The bypass valve is closed when turbine water requirements are above minimum pump flow.

HIGH LIMIT RELAY

This pneumatic relay, located in control box, limits the water flow to a maximum preset value.

TRANSDUCER, CURRENT-TO-PRESSURE

This transducer, located in control box, converts the independent analog signal to a pressure signal that is fed to controller.

CONTROLLER

This pneumatic pressure controller, located in control box, has proportional and reset control. The output signal determines position of control valve. The signal is a result of two inputs; one feeding back from flow meter and the other originating from the controller. The analog signal is a function of generator megawatts.

TOTALIZER SCALER AND COUNTER

This monitor is mounted on the control box. The totalizer is calibrated to output one pulse per gallon to a digital counter which indicates total flow.

PRESSURE SWITCH, 63-WI

A pressure switch is located on the water injection skid to shut down pump should discharge pressure fall below set limit.

SOLENOID VALVE, 20/AAI

This solenoid valve is located in the mechanical package on the atomizing air piping to permit passage of air into the water injection system to atomize fuel during starts and to purge residual water and fuel during shutdown.

SOLENOID VALVE, 20/PS

This solenoid valve is located in the mechanical package. It is activated during shutdown along with valve, 20/AAI, to allow a surge of high pressure air of short duration to pass through the water injection manifold and fuel nozzles.

WATER DRAIN VALVE

A pneumatically controlled valve is located on the turbine in the line to the manifold that supplies atomizing air, purge air, and water to the fuel nozzles. The valve is closed during all turbine operation and opened at shutdown, after the fine purge sequence, to drain any water that may remain.

P.S.&G. CABINET

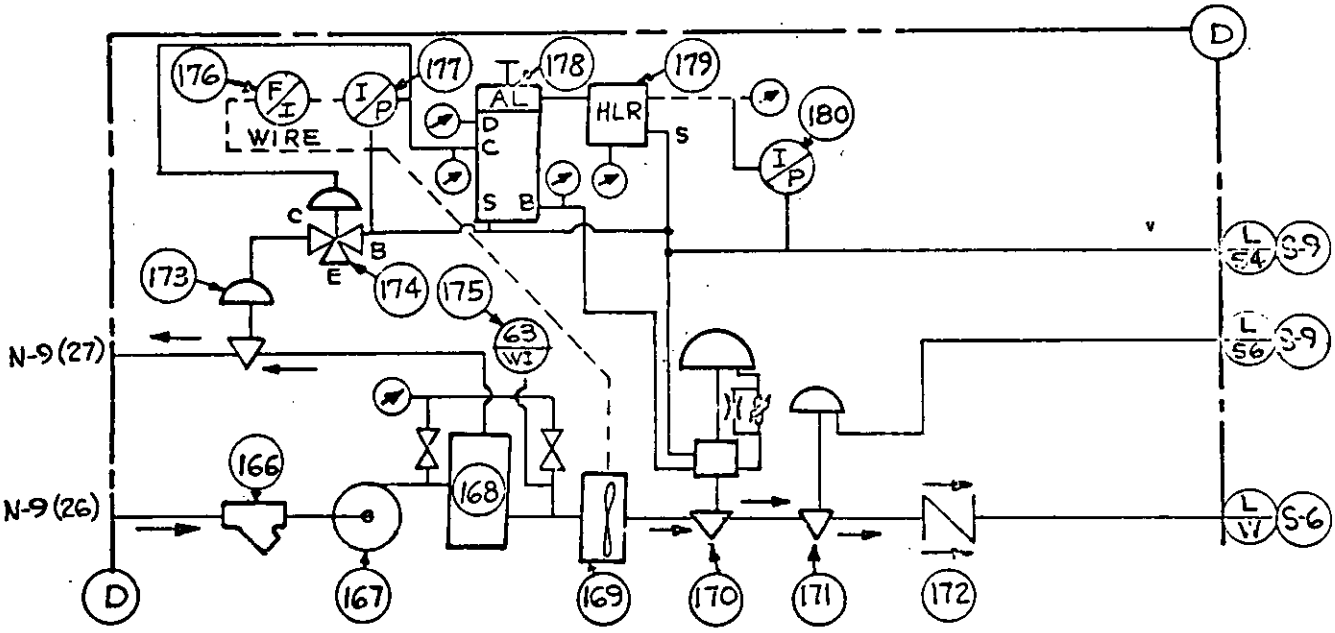
The following components are located in the pressure switch and gauge cabinet.

REGULATOR PR-50

This valve functions as an air pressure limiting device in the air supply to the water injection skid. The regulated air is also used to close the water drain valve on the turbine.

WATER INJECTION ISOLATION VALVE AIR SOLENOID VALVE 20/WI

This valve is opened to pass control air to the isolation valve while water injection is used.

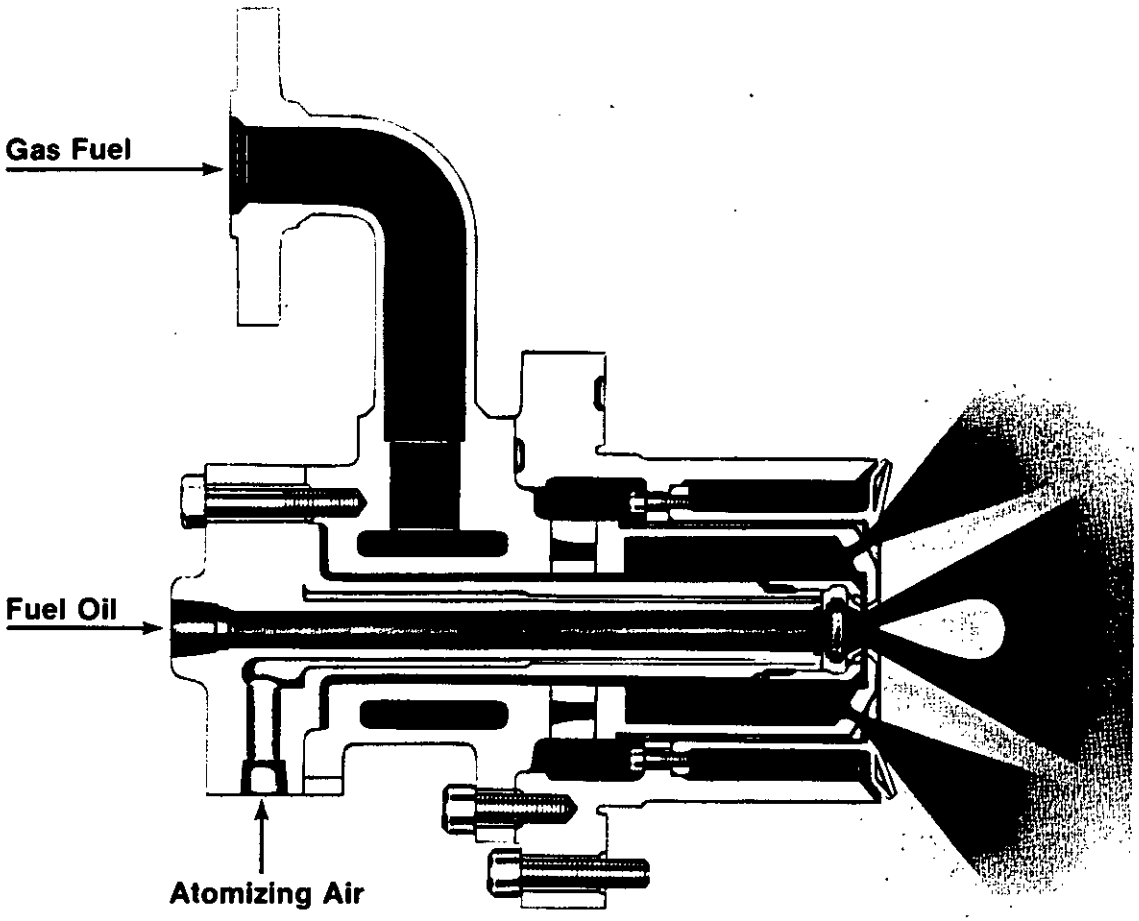


WATER INJECTION SYSTEM

WATER INJECTION

166. Strainer
167. Centrifugal Pump
168. Filter
169. Flow Meter
170. Control Valve

171. Isolation Valve
172. Check Valve
173. Water Return Valve
174. Water Return Valve - Pilot Valve Actuator
175. Pressure Switch - 63WI
176. Transducer - Frequency to Current
177. Transducer - Current to Pressure
178. Controller - Type 55AF
179. High Limit Relay
180. Transducer - Current to Pressure


Gas Fuel
Fuel Oil
Atomizing Air

PERMIT ATTACHMENT D

PREVIOUS EPA BACT DETERMINATIONS

BACT/LAER CLEARINGHOUSE REPORT

3.0

SOURCE TYPE/SIZE: Pipeline Pump Station/13,500 hp

NAME/ADDRESS: Alaska Pipeline Service Company, Anckorage, Alaska

DETERMINATION DATA: CONDITIONAL/(FINAL)/PENDING for BACT/LAER on (NEW)/MODIFIED SOURCE
KEY DATES: Application-Recd. _____, Completed _____; Determination-Proposed _____, Final 9/18/79

BY: (Agency) EPA Region X Person Paul Boys Phone _____

AFFECTED FACILITIES	THROUGHPUT CAPACITY	EMISSION RATE* -UNCONTROLLED	EMISSION LIMITS (Basis)**	CONTROL STRATEGY DESCRIPTION Equipment type, etc.	Eff. %
Pump Turbines (2)	13,500 hp each	NOx	0.0150 $(\frac{14.4}{Y})+F^{@}$ (B)	Dry controls	
			% by volume		

SOURCE OPERATION: BATCH/CONTINUOUS: _____ hrs/yr; % by Season _____ (W) _____ (Sp) _____ (Su) _____ (F)

NOTES: Y = manufactures rated heat rate @ peak load -(see subpart GG of NSPS)
F = emission allowance for fuel bound nitrogen

* Specify pollutant (PM, SO_2, NO_x, HC, CO or other) and mass emission rate

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, A = Achieved-in-Practice (AIP)

BACT/LAER CLEARINGHOUSE REPORT

3.0

SOURCE TYPE/SIZE: Power production

NAME/ADDRESS: Puget Power Ferndale, WA

DETERMINATION DATA: CONDITIONAL/(FINAL)/PENDING for BACT/LAER on NEW/(MODIFIED) SOURCE
KEY DATES: Application-Recd. _____, Completed _____; Determination-Proposed _____, Final 9/7/79

BY: (Agency) EPA Region X Person Paul Boys Phone _____

AFFECTED FACILITIES	THROUGHPUT CAPACITY	EMISSION RATE* -UNCONTROLLED	EMISSION LIMITS (Basis)**	CONTROL STRATEGY DESCRIPTION Equipment type, etc.	Eff. %
Gasturbines	2 074.8MM*	NOx	75 ppm (B)	waterinjection	
		SO_2	150 ppm @15% 02 (B)	0.870 S maxin fuel	
		PM	10% opacity (B)	limited fuel ash content	

SOURCE OPERATION: BATCH/CONTINUOUS: _____ hrs/yr; % by Season _____ (W) _____ (Sp) _____ (Su) _____ (F)

NOTES: * = baseload

* Specify pollutant (PM, SO_2, NO_x, HC, CO or other) and mass emission rate

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, A = Achieved-in-Practice (AIP)

BACT/LAER CLEARINGHOUSE REPORT

(3.0)

SOURCE TYPE/SIZE: Gas turbine generators/179 MW total

NAME/ADDRESS: Puget Power Frederickson, WA

DETERMINATION DATA: CONDITIONAL/(FINAL)/PENDING for BACT/LAER on (NEW)/MODIFIED SOURCE
KEY DATES: Application-Recd._____, Completed_____; Determination-Proposed_____, Final 6/24/80

BY: (Agency) EPA Region X Person Paul Boys Phone_____

AFFECTED FACILITIES	THROUGHPUT CAPACITY	EMISSION RATE* -UNCONTROLLED	EMISSION LIMITS (Basis)**	CONTROL STRATEGY DESCRIPTION Equipment type, etc.	Eff. %
Combustion	89.5 MW	NOx	75 ppm@15% O2 (B)	Water injection	
Turbines (2)	(each - peak)	SO_2	150 ppm@15% O2 (N)	Low S fuel	

SOURCE OPERATION: BATCH/CONTINUOUS:_____hrs/yr; % by Season_____ _____ _____ _____
W Sp Su F

NOTES:

* Specify pollutant (PM, SO_2, NO_x, HC, CO or other) and mass emission rate

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, A = Achieved-in-Practice (AIP)

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: Approximately 513 MW Combined Cycle Electric Generation Facility

NAME/ADDRESS: Stony Brook Energy Center, Mass Municipal Wholesale Electric Co., Ludlow, Massachusetts

DETERMINATION IS: CONDITIONAL/FINAL/~~PENDING~~; ISSUED on _____ (date), BASIS* of BACT[1]/LAER/BAC

for NEW/MODIFIED SOURCE

BY U.S. EPA - Region I (Agency) Linda Murphy FTS 223-4448 (Person) (Phon

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY (Weight Rate)	POLLUTANT(s) EMITTED	EMISSION LIMIT(s) and (basis for)**	CONTROL STRATEGY DESCRIPT Equipment Type, Etc.	Ef
Gas Turbines	2 simple cycles @	SO_2		- 0.30% S #2 fuel oil * B	
	85 MW each	Particulates	- 0.040 lbs/MM Btu * S		
	3 combined cycle	NO_x	- 0.0075% by volume @15%O.		
	@ 85 MW each		on a dry basis * N		
Steam Turbine	approx. 100 MW				

NOTES:

* Circle one. BACT[1] means a determination made under pre-1977 amendments; BACT[2] means post-1977 amendments to CAA.

** Basis symbols: Use B=BACT, N=NSPS, S=SIP, L=LAER

PREVENTION OF SIGNIFICANT DETERIORATION (PSD) REPORT FOR THE PROPOSED COMBUSTION TURBINE AT KISSIMMEE UTILITIES, OSCEOLA COUNTY, FLORIDA

1.0 INTRODUCTION

Kissimmee Utilities (KU) currently operates 12 diesel generating units with a total output rated at 26.8 megawatts (MW). The proposed plant is a combined cycle combustion turbine/steam generator, with a total net generating capacity of 46.5 MW and a gross generating capacity of 49.9 MW. The turbine will be fired with natural gas; No. 2 fuel oil will be used as a standby fuel. The proposed source will be a major modification for particulate matter (PM), sulfur dioxide (SO_2), nitrogen oxides (NO_x), hydrocarbons (HC), and carbon monoxide (CO) and as such, requires Prevention of Significant Deterioration (PSD) review.

Components of the federal PSD review are:

1. Control Technology Review,
2. Source Impact Analysis,
3. Air Quality Analysis,
4. Source Information, and
5. Additional Impact Analysis.

Components 1 and 4, the control technology review and source information, are contained in the accompanying construction permit application. No air quality analysis (preconstruction monitoring) is required since impacts of all pollutants are below federal de minimis levels, as documented in Section 2.3. Representative air quality data have not been collected in the vicinity of the site, so appropriate background concentrations were assumed as recommended in Ambient Monitoring Guidelines for Prevention of Significant Deterioration, EPA-450/2-78-019, May 1978. The remaining components are discussed in this PSD report.

2.0 SOURCE IMPACT ANALYSIS

2.1 EMISSIONS INVENTORY

Permitted point sources within 50 kilometers (km) of KU are listed in Table 1. The basis for this inventory was the 1980 edition of the Florida Air Permit Inventory System. SO_2 and PM emissions from Florida Power Corporation (FPC) Intercession City, St. Cloud Utilities, and the existing KU diesels were estimated from emission factors published in AP-42 (Tables 3.3.3-1, 3.3.2-1, and 3.3.1-2).

Short-term impacts were projected using listed emissions from all sources within 15 km and estimated emissions from the St. Cloud and FPC sources. Annual average impacts were projected using all sources within 15 km and all sources within 50 km with emissions greater than 40 tons per year of SO_2, 25 tons per year of PM, or 40 tons per year of NO_x.

2.2 DISPERSION MODELING AND METEOROLOGY

Critical meteorology and general location of highest, second-highest impacts were determined by 5-year CRSTER runs. Refined analyses including local source contribution and possible interactions were carried out with the ISCST model. Annual average concentrations were predicted with the ISCLT model.

Meteorological data input to the model consisted of hourly surface observations from Orlando International Airport combined with upper air observations from Tampa International Airport. Data collected during the 5-year period (1974-1978) were used.

The existing structure housing the diesels at KU is 38 feet high. The new stack will not be within the area of influence of this or any other structure with potential to cause downwash conditions.

Initial modeling showed that the critical meteorology and impact area were determined by existing diesel emissions. The 3-hour SO_2 impact was

less than 30 percent of the Ambient Air Quality Standard (AAQS) of 1,300 micrograms per cubic meter (ug/m^3), so no refinements were made for this averaging time. Since both SO_2 and PM emissions from the diesels were directly proportional to the fuel rate, refined modeling for these emissions was carried out at the same point; no separate 5-year total suspended particulate (TSP) run was made.

Estimated PM emissions from St. Cloud Utilities and FPC Intercession City were less than SO_2 emissions from the same sources. Since the SO_2 interaction analysis indicated the maximum SO_2 contribution from these sources in the area of influence of KU was only 4 ug/m^3 and occurred in a noncritical direction, no TSP interaction modeling was performed.

CO, beryllium (Be), and mercury (Hg) impacts of the new source were estimated by comparing emission rates (Table 2) and adjusting SO_2 concentrations by the appropriate ratios.

Long-term NO_x concentrations were determined by assuming that the existing diesels are fired continuously with fuel oil and are in operation 5,260 hours per year.

2.3 AIR QUALITY IMPACTS

Table 2 shows the predicted highest, second-highest short-term and annual impacts that will result from KU and surrounding source emissions. Table 3 shows the effects of plume interaction with nearby major sources.

No violations of state or federal AAQS (Table 4) are predicted. Impacts due to the new source alone are below federal de minimis levels for all pollutants (Table 5), thus exempting the source from preconstruction monitoring.

Impacts for all pollutants except SO_2 are below significance levels; when burning natural gas, SO_2 impacts will also be below significance

levels. No TSP or SO_2 nonattainment areas are located within 100 km; no impacts on nonattainment areas are predicted.

2.4 INCREMENTAL IMPACTS

Table 2 shows that all impacts due to the new source alone are below federal Class II increments (Table 6). The only other permitted increment-consuming sources in the vicinity are Stokely Van Camp and C.W. Bailey. Since no emissions were listed for these sources and the new source impacts are less than 20 percent of the allowable increment, no further incremental analysis was performed.

The KU site is 125 km from the nearest Class I area, the Chassahowitzka National Wildlife Refuge; no impact on this area is predicted.

3.0 ADDITIONAL IMPACTS ON SOILS, VEGETATION, AND VISIBILITY

3.1 IMPACTS ON SOILS AND VEGETATION

Vegetation in the Kissimmee area is comprised of slash pine, saw palmetto, and wire grass. Improved pasture with bahia and carpet grass are also found. Soils are generally of the Leon-Plummer-Rutledge classification--thick acid sands, poorly drained due to a prevalent organic hardpan.

The projected highest, second-highest 3-hour SO_2 concentration of 392 ug/m^3 and annual mean concentration of 40 ug/m^3 (see Table 2) are below levels generally reported for damage to sensitive plant species. European studies by Heck and Brandt (1977) have found 1/2-hour levels of 3,406 ug/m^3 and long-term means of 393 ug/m^3 to approximate threshold levels for several species. According to studies by Heck and Brandt (1977), alfalfa, commonly thought to be one of the most SO_2-sensitive species, has a 2-hour threshold level of at least 2,620 ug/m^2 and an 8-hour threshold of 655 ug/m^2.

According to Jacobson & Hill (1970), PM is generally considered to have a relatively unimportant effect on vegetation. TSP impacts from the new source are predicted to be less than 1 ug/m^3, 24-hour average.

Plant species classified as "sensitive" to NO_2, such as pinto bean, cucumber, lettuce, and tomato, displayed injury when exposed to NO_2 levels of 3,760 to 4,960 ug/m^3 for a 2-hour period. Extremely resistant species, such as heath, were unaffected by an exposure of 1,900,000 ug/m^3 for 1 hour. Blue grass, orange tree plants, and rye are all classified as "intermediate" in resistance to NO_2 injury.

Jacobson and Hill (1970) found that NO_x concentration is more important to plant injury than the duration of exposure. NO_x impacts of the new source are predicted to be below 1 ug/m^3, annual average.

Based on these experimental results, the effects of SO_2, NO_2, and PM emissions upon soils and vegetation are expected to be negligible.

3.2 VISIBILITY IMPACTS

The proposed source is not expected to have any significant impact on visibility in the immediate area. A Level I visibility screening analysis confirmed that no visibility impairment should occur in any Class I area. The absolute values of the three Level I contrast parameters (C1--plume contrast against the sky; C2--plume contrast against terrain; and C3--change in the sky/terrain contrast caused by primary and secondary aerosol) were well below 0.1, indicating that it is highly unlikely that the emissions source would cause adverse visibility impacts in Class I areas. Further analysis of potential visibility impacts was therefore unnecessary (EPA, 1980).

Table 1. Permitted Point Sources by County

Plant	Points	Plant Name	UTM Coordinates E	UTM Coordinates N	Total Plant Emissions (tons per year) PM	SO_2	NO_x
		Osceola County					
01	04-08, 11-15	City of Kissimmee	460.1	3129.3	--	--	--
02	02, 04-08	City of St. Cloud	471.8	3124.9	--	--	--
03	01	Concrete Materials	473.7	3124.9	--	--	--
04	01	Concrete Materials	460.6	3129.8	--	--	--
05	01	Florida Dept. of Agriculture	458.7	3133.4	--	--	--
06	01	Kissimmee Community Hospital	459.9	3130.3	--	--	--
07	01	Stokely Van Camp	451.1	3125.8	--	--	--
08	01	Castcrete Corp.	460.1	3133.8	--	--	--
09	01	Rinker Materials	459.9	3130.1	--	--	--
10	02-03	St. Cloud Hospital	470.3	3124.1	--	--	--
11	01	C. W. Bailey	470.8	3133.8	--	--	--
14	01-10	Florida Power Corp.	446.3	3126.0	--	--	--
26	01	Transgulf Pipeline	462.0	3135.0	--	--	--
		Orange County					
02	01	Basic Asphalt	455.9	3166.8	23	--	3
03	01-02	Bordens Dairy	460.6	3155.8	2	--	--
04	01	Buchanan	462.4	3155.1	6	--	--
06	01-04	Coca Cola	445.9	3173.6	10	13	1
08	01	V.A.	462.8	3155.6	--	--	--
09	01	Goodyear Recap	462.4	3154.4	--	--	--
10	01	Jensen's Furniture	464.0	3157.3	--	--	--
11	01-04	Florida Minerals & Materials	462.0	3149.0	44	--	--

Table 1. Permitted Point Sources by County (Continued, Page 2 of 6)

Plant	Points	Plant Name	UTM Coordinates E	UTM Coordinates N	Total Plant Emissions (tons per year) PM	SO_2	NO_x
		Orange County (Continued)					
12	01, 02	Florida Minerals & Materials	444.5	3160	32	--	--
13	01, 02	Florida Minerals & Materials	470.7	3163.8	22	--	--
14	01	Florida Power Corp.	475.2	3156.8	1	31	9
15	01	University of Central Florida	480.5	3163.4	1	--	--
16	01	Kane Furniture	456.2	3158.2	1	--	--
17	01	Winter Park Memorial	467.9	3163.3	6	--	1
18	01	B. R. Tire Company	462.8	3154.3	--	--	--
19	01, 02	Houdaille	461.9	3141.9	1	--	--
20	01	Inland Materials	459.9	3160.9	26	--	--
21	01	Orlando Paving	453.8	3160.7	36	--	8
22	01	Quality Vaults	446.9	3158.8	1	--	--
23	01	Kissimmee Rock Industry	461.3	3157.9	43	--	--
24	01-03	Florida Rock Industry	459.2	3174.2	129	--	--
25	01, 02	Rinker Materials	458.3	3165	90	--	--
26	02-04	Martin Marietta	454.9	3146.5	2	--	7
27	01, 02	Lone Star	462.6	3154.2	44	--	--
28	01	Mercy Hospital	457.8	3159.7	1	--	12
29	01-06	GE Lamp	444.8	3174	1	--	1
30	01	Orlando Humane Society	457.5	3158.3	1	--	--
31	01	Orlando Paving Company	465.3	3145.9	42	10	8
32	01, 02	Owens Illinois	460.7	3142	52	--	--

Table 1. Permitted Point Sources by County (Continued, Page 3 of 6)

Plant	Points	Plant Name	UTM Coordinates E	UTM Coordinates N	Total Plant Emissions (tons per year) PM	SO_2	NO_x
		Orange County (Continued)					
33	01-06	Orlando Utilities	463.3	3159	187	5,196	151
36	01	Rinker Materials	470.7	3163.9	40	--	--
37	01, 02	Rinker Materials	462.5	3154.3	92	--	--
38	02-06	Rinker Materials	450.6	3145.5	209	--	62
39	01, 03-04	Southern Fruit	462.9	3153.3	61	32	--
40	01-04	Southern Gold	458.7	3161.3	50	2	16
41	01	Dixie Asphalt	463.2	3143.0	50	9	20
42	01	Plymouth Citrus	455.2	3174.0	1	3	1
43	01-04	Aircraft Service	469	3146.2	--	--	--
44	01, 02	Boise Cascade Can Co.	460.7	3142.4	--	--	4
45	01-14	Martin Marietta Corp.	454.5	3146.2	15	1	--
46	01-08, 10-13, 16-18, 20-21	Martin Marietta Corp.	454.5	3146.2	51	--	--
47	01, 02	Martin Marietta Aerospace	455.2	3146.2	--	--	--
50	01-05	Carns Concrete Pipe	454.6	3167.8	69	--	--
53	01-03, 06, 08-14	Winter Garden Citrus	443.8	3159.6	303	39	68
54	01	City Chemicals Company	470.7	3163.9	1	--	--
56	01-06	Gould Battery	460.4	3142.3	14	--	--
58	01-03	Al Block Company	462.5	3155.0	141	--	1
59	01, 02	Medusa Cement Company	462.6	3154.7	69	--	--
60	01-08	Ashland Chemical Co.	460.4	3147.9	--	--	--
61	01-08	City of Orlando	456.3	3152.7	64	8	112
63	01, 02	Florida Hospital	463.8	3160.7	23	--	49

Table 1. Permitted Point Sources by County (Continued, Page 4 of 6)

Plant	Points	Plant Name	UTM Coordinates E	UTM Coordinates N	Total Plant Emissions (tons per year) PM	SO_2	NO_x
		Orange County (Continued)					
65	01	Lucerne General Hospital	463.1	3153	--	--	--
66	01	West Orange Hospital	443.1	3160.0	3	1	1
67	01	Orlando Regional	463.1	3155.3	4	--	7
69	01-07, 11-13	Central Florida Pipeline	463.8	3143.8	--	--	--
70	01	Aaron Scrap Metals	454.8	3167.1	1	--	--
71	01-05	Florida Rock Industry	463.0	3145.5	119	--	4
74	01-03, 05	Citrus Central Metals	445.6	3173.8	9	--	--
77	01	Macasphalt Corporation	450.6	3145.4	4	1	--
78	01, 02	Frito Lay	459.1	3161	14	--	6
79	01-06	Naval Training Center	467.8	3160	10	--	6
80	01	Harry L. Hanes	463.8	3162.4	1	--	--
		Polk County					
01	05	Alcoma Packing	451.6	3085.5	65	--	--
07	01-03	Owens Illinois	423.4	3102.8	93	--	--
14	01-04	Standard Sand Silica	441.5	3118.2	125	240	--
17	01-05	Swift Agrichem	427.9	3097.4	114	--	--
22	01, 02	Owens Illinois	423.4	3102.8	11	--	3
23	01-03	Coca Cola	421.3	3103.6	123	--	72
29	01	Hunt Brothers	445.3	3083	--	2	1

Table 1. Permitted Point Sources by County (Continued, Page 5 of 6)

Plant	Points	Plant Name	UTM Coordinates E	UTM Coordinates N	Total Plant Emissions (tons per year) PM	SO_2	NO_x
		Polk County (Continued)					
33	01, 02	Bordo Citrus	438	3109	100	--	--
37	01	Adams Packing	421.7	3104.2	34	--	--
61	01-05	Holly Hill Fruit	441	3115.4	77	--	--
71	01-03	Uranium Recovery	465	3080	6	--	--
76	01	International Paper	421.7	3104.3	--	--	--
82	01	Macasphalt	423.1	3101.5	49	--	--
88	01	Morris Canning	428.1	3103.4	--	--	--
90	03	Florida Distillers	428	3108.1	--	--	--
96	01, 02	Jacquin Florida Dist.	421.4	3102.9	--	--	--
103	01	Kandors Thriftway	428.1	3100.6	--	--	--
105	01	Dundee Citrus	438.8	3099.9	--	--	--
108	01, 02	Concrete Materials	439.4	3109.4	--	--	--
113	02, 03	Gall Silica Mining	450.2	3085.4	--	--	--
115	01	Phoenix Industry	428	3096	--	--	--
122	01	Monier Resources	423.5	3104.6	--	--	--
124	01	Duncan Browning	422.8	3104.7	--	--	--
		Seminole County					
01	01	Sunrise Materials	469.8	3177.8	4	--	--
02	01-04	Central Florida Drum	474.7	3173.4	13	4	3
04	01, 02	Inland Materials	466	3172.1	33	--	--
05	01	Kissam Concrete	465.1	3170.4	38	--	--

Table 1. Permitted Point Sources by County (Continued, Page 6 of 6)

Plant	Points	Plant Name	UTM Coordinates E	UTM Coordinates N	Total Plant Emissions (tons per year) PM	SO_2	NO_x
		Seminole County (Continued)					
06	01-03	Coca Cola	459.4	3170.5	52	4	26
07	01	L.D Plante Inc.	474.5	3176.2	4	34	12
08	01	Lone Star	465.8	3172	18	--	--
19	01	Macasphalt Corp.	470.2	3175.8	8	13	3
		Lake County					
11	01-03	Clermont Builders	424.4	3159	33	--	--
13	01	S. Lake Memorial Hospital	424.9	3158.6	--	--	--
31	01	Tower Chemical Co.	433	3158.2	1	--	--

NOTE: Blanks indicate no allowable or actual emissions listed in APIS 1980.

Source: ESE, 1981.
APIS, 1980.

Table 2. Air Quality Impacts (ug/m^3)*

	SO_2			TSP		NO_x	CO	Hg and Be
	24-hour	3-hour	Annual	24-hour	Annual	Annual	3-hour	24-hour
All Sources	135	372	20	81	12	69	—	—
Plus Background	20	20	20	40	40	20	—	—
	155	392	40	121	52	89	—	—
Day (period)/year	325/78	278(5)/77	—	—	—	—	—	—
Direction (degrees)/ distance (m)	180/500	240/300	—	—	—	—	—	—
New Source	10	44	<1	<1†	<1†	<1†	1.4	<0.0005
Day (period)/year	279/74	103(4)/78	—	—	—	—	—	—
Direction (degrees)/ distance (m)	180/4,000	360/2,000	—	—	—	—	—	—

* Highest, second-highest for 24-hour and 3-hour averaging times.
† Calculated as ratio from SO_2 runs.

Source: ESE, 1981.

Table 3. Source Interactions

Interacting Source	Direction (deg.)	Day/Year	SO_2 Concentration (ug/m^3)	
			KU Only	KU with Interaction
City of St. Cloud	290	113/78	72	76
FPC Intercession City	75	158/75	69	69

Source: ESE, 1981.

Table 4. National and State of Florida AAQS

Pollutant	Averaging Time	National Primary Standard	National Secondary Standard	Florida
Suspended PM	Annual Geometric Mean	75 ug/m^3	60 ug/m^3	60 ug/m^3
	24-Hour Maximum*	260 ug/m^3	150 ug/m^3	150 ug/m^3
SO_2	Annual Arithmetic Mean	80 ug/m^3	NA†	60 ug/m^3
	24-Hour Maximum*	365 ug/m^3	NA†	260 ug/m^3
	3-Hour Maximum*	NA†	1,300 ug/m^3	1,300 ug/m^3
CO	8-Hour Maximum*	10 mg/m^3	10 mg/m^3	10 mg/m^3
	1-Hour Maximum*	40 mg/m^3	40 mg/m^3	40 mg/m^3
HC	3-Hour Maximum* (6 to 9 A.M.)	160 ug/m^3	160 ug/m^3	160 ug/m^3
NO_2	Annual Arithmetic Mean	100 ug/m^3	100 ug/m^3	100 ug/m^3
Ozone	1-Hour Maximum*	235 ug/m^3	235 ug/m^3	160 ug/m^3
Lead	Calendar Quarter Arithmetic Mean	1.5 ug/m^3	1.5 ug/m^3	NA†

* Maximum concentration not to be exceeded more than once per year.
† No standard exists.

Sources: 40 CFR Part 50, 1980.
FAC Chapter 17-2.

Table 5. Significant Emission Rates and De Minimis Air Quality Impact Levels

Pollutant	De Minimis Emission Rate (Tons per year)	De Minimis Air Quality Impact Level (For Use In Determining Monitoring) (ug/m^3)
CO	100	575, 8-hour average
NO_2	40	14, annual
Total Suspended Particulates	25	10, 24-hour
SO_2	40	13, 24-hour
Ozone* (volatile organic compounds)	40	
Lead	0.6	0.1, 3-month
Hg	0.1	0.25, 24-hour
Be	0.0004	0.0005, 24-hour
Asbestos†	0.007	
Fluorides	3	0.25, 24-hour
Sulfuric Acid Mist†	7	
Vinyl Chloride	1	15, maximum value
Total Reduced Sulfur	10	10, 1-hour
Hydrogen Sulfide	10	0.04, 1-hour
Reduced Sulfur Compounds	10	10, 1-hour
Inorganic Arsenic†	0	
Radionuclides†	0	
Benzene†	0	
Ethylene Dichloride†	0	
Polyvinyl Chloride†	0	

* A de minimis air quality level is not given for ozone. However, a plant which is subject to PSD review and has a net increase of 100 tons per year of volatile organic compounds would be required to perform an ambient air quality analysis.

† No measurement method or de minimis air quality impact level has been established.

Source: Federal Register, Vol. 45, No. 154, 1980.

Table 6. Federal and State of Florida PSD Allowable Increments (ug/m^3)

Pollutant/Averaging Time	Class I	Class II	Class III
PM			
Annual Geometric Mean	5	19	37
24-Hour Maximum*	10	37	75
SO_2			
Annual Arithmetic Mean	2	20	40
24-Hour Maximum*	5	91	182
3-Hour Maximum*	25	512	700

* Maximum concentration not to be exceeded more than once per year.

Sources: Public Law 95-95, Clean Air Act Amendments of 1977.
Federal Register, Vol. 43, No. 118, June 19, 1978.

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U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. 1980. Workbook for Estimating Visibility Impairment. RTP No. 27711. July 1980.

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APPENDICES TO

PREVENTION OF SIGNIFICANT DETERIORATION (PSD) REPORT

FOR THE PROPOSED COMBUSTION TURBINE

AT KISSIMMEE UTILITIES, OSCEOLA COUNTY FLORIDA

APPENDICES TO

PREVENTION OF SIGNIFICANT DETERIORATION (PSD) REPORT

FOR THE PROPOSED COMBUSTION TURBINE

AT KISSIMMEE UTILITIES, OSCEOLA COUNTY, FLORIDA

NEW SOURCE ONLY

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PLANT NAME: KISS. UTILITIES              POLLUTANT:    SO2      AIR QUALITY UNITS: GM/M**3
ORLANDO/TAMPA MET DATA
    E.R. 48.9 - H 9.14
             MET FILE       REQUESTED
            STN NO. YR    STN NO. YR
 SURFACE      12815  74     12815  74
 UPPER AIR    12842  74     12842  74
PLANT LOCATION: RURAL
ANEMOMETER HEIGHT IS  7.0 METERS
WIND PROFILE EXPONENTS ARE:    0.100,  0.150,  0.200,  0.250,  0.300,  0.300,
NO TAPE OUTPUT
MET DATA WILL NOT BE PRINTED

DAY-- 1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
      1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
      1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
      1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
      1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
      1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
      1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
      1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1

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         ALL TABLES, INCLUDING SOURCE CONTRIBUTION, THAT CONTAIN "ANNUAL" IN THE HEADING ARE BASED

         ONLY ON THOSE DAYS MARKED BY A "1" IN THE ABOVE TABLE
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RING DISTANCES(KM)= 0.50 1.00 1.50 2.00 2.50

STACK # 1--UNIT 1

STACK	MONTH	EMISSION RATE (GMS/SEC)	HEIGHT (METERS)	DIAMETER (METERS)	EXIT VELOCITY (M/SEC)	TEMP (DEG.K)	VOLUMETRIC FLOW (M**3/SEC)
1	ALL	48.9000	9.14	2.44	38.03	422.00	177.83

9

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
MAXIMUM MEAN CONC= 5.0967E-07 DIRECTION= 23 DISTANCE= 2.5 KM
YEAR= 74

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 0.5 KM	1.0 KM	1.5 KM	2.0 KM	2.5 KM
1	2.84368E-09	1.59018E-07	3.34371E-07	4.11159E-07	4.26982E-07
2	3.57846E-09	1.59577E-07	2.97251E-07	3.51085E-07	3.55914E-07
3	2.91020E-09	1.29261E-07	2.32907E-07	2.78502E-07	2.87267E-07
4	3.15005E-09	1.35838E-07	2.41694E-07	2.90414E-07	3.03120E-07
5	5.19749E-09	1.67443E-07	2.85680E-07	3.31487E-07	3.39523E-07
6	4.85075E-09	1.64990E-07	2.76924E-07	3.26314E-07	3.42714E-07
7	3.74400E-09	1.62117E-07	2.68555E-07	3.13953E-07	3.24947E-07
8	3.38412E-09	1.52095E-07	2.42468E-07	2.80831E-07	2.89958E-07
9	4.03271E-09	1.24413E-07	2.04427E-07	2.49376E-07	2.69610E-07
10	5.29352E-09	1.17983E-07	2.01997E-07	2.44560E-07	2.60890E-07
11	7.99045E-09	1.42110E-07	2.38511E-07	2.84362E-07	3.01671E-07
12	8.50632E-09	1.67345E-07	2.73448E-07	3.23243E-07	3.40971E-07
13	5.84270E-09	1.57472E-07	2.60073E-07	3.06026E-07	3.20914E-07
14	3.57574E-09	1.42851E-07	2.79010E-07	3.42252E-07	3.60709E-07
15	1.96719E-09	1.06861E-07	2.12402E-07	2.63141E-07	2.82016E-07
16	1.03693E-09	1.07574E-07	2.19102E-07	2.67825E-07	2.82798E-07
17	6.41573E-10	1.28754E-07	2.63316E-07	3.28600E-07	3.58005E-07
18	8.29210E-10	1.50305E-07	3.25922E-07	4.36041E-07	5.05749E-07
19	1.39868E-09	1.29113E-07	2.42314E-07	2.93480E-07	3.16358E-07
20	3.15491E-09	1.38188E-07	2.72681E-07	3.55303E-07	4.04619E-07
21	3.81801E-09	1.58984E-07	3.06348E-07	3.77960E-07	4.04288E-07
22	5.58387E-09	1.88254E-07	3.66772E-07	4.54620E-07	4.90625E-07
23	6.59359E-09	1.85838E-07	3.75974E-07	4.70937E-07	5.09667E-07
24	4.88433E-09	1.59589E-07	3.36766E-07	4.26898E-07	4.60844E-07
25	2.72423E-09	1.43175E-07	3.04689E-07	3.92122E-07	4.28806E-07
26	3.21332E-09	1.81785E-07	3.25213E-07	3.79937E-07	3.94146E-07
27	3.85841E-09	1.96229E-07	3.55181E-07	4.25147E-07	4.48371E-07
28	3.49072E-09	1.69745E-07	3.07955E-07	3.73941E-07	4.00112E-07
29	3.88591E-09	1.51870E-07	2.79463E-07	3.39694E-07	3.67138E-07
30	6.66249E-09	1.59146E-07	3.03675E-07	3.75904E-07	4.09983E-07
31	9.42705E-09	1.71373E-07	3.15951E-07	3.80096E-07	4.02877E-07
32	1.36237E-08	2.09573E-07	3.44330E-07	3.83174E-07	3.88192E-07
33	8.94711E-09	1.98916E-07	3.34102E-07	3.64340E-07	3.59516E-07
34	4.44734E-09	1.66778E-07	3.25190E-07	3.99348E-07	4.30064E-07
35	3.37589E-09	1.59378E-07	3.19772E-07	3.81541E-07	3.95132E-07
36	2.60382E-09	1.65070E-07	3.70406E-07	4.67142E-07	5.00561E-07

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
MAXIMUM MEAN CONC= 6.5267E-07 DIRECTION= 18 DISTANCE= 5.0 KM
YEAR= 74

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 3.0 KM	3.5 KM	4.0 KM	4.5 KM	5.0 KM
1	4.21042E-07	4.07019E-07	3.92594E-07	3.77320E-07	3.63597E-07
2	3.45199E-07	3.30619E-07	3.17818E-07	3.05875E-07	2.95956E-07
3	2.84463E-07	2.78447E-07	2.73168E-07	2.67200E-07	2.62197E-07
4	3.03053E-07	2.97760E-07	2.92506E-07	2.86456E-07	2.81171E-07
5	3.34724E-07	3.24506E-07	3.13952E-07	3.02597E-07	2.92136E-07
6	3.47592E-07	3.46870E-07	3.45009E-07	3.40376E-07	3.35691E-07
7	3.23464E-07	3.16771E-07	3.09275E-07	2.99956E-07	2.91291E-07
8	2.89921E-07	2.86450E-07	2.82949E-07	2.77766E-07	2.72985E-07
9	2.81017E-07	2.87534E-07	2.92084E-07	2.92540E-07	2.91871E-07
10	2.67392E-07	2.68087E-07	2.66941E-07	2.63216E-07	2.58910E-07
11	3.09200E-07	3.11532E-07	3.12085E-07	3.09003E-07	3.05502E-07
12	3.46341E-07	3.44963E-07	3.41712E-07	3.35787E-07	3.30065E-07
13	3.22978E-07	3.17843E-07	3.10309E-07	3.00364E-07	2.90461E-07
14	3.60780E-07	3.52491E-07	3.42102E-07	3.29604E-07	3.17325E-07
15	2.86542E-07	2.83706E-07	2.78317E-07	2.70578E-07	2.62580E-07
16	2.83703E-07	2.78397E-07	2.71693E-07	2.63458E-07	2.55971E-07
17	3.71481E-07	3.76206E-07	3.77617E-07	3.74242E-07	3.70112E-07
18	5.55378E-07	5.90540E-07	6.19288E-07	6.37523E-07	6.52673E-07
19	3.27601E-07	3.32362E-07	3.35344E-07	3.34938E-07	3.34284E-07
20	4.39828E-07	4.65446E-07	4.86998E-07	5.00538E-07	5.11847E-07
21	4.15324E-07	4.20035E-07	4.24371E-07	4.25493E-07	4.26890E-07
22	5.08244E-07	5.16978E-07	5.24104E-07	5.25849E-07	5.27215E-07
23	5.27429E-07	5.34722E-07	5.39666E-07	5.39411E-07	5.38748E-07
24	4.73316E-07	4.76098E-07	4.76925E-07	4.73982E-07	4.71435E-07
25	4.46122E-07	4.54659E-07	4.61344E-07	4.63675E-07	4.66035E-07
26	3.99257E-07	4.02593E-07	4.07712E-07	4.10341E-07	4.13807E-07
27	4.54257E-07	4.52151E-07	4.48536E-07	4.41909E-07	4.36065E-07
28	4.10041E-07	4.10976E-07	4.08939E-07	4.02797E-07	3.96176E-07
29	3.81479E-07	3.87103E-07	3.89123E-07	3.86237E-07	3.82246E-07
30	4.27554E-07	4.34790E-07	4.38458E-07	4.37803E-07	4.36863E-07
31	4.09763E-07	4.08980E-07	4.06456E-07	4.00488E-07	3.94600E-07
32	3.84742E-07	3.78754E-07	3.74134E-07	3.68223E-07	3.63620E-07
33	3.47647E-07	3.35187E-07	3.25439E-07	3.16122E-07	3.08719E-07
34	4.42670E-07	4.44574E-07	4.43660E-07	4.38786E-07	4.33559E-07
35	3.94349E-07	3.88223E-07	3.82304E-07	3.74665E-07	3.67330E-07
36	5.12572E-07	5.14903E-07	5.15330E-07	5.11651E-07	5.07774E-07

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
MAXIMUM MEAN CONC= 6.8753E-07 DIRECTION= 36 DISTANCE= 2.5 KM
YEAR= 75

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

DIR \ RANGE	0.5 KM	1.0 KM	1.5 KM	2.0 KM	2.5 KM
1	6.46801E-09	2.47578E-07	4.59801E-07	5.33091E-07	5.33952E-07
2	6.46993E-09	2.00286E-07	3.76967E-07	4.42400E-07	4.44933E-07
3	5.94187E-09	1.65679E-07	3.14478E-07	3.67066E-07	3.65161E-07
4	5.19371E-09	1.82852E-07	3.34047E-07	3.91192E-07	3.97280E-07
5	5.40605E-09	2.10165E-07	3.63943E-07	4.28132E-07	4.42409E-07
6	4.66709E-09	1.67614E-07	2.81801E-07	3.29953E-07	3.42073E-07
7	7.47060E-09	1.58737E-07	2.78085E-07	3.29027E-07	3.44245E-07
8	1.08951E-08	1.24538E-07	2.33945E-07	2.84613E-07	2.98979E-07
9	8.09841E-09	9.72680E-08	1.90671E-07	2.46779E-07	2.74428E-07
10	4.17990E-09	1.13471E-07	2.14890E-07	2.57919E-07	2.67920E-07
11	3.17444E-09	1.62905E-07	3.14331E-07	3.79466E-07	4.00468E-07
12	3.87107E-09	1.89242E-07	3.61167E-07	4.41969E-07	4.66443E-07
13	4.12364E-09	1.88538E-07	3.60346E-07	4.43721E-07	4.70176E-07
14	3.12729E-09	1.68137E-07	3.23615E-07	3.90276E-07	4.05933E-07
15	2.34039E-09	1.21972E-07	2.27599E-07	2.75511E-07	2.92926E-07
16	1.83318E-09	1.10931E-07	2.26410E-07	2.91134E-07	3.22873E-07
17	1.64780E-09	1.16904E-07	2.29480E-07	2.85752E-07	3.13616E-07
18	1.39128E-09	1.12679E-07	2.37063E-07	3.19004E-07	3.77667E-07
19	1.19400E-09	8.51304E-08	1.80388E-07	2.37278E-07	2.69953E-07
20	1.34851E-09	8.98986E-08	2.08611E-07	2.83704E-07	3.27782E-07
21	1.74495E-09	1.21003E-07	2.73326E-07	3.58441E-07	3.97674E-07
22	2.60094E-09	1.54847E-07	3.28457E-07	4.15615E-07	4.54813E-07
23	3.33454E-09	1.93597E-07	4.24721E-07	5.46108E-07	6.00977E-07
24	3.76268E-09	2.05968E-07	4.20028E-07	5.10862E-07	5.39582E-07
25	3.47328E-09	1.62231E-07	3.05710E-07	3.72261E-07	4.03125E-07
26	3.81215E-09	1.46581E-07	2.80079E-07	3.49597E-07	3.73664E-07
27	4.28147E-09	1.92983E-07	3.84578E-07	4.90441E-07	5.40979E-07
28	3.43814E-09	1.93077E-07	3.67690E-07	4.36519E-07	4.52578E-07
29	2.42773E-09	1.71416E-07	3.33298E-07	3.93072E-07	4.03898E-07
30	2.22863E-09	1.80322E-07	3.68542E-07	4.58831E-07	5.00342E-07
31	2.94562E-09	1.75812E-07	3.29466E-07	3.88903E-07	4.00237E-07
32	3.89520E-09	1.74943E-07	3.10024E-07	3.67475E-07	3.88774E-07
33	6.24315E-09	2.31592E-07	4.11300E-07	4.82245E-07	4.99258E-07
34	8.31010E-09	2.62580E-07	4.87060E-07	5.79823E-07	6.00832E-07
35	6.87683E-09	2.40331E-07	4.22532E-07	4.91216E-07	5.06163E-07
36	5.72319E-09	2.73287E-07	5.30210E-07	6.48296E-07	6.87530E-07

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
MAXIMUM MEAN CONC= 6.9604E-07 DIRECTION= 36 DISTANCE= 3.0 KM
YEAR= 75

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

DIR \ RANGE	3.0 KM	3.5 KM	4.0 KM	4.5 KM	5.0 KM
1	5.12388E-07	4.84915E-07	4.59952E-07	4.36619E-07	4.16706E-07
2	4.27819E-07	4.06330E-07	3.87422E-07	3.69528E-07	3.54491E-07
3	3.45695E-07	3.22127E-07	3.00557E-07	2.80912E-07	2.64303E-07
4	3.88067E-07	3.74310E-07	3.61398E-07	3.47928E-07	3.36038E-07
5	4.39552E-07	4.28969E-07	4.16831E-07	4.02227E-07	3.88002E-07
6	3.42231E-07	3.37636E-07	3.32524E-07	3.25121E-07	3.18178E-07
7	3.46532E-07	3.42886E-07	3.37900E-07	3.30152E-07	3.22645E-07
8	2.98748E-07	2.91891E-07	2.83617E-07	2.73800E-07	2.64486E-07
9	2.86831E-07	2.95663E-07	2.99572E-07	2.99038E-07	2.97642E-07
10	2.66389E-07	2.60095E-07	2.53449E-07	2.45706E-07	2.38718E-07
11	4.07040E-07	4.06077E-07	4.03780E-07	3.98409E-07	3.92940E-07
12	4.67884E-07	4.57409E-07	4.43873E-07	4.27732E-07	4.11957E-07
13	4.73282E-07	4.64852E-07	4.53322E-07	4.38270E-07	4.23340E-07
14	4.01127E-07	3.86446E-07	3.69400E-07	3.50723E-07	3.32869E-07
15	2.99191E-07	2.99129E-07	2.96632E-07	2.90577E-07	2.83838E-07
16	3.41687E-07	3.52824E-07	3.60273E-07	3.61494E-07	3.60838E-07
17	3.33280E-07	3.48486E-07	3.61727E-07	3.68730E-07	3.74118E-07
18	4.27246E-07	4.67443E-07	5.01246E-07	5.22754E-07	5.39546E-07
19	2.93464E-07	3.10765E-07	3.25097E-07	3.33219E-07	3.39437E-07
20	3.62380E-07	3.91933E-07	4.20525E-07	4.42690E-07	4.63171E-07
21	4.21540E-07	4.38539E-07	4.54385E-07	4.65024E-07	4.74931E-07
22	4.81819E-07	5.04683E-07	5.27296E-07	5.42203E-07	5.55429E-07
23	6.32755E-07	6.52922E-07	6.69994E-07	6.78833E-07	6.86279E-07
24	5.49220E-07	5.50599E-07	5.51263E-07	5.47815E-07	5.44660E-07
25	4.24443E-07	4.40418E-07	4.55046E-07	4.63468E-07	4.70347E-07
26	3.80981E-07	3.81860E-07	3.82429E-07	3.80365E-07	3.78693E-07
27	5.71030E-07	5.89336E-07	6.02808E-07	6.06978E-07	6.08256E-07
28	4.53311E-07	4.48277E-07	4.43065E-07	4.34981E-07	4.27487E-07
29	4.01985E-07	3.96580E-07	3.92006E-07	3.85123E-07	3.78947E-07
30	5.26289E-07	5.42593E-07	5.55324E-07	5.60153E-07	5.62798E-07
31	3.97954E-07	3.92036E-07	3.87348E-07	3.81173E-07	3.76560E-07
32	4.00601E-07	4.07810E-07	4.13688E-07	4.14135E-07	4.13816E-07
33	4.98293E-07	4.89639E-07	4.80545E-07	4.68461E-07	4.57005E-07
34	5.94795E-07	5.76763E-07	5.57362E-07	5.36409E-07	5.17495E-07
35	5.03119E-07	4.91458E-07	4.78772E-07	4.63799E-07	4.49482E-07
36	6.96041E-07	6.89124E-07	6.78750E-07	6.63046E-07	6.47244E-07

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
MAXIMUM MEAN CONC= 7.0338E-07 DIRECTION= 18 DISTANCE= 2.5 KM
YEAR= 76

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 0.5 KM	1.0 KM	1.5 KM	2.0 KM	2.5 KM
1	3.70035E-09	2.17201E-07	3.96011E-07	4.52181E-07	4.55981E-07
2	3.51158E-09	1.79626E-07	3.44909E-07	4.07411E-07	4.20003E-07
3	4.60094E-09	1.66481E-07	3.14587E-07	3.64856E-07	3.65131E-07
4	3.87624E-09	1.55738E-07	2.84173E-07	3.31344E-07	3.41696E-07
5	5.04742E-09	1.89030E-07	3.48035E-07	4.15531E-07	4.34527E-07
6	5.46012E-09	1.80106E-07	3.30862E-07	3.88649E-07	4.00534E-07
7	4.72089E-09	1.34712E-07	2.45965E-07	2.86914E-07	2.95527E-07
8	6.00962E-09	1.20598E-07	2.35929E-07	2.91871E-07	3.10264E-07
9	7.81973E-09	1.52782E-07	2.98930E-07	3.82725E-07	4.24670E-07
10	2.93997E-09	1.09266E-07	2.15639E-07	2.75958E-07	3.08993E-07
11	1.70222E-09	9.84401E-08	1.94555E-07	2.50339E-07	2.82592E-07
12	3.36418E-09	1.35455E-07	2.65864E-07	3.40693E-07	3.79167E-07
13	5.27805E-09	1.63869E-07	3.11715E-07	3.97110E-07	4.33357E-07
14	5.67739E-09	1.63677E-07	3.04399E-07	3.92914E-07	4.30561E-07
15	4.40259E-09	1.36838E-07	2.40873E-07	3.12043E-07	3.45697E-07
16	3.34676E-09	1.11247E-07	2.03859E-07	2.81952E-07	3.37911E-07
17	2.93623E-09	1.20041E-07	2.39053E-07	3.31481E-07	3.99682E-07
18	2.94320E-09	1.62733E-07	3.81756E-07	5.64864E-07	7.03376E-07
19	5.91018E-09	1.56517E-07	3.18635E-07	4.30625E-07	4.98204E-07
20	1.29111E-08	1.97859E-07	3.69345E-07	4.85620E-07	5.49957E-07
21	9.06522E-09	1.70209E-07	2.83387E-07	3.63112E-07	4.07354E-07
22	1.26224E-08	1.89755E-07	3.03262E-07	3.71414E-07	4.08562E-07
23	7.69839E-09	1.80808E-07	3.22440E-07	3.99625E-07	4.45393E-07
24	2.40006E-09	1.59432E-07	3.18450E-07	4.04653E-07	4.49424E-07
25	3.46958E-09	1.57772E-07	2.99390E-07	3.59011E-07	3.75221E-07
26	5.13835E-09	1.62955E-07	2.84978E-07	3.39745E-07	3.59427E-07
27	5.02540E-09	1.77209E-07	3.24963E-07	3.96121E-07	4.27956E-07
28	4.46325E-09	1.80252E-07	3.30736E-07	3.84132E-07	3.90716E-07
29	4.04920E-09	1.76378E-07	3.24305E-07	3.87419E-07	4.11738E-07
30	5.13401E-09	1.79551E-07	3.30204E-07	4.09064E-07	4.52558E-07
31	8.48516E-09	1.76651E-07	3.25556E-07	3.95365E-07	4.24279E-07
32	9.78577E-09	1.91092E-07	3.43025E-07	4.02218E-07	4.19543E-07
33	6.34514E-09	1.71061E-07	2.99938E-07	3.55564E-07	3.75420E-07
34	5.76036E-09	2.02602E-07	3.54729E-07	4.20687E-07	4.42452E-07
35	5.82121E-09	2.08404E-07	3.38571E-07	3.83159E-07	3.92409E-07
36	5.61147E-09	2.45528E-07	4.52327E-07	5.49977E-07	5.93616E-07

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
MAXIMUM MEAN CONC= 9.5880E-07 DIRECTION= 18 DISTANCE= 5.0 KM
YEAR= 76

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

DIR \ RANGE	3.0 KM	3.5 KM	4.0 KM	4.5 KM	5.0 KM
1	4.46671E-07	4.33525E-07	4.21988E-07	4.09143E-07	3.97549E-07
2	4.16237E-07	4.05094E-07	3.92923E-07	3.79001E-07	3.65570E-07
3	3.49100E-07	3.28252E-07	3.08720E-07	2.90425E-07	2.74570E-07
4	3.41063E-07	3.35233E-07	3.28779E-07	3.20197E-07	3.11676E-07
5	4.35105E-07	4.26850E-07	4.16617E-07	4.03317E-07	3.90180E-07
6	3.97859E-07	3.89853E-07	3.81796E-07	3.71666E-07	3.62271E-07
7	2.94669E-07	2.90468E-07	2.86772E-07	2.81824E-07	2.77623E-07
8	3.10981E-07	3.02745E-07	2.92195E-07	2.79833E-07	2.67954E-07
9	4.45083E-07	4.51396E-07	4.52121E-07	4.46514E-07	4.39172E-07
10	3.29604E-07	3.41152E-07	3.48282E-07	3.48978E-07	3.47517E-07
11	3.05118E-07	3.19751E-07	3.30368E-07	3.34722E-07	3.36609E-07
12	4.01901E-07	4.13596E-07	4.19727E-07	4.18506E-07	4.14730E-07
13	4.45304E-07	4.42387E-07	4.33708E-07	4.20456E-07	4.06081E-07
14	4.41158E-07	4.35643E-07	4.23604E-07	4.06716E-07	3.88950E-07
15	3.58692E-07	3.58967E-07	3.54011E-07	3.44576E-07	3.34115E-07
16	3.79914E-07	4.08368E-07	4.28844E-07	4.39275E-07	4.45158E-07
17	4.52799E-07	4.89640E-07	5.15787E-07	5.27670E-07	5.33021E-07
18	8.07842E-07	8.76542E-07	9.23971E-07	9.47224E-07	9.58798E-07
19	5.37007E-07	5.51956E-07	5.56053E-07	5.51284E-07	5.42920E-07
20	5.85018E-07	5.99060E-07	6.04591E-07	6.01353E-07	5.95265E-07
21	4.32052E-07	4.42802E-07	4.48177E-07	4.47401E-07	4.44926E-07
22	4.31760E-07	4.43466E-07	4.50943E-07	4.52416E-07	4.52300E-07
23	4.80589E-07	5.06280E-07	5.27237E-07	5.38883E-07	5.46898E-07
24	4.78300E-07	4.96510E-07	5.10089E-07	5.15233E-07	5.17611E-07
25	3.78863E-07	3.78721E-07	3.79776E-07	3.79041E-07	3.79195E-07
26	3.67911E-07	3.71033E-07	3.73272E-07	3.72076E-07	3.70762E-07
27	4.51190E-07	4.69800E-07	4.87025E-07	4.97293E-07	5.05271E-07
28	3.84517E-07	3.73956E-07	3.64002E-07	3.52939E-07	3.42693E-07
29	4.21042E-07	4.20421E-07	4.16598E-07	4.09096E-07	4.00931E-07
30	4.80996E-07	4.98201E-07	5.10844E-07	5.15864E-07	5.18571E-07
31	4.38305E-07	4.43695E-07	4.46166E-07	4.42994E-07	4.38403E-07
32	4.23103E-07	4.19899E-07	4.15377E-07	4.07757E-07	4.00137E-07
33	3.80713E-07	3.77737E-07	3.72172E-07	3.63185E-07	3.54005E-07
34	4.48188E-07	4.46596E-07	4.44464E-07	4.39843E-07	4.35557E-07
35	3.92444E-07	3.89785E-07	3.88461E-07	3.84793E-07	3.81939E-07
36	6.19360E-07	6.34803E-07	6.47816E-07	6.53123E-07	6.56693E-07

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
MAXIMUM MEAN CONC= 8.0513E-07 DIRECTION= 36 DISTANCE= 2.5 KM
YEAR= 77

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

DIR \ RANGE	0.5 KM	1.0 KM	1.5 KM	2.0 KM	2.5 KM
1	6.09537E-09	2.42164E-07	4.48229E-07	5.03964E-07	4.97049E-07
2	3.15922E-09	1.66912E-07	2.92562E-07	3.32268E-07	3.38670E-07
3	2.97935E-09	1.63787E-07	2.77015E-07	3.04768E-07	2.97394E-07
4	4.12708E-09	1.94538E-07	3.33511E-07	3.76710E-07	3.80792E-07
5	5.43618E-09	2.07193E-07	3.47199E-07	4.07273E-07	4.28957E-07
6	7.49443E-09	2.12662E-07	3.29180E-07	3.74161E-07	3.88136E-07
7	9.00905E-09	1.96207E-07	2.85791E-07	3.08589E-07	3.07431E-07
8	5.46466E-09	1.48047E-07	2.41517E-07	2.82503E-07	2.97494E-07
9	3.77230E-09	1.49424E-07	2.94307E-07	3.78852E-07	4.28392E-07
10	3.23945E-09	1.36086E-07	2.63583E-07	3.21781E-07	3.40298E-07
11	4.32520E-09	1.57522E-07	2.94027E-07	3.54955E-07	3.73701E-07
12	6.24088E-09	1.89599E-07	3.58416E-07	4.29705E-07	4.47585E-07
13	5.26805E-09	1.69322E-07	3.29755E-07	3.99359E-07	4.17228E-07
14	5.66461E-09	1.49990E-07	2.95835E-07	3.61470E-07	3.81407E-07
15	4.65388E-09	1.40811E-07	2.84448E-07	3.46549E-07	3.61095E-07
16	3.40501E-09	1.31146E-07	2.53506E-07	3.10989E-07	3.33490E-07
17	4.50233E-09	1.44785E-07	2.84826E-07	3.64114E-07	4.02552E-07
18	4.52995E-09	1.41950E-07	2.84829E-07	4.09788E-07	5.11905E-07
19	3.64693E-09	1.06024E-07	1.71953E-07	2.28420E-07	2.67395E-07
20	3.30219E-09	9.55898E-08	1.63543E-07	2.29022E-07	2.77549E-07
21	2.88820E-09	8.67794E-08	1.65365E-07	2.34733E-07	2.87433E-07
22	3.00492E-09	1.07087E-07	2.09519E-07	2.75921E-07	3.16563E-07
23	4.68855E-09	1.74430E-07	3.58545E-07	4.62300E-07	5.17751E-07
24	5.29973E-09	1.79624E-07	3.67574E-07	4.75938E-07	5.31827E-07
25	4.80421E-09	1.84429E-07	3.47323E-07	4.20215E-07	4.50495E-07
26	4.95882E-09	2.07892E-07	3.89853E-07	4.57310E-07	4.75207E-07
27	5.54159E-09	2.44291E-07	5.21469E-07	6.69656E-07	7.41395E-07
28	6.50943E-09	2.05816E-07	3.84093E-07	4.55589E-07	4.72322E-07
29	7.30248E-09	2.12619E-07	3.49659E-07	3.94110E-07	3.98309E-07
30	9.63426E-09	2.86298E-07	4.88929E-07	5.74953E-07	6.04146E-07
31	9.65201E-09	2.60981E-07	4.08474E-07	4.60658E-07	4.71429E-07
32	4.51400E-09	1.73672E-07	2.93118E-07	3.52351E-07	3.73374E-07
33	2.42852E-09	1.47307E-07	2.62023E-07	3.14471E-07	3.30032E-07
34	2.28024E-09	1.38119E-07	2.67064E-07	3.34039E-07	3.61811E-07
35	4.05244E-09	1.69803E-07	3.36491E-07	4.09589E-07	4.32292E-07
36	8.08863E-09	2.88415E-07	6.05726E-07	7.50547E-07	8.05129E-07

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
MAXIMUM MEAN CONC= 8.3639E-07 DIRECTION= 36 DISTANCE= 4.0 KM
YEAR= 77

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 3.0 KM	3.5 KM	4.0 KM	4.5 KM	5.0 KM
1	4.73584E-07	4.46424E-07	4.22236E-07	3.99509E-07	3.79936E-07
2	3.36887E-07	3.31831E-07	3.27077E-07	3.20710E-07	3.14648E-07
3	2.82002E-07	2.65641E-07	2.51452E-07	2.38564E-07	2.27714E-07
4	3.76258E-07	3.68963E-07	3.62712E-07	3.55194E-07	3.48563E-07
5	4.38417E-07	4.41403E-07	4.43028E-07	4.40680E-07	4.38069E-07
6	3.93899E-07	3.95733E-07	3.97087E-07	3.95104E-07	3.93004E-07
7	3.00866E-07	2.92624E-07	2.85160E-07	2.76547E-07	2.68723E-07
8	3.02992E-07	3.03858E-07	3.03877E-07	3.00848E-07	2.97893E-07
9	4.61882E-07	4.82655E-07	4.96387E-07	4.99487E-07	4.98831E-07
10	3.42641E-07	3.36445E-07	3.27980E-07	3.16878E-07	3.05937E-07
11	3.76972E-07	3.72823E-07	3.67024E-07	3.57921E-07	3.48676E-07
12	4.45462E-07	4.34190E-07	4.21380E-07	4.06388E-07	3.92233E-07
13	4.13164E-07	3.97887E-07	3.80026E-07	3.60911E-07	3.42645E-07
14	3.82409E-07	3.73434E-07	3.61734E-07	3.47878E-07	3.34103E-07
15	3.57458E-07	3.46068E-07	3.33174E-07	3.18556E-07	3.04665E-07
16	3.43448E-07	3.47110E-07	3.48578E-07	3.45239E-07	3.41170E-07
17	4.21835E-07	4.29214E-07	4.31062E-07	4.25824E-07	4.18678E-07
18	5.95869E-07	6.58124E-07	7.05090E-07	7.30610E-07	7.46743E-07
19	2.94067E-07	3.10354E-07	3.21163E-07	3.25038E-07	3.26387E-07
20	3.12965E-07	3.36541E-07	3.53163E-07	3.60946E-07	3.65174E-07
21	3.29790E-07	3.62367E-07	3.89293E-07	4.06560E-07	4.19940E-07
22	3.47105E-07	3.71013E-07	3.92754E-07	4.08322E-07	4.22116E-07
23	5.56272E-07	5.84868E-07	6.10501E-07	6.27214E-07	6.41593E-07
24	5.65604E-07	5.85519E-07	6.00136E-07	6.06015E-07	6.09495E-07
25	4.67780E-07	4.78097E-07	4.86382E-07	4.88347E-07	4.88790E-07
26	4.78275E-07	4.74462E-07	4.70411E-07	4.64094E-07	4.58591E-07
27	7.79822E-07	7.96875E-07	8.05990E-07	8.04295E-07	7.99556E-07
28	4.70464E-07	4.60702E-07	4.50484E-07	4.38601E-07	4.27818E-07
29	3.89320E-07	3.75123E-07	3.61257E-07	3.46765E-07	3.33665E-07
30	6.10348E-07	6.03862E-07	5.94258E-07	5.80172E-07	5.66396E-07
31	4.68309E-07	4.59367E-07	4.50752E-07	4.40337E-07	4.30831E-07
32	3.79319E-07	3.78126E-07	3.75054E-07	3.68450E-07	3.61683E-07
33	3.34755E-07	3.35708E-07	3.36619E-07	3.34204E-07	3.31638E-07
34	3.75861E-07	3.83062E-07	3.88999E-07	3.90822E-07	3.92094E-07
35	4.38496E-07	4.37858E-07	4.36888E-07	4.32521E-07	4.28442E-07
36	8.27917E-07	8.34271E-07	8.36388E-07	8.29760E-07	8.21863E-07

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
MAXIMUM MEAN CONC= 8.5493E-07 DIRECTION= 27 DISTANCE= 2.5 KM
YEAR= 78

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

DIR \ RANGE	0.5 KM	1.0 KM	1.5 KM	2.0 KM	2.5 KM
1	1.63725E-08	2.29036E-07	3.51837E-07	3.91592E-07	3.89887E-07
2	1.01263E-08	1.82969E-07	2.82261E-07	3.26025E-07	3.41073E-07
3	5.72110E-09	1.44065E-07	2.04561E-07	2.32440E-07	2.37803E-07
4	4.87596E-09	1.45141E-07	2.20311E-07	2.71475E-07	2.98632E-07
5	5.52708E-09	1.48059E-07	2.14693E-07	2.54210E-07	2.71305E-07
6	4.81171E-09	1.41779E-07	1.99479E-07	2.31745E-07	2.46332E-07
7	1.89282E-09	1.03274E-07	1.52993E-07	1.73930E-07	1.80231E-07
8	1.52259E-09	9.48876E-08	1.59826E-07	1.87637E-07	1.94681E-07
9	5.30938E-09	1.11987E-07	1.83722E-07	2.31551E-07	2.63024E-07
10	4.95246E-09	9.30500E-08	1.48528E-07	1.79550E-07	1.95178E-07
11	2.89684E-09	7.40053E-08	1.21257E-07	1.53344E-07	1.71945E-07
12	2.67631E-09	8.99821E-08	1.76770E-07	2.39351E-07	2.77010E-07
13	2.59544E-09	1.18940E-07	2.31608E-07	2.84404E-07	2.99943E-07
14	2.40481E-09	1.15774E-07	2.41624E-07	2.98383E-07	3.12379E-07
15	1.66399E-09	8.36738E-08	1.84346E-07	2.39331E-07	2.66807E-07
16	9.80732E-10	6.24842E-08	1.49470E-07	2.02065E-07	2.32723E-07
17	7.92228E-10	6.75138E-08	1.78722E-07	2.54142E-07	3.03269E-07
18	1.17482E-09	1.00488E-07	2.78828E-07	4.25234E-07	5.31744E-07
19	2.33473E-09	9.64134E-08	2.12972E-07	3.04906E-07	3.62862E-07
20	5.95724E-09	1.42470E-07	2.45643E-07	3.24565E-07	3.74179E-07
21	1.07560E-08	2.18349E-07	3.26073E-07	3.86965E-07	4.17048E-07
22	1.10577E-08	2.54763E-07	3.94153E-07	4.58218E-07	4.81822E-07
23	9.30913E-09	2.69042E-07	4.69616E-07	5.63219E-07	5.94852E-07
24	8.21622E-09	2.82112E-07	4.91614E-07	5.69856E-07	5.84495E-07
25	7.12554E-09	2.92030E-07	4.88748E-07	5.50605E-07	5.56044E-07
26	8.87363E-09	3.72434E-07	6.36477E-07	7.28170E-07	7.43786E-07
27	9.38575E-09	3.90055E-07	6.91617E-07	8.16816E-07	8.54931E-07
28	7.18697E-09	3.04988E-07	5.24377E-07	6.15255E-07	6.35845E-07
29	5.93978E-09	2.57933E-07	4.32949E-07	4.80202E-07	4.70669E-07
30	6.22605E-09	2.75067E-07	4.93765E-07	5.54840E-07	5.58118E-07
31	5.73622E-09	2.58240E-07	4.66747E-07	5.24329E-07	5.28386E-07
32	4.85232E-09	2.12071E-07	3.84165E-07	4.48613E-07	4.62775E-07
33	6.14310E-09	2.17893E-07	3.79971E-07	4.62224E-07	4.99238E-07
34	7.65758E-09	2.49557E-07	4.40078E-07	5.28691E-07	5.57241E-07
35	1.13973E-08	2.84243E-07	4.92206E-07	5.68717E-07	5.77492E-07
36	1.70111E-08	2.97813E-07	5.15429E-07	6.05154E-07	6.24095E-07

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
MAXIMUM MEAN CONC= 8.6541E-07 DIRECTION= 27 DISTANCE= 3.0 KM
YEAR= 78

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 3.0 KM	3.5 KM	4.0 KM	4.5 KM	5.0 KM
1	3.77054E-07	3.60941E-07	3.45654E-07	3.29985E-07	3.15727E-07
2	3.42505E-07	3.38225E-07	3.32660E-07	3.24094E-07	3.15209E-07
3	2.34279E-07	2.26415E-07	2.17953E-07	2.08798E-07	2.00180E-07
4	3.13420E-07	3.19848E-07	3.22906E-07	3.21449E-07	3.18744E-07
5	2.78280E-07	2.79549E-07	2.79267E-07	2.76095E-07	2.72407E-07
6	2.51922E-07	2.51718E-07	2.49770E-07	2.45358E-07	2.40565E-07
7	1.81521E-07	1.79917E-07	1.77743E-07	1.74203E-07	1.70491E-07
8	1.94378E-07	1.90502E-07	1.86129E-07	1.80657E-07	1.75370E-07
9	2.85085E-07	2.97834E-07	3.05644E-07	3.07378E-07	3.06374E-07
10	2.04667E-07	2.09900E-07	2.13375E-07	2.13554E-07	2.12653E-07
11	1.83404E-07	1.89594E-07	1.93496E-07	1.94244E-07	1.93990E-07
12	2.99447E-07	3.10169E-07	3.15189E-07	3.14196E-07	3.10736E-07
13	2.99880E-07	2.91691E-07	2.81242E-07	2.69268E-07	2.57491E-07
14	3.09533E-07	2.98897E-07	2.86461E-07	2.72961E-07	2.60129E-07
15	2.82386E-07	2.89903E-07	2.93389E-07	2.91736E-07	2.88400E-07
16	2.52795E-07	2.64731E-07	2.72424E-07	2.74868E-07	2.75515E-07
17	3.41031E-07	3.68650E-07	3.90783E-07	4.04505E-07	4.14526E-07
18	6.13617E-07	6.71631E-07	7.15042E-07	7.39414E-07	7.54889E-07
19	3.99186E-07	4.18151E-07	4.28112E-07	4.29036E-07	4.26092E-07
20	4.08698E-07	4.31667E-07	4.49343E-07	4.58721E-07	4.64929E-07
21	4.37640E-07	4.52042E-07	4.64852E-07	4.72312E-07	4.78192E-07
22	4.97171E-07	5.09330E-07	5.22081E-07	5.29903E-07	5.36789E-07
23	6.06286E-07	6.08154E-07	6.08251E-07	6.03112E-07	5.97853E-07
24	5.82514E-07	5.75139E-07	5.69237E-07	5.61476E-07	5.55480E-07
25	5.50347E-07	5.43547E-07	5.39924E-07	5.34033E-07	5.30034E-07
26	7.39201E-07	7.28317E-07	7.19503E-07	7.07625E-07	6.97554E-07
27	8.65411E-07	8.62809E-07	8.58411E-07	8.47370E-07	8.36071E-07
28	6.31850E-07	6.17574E-07	6.02252E-07	5.84028E-07	5.66956E-07
29	4.45928E-07	4.18415E-07	3.93799E-07	3.71180E-07	3.51824E-07
30	5.51309E-07	5.43278E-07	5.38344E-07	5.31794E-07	5.26861E-07
31	5.23767E-07	5.18287E-07	5.14675E-07	5.07680E-07	5.01315E-07
32	4.63454E-07	4.59989E-07	4.56788E-07	4.50226E-07	4.44090E-07
33	5.20519E-07	5.33505E-07	5.44122E-07	5.47561E-07	5.49218E-07
34	5.65621E-07	5.66044E-07	5.65943E-07	5.61185E-07	5.56684E-07
35	5.66209E-07	5.49103E-07	5.34353E-07	5.19576E-07	5.07708E-07
36	6.18325E-07	6.01883E-07	5.84338E-07	5.64903E-07	5.47115E-07

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 24-HOUR CONC= 1.1245E-05 DIRECTION= 18 DISTANCE= 2.5 KM DAY=279
YEAR= 74

SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 0.5 KM	1.0 KM	1.5 KM	2.0 KM	2.5 KM
1	1.8873E-07 (80)	2.9136E-06 (152)	4.5887E-06 (152)	4.8538E-06 (152)	4.8881E-06 (354)
2	2.4344E-07 (80)	2.9518E-06 (124)	4.5410E-06 (152)	4.9208E-06 (50)	4.6545E-06 (50)
3	1.8782E-07 (188)	3.1963E-06 (97)	3.1221E-06 (125)	2.9348E-06 (212)	3.3562E-06 (98)
4	1.3573E-07 (174)	2.8664E-06 (146)	4.5813E-06 (153)	4.8734E-06 (153)	4.2076E-06 (125)
5	3.9434E-07 (176)	4.3971E-06 (146)	5.4167E-06 (174)	5.3071E-06 (174)	4.9610E-06 (162)
6	2.2662E-07 (206)	4.9329E-06 (176)	4.8973E-06 (90)	5.1563E-06 (88)	4.9214E-06 (176)
7	2.1278E-07 (192)	3.6788E-06 (169)	4.9871E-06 (192)	4.6705E-06 (89)	4.9974E-06 (203)
8	2.4462E-07 (145)	3.3643E-06 (123)	4.2629E-06 (193)	4.9875E-06 (132)	5.2053E-06 (168)
9	2.2367E-07 (123)	2.5960E-06 (89)	3.5861E-06 (193)	4.3965E-06 (193)	4.2640E-06 (193)
10	2.9796E-07 (89)	2.8147E-06 (150)	3.5405E-06 (89)	4.1114E-06 (89)	4.3292E-06 (89)
11	2.4384E-07 (173)	3.7143E-06 (99)	4.1290E-06 (163)	4.2338E-06 (76)	4.6449E-06 (76)
12	2.9050E-07 (151)	6.1701E-06 (145)	6.1436E-06 (191)	6.1167E-06 (191)	5.8445E-06 (335)
13	3.4372E-07 (211)	5.3627E-06 (145)	5.2230E-06 (114)	4.9714E-06 (114)	5.1189E-06 (337)
14	1.3212E-07 (207)	3.9809E-06 (121)	5.0245E-06 (145)	4.9872E-06 (167)	4.6335E-06 (291)
15	1.0183E-07 (163)	2.9971E-06 (211)	4.2885E-06 (163)	4.4251E-06 (41)	4.1880E-06 (163)
16	8.9207E-08 (163)	2.4398E-06 (107)	3.2168E-06 (120)	4.0519E-06 (76)	4.0452E-06 (76)
17	3.0316E-08 (100)	3.5594E-06 (120)	5.1547E-06 (107)	4.7862E-06 (57)	4.6524E-06 (107)
18	5.7613E-08 (211)	3.5681E-06 (128)	6.9953E-06 (297)	9.1534E-06 (279)	1.1245E-05 (279)
19	9.3871E-08 (181)	3.2551E-06 (128)	3.7493E-06 (279)	4.5530E-06 (51)	4.3851E-06 (108)
20	2.4975E-07 (211)	3.2649E-06 (276)	3.6427E-06 (109)	4.9118E-06 (274)	6.2539E-06 (296)
21	2.2169E-07 (211)	4.1854E-06 (108)	5.3576E-06 (100)	6.2511E-06 (109)	6.8764E-06 (330)
22	4.4733E-07 (225)	4.6739E-06 (100)	6.0489E-06 (109)	5.8733E-06 (171)	5.6312E-06 (283)
23	3.9615E-07 (225)	4.2341E-06 (225)	5.3999E-06 (195)	6.6310E-06 (195)	6.3656E-06 (195)
24	2.2687E-07 (238)	2.6777E-06 (171)	4.3558E-06 (195)	5.7239E-06 (195)	5.7544E-06 (195)
25	1.7681E-07 (67)	1.9451E-06 (227)	3.8468E-06 (235)	5.0067E-06 (340)	4.6276E-06 (262)
26	1.2499E-07 (238)	3.4369E-06 (140)	3.8681E-06 (225)	4.3227E-06 (300)	4.2025E-06 (300)
27	2.1425E-07 (156)	3.8087E-06 (140)	5.3404E-06 (111)	5.2970E-06 (111)	4.9911E-06 (111)
28	2.3729E-07 (165)	2.7327E-06 (141)	4.3702E-06 (215)	5.5036E-06 (215)	5.5343E-06 (219)
29	2.4620E-07 (165)	3.6971E-06 (165)	4.2839E-06 (246)	5.2523E-06 (243)	5.2081E-06 (243)
30	2.1200E-07 (169)	2.7914E-06 (62)	5.8327E-06 (139)	6.7094E-06 (139)	6.1166E-06 (62)
31	7.4165E-07 (135)	3.4653E-06 (220)	4.0035E-06 (65)	4.6444E-06 (62)	4.5690E-06 (62)
32	1.6086E-06 (135)	4.4120E-06 (158)	5.7574E-06 (159)	5.0734E-06 (159)	4.6681E-06 (134)
33	5.9718E-07 (220)	3.7591E-06 (131)	5.1607E-06 (227)	4.9314E-06 (131)	5.3067E-06 (250)
34	2.4524E-07 (207)	2.8243E-06 (94)	5.0664E-06 (94)	5.3100E-06 (132)	5.4847E-06 (94)
35	2.0621E-07 (221)	2.6287E-06 (94)	3.8246E-06 (213)	4.3289E-06 (213)	3.8737E-06 (213)
36	1.0100E-07 (221)	2.6904E-06 (152)	5.0947E-06 (91)	5.5383E-06 (91)	5.3925E-06 (135)

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 24-HOUR CONC= 1.2189E-05 DIRECTION= 18 DISTANCE= 3.5 KM DAY=279
YEAR= 74

SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 3.0 KM	3.5 KM	4.0 KM	4.5 KM	5.0 KM
1	5.0491E-06 (354)	4.9019E-06 (354)	4.6468E-06 (354)	4.3511E-06 (50)	3.9485E-06 (50)
2	4.1995E-06 (50)	3.7224E-06 (50)	3.2945E-06 (50)	2.9237E-06 (50)	2.6063E-06 (50)
3	3.2987E-06 (34)	3.2083E-06 (98)	2.9582E-06 (98)	2.8786E-06 (50)	2.8600E-06 (50)
4	3.6257E-06 (153)	3.4175E-06 (38)	3.8078E-06 (38)	4.0194E-06 (38)	4.1354E-06 (38)
5	4.5122E-06 (162)	3.9521E-06 (162)	4.0122E-06 (39)	4.1902E-06 (39)	4.2269E-06 (146)
6	4.3957E-06 (176)	3.9034E-06 (176)	3.8780E-06 (174)	3.9536E-06 (174)	4.0042E-06 (174)
7	4.2161E-06 (203)	4.4486E-06 (174)	4.5978E-06 (174)	4.6073E-06 (174)	4.5571E-06 (174)
8	4.9265E-06 (193)	5.9816E-06 (146)	6.0866E-06 (132)	5.8877E-06 (132)	5.6688E-06 (132)
9	3.8484E-06 (7)	3.8971E-06 (89)	4.1079E-06 (89)	4.1586E-06 (89)	4.1498E-06 (89)
10	4.3026E-06 (89)	4.1513E-06 (335)	4.1547E-06 (335)	4.1144E-06 (335)	4.0519E-06 (335)
11	5.0577E-06 (335)	5.3875E-06 (99)	5.0690E-06 (342)	5.5587E-06 (342)	5.8819E-06 (342)
12	5.5611E-06 (145)	5.0664E-06 (336)	5.8032E-06 (335)	5.5838E-06 (40)	5.8802E-06 (40)
13	4.8006E-06 (96)	5.0841E-06 (40)	5.7342E-06 (40)	5.9917E-06 (337)	5.8522E-06 (337)
14	4.6064E-06 (343)	5.1363E-06 (343)	5.4890E-06 (343)	5.6262E-06 (343)	5.6613E-06 (343)
15	4.1494E-06 (280)	4.7967E-06 (280)	5.1749E-06 (280)	5.3531E-06 (280)	5.3914E-06 (280)
16	3.7953E-06 (57)	3.7412E-06 (96)	4.0768E-06 (96)	4.2193E-06 (96)	4.2566E-06 (96)
17	4.0105E-06 (107)	4.2314E-06 (332)	4.4074E-06 (332)	4.5414E-06 (311)	4.8073E-06 (311)
18	1.2145E-05 (279)	1.2189E-05 (279)	1.1867E-05 (279)	1.1358E-05 (279)	1.0766E-05 (279)
19	4.9041E-06 (313)	5.4539E-06 (313)	5.7770E-06 (313)	5.9303E-06 (313)	5.9614E-06 (313)
20	6.9883E-06 (276)	6.3395E-06 (276)	5.7085E-06 (276)	5.1333E-06 (276)	4.8841E-06 (360)
21	7.0430E-06 (330)	6.7932E-06 (330)	6.4121E-06 (330)	6.4270E-06 (348)	6.2659E-06 (277)
22	6.0368E-06 (294)	6.2378E-06 (294)	6.2202E-06 (294)	6.0727E-06 (294)	5.8603E-06 (294)
23	5.9012E-06 (285)	6.2834E-06 (285)	6.4114E-06 (285)	6.3779E-06 (285)	6.2635E-06 (285)
24	5.2810E-06 (195)	4.6818E-06 (195)	4.4613E-06 (8)	4.3895E-06 (8)	4.6616E-06 (73)
25	4.6085E-06 (110)	4.4522E-06 (110)	4.2389E-06 (110)	4.0326E-06 (110)	4.1304E-06 (236)
26	3.8243E-06 (300)	3.5277E-06 (215)	3.5700E-06 (215)	3.5892E-06 (215)	3.4430E-06 (302)
27	4.4922E-06 (140)	4.2310E-06 (101)	4.0528E-06 (101)	3.8234E-06 (101)	3.5774E-06 (101)
28	5.1207E-06 (219)	4.6844E-06 (215)	4.3299E-06 (219)	4.0879E-06 (159)	4.0371E-06 (159)
29	4.7436E-06 (102)	5.0800E-06 (139)	4.7225E-06 (24)	5.0145E-06 (24)	5.1917E-06 (24)
30	5.3280E-06 (62)	4.6538E-06 (62)	4.5172E-06 (139)	4.6302E-06 (219)	4.6602E-06 (361)
31	4.3598E-06 (65)	4.5128E-06 (37)	4.9080E-06 (37)	5.1312E-06 (37)	5.1179E-06 (131)
32	4.5848E-06 (134)	4.6019E-06 (103)	4.7355E-06 (103)	4.7555E-06 (103)	4.7458E-06 (103)
33	4.5941E-06 (250)	4.2089E-06 (94)	4.1338E-06 (94)	4.0428E-06 (94)	3.9461E-06 (94)
34	5.3366E-06 (94)	5.2362E-06 (93)	5.1744E-06 (93)	5.0515E-06 (93)	4.9101E-06 (93)
35	3.7995E-06 (27)	3.8036E-06 (188)	4.1944E-06 (21)	4.4439E-06 (27)	4.3897E-06 (27)
36	5.0023E-06 (176)	5.1942E-06 (176)	5.2762E-06 (176)	5.2695E-06 (176)	5.1967E-06 (176)

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 24-HOUR CONC= 8.2554E-06 DIRECTION= 36 DISTANCE= 2.0 KM DAY=290
YEAR= 75

SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 0.5 KM	1.0 KM	1.5 KM	2.0 KM	2.5 KM
1	1.9505E-07 (207)	4.9164E-06 (167)	7.1687E-06 (167)	6.7936E-06 (167)	5.7740E-06 (167)
2	4.1772E-07 (207)	4.9857E-06 (119)	5.2473E-06 (215)	4.8105E-06 (151)	4.3281E-06 (151)
3	2.0006E-07 (215)	2.7332E-06 (215)	3.5732E-06 (260)	4.5092E-06 (202)	4.5411E-06 (202)
4	2.4828E-07 (215)	2.5368E-06 (203)	5.1119E-06 (188)	4.8410E-06 (82)	4.5550E-06 (82)
5	2.5922E-07 (219)	4.4266E-06 (203)	5.8531E-06 (186)	5.4227E-06 (186)	5.1354E-06 (89)
6	2.8498E-07 (203)	3.7239E-06 (186)	5.0757E-06 (110)	4.6756E-06 (110)	4.3768E-06 (100)
7	2.9667E-07 (158)	4.2713E-06 (158)	6.0374E-06 (110)	5.2433E-06 (158)	5.3179E-06 (158)
8	2.7906E-07 (157)	4.8583E-06 (225)	4.5077E-06 (40)	5.2268E-06 (40)	4.8103E-06 (40)
9	1.7406E-07 (157)	3.7339E-06 (225)	4.0513E-06 (124)	4.3329E-06 (78)	5.2975E-06 (325)
10	2.8108E-07 (138)	2.3836E-06 (129)	3.5504E-06 (129)	4.1575E-06 (186)	4.3529E-06 (124)
11	2.5092E-07 (156)	3.2103E-06 (128)	5.1298E-06 (128)	6.2014E-06 (93)	6.7545E-06 (93)
12	2.4628E-07 (156)	4.4548E-06 (180)	5.9998E-06 (163)	5.9430E-06 (59)	6.2617E-06 (59)
13	2.9261E-07 (105)	3.6828E-06 (180)	5.1324E-06 (163)	5.5345E-06 (67)	7.1412E-06 (67)
14	1.2973E-07 (105)	3.6616E-06 (231)	6.1418E-06 (231)	5.7478E-06 (231)	5.1819E-06 (355)
15	1.3835E-07 (156)	2.9255E-06 (156)	4.1812E-06 (97)	4.3059E-06 (164)	4.2397E-06 (164)
16	9.9510E-08 (155)	2.5707E-06 (102)	3.8138E-06 (96)	4.6111E-06 (95)	4.9031E-06 (95)
17	1.1721E-07 (155)	3.0302E-06 (230)	3.6469E-06 (230)	4.0608E-06 (97)	3.8696E-06 (97)
18	6.5337E-08 (85)	2.6912E-06 (106)	3.7966E-06 (155)	4.9423E-06 (85)	4.3180E-06 (303)
19	7.6665E-08 (106)	2.1316E-06 (244)	3.8042E-06 (106)	4.0382E-06 (131)	3.6656E-06 (131)
20	5.7468E-08 (141)	1.9876E-06 (244)	2.7841E-06 (141)	3.5481E-06 (131)	3.4032E-06 (131)
21	8.0053E-08 (141)	2.7295E-06 (141)	3.8935E-06 (141)	5.0790E-06 (277)	5.0624E-06 (277)
22	1.6676E-07 (182)	4.5241E-06 (182)	5.1703E-06 (145)	4.9064E-06 (182)	4.4136E-06 (283)
23	1.1145E-07 (145)	3.3318E-06 (45)	5.5179E-06 (145)	5.0288E-06 (284)	4.8790E-06 (182)
24	1.7738E-07 (146)	2.9495E-06 (172)	5.1141E-06 (174)	5.5348E-06 (284)	6.0752E-06 (182)
25	2.3852E-07 (146)	2.9716E-06 (103)	4.3317E-06 (144)	4.6251E-06 (144)	4.3466E-06 (144)
26	2.5578E-07 (232)	3.4949E-06 (234)	4.3080E-06 (234)	3.5867E-06 (234)	3.8771E-06 (287)
27	2.1984E-07 (112)	4.6285E-06 (234)	5.7496E-06 (234)	5.2495E-06 (234)	5.1006E-06 (340)
28	1.6331E-07 (234)	4.4068E-06 (205)	4.6750E-06 (114)	5.7241E-06 (288)	5.3114E-06 (205)
29	8.0646E-08 (234)	4.0324E-06 (205)	4.8503E-06 (214)	5.2181E-06 (214)	4.8717E-06 (288)
30	1.4426E-07 (225)	3.7396E-06 (113)	6.4710E-06 (113)	7.2144E-06 (113)	7.5412E-06 (87)
31	2.0153E-07 (120)	2.7505E-06 (227)	3.5907E-06 (234)	4.0355E-06 (234)	3.8034E-06 (117)
32	2.2183E-07 (227)	2.3294E-06 (227)	3.2522E-06 (246)	3.1027E-06 (265)	3.4182E-06 (10)
33	2.2820E-07 (204)	3.0036E-06 (210)	4.9645E-06 (123)	5.4808E-06 (10)	6.8434E-06 (10)
34	2.4288E-07 (109)	3.9204E-06 (115)	5.8969E-06 (151)	6.5528E-06 (151)	6.4191E-06 (261)
35	4.1923E-07 (83)	4.5134E-06 (147)	4.8723E-06 (223)	4.9933E-06 (223)	4.5564E-06 (72)
36	2.5271E-07 (83)	4.7194E-06 (115)	6.4964E-06 (115)	8.2554E-06 (290)	7.3952E-06 (109)

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 24-HOUR CONC= 8.6977E-06 DIRECTION= 18 DISTANCE= 5.0 KM DAY=303
YEAR= 75

SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 3.0 KM	3.5 KM	4.0 KM	4.5 KM	5.0 KM
1	5.0576E-06 (331)	5.3069E-06 (331)	5.2479E-06 (119)	4.5814E-06 (119)	4.5362E-06 (20)
2	4.3301E-06 (20)	4.6566E-06 (20)	4.7624E-06 (20)	4.7280E-06 (20)	4.6103E-06 (20)
3	4.2476E-06 (202)	3.8730E-06 (202)	3.5160E-06 (202)	3.1971E-06 (202)	3.1015E-06 (36)
4	4.1830E-06 (82)	4.1122E-06 (188)	3.7674E-06 (25)	3.7088E-06 (25)	3.6525E-06 (25)
5	4.9191E-06 (89)	5.3649E-06 (61)	4.8735E-06 (25)	4.3174E-06 (25)	4.3870E-06 (351)
6	3.9278E-06 (100)	3.8399E-06 (43)	3.8708E-06 (110)	3.9568E-06 (110)	4.0561E-06 (110)
7	5.0270E-06 (178)	5.1342E-06 (73)	5.1792E-06 (73)	5.1184E-06 (73)	5.0162E-06 (73)
8	4.3281E-06 (81)	4.2676E-06 (157)	4.1294E-06 (325)	4.1329E-06 (325)	4.0945E-06 (325)
9	6.0374E-06 (325)	6.5394E-06 (325)	6.8653E-06 (325)	6.9475E-06 (325)	6.9393E-06 (325)
10	4.6253E-06 (124)	4.6458E-06 (124)	4.5618E-06 (124)	4.4233E-06 (124)	4.2610E-06 (124)
11	6.8661E-06 (93)	6.7252E-06 (93)	6.4878E-06 (93)	6.1673E-06 (93)	5.8383E-06 (93)
12	5.9723E-06 (59)	6.0910E-06 (13)	6.1071E-06 (13)	5.7567E-06 (317)	5.3680E-06 (317)
13	7.9224E-06 (67)	7.9213E-06 (317)	7.4916E-06 (317)	7.0019E-06 (317)	6.5067E-06 (317)
14	5.5578E-06 (139)	4.7696E-06 (297)	5.3448E-06 (297)	5.6224E-06 (297)	5.7560E-06 (297)
15	3.8067E-06 (14)	4.0240E-06 (14)	4.5718E-06 (297)	4.5156E-06 (125)	4.3026E-06 (352)
16	5.2158E-06 (94)	5.4134E-06 (102)	5.1016E-06 (102)	4.8479E-06 (102)	4.6661E-06 (102)
17	5.3919E-06 (95)	5.7221E-06 (95)	5.9778E-06 (95)	6.0637E-06 (95)	6.0906E-06 (95)
18	5.9425E-06 (303)	7.1563E-06 (303)	8.0150E-06 (303)	8.4629E-06 (303)	8.6977E-06 (303)
19	3.5596E-06 (2)	3.8920E-06 (353)	4.3747E-06 (363)	4.6831E-06 (64)	4.4395E-06 (64)
20	3.4252E-06 (292)	3.8246E-06 (111)	4.3838E-06 (111)	4.4573E-06 (21)	4.1824E-06 (52)
21	4.6207E-06 (277)	4.3091E-06 (303)	4.3051E-06 (303)	4.2075E-06 (17)	4.3966E-06 (17)
22	4.5508E-06 (283)	4.5421E-06 (283)	4.4819E-06 (283)	4.5900E-06 (240)	4.8151E-06 (240)
23	5.3249E-06 (305)	6.0809E-06 (304)	6.2000E-06 (304)	6.1427E-06 (304)	6.0075E-06 (304)
24	6.1885E-06 (182)	5.9640E-06 (182)	5.6416E-06 (182)	5.2967E-06 (182)	4.9643E-06 (182)
25	3.9395E-06 (144)	3.9080E-06 (74)	3.8828E-06 (74)	4.1611E-06 (251)	4.2181E-06 (181)
26	4.0407E-06 (287)	3.9483E-06 (287)	3.5312E-06 (112)	3.4939E-06 (169)	3.3024E-06 (287)
27	4.9307E-06 (247)	4.8373E-06 (247)	4.6548E-06 (247)	4.4913E-06 (263)	4.6293E-06 (112)
28	5.1945E-06 (288)	4.8200E-06 (222)	4.5198E-06 (222)	4.5057E-06 (313)	4.6133E-06 (313)
29	4.3329E-06 (288)	4.2186E-06 (172)	3.9453E-06 (86)	3.7857E-06 (86)	3.8841E-06 (114)
30	7.0898E-06 (117)	6.5284E-06 (117)	6.0404E-06 (117)	6.4238E-06 (9)	6.7795E-06 (9)
31	3.5754E-06 (104)	3.5927E-06 (196)	3.9839E-06 (47)	4.2167E-06 (47)	4.3755E-06 (47)
32	4.4870E-06 (10)	5.3298E-06 (10)	6.2520E-06 (109)	6.8759E-06 (265)	7.1619E-06 (265)
33	7.3833E-06 (10)	7.3601E-06 (10)	7.1066E-06 (10)	6.7446E-06 (10)	6.3418E-06 (10)
34	6.2967E-06 (266)	6.1733E-06 (266)	5.9213E-06 (266)	5.6136E-06 (266)	5.2920E-06 (266)
35	5.0858E-06 (72)	5.2402E-06 (72)	5.2101E-06 (72)	5.0543E-06 (72)	4.8460E-06 (72)
36	6.4276E-06 (109)	6.3686E-06 (55)	6.2081E-06 (55)	5.9594E-06 (4)	6.0833E-06 (4)

16

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 24-HOUR CONC= 8.3351E-06 DIRECTION= 18 DISTANCE= 2.5 KM DAY=336
YEAR= 76

SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 0.5 KM	1.0 KM	1.5 KM	2.0 KM	2.5 KM
1	1.7533E-07 (152)	3.8319E-06 (32)	6.0482E-06 (32)	5.4960E-06 (152)	4.3747E-06 (215)
2	2.1490E-07 (186)	2.9183E-06 (199)	4.4026E-06 (186)	5.0156E-06 (186)	4.7684E-06 (186)
3	1.8587E-07 (226)	2.9649E-06 (49)	4.9775E-06 (211)	5.6711E-06 (186)	5.1960E-06 (214)
4	2.5039E-07 (226)	3.7306E-06 (116)	4.8155E-06 (95)	4.8280E-06 (95)	4.2120E-06 (116)
5	2.3820E-07 (69)	4.8803E-06 (117)	6.8558E-06 (76)	7.6230E-06 (76)	7.3857E-06 (76)
6	4.3400E-07 (116)	3.5624E-06 (81)	5.3661E-06 (76)	6.0230E-06 (194)	6.0904E-06 (194)
7	3.3263E-07 (116)	1.9797E-06 (116)	4.4151E-06 (133)	5.0355E-06 (133)	4.6119E-06 (133)
8	2.9258E-07 (139)	3.5768E-06 (198)	5.3587E-06 (145)	4.9718E-06 (198)	4.9165E-06 (195)
9	9.1731E-07 (145)	6.4979E-06 (139)	6.9578E-06 (139)	6.8454E-06 (197)	8.1343E-06 (197)
10	1.2464E-07 (204)	2.4667E-06 (17)	4.0986E-06 (198)	4.7565E-06 (198)	4.6757E-06 (198)
11	1.2464E-07 (204)	2.3595E-06 (213)	3.4016E-06 (103)	4.1560E-06 (198)	4.2861E-06 (275)
12	1.9363E-07 (221)	3.0494E-06 (93)	4.7384E-06 (235)	4.6041E-06 (235)	4.7939E-06 (39)
13	5.0480E-07 (200)	3.3694E-06 (235)	3.9790E-06 (323)	5.6821E-06 (362)	5.3334E-06 (361)
14	4.0398E-07 (200)	3.6852E-06 (208)	4.4813E-06 (96)	5.7735E-06 (295)	5.5835E-06 (295)
15	2.5060E-07 (207)	3.5713E-06 (208)	4.3483E-06 (96)	4.8294E-06 (67)	5.0917E-06 (100)
16	2.3278E-07 (247)	2.4530E-06 (220)	3.3555E-06 (124)	3.7390E-06 (356)	4.0302E-06 (306)
17	2.1637E-07 (219)	3.0474E-06 (157)	3.6137E-06 (114)	4.3705E-06 (114)	4.4206E-06 (255)
18	2.4067E-07 (157)	3.7681E-06 (157)	5.1369E-06 (118)	6.1092E-06 (336)	8.3351E-06 (336)
19	4.5461E-07 (184)	3.5167E-06 (191)	4.8110E-06 (287)	5.6430E-06 (318)	8.2844E-06 (318)
20	9.7342E-07 (184)	4.4339E-06 (157)	7.0750E-06 (140)	7.1188E-06 (286)	6.6581E-06 (292)
21	3.8174E-07 (199)	3.8880E-06 (164)	4.6437E-06 (51)	4.6003E-06 (51)	4.5778E-06 (98)
22	2.2305E-07 (245)	3.4027E-06 (199)	4.5446E-06 (243)	4.7450E-06 (165)	5.7973E-06 (232)
23	2.6252E-07 (245)	3.7188E-06 (101)	5.9395E-06 (240)	6.8488E-06 (240)	6.6987E-06 (240)
24	1.6004E-07 (226)	3.2077E-06 (101)	6.3041E-06 (242)	6.5907E-06 (242)	5.7637E-06 (242)
25	1.1759E-07 (245)	2.9178E-06 (225)	5.4862E-06 (243)	6.4403E-06 (243)	6.0708E-06 (225)
26	1.7296E-07 (114)	3.2371E-06 (226)	4.8495E-06 (268)	6.0591E-06 (278)	6.4314E-06 (278)
27	2.8852E-07 (114)	3.8160E-06 (114)	3.9444E-06 (268)	4.0198E-06 (268)	4.0189E-06 (80)
28	2.2835E-07 (114)	4.3290E-06 (63)	4.4272E-06 (204)	4.6758E-06 (120)	4.9427E-06 (269)
29	1.6303E-07 (229)	3.1413E-06 (204)	4.6568E-06 (108)	4.7376E-06 (298)	4.5147E-06 (127)
30	2.4982E-07 (245)	2.7922E-06 (120)	4.1879E-06 (268)	4.2485E-06 (107)	4.5380E-06 (64)
31	2.6888E-07 (135)	2.6281E-06 (154)	3.6525E-06 (126)	4.0308E-06 (135)	4.6855E-06 (135)
32	2.8622E-07 (192)	3.8511E-06 (192)	3.8932E-06 (189)	4.2387E-06 (152)	4.7038E-06 (135)
33	4.0934E-07 (192)	4.3187E-06 (156)	4.4349E-06 (189)	4.4879E-06 (153)	3.8095E-06 (24)
34	2.9283E-07 (192)	4.3427E-06 (228)	6.2019E-06 (185)	5.8975E-06 (228)	5.0970E-06 (144)
35	4.0887E-07 (144)	3.7209E-06 (156)	4.4802E-06 (185)	4.5967E-06 (228)	3.9935E-06 (27)
36	2.0346E-07 (222)	3.9879E-06 (223)	5.9017E-06 (215)	5.7880E-06 (182)	5.0898E-06 (188)

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 24-HOUR CONC= 1.0041E-05 DIRECTION= 18 DISTANCE= 4.0 KM DAY=336
YEAR= 76

SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR

RANGE DIR	3.0 KM	3.5 KM	4.0 KM	4.5 KM	5.0 KM
1	4.0991E-06 (215)	3.9246E-06 (215)	3.8759E-06 (50)	3.7308E-06 (215)	3.8591E-06 (53)
2	4.8913E-06 (187)	4.2853E-06 (69)	4.2324E-06 (69)	4.1148E-06 (69)	3.9887E-06 (69)
3	4.6458E-06 (214)	4.5745E-06 (144)	4.5582E-06 (144)	4.2089E-06 (69)	3.8175E-06 (69)
4	4.0393E-06 (49)	4.3768E-06 (355)	4.6326E-06 (355)	4.7510E-06 (355)	4.7735E-06 (355)
5	6.7869E-06 (76)	6.1398E-06 (117)	5.9073E-06 (69)	5.3465E-06 (69)	5.2272E-06 (116)
6	5.7983E-06 (194)	5.4516E-06 (194)	5.1441E-06 (194)	4.8554E-06 (194)	4.6301E-06 (194)
7	3.9629E-06 (133)	4.4063E-06 (198)	4.2635E-06 (145)	3.7822E-06 (145)	3.3723E-06 (145)
8	4.8023E-06 (197)	4.5562E-06 (197)	4.2389E-06 (197)	4.1357E-06 (122)	4.0729E-06 (122)
9	8.7725E-06 (197)	8.1880E-06 (196)	7.5294E-06 (196)	7.4952E-06 (117)	7.5905E-06 (117)
10	4.5807E-06 (8)	4.6557E-06 (8)	5.2553E-06 (361)	5.6433E-06 (361)	5.4016E-06 (17)
11	4.5198E-06 (300)	5.1835E-06 (300)	5.6477E-06 (300)	5.8691E-06 (300)	5.9790E-06 (300)
12	5.4965E-06 (39)	5.9608E-06 (39)	6.2558E-06 (39)	6.3291E-06 (39)	6.3147E-06 (39)
13	5.6680E-06 (361)	5.6363E-06 (361)	5.4595E-06 (361)	5.2143E-06 (361)	4.9428E-06 (361)
14	5.1157E-06 (295)	5.0807E-06 (364)	5.0448E-06 (364)	5.2344E-06 (352)	5.3903E-06 (352)
15	5.2797E-06 (67)	5.8159E-06 (327)	5.9168E-06 (100)	5.7298E-06 (100)	5.4747E-06 (100)
16	5.0836E-06 (306)	5.4662E-06 (356)	5.5253E-06 (5)	5.7257E-06 (5)	5.8575E-06 (5)
17	4.5598E-06 (337)	5.1976E-06 (337)	5.2619E-06 (77)	5.0238E-06 (77)	5.2948E-06 (19)
18	9.6011E-06 (336)	1.0028E-05 (336)	1.0041E-05 (336)	9.8083E-06 (336)	9.4408E-06 (336)
19	9.0371E-06 (302)	8.6235E-06 (302)	8.7069E-06 (292)	8.7109E-06 (292)	8.5950E-06 (292)
20	7.7648E-06 (292)	7.6959E-06 (286)	7.1938E-06 (286)	6.6607E-06 (286)	6.4723E-06 (318)
21	5.3725E-06 (98)	5.7275E-06 (98)	5.7211E-06 (57)	5.5782E-06 (57)	5.3664E-06 (57)
22	5.2867E-06 (166)	4.6559E-06 (166)	4.1859E-06 (166)	4.0986E-06 (348)	3.9560E-06 (348)
23	6.2101E-06 (242)	5.7957E-06 (242)	5.5276E-06 (232)	5.6100E-06 (232)	5.5682E-06 (232)
24	5.9543E-06 (297)	5.5069E-06 (101)	5.2492E-06 (119)	5.0870E-06 (119)	4.9113E-06 (119)
25	5.2865E-06 (243)	4.7874E-06 (307)	4.6308E-06 (307)	4.4040E-06 (307)	4.1493E-06 (307)
26	6.2661E-06 (278)	5.8579E-06 (278)	5.3953E-06 (278)	4.9415E-06 (278)	4.5203E-06 (278)
27	3.9344E-06 (80)	4.2551E-06 (114)	4.5644E-06 (241)	4.4164E-06 (241)	4.5081E-06 (148)
28	4.4227E-06 (63)	4.1775E-06 (64)	4.2118E-06 (64)	4.1278E-06 (64)	3.9803E-06 (64)
29	4.7910E-06 (127)	4.7797E-06 (127)	4.6449E-06 (127)	4.4447E-06 (127)	4.2148E-06 (127)
30	4.4596E-06 (120)	4.4762E-06 (80)	5.1694E-06 (25)	5.7976E-06 (25)	5.7650E-06 (64)
31	5.0842E-06 (135)	5.1731E-06 (135)	5.1856E-06 (136)	5.7939E-06 (136)	6.1353E-06 (168)
32	4.7683E-06 (47)	4.8960E-06 (47)	4.9398E-06 (135)	4.8182E-06 (135)	4.6784E-06 (135)
33	3.4095E-06 (360)	3.7378E-06 (24)	3.5351E-06 (24)	3.3110E-06 (24)	3.0871E-06 (24)
34	4.3302E-06 (282)	4.5647E-06 (282)	4.3369E-06 (144)	4.2588E-06 (331)	4.2811E-06 (331)
35	4.2201E-06 (27)	4.2338E-06 (27)	4.1776E-06 (27)	4.0914E-06 (27)	3.9942E-06 (27)
36	5.1206E-06 (215)	5.1036E-06 (214)	5.8369E-06 (188)	5.7425E-06 (188)	5.8829E-06 (333)

18

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 24-HOUR CONC= 9.9046E-06 DIRECTION= 27 DISTANCE= 2.5 KM DAY=217
YEAR= 77

SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR

RANGE DIR	0.5 KM	1.0 KM	1.5 KM	2.0 KM	2.5 KM
1	3.6663E-07 (87)	4.2350E-06 (236)	7.1904E-06 (207)	6.9633E-06 (207)	5.9877E-06 (207)
2	9.6178E-08 (248)	3.6783E-06 (145)	4.2830E-06 (145)	4.4797E-06 (285)	4.6758E-06 (230)
3	1.7283E-07 (180)	3.5084E-06 (189)	4.7071E-06 (251)	4.5161E-06 (145)	4.3627E-06 (285)
4	2.4149E-07 (229)	3.9927E-06 (252)	5.7584E-06 (252)	5.8560E-06 (145)	5.2338E-06 (157)
5	2.4178E-07 (180)	3.4581E-06 (171)	5.9971E-06 (172)	6.9729E-06 (177)	6.3732E-06 (177)
6	3.6864E-07 (190)	3.4813E-06 (158)	4.5398E-06 (208)	4.3120E-06 (77)	5.2114E-06 (172)
7	4.4506E-07 (190)	4.2072E-06 (114)	5.3379E-06 (114)	5.4490E-06 (3)	5.7692E-06 (3)
8	2.0511E-07 (169)	2.9863E-06 (167)	4.1748E-06 (174)	3.7927E-06 (300)	3.9619E-06 (3)
9	2.1908E-07 (134)	3.0205E-06 (174)	4.9918E-06 (128)	5.5619E-06 (176)	6.3600E-06 (81)
10	1.8321E-07 (134)	2.1584E-06 (176)	3.2975E-06 (174)	4.4799E-06 (275)	4.6330E-06 (10)
11	2.4822E-07 (187)	2.6709E-06 (178)	5.4880E-06 (127)	7.1187E-06 (127)	7.4256E-06 (127)
12	3.5990E-07 (187)	3.8173E-06 (161)	6.1959E-06 (178)	6.2042E-06 (164)	5.8884E-06 (164)
13	3.6909E-07 (187)	3.0066E-06 (187)	5.4697E-06 (19)	5.7257E-06 (330)	6.5407E-06 (330)
14	2.7212E-07 (187)	3.0101E-06 (172)	4.0924E-06 (173)	4.3887E-06 (340)	5.1476E-06 (340)
15	1.8141E-07 (267)	2.9387E-06 (164)	4.2712E-06 (134)	4.3156E-06 (32)	5.1403E-06 (32)
16	2.4438E-07 (267)	3.5677E-06 (164)	5.3363E-06 (315)	5.4023E-06 (203)	5.2360E-06 (96)
17	2.0153E-07 (184)	4.3937E-06 (163)	5.4140E-06 (163)	5.1284E-06 (98)	5.2627E-06 (341)
18	2.5578E-07 (184)	3.0958E-06 (163)	4.2336E-06 (163)	5.5422E-06 (143)	6.9881E-06 (38)
19	2.6609E-07 (257)	3.7398E-06 (186)	2.4826E-06 (29)	3.4085E-06 (99)	3.5259E-06 (99)
20	2.1081E-07 (186)	4.1124E-06 (187)	3.2201E-06 (30)	4.4361E-06 (30)	4.8030E-06 (30)
21	1.0594E-07 (156)	2.6710E-06 (187)	2.9809E-06 (105)	3.4988E-06 (205)	4.1595E-06 (39)
22	1.6310E-07 (99)	2.5546E-06 (142)	3.9447E-06 (133)	4.0217E-06 (142)	4.7991E-06 (276)
23	2.2000E-07 (101)	4.0608E-06 (142)	6.1862E-06 (133)	6.6562E-06 (293)	6.7498E-06 (293)
24	3.1219E-07 (255)	4.8435E-06 (101)	6.3789E-06 (278)	8.3932E-06 (278)	8.7908E-06 (278)
25	2.9194E-07 (101)	4.6243E-06 (101)	6.1394E-06 (101)	6.0075E-06 (101)	5.4752E-06 (101)
26	2.1303E-07 (244)	3.7219E-06 (244)	6.2352E-06 (243)	5.6050E-06 (243)	4.8102E-06 (243)
27	3.6458E-07 (242)	3.0511E-06 (243)	7.5373E-06 (217)	9.5342E-06 (217)	9.9046E-06 (217)
28	3.7404E-07 (214)	3.3268E-06 (136)	4.2749E-06 (138)	4.5990E-06 (221)	4.6631E-06 (221)
29	3.7404E-07 (214)	3.5412E-06 (227)	4.8406E-06 (258)	4.9691E-06 (86)	4.8750E-06 (258)
30	3.7512E-07 (136)	6.3627E-06 (136)	9.1001E-06 (136)	8.9139E-06 (136)	8.3590E-06 (62)
31	3.2834E-07 (111)	6.0624E-06 (112)	6.9807E-06 (209)	6.2750E-06 (121)	5.0235E-06 (112)
32	2.1384E-07 (209)	2.9116E-06 (209)	4.2801E-06 (229)	4.0581E-06 (237)	3.8181E-06 (199)
33	1.7118E-07 (181)	3.2394E-06 (188)	4.7240E-06 (202)	5.1155E-06 (202)	4.8703E-06 (202)
34	1.7040E-07 (193)	3.0255E-06 (229)	3.8457E-06 (206)	4.8748E-06 (87)	4.9893E-06 (92)
35	2.0724E-07 (265)	2.8364E-06 (189)	3.8415E-06 (207)	4.1057E-06 (206)	4.3298E-06 (88)
36	3.2492E-07 (236)	5.9965E-06 (214)	9.0212E-06 (207)	9.6529E-06 (207)	9.0176E-06 (207)

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 24-HOUR CONC= 1.0442E-05 DIRECTION= 36 DISTANCE= 3.0 KM DAY= 65
YEAR= 77

SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR

RANGE DIR	3.0 KM	3.5 KM	4.0 KM	4.5 KM	5.0 KM
1	5.0340E-06 (339)	4.9745E-06 (339)	4.7823E-06 (339)	4.5286E-06 (339)	4.3637E-06 (65)
2	4.0468E-06 (230)	3.9490E-06 (49)	4.0334E-06 (50)	4.2700E-06 (50)	4.3969E-06 (50)
3	4.1332E-06 (285)	3.7216E-06 (285)	3.4660E-06 (170)	3.2010E-06 (170)	3.1609E-06 (146)
4	5.4762E-06 (148)	4.8488E-06 (148)	4.5436E-06 (339)	4.2617E-06 (339)	3.9700E-06 (339)
5	5.7212E-06 (158)	6.2879E-06 (158)	5.7507E-06 (172)	5.1556E-06 (172)	5.1442E-06 (81)
6	4.8370E-06 (172)	4.4429E-06 (157)	4.5262E-06 (157)	4.5400E-06 (157)	4.5391E-06 (157)
7	5.7172E-06 (3)	5.4661E-06 (3)	5.1637E-06 (3)	4.8490E-06 (3)	4.6145E-06 (78)
8	3.9613E-06 (3)	4.2105E-06 (115)	4.8649E-06 (115)	5.2526E-06 (115)	5.3540E-06 (300)
9	7.2261E-06 (36)	7.5197E-06 (81)	7.5142E-06 (81)	7.3172E-06 (81)	7.0981E-06 (128)
10	5.1082E-06 (10)	5.3579E-06 (10)	5.4761E-06 (10)	5.4314E-06 (10)	5.3323E-06 (10)
11	7.1389E-06 (127)	6.6064E-06 (127)	6.0401E-06 (127)	5.5018E-06 (127)	5.0121E-06 (127)
12	5.5032E-06 (161)	4.8967E-06 (19)	4.5954E-06 (19)	4.3209E-06 (47)	4.0685E-06 (47)
13	6.7068E-06 (330)	6.4830E-06 (330)	6.1255E-06 (330)	5.7202E-06 (330)	5.3111E-06 (330)
14	5.3874E-06 (340)	5.2886E-06 (340)	5.0606E-06 (340)	5.0010E-06 (290)	4.9859E-06 (290)
15	5.0013E-06 (117)	4.6679E-06 (286)	4.6889E-06 (48)	4.7936E-06 (48)	4.8034E-06 (48)
16	6.3454E-06 (96)	7.0821E-06 (96)	7.2749E-06 (315)	7.0518E-06 (315)	6.9974E-06 (305)
17	5.5622E-06 (341)	5.5015E-06 (341)	5.3204E-06 (31)	5.5540E-06 (31)	5.6599E-06 (31)
18	8.1761E-06 (38)	9.0371E-06 (38)	9.6417E-06 (38)	9.8833E-06 (38)	9.9707E-06 (38)
19	3.9071E-06 (40)	4.1783E-06 (40)	4.2542E-06 (40)	4.2070E-06 (40)	4.0869E-06 (40)
20	4.9413E-06 (30)	5.3661E-06 (30)	5.3233E-06 (39)	5.8410E-06 (277)	6.1995E-06 (277)
21	4.8076E-06 (39)	5.2272E-06 (41)	5.5787E-06 (205)	5.8989E-06 (205)	6.3689E-06 (102)
22	5.0643E-06 (276)	4.9657E-06 (276)	4.8448E-06 (133)	4.6086E-06 (133)	4.9842E-06 (242)
23	6.6239E-06 (103)	7.2835E-06 (103)	7.4194E-06 (142)	7.0700E-06 (142)	6.7213E-06 (142)
24	8.6068E-06 (278)	8.2082E-06 (278)	8.3467E-06 (277)	8.4067E-06 (102)	7.7977E-06 (102)
25	4.8769E-06 (101)	4.6513E-06 (100)	4.4768E-06 (100)	4.2413E-06 (100)	4.0610E-06 (297)
26	4.5858E-06 (242)	4.3274E-06 (242)	4.0333E-06 (242)	3.7620E-06 (242)	3.7677E-06 (97)
27	9.5380E-06 (217)	8.8577E-06 (217)	8.4011E-06 (240)	8.2126E-06 (240)	7.9762E-06 (240)
28	4.5134E-06 (155)	4.3984E-06 (111)	4.5534E-06 (112)	4.4442E-06 (112)	4.2922E-06 (112)
29	4.7257E-06 (112)	4.4939E-06 (112)	4.2053E-06 (112)	3.9038E-06 (112)	3.7868E-06 (54)
30	8.5408E-06 (258)	8.8504E-06 (86)	8.9487E-06 (86)	8.8022E-06 (86)	8.5506E-06 (86)
31	4.7693E-06 (87)	5.0948E-06 (87)	5.2452E-06 (87)	5.2284E-06 (87)	5.0714E-06 (121)
32	4.5152E-06 (87)	5.2420E-06 (93)	5.4607E-06 (87)	5.5986E-06 (87)	5.6327E-06 (87)
33	4.5268E-06 (249)	4.2128E-06 (93)	4.0461E-06 (202)	4.0752E-06 (63)	3.9699E-06 (93)
34	5.1456E-06 (92)	4.7452E-06 (206)	4.6681E-06 (88)	4.6518E-06 (88)	4.5661E-06 (88)
35	4.7459E-06 (88)	4.7956E-06 (88)	4.6843E-06 (88)	4.4893E-06 (88)	4.3883E-06 (250)
36	1.0442E-05 (65)	1.0197E-05 (94)	9.7786E-06 (94)	9.6877E-06 (233)	1.0199E-05 (233)

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 24-HOUR CONC= 9.7511E-06 DIRECTION= 36 DISTANCE= 2.0 KM DAY=102
YEAR= 78

SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR

RANGE DIR	0.5 KM	1.0 KM	1.5 KM	2.0 KM	2.5 KM
1	6.6684E-07 (212)	4.4711E-06 (186)	4.8122E-06 (184)	5.3957E-06 (247)	5.3214E-06 (44)
2	2.7929E-07 (183)	3.8027E-06 (119)	6.0879E-06 (25)	7.2907E-06 (25)	6.9143E-06 (184)
3	2.8993E-07 (187)	2.7579E-06 (136)	4.7117E-06 (136)	4.5588E-06 (136)	4.6369E-06 (119)
4	2.6206E-07 (145)	2.6508E-06 (184)	5.0109E-06 (135)	6.0498E-06 (119)	4.9566E-06 (119)
5	2.6216E-07 (175)	2.9127E-06 (119)	3.9711E-06 (69)	5.6045E-06 (135)	4.8465E-06 (135)
6	2.4570E-07 (116)	4.3671E-06 (116)	4.8664E-06 (116)	4.3259E-06 (135)	4.0070E-06 (134)
7	1.0976E-07 (135)	2.3528E-06 (111)	3.2937E-06 (116)	3.4260E-06 (121)	3.2238E-06 (121)
8	1.1671E-07 (116)	2.1805E-06 (111)	4.9358E-06 (111)	5.3251E-06 (111)	4.8992E-06 (111)
9	2.3241E-07 (156)	2.6727E-06 (134)	3.5541E-06 (52)	5.0793E-06 (26)	5.2763E-06 (20)
10	2.3241E-07 (156)	2.3801E-06 (248)	3.7014E-06 (9)	4.1203E-06 (116)	3.5446E-06 (20)
11	2.8265E-07 (182)	2.4583E-06 (160)	2.1291E-06 (248)	2.6204E-06 (53)	3.0450E-06 (53)
12	2.2480E-07 (160)	3.1444E-06 (249)	4.6982E-06 (279)	4.8076E-06 (279)	5.2567E-06 (28)
13	1.9089E-07 (249)	5.0520E-06 (117)	6.1675E-06 (249)	6.1264E-06 (279)	5.6115E-06 (255)
14	2.4378E-07 (250)	4.0838E-06 (231)	5.7819E-06 (117)	6.5938E-06 (279)	6.9950E-06 (76)
15	1.8446E-07 (249)	2.7343E-06 (231)	4.5583E-06 (254)	4.7761E-06 (250)	4.4100E-06 (250)
16	7.4735E-08 (249)	1.7918E-06 (254)	3.8538E-06 (308)	4.6337E-06 (307)	4.6886E-06 (81)
17	1.9948E-08 (250)	1.3448E-06 (125)	2.8794E-06 (308)	3.6948E-06 (11)	4.4867E-06 (41)
18	3.4222E-08 (175)	2.1561E-06 (125)	4.0649E-06 (324)	5.7855E-06 (11)	7.0285E-06 (304)
19	1.2399E-07 (161)	2.3285E-06 (144)	2.8584E-06 (145)	3.9183E-06 (40)	5.7720E-06 (304)
20	2.5828E-07 (161)	2.6182E-06 (144)	4.6537E-06 (145)	4.8205E-06 (125)	4.3532E-06 (316)
21	3.0411E-07 (161)	3.5276E-06 (145)	5.1552E-06 (316)	5.0304E-06 (145)	3.9409E-06 (77)
22	2.8612E-07 (182)	3.7556E-06 (161)	5.6565E-06 (217)	5.3393E-06 (269)	5.3902E-06 (269)
23	2.6895E-07 (186)	3.5607E-06 (251)	6.2772E-06 (269)	7.9810E-06 (269)	7.3548E-06 (237)
24	2.5833E-07 (89)	3.6387E-06 (130)	5.6445E-06 (106)	6.5815E-06 (262)	7.0210E-06 (114)
25	2.2237E-07 (245)	4.0337E-06 (179)	5.4992E-06 (162)	6.0255E-06 (147)	6.1638E-06 (363)
26	2.8523E-07 (245)	4.5824E-06 (195)	8.2899E-06 (149)	9.1331E-06 (149)	8.2397E-06 (163)
27	2.7790E-07 (202)	5.1089E-06 (202)	7.2683E-06 (140)	8.3179E-06 (204)	8.5151E-06 (204)
28	2.9976E-07 (93)	4.1501E-06 (176)	5.1672E-06 (93)	6.3061E-06 (93)	6.5364E-06 (93)
29	2.4717E-07 (190)	4.1021E-06 (144)	5.4130E-06 (205)	5.5318E-06 (203)	5.1918E-06 (113)
30	2.4370E-07 (150)	3.9551E-06 (216)	6.3684E-06 (216)	5.7662E-06 (78)	5.6932E-06 (78)
31	1.7041E-07 (150)	3.9866E-06 (216)	6.4316E-06 (107)	6.6430E-06 (222)	6.4818E-06 (78)
32	2.3428E-07 (108)	3.4295E-06 (108)	5.7646E-06 (201)	5.6351E-06 (201)	4.7128E-06 (201)
33	2.6778E-07 (207)	5.4547E-06 (190)	5.5908E-06 (100)	5.9121E-06 (100)	6.0250E-06 (19)
34	3.1242E-07 (180)	5.8058E-06 (207)	5.7767E-06 (207)	5.6915E-06 (199)	5.8013E-06 (154)
35	5.1600E-07 (180)	5.2485E-06 (129)	7.4507E-06 (120)	7.0323E-06 (120)	6.5825E-06 (102)
36	1.1166E-06 (187)	4.8125E-06 (102)	9.3820E-06 (102)	9.7511E-06 (102)	9.2162E-06 (338)

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 24-HOUR CONC= 9.9757E-06 DIRECTION= 27 DISTANCE= 4.0 KM DAY=169
YEAR= 78

SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 3.0 KM	3.5 KM	4.0 KM	4.5 KM	5.0 KM
1	4.6968E-06 (247)	4.4485E-06 (338)	4.6181E-06 (338)	4.6343E-06 (338)	4.5827E-06 (338)
2	6.5626E-06 (184)	6.1960E-06 (25)	5.5858E-06 (25)	5.8117E-06 (355)	5.9349E-06 (355)
3	3.6580E-06 (119)	2.9002E-06 (119)	2.7390E-06 (355)	2.8697E-06 (74)	3.0111E-06 (74)
4	5.3498E-06 (85)	5.5764E-06 (85)	5.5652E-06 (85)	5.4181E-06 (85)	5.1990E-06 (85)
5	5.3100E-06 (355)	5.4236E-06 (355)	5.3300E-06 (355)	5.1269E-06 (355)	5.0085E-06 (213)
6	4.1156E-06 (134)	4.0951E-06 (134)	4.0099E-06 (134)	3.8687E-06 (134)	3.7268E-06 (20)
7	2.9835E-06 (69)	3.1408E-06 (13)	3.4857E-06 (353)	3.4749E-06 (353)	3.5643E-06 (55)
8	4.3980E-06 (111)	3.9771E-06 (111)	3.7029E-06 (45)	3.8478E-06 (45)	3.9220E-06 (45)
9	6.6314E-06 (26)	6.6850E-06 (26)	6.6514E-06 (86)	6.8716E-06 (86)	6.9616E-06 (86)
10	4.3453E-06 (20)	4.7459E-06 (20)	4.9339E-06 (20)	4.9769E-06 (20)	4.9378E-06 (20)
11	3.1291E-06 (53)	3.0141E-06 (53)	2.8332E-06 (53)	2.9408E-06 (63)	3.0418E-06 (63)
12	6.1736E-06 (28)	6.6638E-06 (28)	6.9006E-06 (28)	6.8977E-06 (28)	6.7944E-06 (28)
13	5.0129E-06 (53)	4.8005E-06 (53)	4.4865E-06 (53)	4.1438E-06 (53)	3.8069E-06 (53)
14	7.1252E-06 (76)	6.8461E-06 (76)	6.4357E-06 (76)	5.9859E-06 (76)	5.5411E-06 (76)
15	3.9424E-06 (250)	4.3316E-06 (307)	4.9328E-06 (307)	5.2883E-06 (307)	5.4837E-06 (307)
16	4.1223E-06 (346)	4.5459E-06 (346)	4.7832E-06 (346)	5.0398E-06 (280)	5.1935E-06 (280)
17	5.2176E-06 (288)	5.6171E-06 (288)	5.8007E-06 (288)	6.0839E-06 (305)	6.4884E-06 (305)
18	7.7408E-06 (288)	8.4179E-06 (325)	8.8772E-06 (325)	9.0623E-06 (325)	9.0064E-06 (288)
19	6.1477E-06 (304)	6.1448E-06 (304)	6.2198E-06 (36)	6.5277E-06 (36)	6.6585E-06 (36)
20	4.5946E-06 (36)	5.1393E-06 (36)	5.3805E-06 (36)	5.4215E-06 (36)	5.5007E-06 (296)
21	4.3357E-06 (77)	4.3828E-06 (77)	4.1016E-06 (4)	4.0767E-06 (77)	3.9412E-06 (88)
22	5.3494E-06 (271)	5.3417E-06 (271)	5.2275E-06 (271)	5.0510E-06 (271)	4.9953E-06 (302)
23	6.6401E-06 (267)	6.1839E-06 (318)	6.9692E-06 (104)	7.2646E-06 (104)	7.3868E-06 (104)
24	6.0195E-06 (114)	5.1552E-06 (114)	4.8371E-06 (234)	4.9874E-06 (234)	5.0438E-06 (234)
25	6.8623E-06 (363)	7.0690E-06 (363)	7.0306E-06 (363)	6.8343E-06 (363)	6.5596E-06 (363)
26	7.9746E-06 (149)	7.2173E-06 (149)	7.0146E-06 (364)	7.0542E-06 (364)	6.9788E-06 (364)
27	8.9402E-06 (171)	9.5112E-06 (171)	9.9757E-06 (169)	9.7528E-06 (169)	9.4590E-06 (169)
28	6.1653E-06 (93)	6.4216E-06 (113)	6.7201E-06 (113)	6.8152E-06 (113)	6.7750E-06 (113)
29	5.3907E-06 (205)	4.7643E-06 (205)	4.2296E-06 (205)	3.8188E-06 (205)	3.6509E-06 (299)
30	5.1214E-06 (78)	4.6489E-06 (83)	4.7686E-06 (7)	4.9185E-06 (7)	4.6582E-06 (203)
31	5.8894E-06 (78)	5.1815E-06 (78)	4.7611E-06 (80)	4.5931E-06 (80)	4.3693E-06 (80)
32	4.4781E-06 (190)	4.5604E-06 (8)	4.8393E-06 (8)	4.9526E-06 (8)	4.9664E-06 (8)
33	6.2964E-06 (19)	6.4249E-06 (124)	6.6066E-06 (124)	6.5270E-06 (73)	6.4784E-06 (124)
34	5.7558E-06 (210)	5.8091E-06 (199)	5.6371E-06 (199)	5.4844E-06 (331)	5.6287E-06 (331)
35	6.2602E-06 (102)	5.8872E-06 (102)	5.4347E-06 (160)	5.3104E-06 (102)	5.2292E-06 (74)
36	9.7847E-06 (25)	9.0085E-06 (25)	8.2120E-06 (25)	7.4651E-06 (25)	6.7905E-06 (25)

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 3-HOUR CONC= 3.8763E-05 DIRECTION= 18 DISTANCE= 2.5 KM DAY=297 TIME PERIOD= 5
YEAR= 74

SECOND HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR

RANGE DIR	0.5 KM	1.0 KM	1.5 KM	2.0 KM	2.5 KM
1	1.5099E-06 (80, 4)	1.9848E-05 (196, 4)	2.4802E-05 (196, 4)	3.0948E-05 (354, 5)	3.1182E-05 (50, 6)
2	1.9476E-06 (80, 4)	2.3125E-05 (152, 4)	2.9710E-05 (152, 4)	2.7555E-05 (78, 4)	2.7410E-05 (78, 4)
3	1.4989E-06 (188, 4)	2.5570E-05 (97, 5)	1.8597E-05 (97, 5)	1.8039E-05 (34, 5)	1.7833E-05 (34, 5)
4	1.0858E-06 (174, 5)	2.8096E-05 (125, 5)	2.9796E-05 (153, 4)	2.9441E-05 (125, 5)	2.7752E-05 (132, 4)
5	3.1547E-06 (176, 4)	2.8044E-05 (176, 4)	3.3743E-05 (146, 5)	3.2349E-05 (146, 5)	2.8729E-05 (146, 5)
6	1.8129E-06 (206, 4)	2.3331E-05 (168, 4)	3.0071E-05 (90, 5)	2.7611E-05 (230, 5)	2.3678E-05 (230, 5)
7	1.5735E-06 (188, 5)	2.0143E-05 (151, 4)	2.4743E-05 (151, 4)	2.4494E-05 (89, 5)	2.5754E-05 (203, 4)
8	1.9568E-06 (145, 5)	1.8081E-05 (169, 4)	2.2565E-05 (106, 4)	2.3106E-05 (106, 4)	1.9876E-05 (203, 4)
9	1.7889E-06 (123, 4)	2.0374E-05 (89, 5)	1.6379E-05 (223, 4)	1.7829E-05 (7, 4)	1.9967E-05 (7, 4)
10	2.3805E-06 (89, 5)	1.9228E-05 (163, 5)	2.1093E-05 (201, 4)	2.1769E-05 (99, 6)	2.1380E-05 (99, 6)
11	1.9501E-06 (173, 4)	2.5845E-05 (163, 5)	2.7697E-05 (150, 5)	2.8119E-05 (202, 4)	2.6316E-05 (167, 5)
12	2.3239E-06 (151, 5)	2.9089E-05 (150, 5)	2.9428E-05 (191, 4)	2.6038E-05 (201, 4)	2.3821E-05 (201, 4)
13	2.7497E-06 (211, 4)	2.5493E-05 (151, 5)	2.6858E-05 (114, 4)	2.6315E-05 (163, 4)	2.2586E-05 (196, 6)
14	1.0569E-06 (207, 6)	2.3591E-05 (196, 5)	2.5325E-05 (145, 5)	2.6074E-05 (291, 4)	2.4975E-05 (206, 6)
15	7.6402E-07 (196, 5)	2.3976E-05 (211, 4)	2.5572E-05 (69, 5)	2.1204E-05 (196, 5)	2.1484E-05 (163, 6)
16	7.0636E-07 (163, 5)	1.1897E-05 (196, 5)	1.9483E-05 (72, 4)	2.0325E-05 (107, 4)	1.8365E-05 (57, 5)
17	2.4251E-07 (100, 5)	2.3923E-05 (124, 4)	3.3177E-05 (124, 4)	2.9343E-05 (124, 4)	2.4881E-05 (124, 4)
18	4.5643E-07 (198, 4)	2.8545E-05 (128, 5)	3.1928E-05 (124, 4)	3.8717E-05 (297, 5)	3.8763E-05 (297, 5)
19	7.5096E-07 (181, 6)	2.6037E-05 (128, 5)	2.0604E-05 (319, 4)	2.0979E-05 (265, 4)	2.1383E-05 (265, 4)
20	1.9980E-06 (211, 5)	2.4304E-05 (108, 5)	2.0171E-05 (276, 5)	2.1047E-05 (296, 5)	2.1421E-05 (257, 4)
21	1.7735E-06 (211, 5)	2.0873E-05 (109, 5)	2.4546E-05 (115, 4)	2.8778E-05 (330, 4)	3.0947E-05 (277, 5)
22	3.5767E-06 (225, 5)	2.4457E-05 (117, 5)	3.2150E-05 (100, 4)	2.9077E-05 (100, 4)	2.3991E-05 (100, 4)
23	3.1686E-06 (225, 5)	2.2271E-05 (67, 6)	3.1931E-05 (171, 5)	3.7368E-05 (278, 5)	3.7233E-05 (278, 5)
24	1.8147E-06 (238, 4)	1.9453E-05 (111, 5)	2.1750E-05 (110, 4)	2.0803E-05 (180, 5)	2.1380E-05 (195, 3)
25	1.4145E-06 (67, 6)	1.5560E-05 (227, 5)	2.0796E-05 (262, 4)	2.4660E-05 (262, 4)	2.3090E-05 (262, 4)
26	9.9994E-07 (238, 4)	1.8438E-05 (140, 5)	2.4671E-05 (224, 5)	2.6178E-05 (140, 5)	2.2904E-05 (301, 5)
27	1.7140E-06 (156, 4)	2.7751E-05 (205, 4)	3.1104E-05 (140, 4)	2.8494E-05 (140, 4)	2.3742E-05 (287, 4)
28	1.7711E-06 (165, 4)	1.8692E-05 (246, 4)	2.7841E-05 (246, 4)	2.3735E-05 (133, 5)	1.8258E-05 (287, 4)
29	1.7711E-06 (165, 4)	1.8283E-05 (170, 4)	2.2617E-05 (321, 4)	2.8654E-05 (243, 5)	2.8762E-05 (243, 5)
30	1.6960E-06 (169, 4)	2.0019E-05 (211, 5)	2.4291E-05 (62, 5)	2.3915E-05 (62, 5)	2.3056E-05 (239, 6)
31	5.9332E-06 (135, 5)	2.0035E-05 (211, 5)	2.4557E-05 (164, 4)	2.1956E-05 (65, 4)	2.0468E-05 (65, 4)
32	1.2869E-05 (135, 5)	2.9983E-05 (103, 5)	3.2205E-05 (243, 4)	2.8441E-05 (159, 4)	2.3790E-05 (159, 4)
33	4.7516E-06 (220, 5)	2.2718E-05 (243, 4)	2.9226E-05 (227, 4)	2.7496E-05 (214, 4)	2.4793E-05 (94, 4)
34	1.9562E-06 (207, 4)	1.6689E-05 (207, 4)	2.2897E-05 (227, 4)	2.7763E-05 (132, 1)	3.1602E-05 (132, 1)
35	1.6489E-06 (221, 4)	2.0531E-05 (94, 5)	2.9208E-05 (152, 5)	2.6918E-05 (152, 5)	2.3303E-05 (158, 4)
36	8.0647E-07 (221, 4)	1.8225E-05 (176, 3)	2.4774E-05 (9, 5)	2.6433E-05 (9, 5)	2.3510E-05 (9, 5)

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 3-HOUR CONC= 3.5682E-05 DIRECTION= 18 DISTANCE= 3.0 KM DAY=279 TIME PERIOD= 6
YEAR= 74

SECOND HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 3.0 KM	3.5 KM	4.0 KM	4.5 KM	5.0 KM
1	3.0189E-05 (50, 6)	2.8020E-05 (50, 6)	2.5654E-05 (50, 6)	2.3366E-05 (50, 6)	2.1262E-05 (50, 6)
2	2.4643E-05 (78, 4)	2.4191E-05 (38, 4)	2.1714E-05 (50, 5)	1.9276E-05 (50, 5)	1.7201E-05 (50, 5)
3	1.6773E-05 (84, 4)	1.4612E-05 (84, 4)	1.4952E-05 (34, 5)	1.4041E-05 (34, 5)	1.3380E-05 (34, 4)
4	2.6129E-05 (153, 4)	2.2015E-05 (153, 4)	2.0619E-05 (143, 6)	2.1799E-05 (132, 4)	1.9987E-05 (132, 4)
5	2.5066E-05 (146, 5)	2.1771E-05 (146, 5)	1.9016E-05 (146, 5)	1.7657E-05 (349, 8)	1.8702E-05 (50, 7)
6	2.3463E-05 (88, 6)	2.3490E-05 (88, 6)	2.2748E-05 (88, 6)	2.1636E-05 (88, 6)	2.0378E-05 (88, 6)
7	2.0467E-05 (203, 4)	1.8451E-05 (174, 6)	1.8475E-05 (324, 6)	1.8983E-05 (88, 7)	1.9557E-05 (89, 5)
8	1.9022E-05 (106, 4)	1.6622E-05 (193, 5)	1.6303E-05 (146, 1)	1.9680E-05 (146, 1)	2.2512E-05 (146, 1)
9	1.9569E-05 (7, 4)	1.8065E-05 (7, 4)	1.9864E-05 (325, 7)	2.2510E-05 (89, 7)	2.3520E-05 (89, 7)
10	2.1151E-05 (113, 6)	2.1861E-05 (113, 6)	2.1986E-05 (99, 5)	1.8530E-05 (99, 5)	1.6634E-05 (336, 6)
11	2.2251E-05 (167, 5)	2.0089E-05 (351, 6)	2.0158E-05 (351, 6)	2.0454E-05 (335, 3)	2.0224E-05 (335, 3)
12	2.0561E-05 (201, 4)	1.8715E-05 (145, 4)	1.6105E-05 (336, 7)	1.7282E-05 (336, 7)	1.8192E-05 (316, 6)
13	2.1945E-05 (337, 4)	2.1568E-05 (196, 6)	1.9619E-05 (196, 6)	1.7586E-05 (196, 6)	1.8281E-05 (40, 7)
14	2.3282E-05 (325, 4)	2.2408E-05 (206, 6)	2.3451E-05 (325, 1)	2.3649E-05 (325, 1)	2.3489E-05 (325, 1)
15	2.0699E-05 (163, 6)	1.8430E-05 (69, 5)	1.7660E-05 (280, 4)	1.8097E-05 (280, 4)	1.8080E-05 (280, 4)
16	1.7576E-05 (57, 5)	1.5859E-05 (57, 5)	1.6178E-05 (275, 2)	1.7167E-05 (96, 2)	1.7864E-05 (96, 2)
17	2.1201E-05 (148, 4)	1.9033E-05 (51, 5)	1.8011E-05 (57, 4)	1.8466E-05 (311, 2)	1.9711E-05 (311, 2)
18	3.5682E-05 (279, 6)	3.1239E-05 (51, 5)	2.8118E-05 (297, 4)	2.7099E-05 (297, 4)	2.5884E-05 (297, 4)
19	2.0975E-05 (108, 3)	2.0829E-05 (51, 5)	1.9900E-05 (108, 3)	1.8693E-05 (108, 3)	1.7933E-05 (330, 7)
20	2.4200E-05 (296, 6)	2.5169E-05 (296, 5)	2.3907E-05 (296, 5)	2.3479E-05 (297, 1)	2.6232E-05 (297, 1)
21	2.9617E-05 (277, 5)	2.7303E-05 (277, 5)	2.4883E-05 (277, 5)	2.2591E-05 (277, 5)	2.0509E-05 (277, 5)
22	2.1744E-05 (267, 4)	2.1823E-05 (283, 5)	2.1778E-05 (258, 5)	2.1294E-05 (283, 5)	2.3669E-05 (148, 1)
23	3.4784E-05 (195, 4)	2.9446E-05 (195, 4)	2.4898E-05 (195, 4)	2.1172E-05 (195, 4)	1.9843E-05 (285, 5)
24	1.9943E-05 (195, 3)	1.8476E-05 (117, 6)	1.7580E-05 (117, 6)	1.6001E-05 (255, 6)	1.6013E-05 (18, 7)
25	2.0074E-05 (262, 4)	1.7074E-05 (262, 4)	1.6505E-05 (198, 4)	1.5665E-05 (198, 4)	1.6604E-05 (340, 7)
26	2.1933E-05 (301, 5)	2.0147E-05 (301, 5)	1.8264E-05 (301, 5)	1.6671E-05 (302, 6)	1.7538E-05 (194, 7)
27	2.0497E-05 (287, 4)	1.8331E-05 (184, 3)	1.6152E-05 (357, 4)	1.4318E-05 (101, 4)	1.3529E-05 (159, 7)
28	1.6564E-05 (321, 5)	1.6733E-05 (215, 6)	1.5581E-05 (357, 5)	1.6085E-05 (102, 3)	1.6567E-05 (102, 3)
29	2.5639E-05 (139, 5)	2.1327E-05 (139, 5)	2.0898E-05 (102, 7)	2.1541E-05 (24, 6)	2.1458E-05 (24, 6)
30	1.9912E-05 (65, 4)	1.8214E-05 (184, 4)	1.9168E-05 (184, 4)	1.9431E-05 (184, 4)	1.9248E-05 (184, 4)
31	1.8546E-05 (52, 4)	1.8390E-05 (207, 7)	1.7760E-05 (49, 5)	1.7712E-05 (207, 7)	1.6993E-05 (207, 7)
32	1.9402E-05 (159, 4)	1.8392E-05 (131, 3)	1.6192E-05 (24, 5)	1.6385E-05 (24, 5)	1.6316E-05 (131, 3)
33	2.3370E-05 (94, 4)	2.0089E-05 (63, 4)	1.9373E-05 (94, 4)	1.7531E-05 (94, 4)	1.6330E-05 (27, 1)
34	3.1721E-05 (186, 4)	2.9162E-05 (186, 4)	2.6119E-05 (186, 4)	2.3158E-05 (186, 4)	2.1057E-05 (177, 2)
35	1.9904E-05 (309, 5)	1.7516E-05 (21, 2)	2.1738E-05 (27, 4)	2.1397E-05 (27, 4)	2.0710E-05 (27, 4)
36	2.1379E-05 (28, 5)	2.1466E-05 (185, 5)	2.2300E-05 (209, 8)	2.2590E-05 (28, 5)	2.1915E-05 (28, 5)

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 3-HOUR CONC= 3.8864E-05 DIRECTION= 8 DISTANCE= 1.0 KM DAY=225 TIME PERIOD= 5
YEAR= 75

SECOND HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR

RANGE DIR	0.5 KM	1.0 KM	1.5 KM	2.0 KM	2.5 KM
1	1.5604E-06 (207, 5)	2.5567E-05 (215, 5)	3.3629E-05 (167, 4)	3.2996E-05 (92, 4)	2.8828E-05 (92, 4)
2	3.3418E-06 (207, 5)	2.4622E-05 (207, 5)	2.6972E-05 (223, 5)	2.7132E-05 (207, 5)	2.3885E-05 (207, 5)
3	1.4112E-06 (126, 4)	1.7439E-05 (166, 5)	2.5647E-05 (166, 5)	2.6414E-05 (66, 5)	2.6209E-05 (66, 5)
4	1.9492E-06 (217, 4)	1.6353E-05 (217, 4)	2.9697E-05 (188, 4)	2.9812E-05 (188, 4)	2.5609E-05 (188, 4)
5	1.8616E-06 (219, 5)	3.0038E-05 (203, 4)	3.0161E-05 (186, 4)	3.2557E-05 (89, 5)	3.3670E-05 (89, 5)
6	2.0973E-06 (219, 5)	2.3964E-05 (191, 4)	3.1302E-05 (191, 4)	2.7216E-05 (191, 4)	2.8521E-05 (37, 6)
7	1.3941E-06 (203, 4)	2.9949E-05 (110, 4)	3.3761E-05 (186, 5)	2.9810E-05 (186, 5)	2.5823E-05 (110, 4)
8	1.4251E-06 (157, 4)	3.8864E-05 (225, 5)	3.5162E-05 (157, 5)	2.9854E-05 (157, 5)	2.5941E-05 (157, 4)
9	1.1818E-06 (124, 5)	1.8278E-05 (157, 5)	2.3571E-05 (124, 5)	2.6371E-05 (1, 5)	2.7117E-05 (1, 5)
10	2.2476E-06 (138, 5)	1.6169E-05 (145, 5)	2.4419E-05 (186, 6)	3.3259E-05 (186, 6)	2.7147E-05 (138, 5)
11	1.4869E-06 (163, 4)	2.4867E-05 (164, 5)	3.4312E-05 (128, 5)	3.2177E-05 (129, 4)	2.6623E-05 (93, 6)
12	1.9117E-06 (163, 5)	2.5992E-05 (180, 5)	2.7297E-05 (129, 4)	2.5833E-05 (55, 5)	2.7132E-05 (55, 5)
13	1.9996E-06 (156, 5)	2.3089E-05 (105, 4)	3.1856E-05 (128, 4)	3.2883E-05 (244, 5)	2.9202E-05 (244, 5)
14	8.6842E-07 (116, 4)	1.8175E-05 (225, 4)	2.6050E-05 (139, 4)	2.7242E-05 (139, 4)	2.4980E-05 (291, 5)
15	1.1018E-06 (156, 5)	1.6880E-05 (96, 5)	2.6262E-05 (231, 5)	2.6258E-05 (94, 4)	2.2920E-05 (361, 4)
16	5.4968E-07 (139, 4)	1.5787E-05 (230, 4)	2.0654E-05 (96, 5)	2.5256E-05 (102, 4)	2.6617E-05 (102, 4)
17	7.1371E-07 (155, 4)	1.8517E-05 (85, 5)	2.1042E-05 (155, 4)	1.9721E-05 (95, 4)	1.8192E-05 (95, 4)
18	5.2087E-07 (85, 5)	2.0587E-05 (106, 5)	2.4519E-05 (106, 5)	2.6937E-05 (85, 5)	2.1384E-05 (85, 5)
19	6.1240E-07 (106, 5)	1.7053E-05 (244, 4)	2.9420E-05 (106, 5)	3.0444E-05 (131, 4)	2.7304E-05 (131, 4)
20	4.5974E-07 (141, 4)	1.5901E-05 (244, 4)	1.5868E-05 (320, 4)	1.8898E-05 (21, 4)	1.8950E-05 (17, 4)
21	6.3983E-07 (141, 4)	1.7001E-05 (181, 5)	2.4744E-05 (141, 4)	2.5157E-05 (320, 4)	2.3686E-05 (184, 4)
22	1.1087E-06 (294, 4)	1.8466E-05 (182, 5)	2.2300E-05 (182, 5)	2.4694E-05 (294, 4)	2.4030E-05 (96, 4)
23	7.7208E-07 (145, 5)	1.7753E-05 (219, 6)	2.5068E-05 (45, 5)	2.9036E-05 (338, 4)	2.7129E-05 (338, 4)
24	1.4164E-06 (146, 4)	2.3288E-05 (170, 5)	3.0031E-05 (103, 5)	2.6288E-05 (300, 5)	2.6441E-05 (284, 5)
25	1.9081E-06 (146, 4)	2.2954E-05 (103, 5)	3.3222E-05 (144, 5)	3.2992E-05 (144, 5)	2.8342E-05 (144, 5)
26	1.7994E-06 (225, 5)	2.1520E-05 (146, 4)	2.5288E-05 (234, 5)	2.2016E-05 (234, 5)	2.0230E-05 (112, 4)
27	1.4310E-06 (232, 5)	2.5149E-05 (112, 5)	3.0172E-05 (112, 5)	2.8006E-05 (112, 5)	2.5549E-05 (112, 5)
28	1.2932E-06 (234, 4)	2.5638E-05 (214, 4)	2.9470E-05 (197, 5)	3.1158E-05 (197, 5)	2.8248E-05 (197, 5)
29	6.1982E-07 (234, 4)	1.8718E-05 (205, 5)	2.1389E-05 (86, 4)	2.3014E-05 (205, 6)	2.4148E-05 (196, 6)
30	1.0902E-06 (225, 4)	1.9595E-05 (117, 4)	2.7669E-05 (260, 5)	2.8019E-05 (117, 4)	2.3735E-05 (260, 5)
31	1.6122E-06 (120, 5)	1.7735E-05 (114, 5)	2.0204E-05 (117, 4)	1.9343E-05 (117, 5)	1.8923E-05 (19, 4)
32	1.7735E-06 (227, 4)	1.6358E-05 (120, 5)	1.8992E-05 (121, 5)	1.8564E-05 (53, 5)	1.8496E-05 (316, 4)
33	1.8193E-06 (204, 4)	2.1524E-05 (147, 4)	2.7208E-05 (123, 4)	2.5554E-05 (123, 4)	2.3235E-05 (210, 5)
34	1.9416E-06 (109, 4)	2.8178E-05 (147, 6)	2.8641E-05 (151, 4)	3.0214E-05 (359, 8)	2.9389E-05 (151, 4)
35	3.3536E-06 (83, 4)	3.0379E-05 (109, 4)	2.7655E-05 (120, 4)	2.4328E-05 (109, 4)	2.0657E-05 (55, 3)
36	2.0184E-06 (83, 4)	2.7472E-05 (190, 5)	3.2509E-05 (218, 5)	3.5338E-05 (190, 5)	2.8707E-05 (190, 5)

25

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 3-HOUR CONC= 3.2142E-05 DIRECTION= 5 DISTANCE= 3.0 KM DAY= 89 TIME PERIOD= 5
YEAR= 75

SECOND HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 3.0 KM	3.5 KM	4.0 KM	4.5 KM	5.0 KM
1	2.4894E-05 (167, 4)	2.0685E-05 (167, 4)	1.9178E-05 (191, 3)	1.7908E-05 (50, 2)	1.9270E-05 (331, 4)
2	2.1390E-05 (4, 5)	1.9954E-05 (4, 5)	1.9745E-05 (50, 4)	1.9798E-05 (119, 4)	2.0280E-05 (19, 7)
3	2.4354E-05 (66, 5)	2.1997E-05 (66, 5)	1.9741E-05 (66, 5)	1.7714E-05 (66, 5)	1.5935E-05 (66, 5)
4	2.1157E-05 (188, 4)	2.0783E-05 (50, 5)	1.9951E-05 (50, 5)	1.8846E-05 (50, 5)	1.7654E-05 (50, 5)
5	3.2142E-05 (89, 5)	2.8567E-05 (25, 5)	2.4990E-05 (61, 1)	2.5598E-05 (4, 6)	2.5885E-05 (61, 2)
6	2.4041E-05 (43, 6)	2.3425E-05 (43, 6)	2.2250E-05 (43, 6)	2.0863E-05 (43, 6)	1.9438E-05 (43, 6)
7	2.1459E-05 (101, 5)	2.0717E-05 (101, 5)	2.3535E-05 (66, 7)	2.5369E-05 (66, 7)	2.6265E-05 (73, 5)
8	2.3381E-05 (61, 4)	2.0872E-05 (81, 6)	2.1529E-05 (81, 6)	2.1483E-05 (81, 6)	2.1011E-05 (81, 6)
9	2.4868E-05 (1, 5)	2.1881E-05 (1, 5)	2.0688E-05 (139, 1)	2.2036E-05 (325, 7)	2.3324E-05 (325, 7)
10	2.2180E-05 (93, 5)	2.2699E-05 (124, 6)	2.2102E-05 (186, 6)	1.8971E-05 (186, 6)	1.7368E-05 (73, 7)
11	2.3639E-05 (78, 6)	2.6137E-05 (93, 6)	2.4586E-05 (93, 6)	2.2868E-05 (93, 6)	2.1158E-05 (93, 6)
12	2.6125E-05 (55, 5)	2.4146E-05 (55, 5)	2.2034E-05 (55, 5)	2.1758E-05 (6, 5)	2.1414E-05 (67, 7)
13	2.5873E-05 (244, 5)	2.4036E-05 (67, 5)	2.3565E-05 (67, 5)	2.2645E-05 (67, 5)	2.3741E-05 (1, 8)
14	2.5002E-05 (355, 3)	2.3988E-05 (231, 5)	2.0554E-05 (291, 5)	1.8652E-05 (291, 5)	1.7952E-05 (297, 8)
15	1.9573E-05 (61, 4)	1.8936E-05 (61, 4)	2.0049E-05 (361, 4)	1.8523E-05 (361, 4)	1.7083E-05 (361, 4)
16	2.5422E-05 (65, 3)	2.3221E-05 (15, 3)	2.3954E-05 (15, 3)	2.3985E-05 (15, 3)	2.3832E-05 (15, 3)
17	1.8199E-05 (94, 2)	2.2669E-05 (353, 8)	2.6533E-05 (94, 2)	2.8443E-05 (94, 2)	2.9578E-05 (94, 2)
18	1.6896E-05 (85, 5)	2.1058E-05 (112, 1)	2.5921E-05 (112, 1)	2.8922E-05 (112, 1)	3.0468E-05 (303, 7)
19	2.3666E-05 (303, 4)	2.0221E-05 (64, 4)	2.3133E-05 (303, 4)	2.2087E-05 (303, 4)	2.3596E-05 (363, 1)
20	2.0782E-05 (17, 4)	2.0873E-05 (17, 4)	2.0230E-05 (17, 4)	2.0695E-05 (52, 6)	2.1167E-05 (52, 6)
21	2.1316E-05 (184, 4)	1.8477E-05 (184, 4)	1.7950E-05 (270, 8)	1.8169E-05 (285, 4)	1.8055E-05 (21, 7)
22	2.2613E-05 (283, 5)	2.1542E-05 (283, 5)	2.0139E-05 (283, 5)	2.1632E-05 (319, 6)	2.2158E-05 (319, 6)
23	2.3585E-05 (338, 4)	2.1077E-05 (305, 5)	2.0463E-05 (305, 5)	2.0860E-05 (123, 2)	2.1317E-05 (180, 7)
24	2.4222E-05 (174, 4)	2.4260E-05 (174, 4)	2.3620E-05 (174, 4)	2.3823E-05 (213, 1)	2.2198E-05 (182, 6)
25	2.3423E-05 (144, 5)	1.9258E-05 (144, 5)	1.6930E-05 (239, 6)	1.7367E-05 (239, 6)	1.7365E-05 (239, 6)
26	1.7052E-05 (199, 5)	1.8451E-05 (210, 6)	1.9253E-05 (210, 6)	1.7987E-05 (287, 4)	1.6643E-05 (287, 4)
27	2.3360E-05 (112, 5)	2.1301E-05 (112, 5)	1.9889E-05 (203, 6)	1.8594E-05 (203, 6)	2.0047E-05 (287, 6)
28	2.4463E-05 (197, 5)	2.0920E-05 (197, 5)	1.8272E-05 (114, 4)	1.6512E-05 (205, 6)	1.5594E-05 (205, 6)
29	1.9730E-05 (196, 6)	1.9483E-05 (86, 5)	1.9922E-05 (114, 7)	2.0324E-05 (86, 5)	1.9988E-05 (86, 5)
30	2.2325E-05 (113, 5)	2.2032E-05 (9, 7)	2.6277E-05 (9, 7)	2.5962E-05 (107, 7)	2.7345E-05 (107, 7)
31	1.7556E-05 (104, 4)	1.6782E-05 (19, 4)	1.4897E-05 (19, 4)	1.3815E-05 (265, 8)	1.4232E-05 (167, 1)
32	1.6751E-05 (53, 5)	1.9637E-05 (109, 1)	2.3742E-05 (109, 1)	2.6152E-05 (109, 1)	2.7977E-05 (109, 2)
33	2.0595E-05 (359, 4)	2.1583E-05 (149, 4)	2.1066E-05 (149, 4)	1.9956E-05 (149, 4)	1.9612E-05 (217, 7)
34	2.9043E-05 (8, 4)	3.0276E-05 (8, 4)	3.0228E-05 (8, 4)	2.8441E-05 (359, 8)	2.6300E-05 (359, 8)
35	2.1002E-05 (120, 4)	2.0247E-05 (72, 6)	1.9947E-05 (72, 6)	1.9944E-05 (71, 5)	1.9758E-05 (71, 5)
36	2.4136E-05 (290, 5)	2.2915E-05 (290, 5)	2.1372E-05 (290, 5)	2.1732E-05 (13, 2)	2.1764E-05 (13, 2)

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 3-HOUR CONC= 4.2207E-05 DIRECTION= 9 DISTANCE= 1.5 KM DAY=196 TIME PERIOD= 5
YEAR= 76

SECOND HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR

DIR RANGE	0.5 KM	1.0 KM	1.5 KM	2.0 KM	2.5 KM
1	1.1412E-06 (152, 6)	2.3389E-05 (152, 6)	2.9833E-05 (152, 6)	2.5186E-05 (152, 6)	2.1879E-05 (299, 4)
2	1.6131E-06 (186, 4)	1.8115E-05 (221, 5)	2.9426E-05 (187, 4)	2.8074E-05 (90, 5)	2.5545E-05 (187, 4)
3	1.4869E-06 (226, 4)	1.9805E-05 (213, 4)	2.5280E-05 (69, 4)	2.7480E-05 (187, 4)	2.5417E-05 (214, 3)
4	2.0031E-06 (226, 4)	2.5076E-05 (213, 4)	2.6215E-05 (95, 5)	2.5021E-05 (273, 4)	2.3361E-05 (273, 4)
5	1.8809E-06 (69, 5)	2.0780E-05 (117, 5)	3.0679E-05 (95, 5)	2.9097E-05 (95, 5)	2.5886E-05 (32, 6)
6	3.4720E-06 (116, 5)	2.1255E-05 (116, 5)	3.0784E-05 (76, 6)	3.1876E-05 (117, 5)	3.1972E-05 (76, 6)
7	2.6611E-06 (116, 5)	1.6862E-05 (145, 4)	2.3520E-05 (315, 5)	2.6784E-05 (133, 3)	2.5569E-05 (133, 3)
8	4.0418E-06 (145, 4)	2.2895E-05 (198, 4)	2.7204E-05 (145, 5)	2.6694E-05 (197, 3)	2.3858E-05 (198, 4)
9	6.7098E-06 (145, 4)	3.6026E-05 (196, 5)	4.2207E-05 (196, 5)	3.4060E-05 (139, 5)	2.7226E-05 (196, 5)
10	9.9714E-07 (204, 6)	1.6258E-05 (17, 5)	2.5923E-05 (207, 4)	2.6297E-05 (198, 3)	2.6526E-05 (198, 3)
11	9.9714E-07 (204, 6)	1.8422E-05 (213, 5)	2.4674E-05 (213, 5)	2.4747E-05 (275, 5)	2.5418E-05 (275, 5)
12	1.5490E-06 (221, 4)	2.1930E-05 (221, 4)	2.2921E-05 (213, 5)	2.3053E-05 (77, 6)	2.3881E-05 (323, 5)
13	2.0714E-06 (221, 4)	2.3989E-05 (221, 4)	2.7277E-05 (118, 5)	2.3191E-05 (323, 4)	2.1572E-05 (362, 1)
14	2.0306E-06 (200, 4)	2.0330E-05 (157, 5)	2.4701E-05 (295, 4)	2.5218E-05 (236, 4)	2.8644E-05 (295, 4)
15	2.0048E-06 (207, 4)	1.9744E-05 (124, 5)	2.4681E-05 (96, 5)	2.6498E-05 (208, 4)	2.0781E-05 (208, 4)
16	1.8622E-06 (247, 4)	1.7146E-05 (247, 4)	2.2459E-05 (301, 4)	2.5081E-05 (301, 4)	2.2844E-05 (301, 4)
17	1.7310E-06 (219, 4)	2.4303E-05 (157, 4)	1.8898E-05 (220, 5)	2.3407E-05 (255, 3)	1.9836E-05 (157, 4)
18	1.6851E-06 (157, 4)	2.7757E-05 (191, 4)	2.2993E-05 (308, 1)	2.7675E-05 (308, 1)	2.8677E-05 (302, 1)
19	2.7146E-06 (157, 5)	2.1292E-05 (125, 5)	2.4084E-05 (287, 4)	2.4790E-05 (287, 4)	2.6515E-05 (302, 3)
20	7.7873E-06 (184, 6)	3.0677E-05 (157, 5)	3.2678E-05 (140, 4)	3.1304E-05 (100, 5)	3.0833E-05 (100, 5)
21	3.0539E-06 (199, 6)	2.5032E-05 (204, 4)	2.1743E-05 (100, 4)	1.8165E-05 (109, 5)	1.9343E-05 (57, 5)
22	1.7844E-06 (245, 4)	2.7862E-05 (199, 6)	2.7138E-05 (263, 5)	2.4375E-05 (263, 5)	2.0756E-05 (164, 5)
23	2.0974E-06 (245, 4)	2.0376E-05 (264, 5)	3.0455E-05 (264, 5)	2.7474E-05 (242, 4)	2.2671E-05 (242, 4)
24	1.1198E-06 (226, 5)	1.9191E-05 (119, 5)	2.5074E-05 (230, 4)	2.4816E-05 (230, 4)	2.2007E-05 (344, 5)
25	9.1942E-07 (245, 4)	1.6194E-05 (245, 4)	2.6102E-05 (141, 4)	2.4656E-05 (43, 5)	2.2487E-05 (307, 5)
26	1.3363E-06 (114, 5)	1.7616E-05 (268, 5)	2.8632E-05 (268, 5)	3.0036E-05 (290, 4)	2.8783E-05 (290, 4)
27	2.0280E-06 (114, 5)	1.7475E-05 (252, 4)	2.1747E-05 (204, 5)	1.9685E-05 (106, 4)	1.8890E-05 (167, 6)
28	1.7755E-06 (248, 4)	2.0471E-05 (63, 6)	2.3665E-05 (251, 5)	2.4072E-05 (298, 5)	2.2510E-05 (204, 5)
29	1.3042E-06 (229, 4)	2.1833E-05 (251, 5)	2.7193E-05 (251, 5)	2.1425E-05 (251, 5)	1.9947E-05 (134, 6)
30	1.9986E-06 (245, 5)	1.9313E-05 (248, 5)	2.3865E-05 (218, 4)	2.2969E-05 (62, 4)	1.9947E-05 (64, 4)
31	2.1510E-06 (135, 5)	1.9282E-05 (135, 5)	2.4043E-05 (180, 5)	2.3863E-05 (86, 4)	2.4171E-05 (126, 4)
32	2.2667E-06 (192, 4)	2.0600E-05 (192, 4)	2.6935E-05 (189, 5)	3.0326E-05 (269, 4)	2.7840E-05 (168, 4)
33	3.2641E-06 (192, 4)	2.6538E-05 (156, 4)	2.4692E-05 (134, 5)	2.0237E-05 (24, 5)	2.0061E-05 (153, 4)
34	2.3407E-06 (192, 4)	2.6389E-05 (134, 5)	2.8042E-05 (228, 4)	2.3589E-05 (228, 4)	2.2075E-05 (61, 8)
35	3.2702E-06 (144, 4)	2.2391E-05 (223, 5)	2.6861E-05 (148, 5)	2.7339E-05 (148, 5)	2.3913E-05 (102, 4)
36	1.6277E-06 (222, 5)	2.7007E-05 (222, 5)	3.5686E-05 (222, 5)	3.2044E-05 (222, 5)	3.0277E-05 (216, 4)

89

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 3-HOUR CONC= 3.3049E-05 DIRECTION= 18 DISTANCE= 3.5 KM DAY=302 TIME PERIOD= 1
YEAR= 76

SECOND HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 3.0 KM	3.5 KM	4.0 KM	4.5 KM	5.0 KM
1	2.5649E-05 (32, 5)	2.2395E-05 (32, 5)	1.9633E-05 (32, 5)	2.0898E-05 (234, 7)	2.3528E-05 (234, 7)
2	2.1502E-05 (69, 4)	1.9295E-05 (69, 4)	1.9223E-05 (68, 5)	1.7356E-05 (363, 8)	1.6986E-05 (139, 2)
3	2.3175E-05 (214, 3)	2.0416E-05 (214, 3)	1.8786E-05 (97, 6)	1.7896E-05 (69, 4)	1.6033E-05 (69, 4)
4	2.2186E-05 (69, 5)	2.2187E-05 (355, 7)	2.2214E-05 (355, 7)	2.2644E-05 (49, 7)	2.2226E-05 (8, 4)
5	2.3703E-05 (145, 2)	2.3962E-05 (69, 5)	2.1028E-05 (116, 8)	2.2915E-05 (116, 8)	2.2876E-05 (145, 2)
6	2.9303E-05 (76, 6)	2.6481E-05 (76, 6)	2.3789E-05 (76, 6)	2.1394E-05 (76, 6)	1.9300E-05 (76, 6)
7	2.2457E-05 (53, 6)	2.1338E-05 (53, 6)	2.2767E-05 (198, 2)	2.3127E-05 (145, 4)	2.0853E-05 (145, 4)
8	2.3311E-05 (122, 6)	2.4904E-05 (122, 6)	2.3196E-05 (197, 3)	2.1049E-05 (197, 3)	1.9101E-05 (197, 3)
9	2.4419E-05 (196, 6)	2.4218E-05 (196, 6)	2.3351E-05 (196, 6)	2.5959E-05 (117, 8)	2.5197E-05 (117, 6)
10	2.5654E-05 (198, 3)	2.4236E-05 (361, 7)	2.6664E-05 (93, 7)	2.9492E-05 (93, 7)	3.1480E-05 (93, 7)
11	2.4262E-05 (275, 5)	2.3107E-05 (305, 4)	2.2662E-05 (305, 4)	2.4168E-05 (300, 7)	2.5682E-05 (300, 7)
12	2.2292E-05 (30, 4)	2.2027E-05 (30, 4)	2.3027E-05 (249, 4)	2.3864E-05 (249, 4)	2.5248E-05 (39, 2)
13	2.3499E-05 (362, 1)	2.2464E-05 (151, 4)	2.0383E-05 (151, 4)	2.0934E-05 (313, 1)	2.0591E-05 (362, 1)
14	2.5522E-05 (8, 8)	2.4443E-05 (8, 8)	2.2933E-05 (8, 8)	2.4518E-05 (352, 1)	2.6583E-05 (352, 1)
15	1.9995E-05 (54, 1)	1.9739E-05 (54, 1)	1.8913E-05 (54, 1)	1.8524E-05 (99, 8)	1.8303E-05 (99, 8)
16	2.4193E-05 (5, 3)	2.5125E-05 (5, 3)	2.5189E-05 (5, 3)	2.6099E-05 (306, 1)	2.7300E-05 (306, 1)
17	1.9180E-05 (114, 3)	1.8777E-05 (357, 1)	2.2336E-05 (357, 1)	2.4351E-05 (357, 1)	2.4926E-05 (255, 3)
18	3.2257E-05 (302, 1)	3.3049E-05 (302, 1)	3.1885E-05 (313, 4)	3.1409E-05 (302, 1)	3.3042E-05 (285, 7)
19	2.7020E-05 (302, 3)	2.6018E-05 (302, 3)	2.4526E-05 (302, 3)	2.3057E-05 (297, 2)	2.2284E-05 (58, 4)
20	2.9419E-05 (100, 5)	2.7347E-05 (100, 5)	2.5219E-05 (100, 5)	2.3600E-05 (82, 7)	2.2317E-05 (38, 6)
21	2.1667E-05 (57, 5)	2.1066E-05 (19, 6)	2.1212E-05 (19, 6)	2.0778E-05 (19, 6)	1.9942E-05 (57, 5)
22	2.1086E-05 (166, 4)	2.1058E-05 (348, 8)	2.1390E-05 (159, 7)	2.3313E-05 (159, 7)	2.4587E-05 (159, 7)
23	2.2200E-05 (55, 4)	2.1378E-05 (240, 4)	2.1677E-05 (232, 2)	2.2054E-05 (55, 4)	2.2466E-05 (232, 2)
24	2.3761E-05 (344, 5)	2.1841E-05 (165, 6)	2.2464E-05 (165, 6)	2.1594E-05 (344, 5)	2.0265E-05 (344, 5)
25	1.8713E-05 (141, 4)	1.7596E-05 (303, 5)	1.7573E-05 (303, 5)	1.7108E-05 (303, 5)	1.6409E-05 (303, 5)
26	2.5479E-05 (290, 4)	2.1972E-05 (290, 4)	2.0524E-05 (56, 6)	1.9998E-05 (252, 7)	2.0197E-05 (59, 4)
27	1.8456E-05 (167, 6)	1.8542E-05 (114, 7)	2.1117E-05 (121, 6)	2.1562E-05 (121, 6)	2.1555E-05 (121, 6)
28	1.8725E-05 (64, 6)	1.7705E-05 (84, 5)	1.7071E-05 (269, 6)	1.7225E-05 (269, 6)	1.6996E-05 (269, 6)
29	2.0383E-05 (168, 6)	2.0868E-05 (168, 6)	2.0555E-05 (168, 6)	1.9983E-05 (86, 6)	2.0623E-05 (345, 4)
30	2.0540E-05 (62, 4)	1.9385E-05 (126, 6)	2.0014E-05 (126, 6)	1.9986E-05 (126, 6)	1.9558E-05 (126, 6)
31	1.9788E-05 (126, 4)	1.8421E-05 (135, 4)	1.8476E-05 (135, 4)	1.9277E-05 (90, 7)	2.0255E-05 (90, 7)
32	2.3670E-05 (168, 4)	2.0412E-05 (2, 5)	1.8302E-05 (27, 1)	1.7793E-05 (26, 8)	1.8390E-05 (26, 8)
33	2.1561E-05 (360, 5)	2.1835E-05 (360, 5)	2.1314E-05 (360, 5)	2.0391E-05 (360, 5)	1.9292E-05 (360, 5)
34	2.3889E-05 (331, 5)	2.2076E-05 (281, 4)	1.9697E-05 (61, 8)	1.8234E-05 (61, 8)	1.8721E-05 (294, 2)
35	2.2467E-05 (172, 3)	2.1862E-05 (172, 3)	2.0683E-05 (172, 3)	1.9316E-05 (172, 3)	1.7945E-05 (172, 3)
36	2.8195E-05 (216, 4)	2.5363E-05 (216, 4)	2.4472E-05 (334, 3)	2.4462E-05 (49, 4)	2.4474E-05 (334, 3)

28

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 3-HOUR CONC= 4.3495E-05 DIRECTION= 30 DISTANCE= 1.5 KM DAY=136 TIME PERIOD= 4
YEAR= 77

SECOND HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 0.5 KM	1.0 KM	1.5 KM	2.0 KM	2.5 KM
1	2.5032E-06 (236, 6)	2.1689E-05 (87, 4)	2.5934E-05 (231, 4)	2.6690E-05 (230, 5)	2.6300E-05 (188, 6)
2	7.4448E-07 (229, 4)	2.4861E-05 (248, 5)	2.9308E-05 (248, 5)	2.2957E-05 (248, 5)	1.9666E-05 (230, 5)
3	1.3826E-06 (180, 4)	2.4415E-05 (184, 4)	3.2557E-05 (213, 4)	3.0440E-05 (251, 5)	2.8315E-05 (175, 6)
4	1.9319E-06 (229, 4)	3.1512E-05 (252, 4)	3.7875E-05 (145, 5)	3.3754E-05 (252, 4)	2.7112E-05 (145, 5)
5	1.9328E-06 (180, 4)	2.2806E-05 (176, 4)	2.7609E-05 (177, 4)	2.4704E-05 (144, 4)	2.1724E-05 (282, 5)
6	2.6912E-06 (114, 5)	1.8398E-05 (173, 4)	2.5339E-05 (127, 4)	2.5873E-05 (251, 6)	2.5763E-05 (78, 5)
7	3.5604E-06 (190, 5)	2.6316E-05 (190, 5)	2.5894E-05 (158, 4)	2.7503E-05 (127, 4)	2.8067E-05 (253, 6)
8	1.6407E-06 (169, 4)	2.1530E-05 (190, 5)	2.2537E-05 (176, 5)	2.3148E-05 (176, 5)	2.0341E-05 (176, 5)
9	1.7526E-06 (134, 5)	2.0865E-05 (300, 4)	2.8673E-05 (174, 5)	2.8482E-05 (176, 5)	2.4903E-05 (176, 5)
10	1.4657E-06 (134, 5)	1.3132E-05 (309, 4)	1.8374E-05 (161, 5)	2.3412E-05 (309, 4)	2.2356E-05 (36, 3)
11	1.9658E-06 (187, 4)	1.6982E-05 (256, 5)	2.2245E-05 (127, 6)	3.0477E-05 (127, 6)	3.2298E-05 (127, 6)
12	2.8792E-06 (187, 4)	2.7228E-05 (178, 5)	3.3764E-05 (178, 5)	3.0414E-05 (74, 5)	2.6179E-05 (74, 5)
13	2.9526E-06 (187, 4)	2.4051E-05 (187, 4)	2.7222E-05 (178, 5)	2.5902E-05 (175, 5)	2.4954E-05 (19, 3)
14	2.1753E-06 (187, 4)	2.3042E-05 (173, 5)	2.9669E-05 (117, 4)	2.8312E-05 (117, 4)	2.3678E-05 (117, 4)
15	1.4512E-06 (267, 4)	1.9022E-05 (163, 4)	2.3500E-05 (163, 4)	2.0657E-05 (32, 5)	2.0564E-05 (32, 5)
16	1.9550E-06 (267, 4)	2.4081E-05 (203, 5)	2.5998E-05 (203, 4)	2.3766E-05 (203, 5)	2.0677E-05 (29, 5)
17	1.6122E-06 (184, 5)	2.0561E-05 (203, 5)	2.6348E-05 (98, 5)	2.7491E-05 (315, 4)	2.5668E-05 (98, 5)
18	2.0462E-06 (184, 5)	2.3911E-05 (187, 5)	2.0931E-05 (341, 5)	2.5480E-05 (341, 5)	2.4157E-05 (341, 5)
19	2.1287E-06 (257, 5)	2.9640E-05 (168, 4)	1.4576E-05 (29, 4)	1.7582E-05 (220, 5)	1.6942E-05 (220, 5)
20	1.6865E-06 (186, 4)	2.3317E-05 (99, 5)	2.1682E-05 (154, 4)	2.6652E-05 (30, 4)	2.6329E-05 (30, 4)
21	8.4752E-07 (156, 4)	2.0911E-05 (168, 4)	2.3791E-05 (105, 4)	2.3762E-05 (205, 5)	2.1816E-05 (105, 4)
22	1.3017E-06 (99, 4)	1.9925E-05 (99, 4)	2.1517E-05 (99, 4)	2.1128E-05 (304, 5)	2.3425E-05 (276, 6)
23	1.7393E-06 (101, 5)	2.2109E-05 (142, 5)	3.2808E-05 (100, 4)	3.1060E-05 (133, 4)	2.7802E-05 (293, 5)
24	1.7282E-06 (255, 5)	2.6068E-05 (101, 5)	2.9875E-05 (278, 5)	3.6159E-05 (278, 5)	3.5799E-05 (278, 5)
25	1.6251E-06 (221, 5)	2.9676E-05 (101, 4)	3.7558E-05 (101, 4)	3.4462E-05 (101, 4)	3.2003E-05 (100, 6)
26	1.4261E-06 (221, 5)	2.0902E-05 (238, 5)	2.5196E-05 (243, 4)	2.5574E-05 (218, 4)	2.2925E-05 (218, 4)
27	2.9166E-06 (242, 5)	2.2188E-05 (243, 4)	3.7340E-05 (217, 4)	3.5419E-05 (196, 5)	3.1239E-05 (224, 4)
28	2.9923E-06 (214, 5)	2.1134E-05 (139, 5)	2.2654E-05 (136, 5)	2.0520E-05 (228, 4)	1.8981E-05 (228, 4)
29	2.4715E-06 (217, 5)	2.2405E-05 (140, 5)	2.2945E-05 (136, 4)	2.1518E-05 (121, 4)	2.2032E-05 (227, 5)
30	2.3875E-06 (216, 5)	3.9226E-05 (216, 5)	4.3495E-05 (136, 4)	4.2668E-05 (136, 4)	3.6836E-05 (136, 4)
31	2.6267E-06 (111, 5)	3.2075E-05 (111, 5)	3.9073E-05 (209, 5)	3.0565E-05 (209, 5)	2.7009E-05 (237, 5)
32	1.5917E-06 (209, 5)	2.1025E-05 (229, 4)	2.1509E-05 (313, 5)	2.5656E-05 (313, 5)	2.4424E-05 (313, 5)
33	1.3694E-06 (181, 4)	2.5916E-05 (188, 5)	2.7169E-05 (93, 5)	2.6597E-05 (210, 6)	2.4685E-05 (93, 5)
34	1.3632E-06 (193, 4)	1.9551E-05 (229, 5)	1.9937E-05 (92, 5)	2.5964E-05 (206, 6)	2.7409E-05 (206, 6)
35	1.6560E-06 (265, 4)	1.7833E-05 (265, 5)	2.2409E-05 (189, 5)	2.2099E-05 (215, 5)	1.9902E-05 (250, 4)
36	2.5032E-06 (236, 6)	2.5922E-05 (214, 4)	3.8436E-05 (262, 4)	3.9145E-05 (262, 4)	3.5545E-05 (65, 4)

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 3-HOUR CONC= 3.2751E-05 DIRECTION= 24 DISTANCE= 3.0 KM DAY=141 TIME PERIOD= 4
YEAR= 77

SECOND HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 3.0 KM	3.5 KM	4.0 KM	4.5 KM	5.0 KM
1	2.4036E-05 (188, 6)	2.1050E-05 (188, 6)	1.9295E-05 (65, 6)	1.9506E-05 (65, 6)	1.9293E-05 (65, 6)
2	1.8424E-05 (95, 3)	1.8450E-05 (72, 5)	1.7787E-05 (285, 5)	1.6093E-05 (50, 4)	1.6341E-05 (50, 4)
3	2.6663E-05 (175, 6)	2.3871E-05 (175, 6)	2.2035E-05 (212, 3)	2.0130E-05 (285, 4)	1.7725E-05 (285, 4)
4	2.3810E-05 (157, 6)	2.2286E-05 (157, 6)	2.3312E-05 (157, 8)	2.4462E-05 (148, 5)	2.1906E-05 (148, 5)
5	2.0312E-05 (172, 3)	1.9862E-05 (172, 3)	2.0258E-05 (80, 8)	2.2216E-05 (80, 8)	2.2834E-05 (282, 5)
6	2.4391E-05 (78, 5)	2.2530E-05 (78, 5)	2.0690E-05 (78, 5)	1.8983E-05 (77, 6)	1.7905E-05 (233, 5)
7	2.7707E-05 (3, 5)	2.7182E-05 (3, 5)	2.6263E-05 (3, 5)	2.5142E-05 (3, 5)	2.3934E-05 (3, 5)
8	2.1596E-05 (20, 5)	2.3348E-05 (115, 7)	2.5540E-05 (3, 6)	2.3618E-05 (3, 6)	2.1777E-05 (3, 6)
9	2.5460E-05 (352, 4)	2.5332E-05 (352, 4)	2.4427E-05 (352, 4)	2.5118E-05 (177, 8)	2.6761E-05 (292, 7)
10	2.6554E-05 (36, 3)	2.7127E-05 (20, 6)	2.5499E-05 (20, 6)	2.3721E-05 (20, 6)	2.1968E-05 (20, 6)
11	3.1285E-05 (127, 6)	2.9105E-05 (127, 6)	2.6717E-05 (127, 6)	2.4418E-05 (127, 6)	2.2309E-05 (127, 6)
12	2.4279E-05 (161, 4)	2.1765E-05 (25, 5)	2.0428E-05 (25, 5)	1.8967E-05 (25, 5)	1.7527E-05 (25, 5)
13	2.3495E-05 (352, 5)	2.2300E-05 (352, 5)	2.0768E-05 (352, 5)	1.9174E-05 (352, 5)	1.8372E-05 (66, 5)
14	1.9946E-05 (173, 5)	2.0202E-05 (330, 3)	1.9422E-05 (330, 3)	1.9347E-05 (79, 7)	2.0540E-05 (79, 7)
15	2.0418E-05 (1, 5)	1.9105E-05 (286, 2)	1.9738E-05 (1, 5)	1.9124E-05 (286, 2)	1.8686E-05 (362, 6)
16	1.9324E-05 (29, 5)	2.2883E-05 (305, 1)	2.4081E-05 (96, 1)	2.5976E-05 (96, 1)	2.7142E-05 (96, 1)
17	2.2142E-05 (98, 5)	2.1493E-05 (317, 4)	2.0465E-05 (317, 4)	1.9136E-05 (317, 4)	1.8434E-05 (17, 3)
18	2.2365E-05 (315, 3)	2.1511E-05 (363, 1)	2.3861E-05 (30, 2)	2.6633E-05 (30, 2)	2.8602E-05 (30, 2)
19	1.9495E-05 (41, 4)	2.0415E-05 (41, 4)	2.0434E-05 (41, 4)	1.9936E-05 (41, 4)	1.9408E-05 (8, 4)
20	2.4067E-05 (30, 4)	2.2708E-05 (277, 1)	2.7017E-05 (277, 1)	2.4561E-05 (99, 5)	2.2886E-05 (30, 8)
21	2.0841E-05 (337, 4)	1.9919E-05 (67, 4)	2.0063E-05 (304, 6)	2.2778E-05 (205, 1)	2.5002E-05 (205, 1)
22	2.3638E-05 (304, 5)	2.3698E-05 (276, 6)	2.2421E-05 (276, 6)	2.1014E-05 (242, 2)	2.2107E-05 (62, 1)
23	2.6742E-05 (304, 4)	2.6367E-05 (304, 4)	2.4361E-05 (100, 4)	2.1736E-05 (100, 4)	2.0044E-05 (322, 4)
24	3.2751E-05 (141, 4)	2.7188E-05 (141, 4)	2.2685E-05 (141, 4)	2.0903E-05 (277, 5)	2.0695E-05 (294, 7)
25	3.0299E-05 (219, 4)	2.5377E-05 (219, 4)	2.3473E-05 (219, 3)	2.1770E-05 (219, 3)	2.3921E-05 (69, 2)
26	1.9383E-05 (218, 4)	1.6912E-05 (243, 4)	1.8206E-05 (240, 7)	2.1087E-05 (240, 7)	2.2902E-05 (130, 5)
27	2.7761E-05 (224, 4)	2.8677E-05 (217, 6)	2.8860E-05 (217, 6)	2.8269E-05 (217, 6)	2.7253E-05 (217, 6)
28	1.7565E-05 (325, 5)	1.6800E-05 (120, 7)	1.9290E-05 (120, 7)	2.0494E-05 (120, 7)	2.1444E-05 (258, 7)
29	1.9953E-05 (86, 4)	1.9871E-05 (86, 4)	1.9171E-05 (86, 4)	1.8184E-05 (86, 4)	1.7899E-05 (53, 7)
30	3.0707E-05 (136, 4)	2.7585E-05 (86, 5)	2.6123E-05 (122, 6)	2.5639E-05 (122, 6)	2.4758E-05 (122, 6)
31	2.2546E-05 (237, 5)	1.9031E-05 (112, 4)	1.7458E-05 (121, 6)	1.7267E-05 (246, 3)	1.7178E-05 (246, 3)
32	2.1519E-05 (71, 5)	2.2513E-05 (71, 5)	2.2574E-05 (71, 5)	2.2565E-05 (87, 8)	2.3986E-05 (87, 8)
33	2.2644E-05 (55, 2)	2.1300E-05 (55, 2)	1.9705E-05 (55, 2)	1.7402E-05 (210, 6)	1.6591E-05 (55, 2)
34	2.5475E-05 (206, 6)	2.4733E-05 (113, 4)	2.3691E-05 (113, 4)	2.2357E-05 (113, 4)	2.0937E-05 (113, 4)
35	1.7825E-05 (250, 4)	1.6365E-05 (55, 3)	1.5404E-05 (55, 3)	1.6211E-05 (65, 2)	1.7798E-05 (65, 2)
36	3.0111E-05 (207, 6)	2.9126E-05 (339, 4)	2.7885E-05 (339, 4)	2.6580E-05 (354, 8)	2.8720E-05 (354, 8)

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 3-HOUR CONC= 4.2854E-05 DIRECTION= 26 DISTANCE= 1.5 KM DAY=143 TIME PERIOD= 5
YEAR= 78

SECOND HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 0.5 KM	1.0 KM	1.5 KM	2.0 KM	2.5 KM
1	5.1648E-06 (212, 5)	2.2497E-05 (187, 5)	2.9093E-05 (136, 5)	3.1851E-05 (212, 5)	2.6918E-05 (212, 5)
2	2.2343E-06 (183, 5)	1.9313E-05 (180, 4)	2.7489E-05 (155, 4)	2.9819E-05 (184, 5)	2.9119E-05 (25, 6)
3	2.3189E-06 (187, 5)	1.7707E-05 (98, 4)	2.4374E-05 (119, 4)	2.2907E-05 (119, 4)	1.8728E-05 (136, 4)
4	2.0964E-06 (145, 4)	1.9724E-05 (229, 4)	2.4305E-05 (121, 5)	2.6312E-05 (211, 6)	2.6682E-05 (122, 5)
5	2.0973E-06 (175, 5)	2.0565E-05 (184, 4)	2.6922E-05 (184, 4)	3.1325E-05 (133, 4)	2.7445E-05 (353, 4)
6	1.7755E-06 (97, 5)	2.0722E-05 (134, 5)	2.2095E-05 (135, 5)	2.1677E-05 (56, 5)	2.2009E-05 (69, 6)
7	7.5641E-07 (135, 4)	1.7402E-05 (248, 5)	2.3750E-05 (121, 6)	2.5695E-05 (116, 5)	2.3586E-05 (116, 5)
8	4.6412E-07 (116, 4)	1.7227E-05 (176, 4)	2.1312E-05 (26, 6)	2.5603E-05 (110, 5)	2.2929E-05 (111, 6)
9	3.8900E-06 (116, 5)	2.0905E-05 (116, 5)	2.2886E-05 (134, 5)	2.0817E-05 (86, 4)	1.9404E-05 (52, 7)
10	3.0179E-06 (116, 5)	1.7218E-05 (248, 4)	1.8795E-05 (57, 4)	2.0554E-05 (57, 4)	1.8395E-05 (57, 4)
11	2.2612E-06 (182, 4)	1.9667E-05 (160, 5)	1.5297E-05 (274, 4)	1.5436E-05 (134, 4)	1.4135E-05 (134, 4)
12	1.7984E-06 (160, 5)	2.1732E-05 (99, 4)	2.0519E-05 (280, 5)	2.1714E-05 (279, 4)	2.0702E-05 (53, 1)
13	1.5000E-06 (249, 4)	2.5355E-05 (117, 5)	3.5554E-05 (249, 4)	2.9334E-05 (249, 4)	2.6470E-05 (359, 5)
14	1.9498E-06 (250, 4)	2.3572E-05 (110, 4)	2.8934E-05 (231, 5)	2.6974E-05 (76, 2)	2.9053E-05 (279, 5)
15	1.4571E-06 (249, 4)	1.8464E-05 (254, 4)	2.8911E-05 (110, 4)	2.2474E-05 (81, 4)	1.9305E-05 (58, 5)
16	5.9398E-07 (249, 4)	1.3514E-05 (164, 4)	2.1288E-05 (308, 5)	2.6295E-05 (308, 5)	2.4994E-05 (308, 5)
17	1.5958E-07 (250, 4)	1.0728E-05 (125, 5)	1.7254E-05 (322, 5)	2.1734E-05 (322, 5)	2.1522E-05 (322, 5)
18	2.7378E-07 (175, 4)	1.6499E-05 (125, 5)	2.6581E-05 (324, 4)	3.0915E-05 (324, 4)	2.8884E-05 (281, 4)
19	9.9195E-07 (161, 5)	1.3524E-05 (115, 4)	1.5743E-05 (316, 5)	2.1211E-05 (145, 4)	2.2831E-05 (278, 5)
20	2.0662E-06 (161, 5)	1.6937E-05 (252, 5)	2.2462E-05 (125, 4)	2.4940E-05 (125, 4)	2.3092E-05 (125, 4)
21	2.4329E-06 (161, 5)	2.5966E-05 (145, 5)	3.3499E-05 (258, 4)	3.3805E-05 (258, 4)	2.7931E-05 (145, 5)
22	2.2889E-06 (182, 5)	2.7112E-05 (161, 5)	2.9580E-05 (217, 5)	2.6948E-05 (252, 5)	2.4609E-05 (64, 4)
23	2.1516E-06 (186, 5)	2.3249E-05 (179, 4)	2.7037E-05 (281, 5)	3.0788E-05 (244, 5)	2.9509E-05 (244, 5)
24	2.0280E-06 (99, 5)	2.8478E-05 (130, 5)	2.9906E-05 (106, 5)	2.8157E-05 (240, 6)	2.6527E-05 (77, 5)
25	1.7762E-06 (245, 5)	2.2607E-05 (106, 5)	3.0543E-05 (131, 5)	2.7975E-05 (164, 5)	2.6502E-05 (131, 5)
26	2.2543E-06 (245, 5)	3.1751E-05 (169, 5)	4.2854E-05 (143, 5)	3.8947E-05 (169, 5)	3.4328E-05 (169, 5)
27	2.2177E-06 (202, 5)	2.8420E-05 (93, 5)	3.2305E-05 (140, 5)	3.2711E-05 (131, 4)	2.8332E-05 (131, 4)
28	2.2764E-06 (148, 5)	2.9495E-05 (146, 5)	3.4534E-05 (146, 5)	3.0501E-05 (94, 5)	2.7129E-05 (24, 5)
29	1.9770E-06 (190, 5)	2.2503E-05 (205, 5)	2.6773E-05 (189, 4)	2.8686E-05 (176, 5)	2.4160E-05 (72, 4)
30	1.9495E-06 (150, 4)	2.1339E-05 (218, 4)	2.9943E-05 (189, 4)	2.9983E-05 (226, 6)	2.7987E-05 (218, 4)
31	1.3633E-06 (150, 4)	2.0001E-05 (151, 5)	3.3026E-05 (216, 4)	3.0726E-05 (203, 5)	2.6365E-05 (203, 5)
32	1.8742E-06 (108, 4)	2.4159E-05 (222, 4)	3.1436E-05 (201, 4)	3.2208E-05 (173, 5)	2.6908E-05 (241, 4)
33	2.1394E-06 (207, 5)	3.2360E-05 (108, 4)	3.6622E-05 (207, 5)	3.1504E-05 (100, 5)	3.0092E-05 (100, 5)
34	2.1287E-06 (205, 4)	3.2791E-05 (190, 4)	3.2743E-05 (154, 4)	3.6251E-05 (154, 4)	3.3534E-05 (154, 4)
35	2.6580E-06 (103, 4)	2.9581E-05 (101, 4)	3.9594E-05 (160, 4)	3.8127E-05 (129, 4)	3.1705E-05 (129, 4)
36	8.2591E-06 (103, 4)	2.9682E-05 (103, 5)	3.8400E-05 (25, 7)	4.2462E-05 (103, 4)	3.5821E-05 (103, 4)

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 3-HOUR CONC= 3.2959E-05 DIRECTION= 36 DISTANCE= 4.5 KM DAY= 73 TIME PERIOD= 8
YEAR= 78

SECOND HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 3.0 KM	3.5 KM	4.0 KM	4.5 KM	5.0 KM
1	2.3982E-05 (44, 5)	2.0592E-05 (136, 5)	1.7298E-05 (136, 5)	1.5066E-05 (25, 6)	1.5807E-05 (354, 8)
2	2.7044E-05 (25, 6)	2.4455E-05 (25, 6)	2.2817E-05 (354, 7)	2.1301E-05 (75, 5)	1.9675E-05 (75, 5)
3	1.7658E-05 (97, 4)	1.7062E-05 (133, 7)	1.7941E-05 (133, 7)	1.7808E-05 (73, 6)	1.6806E-05 (73, 6)
4	2.2230E-05 (122, 5)	2.1907E-05 (211, 6)	2.1389E-05 (85, 6)	2.0589E-05 (85, 6)	1.9574E-05 (85, 6)
5	2.4727E-05 (353, 4)	2.1624E-05 (353, 4)	2.0420E-05 (213, 8)	2.1021E-05 (69, 2)	2.1460E-05 (69, 2)
6	2.3454E-05 (134, 5)	2.1266E-05 (134, 5)	1.9253E-05 (134, 5)	1.7883E-05 (110, 6)	1.7734E-05 (110, 6)
7	2.2418E-05 (121, 6)	1.9399E-05 (121, 6)	1.7747E-05 (199, 6)	1.7261E-05 (199, 6)	1.6556E-05 (199, 6)
8	1.9800E-05 (111, 6)	1.6747E-05 (111, 6)	1.4458E-05 (26, 5)	1.3490E-05 (118, 7)	1.4397E-05 (118, 7)
9	1.8664E-05 (13, 8)	1.8027E-05 (86, 4)	1.9417E-05 (86, 2)	2.1359E-05 (86, 2)	2.2680E-05 (86, 2)
10	1.8316E-05 (75, 6)	1.8895E-05 (75, 6)	1.8870E-05 (75, 6)	2.1424E-05 (21, 1)	2.3485E-05 (21, 1)
11	1.3605E-05 (328, 4)	1.4047E-05 (15, 6)	1.5563E-05 (15, 6)	1.6262E-05 (15, 6)	1.6351E-05 (37, 6)
12	1.9720E-05 (280, 5)	2.0777E-05 (14, 8)	2.1511E-05 (14, 8)	2.1561E-05 (14, 8)	2.0772E-05 (53, 1)
13	2.4757E-05 (359, 5)	2.2060E-05 (359, 5)	1.9320E-05 (359, 5)	1.7695E-05 (15, 2)	1.6479E-05 (117, 5)
14	2.4463E-05 (117, 1)	2.7034E-05 (117, 1)	2.5928E-05 (76, 2)	2.3872E-05 (76, 2)	2.1912E-05 (76, 2)
15	1.8211E-05 (359, 4)	1.8188E-05 (306, 8)	2.0319E-05 (305, 8)	2.2507E-05 (305, 8)	2.3892E-05 (306, 8)
16	2.1472E-05 (81, 4)	1.9377E-05 (307, 5)	1.9135E-05 (307, 5)	1.9727E-05 (307, 7)	2.0466E-05 (304, 2)
17	1.9499E-05 (322, 5)	1.9867E-05 (346, 4)	1.7909E-05 (351, 7)	1.9452E-05 (346, 4)	2.0531E-05 (305, 2)
18	2.5507E-05 (324, 4)	2.4083E-05 (304, 6)	2.6519E-05 (3, 8)	2.9294E-05 (3, 8)	2.9696E-05 (4, 2)
19	2.4010E-05 (304, 4)	2.4857E-05 (290, 7)	2.7964E-05 (290, 7)	2.8074E-05 (305, 5)	2.6907E-05 (305, 5)
20	2.0496E-05 (315, 5)	2.0072E-05 (315, 5)	2.1827E-05 (64, 2)	2.0464E-05 (35, 5)	2.1547E-05 (292, 7)
21	2.3179E-05 (243, 5)	2.1826E-05 (243, 5)	2.1539E-05 (362, 5)	2.0767E-05 (305, 6)	2.1596E-05 (305, 6)
22	2.1866E-05 (253, 5)	2.0319E-05 (253, 5)	2.0413E-05 (336, 7)	2.3220E-05 (316, 7)	2.4393E-05 (316, 7)
23	2.5981E-05 (244, 5)	2.2280E-05 (244, 5)	2.4488E-05 (318, 6)	2.6055E-05 (267, 4)	2.3948E-05 (318, 8)
24	2.3880E-05 (262, 3)	2.2362E-05 (240, 6)	1.9948E-05 (295, 4)	1.8819E-05 (262, 3)	1.9933E-05 (60, 8)
25	2.2232E-05 (363, 5)	2.1406E-05 (363, 5)	2.0231E-05 (363, 5)	1.8960E-05 (141, 3)	1.9872E-05 (141, 3)
26	3.0587E-05 (163, 6)	2.6501E-05 (169, 5)	2.9137E-05 (163, 6)	2.7549E-05 (163, 6)	2.5835E-05 (163, 6)
27	3.0051E-05 (171, 6)	2.7463E-05 (169, 6)	2.6918E-05 (171, 6)	2.4419E-05 (171, 6)	2.6418E-05 (169, 6)
28	2.4771E-05 (94, 5)	2.1061E-05 (94, 5)	1.8630E-05 (93, 4)	1.7091E-05 (82, 5)	1.6861E-05 (202, 6)
29	2.0704E-05 (72, 4)	2.1248E-05 (113, 4)	1.9559E-05 (239, 6)	1.6885E-05 (239, 6)	1.4890E-05 (203, 6)
30	2.4241E-05 (158, 6)	2.1224E-05 (158, 6)	1.9370E-05 (83, 6)	1.9072E-05 (83, 6)	1.8869E-05 (7, 7)
31	2.1872E-05 (203, 5)	2.1713E-05 (107, 7)	2.3062E-05 (107, 4)	2.4028E-05 (337, 7)	2.5542E-05 (337, 7)
32	2.3866E-05 (241, 4)	2.2087E-05 (173, 5)	1.8836E-05 (173, 5)	2.0505E-05 (24, 8)	2.0474E-05 (66, 5)
33	2.9254E-05 (19, 4)	2.7821E-05 (19, 4)	2.5983E-05 (19, 4)	2.4066E-05 (19, 4)	2.3982E-05 (124, 6)
34	2.9141E-05 (154, 4)	2.5431E-05 (199, 4)	2.3737E-05 (213, 1)	2.7284E-05 (67, 4)	2.7493E-05 (198, 8)
35	2.9690E-05 (183, 3)	3.0010E-05 (183, 3)	2.5973E-05 (160, 4)	2.2085E-05 (160, 4)	2.0789E-05 (44, 4)
36	3.0758E-05 (103, 4)	2.6631E-05 (103, 4)	3.0475E-05 (73, 8)	3.2959E-05 (73, 8)	3.2505E-05 (25, 7)

32

COMPOSITE ANNUAL CONCENTRATION TABLE,UG/CU.M

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

DIR	RANGE	0.5 KM	1.0 KM	1.5 KM	2.0 KM	2.5 KM
1		0.	0.	0.	1.	1.
2		0.	0.	0.	0.	0.
3		0.	0.	0.	0.	0.
4		0.	0.	0.	0.	0.
5		0.	0.	0.	0.	0.
6		0.	0.	0.	0.	0.
7		0.	0.	0.	0.	0.
8		0.	0.	0.	0.	0.
9		0.	0.	0.	0.	0.
10		0.	0.	0.	0.	0.
11		0.	0.	0.	0.	0.
12		0.	0.	0.	0.	0.
13		0.	0.	0.	0.	0.
14		0.	0.	0.	0.	0.
15		0.	0.	0.	0.	0.
16		0.	0.	0.	0.	0.
17		0.	0.	0.	0.	0.
18		0.	0.	0.	1.	1.
19		0.	0.	0.	0.	0.
20		0.	0.	0.	0.	1.
21		0.	0.	0.	0.	0.
22		0.	0.	0.	0.	0.
23		0.	0.	0.	1.	1.
24		0.	0.	0.	1.	1.
25		0.	0.	0.	1.	1.
26		0.	0.	1.	1.	1.
27		0.	0.	1.	1.	1.
28		0.	0.	1.	1.	1.
29		0.	0.	0.	0.	0.
30		0.	0.	0.	1.	1.
31		0.	0.	0.	1.	1.
32		0.	0.	0.	0.	0.
33		0.	0.	0.	0.	0.
34		0.	0.	0.	1.	1.
35		0.	0.	0.	1.	1.
36		0.	0.	1.	1.	1.

COMPOSITE ANNUAL CONCENTRATION TABLE,UG/CU.M

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

DIR	RANGE	3.0 KM	3.5 KM	4.0 KM	4.5 KM	5.0 KM
1		1.	0.	0.	0.	0.
2		0.	0.	0.	0.	0.
3		0.	0.	0.	0.	0.
4		0.	0.	0.	0.	0.
5		0.	0.	0.	0.	0.
6		0.	0.	0.	0.	0.
7		0.	0.	0.	0.	0.
8		0.	0.	0.	0.	0.
9		0.	0.	0.	0.	0.
10		0.	0.	0.	0.	0.
11		0.	0.	0.	0.	0.
12		0.	0.	0.	0.	0.
13		0.	0.	0.	0.	0.
14		0.	0.	0.	0.	0.
15		0.	0.	0.	0.	0.
16		0.	0.	0.	0.	0.
17		0.	0.	1.	1.	1.
18		1.	1.	1.	1.	1.
19		1.	1.	1.	1.	1.
20		1.	1.	1.	1.	1.
21		0.	0.	0.	0.	0.
22		1.	1.	1.	1.	1.
23		1.	1.	1.	1.	1.
24		1.	1.	1.	1.	1.
25		1.	1.	1.	1.	1.
26		1.	1.	1.	1.	1.
27		1.	1.	1.	1.	1.
28		1.	1.	1.	1.	1.
29		0.	0.	0.	0.	0.
30		1.	1.	1.	1.	1.
31		1.	1.	1.	1.	1.
32		0.	0.	0.	0.	0.
33		1.	1.	1.	1.	1.
34		1.	1.	1.	1.	1.
35		1.	1.	1.	1.	1.
36		1.	1.	1.	1.	1.

COMPOSITE HIGHEST,SECOND-HIGHEST 24-HOUR CONCENTRATION TABLE,UG/CU.M

SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR

DIR \ RANGE	0.5 KM	1.0 KM	1.5 KM	2.0 KM	2.5 KM
1	1.	5.	7.	7.	6.
2	0.	5.	6.	7.	7.
3	0.	4.	5.	6.	5.
4	0.	4.	6.	6.	5.
5	0.	5.	7.	8.	7.
6	0.	5.	5.	6.	6.
7	0.	4.	6.	5.	6.
8	0.	5.	5.	5.	5.
9	1.	6.	7.	7.	8.
10	0.	3.	4.	5.	5.
11	0.	4.	5.	7.	7.
12	0.	6.	6.	6.	6.
13	1.	5.	6.	6.	7.
14	0.	4.	6.	7.	7.
15	0.	4.	5.	5.	5.
16	0.	4.	5.	5.	5.
17	0.	4.	5.	5.	5.
18	0.	4.	7.	9.	11.
19	0.	4.	5.	6.	8.
20	1.	4.	7.	7.	7.
21	0.	4.	5.	6.	7.
22	0.	5.	6.	6.	6.
23	0.	4.	6.	8.	7.
24	0.	5.	6.	8.	9.
25	0.	5.	6.	6.	6.
26	0.	5.	8.	9.	8.
27	0.	5.	8.	10.	10.
28	0.	4.	5.	6.	7.
29	0.	4.	5.	6.	5.
30	0.	6.	9.	9.	8.
31	1.	6.	7.	7.	6.
32	2.	4.	6.	6.	5.
33	1.	5.	6.	6.	7.
34	0.	6.	6.	7.	6.
35	1.	5.	7.	7.	7.
36	1.	6.	9.	10.	9.

COMPOSITE HIGHEST,SECOND-HIGHEST 24-HOUR CONCENTRATION TABLE,UG/CU.M

SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR

DIR \ RANGE	3.0 KM	3.5 KM	4.0 KM	4.5 KM	5.0 KM
1	5.	5.	5.	5.	5.
2	7.	6.	6.	6.	6.
3	5.	5.	5.	4.	4.
4	5.	6.	6.	5.	5.
5	7.	6.	6.	5.	5.
6	6.	5.	5.	5.	5.
7	6.	5.	5.	5.	5.
8	5.	6.	6.	6.	6.
9	9.	8.	8.	7.	8.
10	5.	5.	5.	6.	5.
11	7.	7.	6.	6.	6.
12	6.	7.	7.	7.	7.
13	8.	8.	7.	7.	7.
14	7.	7.	6.	6.	6.
15	5.	6.	6.	6.	5.
16	6.	7.	7.	7.	7.
17	6.	6.	6.	6.	6.
18	12.	12.	12.	11.	11.
19	9.	9.	9.	9.	9.
20	8.	8.	7.	7.	6.
21	7.	7.	6.	6.	6.
22	6.	6.	6.	6.	6.
23	7.	7.	7.	7.	7.
24	9.	8.	8.	8.	8.
25	7.	7.	7.	7.	7.
26	8.	7.	7.	7.	7.
27	10.	10.	10.	10.	9.
28	6.	6.	7.	7.	7.
29	5.	5.	5.	5.	5.
30	9.	9.	9.	9.	9.
31	6.	5.	5.	6.	6.
32	5.	5.	6.	7.	7.
33	7.	7.	7.	7.	6.
34	6.	6.	6.	6.	6.
35	6.	6.	5.	5.	5.
36	10.	10.	10.	10.	10.

36

DAY 279/1974

The following ISCST run refines this area and accounts for the momentum term in the plume rise equation.

COMPOSITE HIGHEST, SECOND-HIGHEST 3-HOUR CONCENTRATION TABLE,UG/CU.M

RANGE DIR	SECOND HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR 0.5 KM	1.0 KM	1.5 KM	2.0 KM	2.5 KM
1	5.	26.	34.	33.	31.
2	3.	25.	30.	30.	29.
3	2.	26.	33.	30.	28.
4	2.	32.	38.	34.	28.
5	3.	30.	34.	33.	34.
6	3.	24.	31.	32.	32.
7	4.	30.	34.	30.	28.
8	4.	39.	35.	30.	26.
9	7.	36.	42.	34.	27.
10	3.	19.	26.	33.	27.
11	2.	26.	34.	32.	32.
12	3.	29.	34.	30.	27.
13	3.	25.	36.	33.	29.
14	2.	24.	30.	28.	29.
15	2.	24.	29.	26.	23.
16	2.	24.	26.	26.	27.
17	2.	24.	33.	29.	26.
18	2.	29.	32.	39.	39.
19	3.	30.	29.	30.	27.
20	8.	31.	33.	31.	31.
21	3.	26.	33.	34.	31.
22	4.	28.	32.	29.	25.
23	3.	23.	33.	37.	37.
24	2.	28.	30.	36.	36.
25	2.	30.	38.	34.	32.
26	2.	32.	43.	39.	34.
27	3.	28.	37.	35.	31.
28	3.	29.	35.	31.	28.
29	2.	23.	27.	29.	29.
30	2.	39.	43.	43.	37.
31	6.	32.	39.	31.	27.
32	13.	30.	32.	32.	28.
33	5.	32.	37.	32.	30.
34	2.	33.	33.	36.	34.
35	3.	30.	40.	38.	32.
36	8.	30.	38.	42.	36.

COMPOSITE HIGHEST, SECOND-HIGHEST 3-HOUR CONCENTRATION TABLE,UG/CU.M

DIR \ RANGE	SECOND HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR 3.0 KM	3.5 KM	4.0 KM	4.5 KM	5.0 KM
1	30.	28.	26.	23.	24.
2	27.	24.	23.	21.	20.
3	27.	24.	22.	20.	18.
4	26.	22.	23.	24.	22.
5	32.	29.	25.	26.	26.
6	29.	26.	24.	22.	20.
7	28.	27.	26.	25.	26.
8	23.	25.	26.	24.	23.
9	25.	25.	24.	26.	27.
10	27.	27.	27.	29.	31.
11	31.	29.	27.	24.	26.
12	26.	24.	23.	24.	25.
13	26.	24.	24.	23.	24.
14	26.	27.	26.	25.	27.
15	21.	20.	20.	23.	24.
16	25.	25.	25.	26.	27.
17	22.	23.	27.	28.	30.
18	36.	33.	32.	31.	33.
19	27.	26.	28.	28.	27.
20	29.	27.	27.	25.	26.
21	30.	27.	25.	23.	25.
22	24.	24.	22.	23.	25.
23	35.	29.	25.	26.	24.
24	33.	27.	24.	24.	22.
25	30.	25.	23.	22.	24.
26	31.	27.	29.	28.	26.
27	30.	29.	29.	28.	27.
28	25.	21.	19.	20.	21.
29	26.	21.	21.	22.	21.
30	31.	28.	26.	26.	27.
31	23.	22.	23.	24.	26.
32	24.	23.	24.	26.	28.
33	29.	28.	26.	24.	24.
34	32.	30.	30.	28.	27.
35	30.	30.	26.	22.	21.
36	31.	29.	30.	33.	33.

*** KISSIMMEE DAY 279/1974 ***

CALCULATE (CONCENTRATION=1,DEPOSITION=2)	ISW(1) = 1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)	ISW(2) = 4
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)	ISW(3) = 1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)	ISW(4) = 0
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)	ISW(5) = 0
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)	ISW(6) = 1
COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)	
WITH THE FOLLOWING TIME PERIODS:	
HOURLY (YES=1,NO=0)	ISW(7) = 0
2-HOUR (YES=1,NO=0)	ISW(8) = 0
3-HOUR (YES=1,NO=0)	ISW(9) = 0
4-HOUR (YES=1,NO=0)	ISW(10) = 0
6-HOUR (YES=1,NO=0)	ISW(11) = 0
8-HOUR (YES=1,NO=0)	ISW(12) = 0
12-HOUR (YES=1,NO=0)	ISW(13) = 0
24-HOUR (YES=1,NO=0)	ISW(14) = 1
PRINT *N*-DAY TABLE(S) (YES=1,NO=0)	ISW(15) = 0
PRINT THE FOLLOWING TYPES OF TABLES WHOSE TIME PERIODS ARE	
SPECIFIED BY ISW(7) THROUGH ISW(14):	
DAILY TABLES (YES=1,NO=0)	ISW(16) = 1
HIGHEST & SECOND HIGHEST TABLES (YES=1,NO=0)	ISW(17) = 0
MAXIMUM 50 TABLES (YES=1,NO=0)	ISW(18) = 0
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)	ISW(19) = 1
RURAL-URBAN OPTION (RURAL=0,URBAN MODE 1=1,URBAN MODE 2=2)	ISW(20) = 0
WIND PROFILE EXPONENT VALUES (DEFAULTS=1,USER ENTERS=2,3)	ISW(21) = 1
VERTICAL POT. TEMP. GRADIENT VALUES (DEFAULTS=1,USER ENTERS=2,3)	ISW(22) = 1
SCALE EMISSION RATES FOR ALL SOURCES (NO=0,YES>0)	ISW(23) = 0
PROGRAM CALCULATES FINAL PLUME RISE ONLY (YES=1,NO=2)	ISW(24) = 1
PROGRAM ADJUSTS ALL STACK HEIGHTS FOR DOWNWASH (YES=2,NO=1)	ISW(25) = 1
NUMBER OF INPUT SOURCES	NSOURC = 1
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)	NGROUP = 0
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)	IPERD = 0
NUMBER OF X (RANGE) GRID VALUES	NXPNTS = 11
NUMBER OF Y (THETA) GRID VALUES	NYPNTS = 3
NUMBER OF DISCRETE RECEPTORS	NXWYPT = 0
SOURCE EMISSION RATE UNITS CONVERSION FACTOR	TK =.10000E+07
ENTRAINMENT COEFFICIENT FOR UNSTABLE ATMOSPHERE	BETA1 =0.600
ENTRAINMENT COEFFICIENT FOR STABLE ATMOSPHERE	BETA2 =0.600
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED ZR = 7.00	METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA	IMET = 9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION DECAY =0.000000E+00	
SURFACE STATION NO.	ISS = 12815
YEAR OF SURFACE DATA	ISY = 74
UPPER AIR STATION NO.	IUS = 12842
YEAR OF UPPER AIR DATA	IUY = 74
ALLOCATED DATA STORAGE	LIMIT = 43500 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MIMIT = 328 WORDS

*** KISSIMMEE DAY 279/1974 ***

*** METEOROLOGICAL DAYS TO BE PROCESSED ***
(IF=1)

0000000000	0000000000	0000000000	0000000000	0000000000
0000000000	0000000000	0000000000	0000000000	0000000000
0000000000	0000000000	0000000000	0000000000	0000000000
0000000000	0000000000	0000000000	0000000000	0000000000
0000000000	0000000000	0000000000	0000000000	0000000000
0000000000	0000000000	0000000010	0000000000	0000000000
0000000000	0000000000	0000000000	0000000000	0000000000
0000000000	000000			

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

*** KISSIMMEE DAY 279/1974 ***

*** RANGES OF POLAR GRID SYSTEM ***
(METERS)

3900., 4000., 4100., 4200., 4300., 4400., 4500., 4600., 4700., 4800.,
4900.,

*** RADIAL ANGLES OF POLAR GRID SYSTEM ***

(DEGREES)

180., 182., 184.,

41

*** KISSIMMEE DAY 279/1974 ***

SOURCE # 1---UNIT 1

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (G/S) TYPE=2 (G/S) *PER M**2	X (M)	Y (M)	BASE ELEV. (M)	HEIGHT (M)	TEMP. TYPE=0 (DEG.K) VERT.DIM. TYPE=1 (M)	EXIT VEL. TYPE=0 (M/S) HORZ.DIM. TYPE=1,2 (M)	DIAM. TYPE=0 (M)	BLDG. HEIGHT TYPE=0 (M)	BLDG. LENGTH TYPE=0 (M)	BLDG. WIDTH TYPE=0 (M)
1	0	0	0	48.900	0.	0.	0.0	9.14	422.0	38.03	2.44	0.00	0.00	0.00

DAILY: 279
24-HR/PD 1
SGROUP# 1
YEAR 1974
*** KISSIMMEE DAY 279/1974 ***

* DAILY 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* ENDING WITH HOUR 24 FOR DAY 279 *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 10.3 AND OCCURRED AT (4000.0, 182.0) *

DIRECTION / (DEGREES) /	RANGE (METERS) 3900.0	4000.0	4100.0	4200.0	4300.0	4400.0	4500.0	4600.0	4700.0
184.0 /	9.2	9.2	9.2	9.2	9.2	9.2	9.1	9.1	9.0
182.0 /	10.3	10.3	10.3	10.3	10.3	10.3	10.2	10.2	10.1
180.0 /	9.6	9.6	9.6	9.6	9.6	9.5	9.5	9.5	9.4

DAILY: 279
24-HR/PD 1
SGROUP# 1
YEAR 1974
*** KISSIMMEE DAY 279/1974 ***

* DAILY 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* ENDING WITH HOUR 24 FOR DAY 279 *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 10.3 AND OCCURRED AT (4000.0, 182.0) *

DIRECTION / (DEGREES) /	RANGE (METERS) 4800.0	4900.0
184.0 /	9.0	8.9
182.0 /	10.1	10.0
180.0 /	9.4	9.3

EXISTING AND SURROUNDING SOURCES

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PLANT NAME: KISS. UTILITIES              POLLUTANT:    SO2     AIR QUALITY UNITS: GM/M**3
TAMPA/ORLANDO 1974-1978

              MET FILE      REQUESTED
             STN NO. YR    STN NO. YR
 SURFACE      12815  74     12815  74
 UPPER AIR    12842  74     12842  74
PLANT LOCATION: RURAL
ANEMOMETER HEIGHT IS  7.0 METERS
WIND PROFILE EXPONENTS ARE:   0.100,  0.150,  0.200,  0.250,  0.300,  0.300,
NO TAPE OUTPUT
MET DATA WILL NOT BE PRINTED

DAY-- 1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
      1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
      1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
      1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
      1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
      1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
      1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
      1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
      1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1


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     ALL TABLES, INCLUDING SOURCE CONTRIBUTION, THAT CONTAIN "ANNUAL" IN THE HEADING ARE BASED

     ONLY ON THOSE DAYS MARKED BY A "1" IN THE ABOVE TABLE
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RING DISTANCES(KM)= 0.10 0.30 0.50 0.70 0.90

STACK # 1--COMBUSTION TURBINE
STACK # 2--KISS. UTIL. UNIT#7
STACK # 3--KISS. UTIL. UNITS#8,#9
STACK # 4--KISS. UTIL. UNITS#10,#11
STACK # 5--KISS. UTIL. UNITS#14-#18
STACK # 6--KISS. UTIL. UNITS#19-#20

STACK	MONTH	EMISSION RATE (GMS/SEC)	HEIGHT (METERS)	DIAMETER (METERS)	EXIT VELOCITY (M/SEC)	TEMP (DEG.K)	VOLUMETRIC FLOW (M**3/SEC)
1	ALL	48.9000	9.14	2.44	38.03	422.00	177.83
2	ALL	0.8700	13.11	0.61	16.30	466.50	4.76
3	ALL	3.3600	16.15	0.85	17.60	477.60	9.99
4	ALL	2.2800	7.01	0.76	9.60	466.50	4.35
5	ALL	5.3700	13.41	0.80	8.70	505.40	4.37
6	ALL	2.8900	8.69	0.90	17.20	505.40	10.94

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
MAXIMUM MEAN CONC= 8.0673E-06 DIRECTION= 18 DISTANCE= 0.5 KM
YEAR= 74

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

DIR \ RANGE	0.1 KM	0.3 KM	0.5 KM	0.7 KM	0.9 KM
1	3.94047E-07	5.90615E-06	5.73657E-06	4.63632E-06	3.80970E-06
2	3.38612E-07	4.95829E-06	4.99106E-06	4.16915E-06	3.50125E-06
3	2.79438E-07	4.22725E-06	4.32418E-06	3.63989E-06	3.08068E-06
4	3.06107E-07	4.54864E-06	4.58201E-06	3.78769E-06	3.15872E-06
5	3.84323E-07	4.92985E-06	4.86695E-06	4.00239E-06	3.32256E-06
6	3.89023E-07	5.02919E-06	5.05781E-06	4.21517E-06	3.54859E-06
7	3.55545E-07	4.48994E-06	4.35552E-06	3.58128E-06	3.00576E-06
8	3.08707E-07	4.03610E-06	3.94399E-06	3.26037E-06	2.75356E-06
9	2.72489E-07	3.93654E-06	4.00897E-06	3.40032E-06	2.91940E-06
10	2.97951E-07	4.10936E-06	4.16097E-06	3.45498E-06	2.86373E-06
11	3.64990E-07	4.23194E-06	4.13559E-06	3.47492E-06	2.97118E-06
12	4.11647E-07	4.83857E-06	4.86383E-06	4.10994E-06	3.49013E-06
13	3.93164E-07	4.74315E-06	4.68946E-06	3.86901E-06	3.20739E-06
14	3.55423E-07	4.99078E-06	4.99852E-06	4.06316E-06	3.30028E-06
15	2.72299E-07	4.27752E-06	4.45873E-06	3.68416E-06	3.02744E-06
16	2.43630E-07	4.10549E-06	4.14792E-06	3.38093E-06	2.81088E-06
17	2.55312E-07	5.15862E-06	5.44948E-06	4.54596E-06	3.84218E-06
18	2.85053E-07	6.98533E-06	8.06734E-06	7.09297E-06	6.22043E-06
19	2.60797E-07	4.95345E-06	5.43467E-06	4.62669E-06	3.92461E-06
20	2.92621E-07	5.60787E-06	6.39449E-06	5.70653E-06	5.06800E-06
21	3.61073E-07	5.80845E-06	6.15098E-06	5.29959E-06	4.59709E-06
22	4.46503E-07	6.82548E-06	7.17073E-06	6.15646E-06	5.32364E-06
23	4.64749E-07	7.15947E-06	7.37299E-06	6.17726E-06	5.24012E-06
24	4.17053E-07	6.56124E-06	6.74057E-06	5.64486E-06	4.77370E-06
25	3.91513E-07	6.31567E-06	6.76913E-06	5.83319E-06	5.01782E-06
26	4.61743E-07	5.87744E-06	5.94848E-06	4.99577E-06	4.26962E-06
27	4.96765E-07	6.54674E-06	6.81704E-06	5.79479E-06	4.93912E-06
28	4.42227E-07	6.09763E-06	6.29617E-06	5.29121E-06	4.44138E-06
29	4.10104E-07	5.70008E-06	5.85031E-06	4.88917E-06	4.09869E-06
30	4.53198E-07	6.17898E-06	6.45246E-06	5.44689E-06	4.60866E-06
31	5.07914E-07	5.88214E-06	5.90846E-06	4.90066E-06	4.10818E-06
32	5.76243E-07	5.57241E-06	5.51611E-06	4.61172E-06	3.92398E-06
33	5.39704E-07	5.19750E-06	5.01557E-06	4.11082E-06	3.44359E-06
34	4.56214E-07	6.17757E-06	6.32132E-06	5.26540E-06	4.40060E-06
35	4.34996E-07	5.87890E-06	5.87907E-06	4.84566E-06	4.03635E-06
36	4.35477E-07	7.10329E-06	7.43535E-06	6.26296E-06	5.28663E-06

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
MAXIMUM MEAN CONC= 8.5968E-06 DIRECTION= 36 DISTANCE= 0.3 KM
YEAR= 75

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 0.1 KM	0.3 KM	0.5 KM	0.7 KM	0.9 KM
1	6.79781E-07	7.38675E-06	6.93115E-06	5.51287E-06	4.47713E-06
2	5.63330E-07	6.05201E-06	5.68735E-06	4.55215E-06	3.72380E-06
3	4.62249E-07	4.97501E-06	4.54043E-06	3.59293E-06	2.91864E-06
4	4.49751E-07	5.27746E-06	4.92884E-06	3.95071E-06	3.24983E-06
5	4.55838E-07	5.80844E-06	5.77183E-06	4.79758E-06	4.00116E-06
6	3.99793E-07	4.64941E-06	4.42197E-06	3.59037E-06	2.98893E-06
7	4.01773E-07	4.65934E-06	4.63452E-06	3.85046E-06	3.23751E-06
8	3.52545E-07	4.15923E-06	4.11450E-06	3.35938E-06	2.76783E-06
9	2.86703E-07	3.78406E-06	3.82871E-06	3.20844E-06	2.72926E-06
10	3.07055E-07	3.80642E-06	3.56930E-06	2.83341E-06	2.31878E-06
11	3.97484E-07	5.45477E-06	5.34787E-06	4.38798E-06	3.67494E-06
12	4.77234E-07	6.54095E-06	6.35248E-06	5.13585E-06	4.19772E-06
13	4.96219E-07	6.49938E-06	6.19431E-06	4.98541E-06	4.08682E-06
14	4.44896E-07	5.70798E-06	5.39789E-06	4.26718E-06	3.41814E-06
15	3.44101E-07	4.55705E-06	4.49113E-06	3.66688E-06	3.02479E-06
16	3.18752E-07	4.59380E-06	4.66620E-06	3.90191E-06	3.31504E-06
17	3.19213E-07	4.54505E-06	4.70357E-06	3.99041E-06	3.45945E-06
18	2.97257E-07	5.26420E-06	5.99157E-06	5.33953E-06	4.75003E-06
19	2.43949E-07	4.23069E-06	4.49190E-06	3.80108E-06	3.25010E-06
20	2.60127E-07	5.03683E-06	5.83248E-06	5.26915E-06	4.72391E-06
21	3.38294E-07	5.78597E-06	6.29619E-06	5.47628E-06	4.76250E-06
22	4.34734E-07	6.71577E-06	7.22377E-06	6.30344E-06	5.53587E-06
23	5.34040E-07	8.37973E-06	8.82740E-06	7.59106E-06	6.57341E-06
24	5.37835E-07	7.62684E-06	7.79013E-06	6.58113E-06	5.61766E-06
25	4.27105E-07	6.03848E-06	6.35483E-06	5.48192E-06	4.75325E-06
26	3.94558E-07	5.70239E-06	5.80044E-06	4.84078E-06	4.06799E-06
27	4.80302E-07	7.62871E-06	8.14420E-06	6.97058E-06	5.94764E-06
28	4.79091E-07	6.51153E-06	6.35890E-06	5.15938E-06	4.26611E-06
29	4.31423E-07	5.73424E-06	5.56579E-06	4.55208E-06	3.81537E-06
30	4.44142E-07	6.98012E-06	7.26513E-06	6.10799E-06	5.18262E-06
31	4.40314E-07	5.66177E-06	5.61453E-06	4.67047E-06	3.96274E-06
32	4.65428E-07	5.45786E-06	5.35275E-06	4.46425E-06	3.82610E-06
33	5.90483E-07	6.84287E-06	6.36894E-06	5.04228E-06	4.13260E-06
34	6.76601E-07	7.86456E-06	7.45682E-06	6.01608E-06	4.97327E-06
35	6.65022E-07	7.41602E-06	7.09775E-06	5.71449E-06	4.67814E-06
36	7.20536E-07	8.99684E-06	8.85797E-06	7.24184E-06	6.01854E-06

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
MAXIMUM MEAN CONC= 1.1954E-05 DIRECTION= 18 DISTANCE= 0.5 KM
YEAR= 76

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 0.1 KM	0.3 KM	0.5 KM	0.7 KM	0.9 KM
1	5.36371E-07	6.56214E-06	6.30856E-06	5.09575E-06	4.20890E-06
2	4.66657E-07	5.85672E-06	5.61985E-06	4.50522E-06	3.66570E-06
3	4.35504E-07	4.97493E-06	4.61135E-06	3.66280E-06	2.98261E-06
4	4.16393E-07	4.89415E-06	4.79399E-06	3.91313E-06	3.23694E-06
5	4.60784E-07	5.63178E-06	5.58671E-06	4.59986E-06	3.82943E-06
6	4.37325E-07	5.20889E-06	5.21423E-06	4.34565E-06	3.66637E-06
7	3.36657E-07	4.12823E-06	4.14762E-06	3.44177E-06	2.88984E-06
8	3.24119E-07	4.27021E-06	4.16824E-06	3.32471E-06	2.68014E-06
9	3.64283E-07	5.47009E-06	5.63241E-06	4.67297E-06	3.89797E-06
10	2.66304E-07	4.18429E-06	4.32362E-06	3.62184E-06	3.06638E-06
11	2.38980E-07	4.11635E-06	4.32125E-06	3.64134E-06	3.09536E-06
12	3.20131E-07	5.21439E-06	5.35892E-06	4.46081E-06	3.73309E-06
13	3.80321E-07	6.21767E-06	6.21571E-06	5.00547E-06	4.02968E-06
14	3.68463E-07	6.02888E-06	5.97353E-06	4.83614E-06	3.92478E-06
15	2.91657E-07	5.20589E-06	5.40381E-06	4.48510E-06	3.68666E-06
16	2.39791E-07	5.47122E-06	6.17927E-06	5.35192E-06	4.54270E-06
17	2.68591E-07	6.47820E-06	7.27771E-06	6.25526E-06	5.28901E-06
18	3.51324E-07	1.02792E-05	1.19544E-05	1.04091E-05	8.85606E-06
19	3.68616E-07	7.94089E-06	8.47033E-06	6.98957E-06	5.70349E-06
20	4.41940E-07	7.65187E-06	8.02398E-06	6.70053E-06	5.58237E-06
21	3.98341E-07	6.02229E-06	6.24517E-06	5.31621E-06	4.52079E-06
22	4.37697E-07	6.04053E-06	6.31557E-06	5.39134E-06	4.58747E-06
23	4.46902E-07	6.74641E-06	7.40011E-06	6.47703E-06	5.61754E-06
24	4.21440E-07	6.52155E-06	6.94613E-06	5.95070E-06	5.09737E-06
25	4.21004E-07	5.58363E-06	5.92600E-06	5.12327E-06	4.40913E-06
26	4.36309E-07	5.38983E-06	5.57527E-06	4.74763E-06	4.05029E-06
27	4.62217E-07	6.38667E-06	6.80548E-06	5.86914E-06	5.04956E-06
28	4.58110E-07	5.78438E-06	5.62179E-06	4.55584E-06	3.73020E-06
29	4.44299E-07	6.13521E-06	6.24864E-06	5.17429E-06	4.29438E-06
30	4.47567E-07	6.56674E-06	7.07169E-06	6.14912E-06	5.33549E-06
31	4.60708E-07	6.27882E-06	6.36618E-06	5.24594E-06	4.36714E-06
32	4.90309E-07	6.10071E-06	6.15216E-06	5.07705E-06	4.22159E-06
33	4.54720E-07	5.65983E-06	5.62785E-06	4.59413E-06	3.78104E-06
34	4.87422E-07	6.50987E-06	6.93433E-06	5.89637E-06	4.96645E-06
35	5.13822E-07	5.87155E-06	5.79156E-06	4.78473E-06	4.04295E-06
36	5.86232E-07	8.24868E-06	8.70565E-06	7.39448E-06	6.31519E-06

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
MAXIMUM MEAN CONC= 1.0971E-05 DIRECTION= 36 DISTANCE= 0.5 KM
YEAR= 77

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 0.1 KM	0.3 KM	0.5 KM	0.7 KM	0.9 KM
1	6.60364E-07	7.03036E-06	6.47816E-06	5.11062E-06	4.15588E-06
2	4.73056E-07	5.07373E-06	4.94959E-06	4.06614E-06	3.38356E-06
3	4.37215E-07	4.51641E-06	4.25743E-06	3.44315E-06	2.83129E-06
4	4.81250E-07	5.42896E-06	5.27230E-06	4.38400E-06	3.70935E-06
5	5.05303E-07	6.01202E-06	5.94890E-06	4.97407E-06	4.22093E-06
6	5.12505E-07	5.52898E-06	5.49630E-06	4.62879E-06	3.94662E-06
7	4.70529E-07	4.41269E-06	4.25452E-06	3.57204E-06	3.02717E-06
8	3.84555E-07	4.12960E-06	3.92202E-06	3.24059E-06	2.75247E-06
9	3.83214E-07	5.52867E-06	5.64533E-06	4.79159E-06	4.11994E-06
10	3.50218E-07	4.71376E-06	4.50775E-06	3.63022E-06	2.97131E-06
11	3.82204E-07	4.96780E-06	4.70104E-06	3.77159E-06	3.10126E-06
12	4.64455E-07	5.94434E-06	5.78478E-06	4.74561E-06	3.94780E-06
13	4.46692E-07	6.01550E-06	5.82303E-06	4.64213E-06	3.71795E-06
14	4.13753E-07	5.72261E-06	5.76125E-06	4.72454E-06	3.85261E-06
15	3.95630E-07	5.00382E-06	4.70458E-06	3.72577E-06	3.00733E-06
16	3.74050E-07	4.78557E-06	4.61766E-06	3.75089E-06	3.12771E-06
17	3.96302E-07	5.76607E-06	5.84809E-06	4.85830E-06	4.06551E-06
18	3.56653E-07	7.22065E-06	8.19676E-06	7.26041E-06	6.35357E-06
19	2.41538E-07	4.29411E-06	4.59971E-06	3.95247E-06	3.36286E-06
20	2.06474E-07	4.02662E-06	4.52321E-06	4.00548E-06	3.48628E-06
21	2.19971E-07	4.35343E-06	5.10863E-06	4.62095E-06	4.10769E-06
22	2.99022E-07	4.87792E-06	5.44573E-06	4.79461E-06	4.21996E-06
23	4.49116E-07	7.21923E-06	8.02291E-06	7.07358E-06	6.22776E-06
24	4.86376E-07	7.57223E-06	8.18276E-06	7.13464E-06	6.20280E-06
25	4.99085E-07	6.45579E-06	6.63611E-06	5.61236E-06	4.78715E-06
26	5.55523E-07	6.95489E-06	7.00001E-06	5.81558E-06	4.87802E-06
27	6.27273E-07	1.00613E-05	1.06180E-05	8.96957E-06	7.56837E-06
28	5.45054E-07	6.87047E-06	6.77354E-06	5.56011E-06	4.61417E-06
29	5.49674E-07	5.77196E-06	5.49056E-06	4.47087E-06	3.70103E-06
30	6.88761E-07	7.84890E-06	7.72202E-06	6.39144E-06	5.37303E-06
31	6.16712E-07	6.76732E-06	6.59604E-06	5.40611E-06	4.50896E-06
32	4.17553E-07	5.41535E-06	5.40314E-06	4.51515E-06	3.81075E-06
33	3.35306E-07	4.82981E-06	4.78464E-06	3.97480E-06	3.36141E-06
34	3.47662E-07	5.27373E-06	5.41844E-06	4.61709E-06	3.97760E-06
35	4.75889E-07	6.46543E-06	6.46916E-06	5.35214E-06	4.48964E-06
36	7.34848E-07	1.05314E-05	1.09713E-05	9.28678E-06	7.89376E-06

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
MAXIMUM MEAN CONC= 1.1860E-05 DIRECTION= 27 DISTANCE= 0.3 KM
YEAR= 78

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

DIR \ RANGE	0.1 KM	0.3 KM	0.5 KM	0.7 KM	0.9 KM
1	5.75149E-07	5.74012E-06	5.37812E-06	4.33423E-06	3.54104E-06
2	4.20699E-07	4.65051E-06	4.40428E-06	3.56444E-06	2.94248E-06
3	3.05409E-07	3.60221E-06	3.40152E-06	2.71728E-06	2.20196E-06
4	2.90489E-07	4.24350E-06	4.40856E-06	3.73804E-06	3.16963E-06
5	2.96538E-07	3.99395E-06	4.06533E-06	3.39168E-06	2.83979E-06
6	2.68659E-07	3.49504E-06	3.49099E-06	2.90325E-06	2.43976E-06
7	1.89820E-07	2.71519E-06	2.68826E-06	2.20138E-06	1.82962E-06
8	1.76940E-07	2.71340E-06	2.61451E-06	2.09708E-06	1.72456E-06
9	2.19363E-07	3.87437E-06	4.19140E-06	3.58536E-06	3.03242E-06
10	1.90819E-07	2.96344E-06	3.18233E-06	2.72441E-06	2.31173E-06
11	1.66316E-07	2.89604E-06	3.13199E-06	2.70198E-06	2.29522E-06
12	2.17629E-07	4.08162E-06	4.27372E-06	3.56134E-06	2.94613E-06
13	2.93916E-07	4.43099E-06	4.38829E-06	3.53303E-06	2.83211E-06
14	3.05918E-07	4.52295E-06	4.45822E-06	3.60200E-06	2.90330E-06
15	2.38992E-07	3.88239E-06	3.99471E-06	3.34921E-06	2.81090E-06
16	1.86407E-07	3.58090E-06	3.92579E-06	3.38218E-06	2.88329E-06
17	1.95432E-07	5.10021E-06	5.97147E-06	5.25145E-06	4.50984E-06
18	2.51123E-07	7.73245E-06	9.19358E-06	8.15119E-06	7.04351E-06
19	2.38700E-07	5.80943E-06	6.34082E-06	5.35988E-06	4.45434E-06
20	3.02429E-07	5.83921E-06	6.28508E-06	5.38318E-06	4.57835E-06
21	4.30742E-07	6.65252E-06	7.03454E-06	6.03577E-06	5.14510E-06
22	5.46370E-07	7.67164E-06	8.10424E-06	6.99715E-06	6.00374E-06
23	6.62207E-07	8.73261E-06	8.70833E-06	7.26831E-06	6.12575E-06
24	7.35318E-07	8.42796E-06	8.13212E-06	6.69650E-06	5.64740E-06
25	7.66580E-07	8.02565E-06	7.60447E-06	6.26247E-06	5.34557E-06
26	9.18440E-07	1.05117E-05	1.01474E-05	8.29143E-06	6.95512E-06
27	9.41646E-07	1.18603E-05	1.15737E-05	9.39321E-06	7.79052E-06
28	7.38468E-07	9.11261E-06	8.76443E-06	7.07938E-06	5.83881E-06
29	6.33076E-07	7.02109E-06	6.45164E-06	5.04734E-06	4.06846E-06
30	6.84272E-07	7.91788E-06	7.89087E-06	6.63374E-06	5.68149E-06
31	6.51723E-07	7.41030E-06	7.28847E-06	6.05604E-06	5.14354E-06
32	5.47414E-07	6.64134E-06	6.68308E-06	5.63047E-06	4.78546E-06
33	5.35542E-07	7.30011E-06	7.60975E-06	6.50360E-06	5.57677E-06
34	6.10588E-07	7.87486E-06	7.95378E-06	6.68306E-06	5.66959E-06
35	7.15434E-07	8.35862E-06	7.63032E-06	6.19825E-06	5.15498E-06
36	7.36866E-07	8.44743E-06	8.20678E-06	6.70484E-06	5.53099E-06

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 24-HOUR CONC= 1.2979E-04 DIRECTION= 18 DISTANCE= 0.5 KM DAY=279
YEAR= 74

SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 0.1 KM	0.3 KM	0.5 KM	0.7 KM	0.9 KM
1	7.1035E-06 (135)	5.3770E-05 (152)	5.3207E-05 (104)	4.2548E-05 (104)	3.3900E-05 (104)
2	6.0889E-06 (228)	4.6043E-05 (38)	3.5015E-05 (143)	3.7239E-05 (38)	3.2257E-05 (230)
3	4.7438E-06 (124)	4.0233E-05 (175)	5.6460E-05 (34)	5.0492E-05 (34)	4.2920E-05 (34)
4	7.0954E-06 (146)	4.8545E-05 (39)	5.0477E-05 (147)	5.2265E-05 (147)	4.9030E-05 (147)
5	8.8534E-06 (125)	5.7316E-05 (39)	5.4513E-05 (80)	4.5176E-05 (147)	3.5765E-05 (174)
6	8.6051E-06 (168)	6.4371E-05 (90)	5.4928E-05 (90)	4.3014E-05 (90)	3.5997E-05 (90)
7	9.3383E-06 (192)	5.5212E-05 (90)	4.6156E-05 (90)	3.6606E-05 (90)	3.1046E-05 (90)
8	7.1279E-06 (192)	6.1500E-05 (168)	4.5374E-05 (168)	4.2132E-05 (146)	3.6382E-05 (132)
9	5.2566E-06 (167)	5.1948E-05 (7)	5.1816E-05 (7)	4.4024E-05 (87)	3.5938E-05 (87)
10	8.1535E-06 (150)	5.3031E-05 (335)	6.1873E-05 (39)	5.6972E-05 (39)	4.7427E-05 (39)
11	1.1018E-05 (99)	6.3351E-05 (351)	7.5019E-05 (99)	5.4954E-05 (99)	4.3048E-05 (99)
12	1.7757E-05 (145)	6.4103E-05 (150)	6.4109E-05 (145)	4.8025E-05 (145)	3.9099E-05 (145)
13	1.4407E-05 (150)	5.5382E-05 (145)	5.3145E-05 (55)	5.1892E-05 (355)	4.6817E-05 (355)
14	1.0220E-05 (163)	5.8565E-05 (280)	6.9610E-05 (280)	5.7405E-05 (280)	4.5068E-05 (350)
15	9.3773E-06 (163)	5.2867E-05 (41)	5.5981E-05 (96)	4.9333E-05 (96)	4.0205E-05 (96)
16	6.0677E-06 (107)	5.7397E-05 (107)	4.6532E-05 (107)	3.9137E-05 (96)	3.2199E-05 (96)
17	5.3872E-06 (72)	6.7367E-05 (107)	7.8474E-05 (311)	6.6288E-05 (57)	5.4184E-05 (332)
18	5.9252E-06 (100)	1.2426E-04 (279)	1.2979E-04 (279)	1.0211E-04 (279)	8.1981E-05 (313)
19	6.1060E-06 (198)	8.0391E-05 (313)	8.8984E-05 (279)	6.9568E-05 (279)	5.6063E-05 (312)
20	5.6821E-06 (100)	6.5231E-05 (276)	6.8451E-05 (348)	6.6955E-05 (348)	5.9085E-05 (348)
21	7.9970E-06 (225)	7.3747E-05 (330)	8.1175E-05 (277)	6.2957E-05 (277)	4.8548E-05 (277)
22	1.2095E-05 (225)	7.2105E-05 (100)	7.6398E-05 (277)	6.1005E-05 (277)	4.9997E-05 (267)
23	1.0799E-05 (67)	7.4726E-05 (171)	8.2070E-05 (295)	6.9224E-05 (295)	5.6662E-05 (295)
24	8.4130E-06 (171)	6.8350E-05 (195)	7.3190E-05 (194)	5.5245E-05 (194)	4.2143E-05 (194)
25	4.7846E-06 (235)	5.3921E-05 (340)	5.8653E-05 (110)	4.4418E-05 (110)	3.4757E-05 (248)
26	6.8101E-06 (172)	5.0880E-05 (300)	4.8680E-05 (365)	4.3101E-05 (302)	3.7964E-05 (302)
27	9.5567E-06 (111)	5.6424E-05 (140)	5.0492E-05 (101)	4.4880E-05 (361)	4.2987E-05 (361)
28	6.9537E-06 (111)	6.1111E-05 (215)	6.4359E-05 (102)	5.4580E-05 (102)	4.3499E-05 (102)
29	8.4741E-06 (139)	5.0361E-05 (102)	6.0495E-05 (139)	5.2385E-05 (102)	4.5760E-05 (102)
30	1.0990E-05 (211)	7.2133E-05 (139)	5.6463E-05 (361)	4.3718E-05 (62)	3.5701E-05 (219)
31	1.0503E-05 (220)	5.8486E-05 (65)	5.2206E-05 (70)	4.2093E-05 (37)	3.7454E-05 (37)
32	1.1591E-05 (135)	6.7081E-05 (134)	6.1750E-05 (248)	5.4750E-05 (248)	4.6846E-05 (216)
33	9.1306E-06 (135)	6.6015E-05 (250)	6.7826E-05 (94)	5.4789E-05 (63)	4.1685E-05 (63)
34	7.3048E-06 (94)	6.3727E-05 (93)	6.5129E-05 (93)	5.1415E-05 (334)	4.0031E-05 (334)
35	7.5730E-06 (188)	4.6493E-05 (94)	5.2099E-05 (175)	4.9719E-05 (176)	4.4708E-05 (95)
36	8.1476E-06 (135)	6.8347E-05 (176)	8.4361E-05 (176)	7.3085E-05 (176)	5.9775E-05 (176)

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 24-HOUR CONC= 8.5687E-05 DIRECTION= 18 DISTANCE= 0.5 KM DAY=293
YEAR= 75

SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR

RANGE DIR	0.1 KM	0.3 KM	0.5 KM	0.7 KM	0.9 KM
1	1.4183E-05 (167)	7.0473E-05 (167)	6.9188E-05 (331)	5.0975E-05 (119)	4.0120E-05 (20)
2	1.4399E-05 (215)	5.8855E-05 (20)	6.2430E-05 (119)	4.3490E-05 (119)	3.3497E-05 (119)
3	8.3953E-06 (89)	4.4796E-05 (89)	3.9038E-05 (89)	3.1468E-05 (9)	2.5255E-05 (267)
4	7.2991E-06 (203)	4.8354E-05 (82)	4.1090E-05 (50)	3.1337E-05 (66)	2.5871E-05 (66)
5	9.8454E-06 (203)	4.8854E-05 (160)	4.4695E-05 (351)	4.0575E-05 (351)	3.4659E-05 (351)
6	8.9305E-06 (157)	4.9191E-05 (186)	4.0163E-05 (100)	3.1997E-05 (192)	2.6763E-05 (192)
7	1.0128E-05 (110)	6.8747E-05 (158)	6.0451E-05 (178)	4.7989E-05 (325)	4.1427E-05 (325)
8	1.3696E-05 (225)	5.9094E-05 (81)	6.5228E-05 (157)	4.8505E-05 (157)	4.0182E-05 (157)
9	1.0719E-05 (225)	4.6972E-05 (78)	4.8423E-05 (78)	3.9679E-05 (78)	3.4009E-05 (325)
10	8.2741E-06 (129)	5.3053E-05 (78)	5.3294E-05 (124)	4.2219E-05 (124)	3.3418E-05 (124)
11	8.5707E-06 (128)	6.3519E-05 (13)	7.2578E-05 (13)	5.9575E-05 (13)	4.6717E-05 (13)
12	1.2501E-05 (180)	7.4376E-05 (13)	8.2202E-05 (13)	6.8310E-05 (297)	5.8107E-05 (354)
13	1.0391E-05 (180)	7.4819E-05 (67)	8.1376E-05 (317)	6.1636E-05 (317)	4.8373E-05 (298)
14	8.8382E-06 (231)	6.7204E-05 (139)	6.3434E-05 (291)	5.0296E-05 (291)	3.9623E-05 (291)
15	7.9549E-06 (155)	5.9117E-05 (14)	6.4653E-05 (125)	5.3211E-05 (352)	4.2111E-05 (352)
16	8.2176E-06 (102)	5.3496E-05 (95)	6.3405E-05 (353)	5.3451E-05 (353)	4.2269E-05 (353)
17	8.5630E-06 (230)	5.1685E-05 (353)	6.6450E-05 (353)	6.1317E-05 (353)	5.5659E-05 (353)
18	8.5751E-06 (155)	8.0293E-05 (268)	8.5687E-05 (293)	7.1867E-05 (293)	6.2354E-05 (293)
19	4.4800E-06 (163)	5.1181E-05 (353)	6.2998E-05 (353)	5.4066E-05 (64)	4.7143E-05 (5)
20	5.5061E-06 (181)	5.1968E-05 (52)	6.8683E-05 (292)	6.4912E-05 (5)	6.1051E-05 (257)
21	7.5929E-06 (141)	5.7803E-05 (111)	6.0797E-05 (111)	5.4122E-05 (273)	4.4294E-05 (273)
22	9.6530E-06 (182)	5.2749E-05 (285)	5.6453E-05 (2)	4.6748E-05 (5)	4.3022E-05 (5)
23	9.5466E-06 (103)	6.1859E-05 (182)	6.3954E-05 (174)	5.1374E-05 (309)	4.8653E-05 (52)
24	1.0706E-05 (170)	7.4791E-05 (182)	6.9122E-05 (182)	5.1573E-05 (305)	4.2293E-05 (305)
25	9.3623E-06 (103)	5.3601E-05 (144)	5.9679E-05 (323)	4.3793E-05 (181)	3.5076E-05 (251)
26	1.1117E-05 (234)	4.7772E-05 (287)	4.5250E-05 (112)	3.4296E-05 (173)	2.6816E-05 (287)
27	1.2363E-05 (112)	6.1201E-05 (247)	6.5029E-05 (247)	5.2364E-05 (247)	4.3227E-05 (77)
28	8.6324E-06 (214)	7.0737E-05 (288)	6.0239E-05 (288)	4.4025E-05 (222)	3.4999E-05 (222)
29	5.8329E-06 (263)	5.8574E-05 (205)	4.5467E-05 (214)	3.4760E-05 (363)	3.0580E-05 (313)
30	8.0642E-06 (113)	8.3998E-05 (87)	8.0012E-05 (117)	5.9437E-05 (117)	4.6712E-05 (117)
31	6.5571E-06 (114)	4.6869E-05 (117)	5.0669E-05 (104)	4.2991E-05 (104)	3.5485E-05 (104)
32	5.8479E-06 (259)	4.0249E-05 (88)	4.3514E-05 (196)	3.6295E-05 (10)	3.2943E-05 (10)
33	8.5792E-06 (210)	7.9172E-05 (10)	8.0166E-05 (10)	6.8323E-05 (364)	5.5422E-05 (364)
34	8.4170E-06 (210)	7.2261E-05 (194)	7.1572E-05 (266)	5.7204E-05 (266)	4.4844E-05 (48)
35	1.0446E-05 (210)	5.7955E-05 (194)	6.2846E-05 (55)	5.2983E-05 (194)	4.3983E-05 (194)
36	1.1964E-05 (167)	7.1976E-05 (109)	6.5642E-05 (89)	5.9521E-05 (89)	4.9008E-05 (89)

PLANT NAME: KISS. UTILITIES POLLUTANT: SO2 AIR QUALITY UNITS: GM/M**3
YEARLY SECOND MAXIMUM 24-HOUR CONC= 1.3271E-04 DIRECTION= 18 DISTANCE= 0.5 KM DAY=340
YEAR= 76

SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR

DIR	RANGE 0.1 KM		0.3 KM		0.5 KM		0.7 KM		0.9 KM	
1	8.3098E-06	(102)	5.0949E-05	(215)	4.8132E-05	(50)	4.1850E-05	(50)	3.4077E-05	(299)
2	7.3163E-06	(187)	6.3095E-05	(187)	5.5306E-05	(363)	4.4913E-05	(363)	3.6071E-05	(363)
3	8.0708E-06	(213)	5.8282E-05	(214)	5.4448E-05	(91)	4.4914E-05	(144)	3.4338E-05	(144)
4	9.6371E-06	(213)	5.5424E-05	(355)	6.8027E-05	(299)	5.8326E-05	(299)	4.6413E-05	(299)
5	8.7906E-06	(95)	6.4796E-05	(117)	6.4606E-05	(145)	5.1845E-05	(145)	4.1983E-05	(69)
6	9.6870E-06	(81)	5.5919E-05	(145)	5.4244E-05	(194)	4.2769E-05	(194)	3.5831E-05	(194)
7	6.1883E-06	(81)	5.2062E-05	(145)	4.4949E-05	(132)	3.7826E-05	(132)	3.6136E-05	(342)
8	8.9896E-06	(198)	5.6925E-05	(195)	5.1139E-05	(122)	3.7831E-05	(197)	3.2137E-05	(198)
9	1.3807E-05	(139)	9.5890E-05	(196)	7.8661E-05	(196)	6.4104E-05	(361)	5.3661E-05	(361)
10	5.0725E-06	(198)	5.9965E-05	(17)	5.4478E-05	(17)	4.4336E-05	(16)	3.8432E-05	(16)
11	4.9108E-06	(93)	5.3945E-05	(198)	6.0822E-05	(326)	5.5393E-05	(326)	4.7006E-05	(326)
12	6.9281E-06	(235)	5.7511E-05	(343)	7.3104E-05	(343)	6.3488E-05	(343)	5.1844E-05	(343)
13	8.5807E-06	(157)	6.3413E-05	(18)	7.5721E-05	(310)	6.8037E-05	(310)	5.6114E-05	(362)
14	9.4328E-06	(157)	7.3565E-05	(295)	6.9076E-05	(295)	5.3461E-05	(295)	4.1555E-05	(295)
15	8.9328E-06	(96)	6.4433E-05	(67)	6.9248E-05	(327)	5.5387E-05	(100)	4.4650E-05	(99)
16	6.3737E-06	(220)	6.2719E-05	(335)	8.3422E-05	(335)	7.2803E-05	(335)	5.8692E-05	(335)
17	4.0767E-06	(124)	6.9647E-05	(77)	7.4648E-05	(336)	6.4756E-05	(19)	5.6626E-05	(19)
18	5.9648E-06	(131)	1.1545E-04	(336)	1.3271E-04	(340)	1.1640E-04	(302)	8.9292E-05	(302)
19	7.7339E-06	(157)	9.7964E-05	(302)	1.0305E-04	(292)	8.5959E-05	(292)	6.9518E-05	(292)
20	1.1644E-05	(140)	8.5134E-05	(318)	9.6916E-05	(318)	7.8382E-05	(318)	6.2376E-05	(292)
21	1.0440E-05	(164)	6.6070E-05	(57)	7.3699E-05	(57)	5.9461E-05	(57)	4.6261E-05	(166)
22	9.2402E-06	(199)	7.0934E-05	(166)	5.6909E-05	(166)	4.8831E-05	(5)	4.1390E-05	(5)
23	9.4675E-06	(242)	7.0092E-05	(130)	8.2172E-05	(130)	6.9835E-05	(231)	5.8310E-05	(231)
24	1.0029E-05	(101)	6.5025E-05	(165)	6.9343E-05	(165)	5.7915E-05	(165)	4.8668E-05	(161)
25	7.9979E-06	(245)	6.5064E-05	(243)	5.2750E-05	(307)	4.4659E-05	(290)	3.6736E-05	(290)
26	7.4226E-06	(126)	7.4210E-05	(278)	6.7715E-05	(278)	5.0703E-05	(278)	3.8484E-05	(278)
27	7.6108E-06	(126)	4.9869E-05	(126)	5.0080E-05	(84)	4.3717E-05	(84)	3.8375E-05	(241)
28	6.2566E-06	(251)	5.4099E-05	(269)	5.0675E-05	(269)	3.9870E-05	(64)	3.0963E-05	(269)
29	7.0738E-06	(108)	6.2186E-05	(127)	5.6129E-05	(72)	4.9917E-05	(345)	4.1384E-05	(345)
30	7.7512E-06	(245)	5.1226E-05	(64)	4.7917E-05	(120)	4.6691E-05	(64)	4.1035E-05	(262)
31	7.3859E-06	(154)	7.1406E-05	(135)	7.3737E-05	(135)	5.9113E-05	(135)	4.8818E-05	(168)
32	8.8453E-06	(192)	5.6184E-05	(168)	5.1765E-05	(168)	4.2531E-05	(169)	3.4515E-05	(169)
33	1.0762E-05	(189)	5.1710E-05	(228)	5.6948E-05	(282)	5.3031E-05	(282)	4.4910E-05	(282)
34	1.0779E-05	(134)	5.9205E-05	(228)	6.6066E-05	(144)	5.8176E-05	(144)	4.9036E-05	(144)
35	9.1676E-06	(134)	5.4291E-05	(228)	6.0637E-05	(172)	4.9932E-05	(48)	4.1176E-05	(137)
36	9.5159E-06	(228)	6.2494E-05	(215)	7.3371E-05	(363)	6.3640E-05	(363)	5.2836E-05	(363)

COMPOSITE ANNUAL CONCENTRATION TABLE, UG/CU.M

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

DIR	RANGE	0.1 KM	0.3 KM	0.5 KM	0.7 KM	0.9 KM
1		1.	7.	7.	6.	4.
2		1.	6.	6.	5.	4.
3		0.	5.	5.	4.	3.
4		0.	5.	5.	4.	4.
5		1.	6.	6.	5.	4.
6		1.	6.	5.	5.	4.
7		0.	5.	5.	4.	3.
8		0.	4.	4.	3.	3.
9		0.	6.	6.	5.	4.
10		0.	5.	5.	4.	3.
11		0.	5.	5.	4.	4.
12		0.	7.	6.	5.	4.
13		0.	6.	6.	5.	4.
14		0.	6.	6.	5.	4.
15		0.	5.	5.	4.	4.
16		0.	5.	6.	5.	5.
17		0.	6.	7.	6.	5.
18		0.	10.	12.	10.	9.
19		0.	8.	8.	7.	6.
20		0.	8.	8.	7.	6.
21		0.	7.	7.	6.	5.
22		1.	8.	8.	7.	6.
23		1.	9.	9.	8.	7.
24		1.	8.	8.	7.	6.
25		1.	8.	8.	6.	5.
26		1.	11.	10.	8.	7.
27		1.	12.	12.	9.	8.
28		1.	9.	9.	7.	6.
29		1.	7.	6.	5.	4.
30		1.	8.	8.	7.	6.
31		1.	7.	7.	6.	5.
32		1.	7.	7.	6.	5.
33		1.	7.	8.	7.	6.
34		1.	8.	8.	7.	6.
35		1.	8.	8.	6.	5.
36		1.	11.	11.	9.	8.

COMPOSITE HIGHEST,SECOND-HIGHEST 24-HOUR CONCENTRATION TABLE,UG/CU.M

SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR

DIR \ RANGE	0.1 KM	0.3 KM	0.5 KM	0.7 KM	0.9 KM
1	14.	76.	69.	51.	40.
2	14.	76.	72.	63.	52.
3	10.	59.	63.	59.	48.
4	10.	67.	74.	58.	49.
5	10.	75.	74.	61.	51.
6	10.	64.	65.	57.	49.
7	10.	69.	60.	48.	42.
8	14.	61.	65.	49.	40.
9	14.	96.	88.	76.	70.
10	8.	60.	62.	57.	47.
11	11.	72.	75.	60.	47.
12	18.	74.	82.	68.	58.
13	14.	75.	81.	68.	56.
14	10.	74.	70.	57.	45.
15	9.	64.	81.	62.	47.
16	13.	67.	83.	73.	59.
17	14.	72.	86.	75.	63.
18	9.	124.	141.	121.	98.
19	8.	98.	103.	86.	70.
20	12.	85.	97.	78.	62.
21	10.	74.	81.	63.	49.
22	12.	73.	76.	61.	50.
23	11.	78.	82.	74.	60.
24	11.	90.	88.	77.	60.
25	11.	76.	81.	65.	53.
26	12.	99.	86.	67.	53.
27	12.	108.	107.	88.	68.
28	10.	86.	88.	69.	54.
29	9.	72.	61.	53.	46.
30	14.	98.	82.	68.	56.
31	14.	71.	78.	66.	53.
32	12.	67.	63.	55.	47.
33	11.	79.	96.	83.	68.
34	11.	72.	73.	67.	61.
35	12.	83.	66.	53.	46.
36	14.	105.	112.	98.	84.

COMPOSITE HIGHEST, SECOND-HIGHEST 3-HOUR CONCENTRATION TABLE,UG/CU.M

DIR	RANGE	SECOND HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR 0.1 KM	0.3 KM	0.5 KM	0.7 KM	0.9 KM
1		73.	299.	261.	245.	206.
2		69.	266.	290.	223.	200.
3		69.	300.	264.	235.	166.
4		72.	322.	315.	299.	244.
5		65.	292.	279.	254.	211.
6		64.	265.	260.	216.	174.
7		73.	296.	294.	239.	190.
8		110.	295.	273.	224.	177.
9		76.	286.	278.	220.	182.
10		56.	297.	260.	218.	176.
11		68.	307.	300.	228.	181.
12		97.	262.	284.	247.	199.
13		69.	319.	278.	230.	175.
14		59.	290.	277.	232.	185.
15		52.	279.	250.	204.	160.
16		60.	262.	258.	232.	199.
17		55.	249.	270.	247.	204.
18		59.	341.	320.	286.	243.
19		45.	288.	298.	236.	183.
20		64.	312.	307.	239.	224.
21		59.	301.	249.	214.	179.
22		69.	292.	267.	209.	171.
23		68.	299.	314.	287.	237.
24		76.	372.	278.	243.	190.
25		69.	323.	276.	220.	191.
26		69.	352.	267.	244.	185.
27		76.	324.	334.	269.	224.
28		76.	293.	256.	214.	181.
29		62.	272.	252.	206.	179.
30		83.	357.	299.	244.	201.
31		73.	287.	251.	248.	214.
32		85.	313.	255.	224.	181.
33		74.	301.	261.	231.	187.
34		67.	337.	291.	232.	197.
35		72.	318.	274.	204.	168.
36		70.	350.	309.	266.	242.

49

*** KISSIMMEE DAY 325 SO2 ***

SOURCE # 1---KISS. UTILITIES PT01-04 UNIT #7
SOURCE # 2---KISS. UTILITIES PT01-05,PT01-06 UNITS #8
SOURCE # 3---KISS. UTILITIES PT01-07,PT01-08 UNITS #1
SOURCE # 4---KISS. UTILITIES PT01-11-PT01-15 UNITS #1
SOURCE # 5---KISS. UTILITIES UNITS #19-#20
SOURCE # 6---CITY OF ST. CLOUD PT02-02,PT02-04
SOURCE # 7---CITY OF ST. CLOUD PT02-05,PT02-06
SOURCE # 8---CITY OF ST. CLOUD PT02-07,PT02-08
SOURCE # 11---STOKELY VAN CAMP PT07-01
SOURCE # 12---CW BAILEY PT11-01
SOURCE # 13---FLA POWER COPR PT14-01-PT14-06
SOURCE # 15---DIXIE ASPHALT PT41-01
SOURCE # 16---ST. CLOUD HOSPITAL PT10-02,PT10-03
SOURCE # 17---KISS. UTLITIES COMBUSTION TURBINE

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (G/S) TYPE=2 (G/S) *PER M**2	X (M)	Y (M)	BASE ELEV. (M)	HEIGHT (M)	TEMP. TYPE=0 (DEG.K) VERT.DIM. TYPE=1 (M)	EXIT VEL. TYPE=0 (M/S) HORZ.DIM. TYPE=1,2 (M)	DIAM. TYPE=0 (M)	BLDG. HEIGHT TYPE=0 (M)	BLDG. LENGTH TYPE=0 (M)	BLDG. WIDTH TYPE=0 (M)
1	0	0	0	0.870	460100.	3129300.	0.0	13.11	466.5	16.30	0.61	0.00	0.00	0.00
2	0	0	0	3.360	460100.	3129300.	0.0	16.15	477.6	17.60	0.85	0.00	0.00	0.00
3	0	0	0	2.280	460100.	3129300.	0.0	7.01	466.5	9.60	0.76	0.00	0.00	0.00
4	0	0	0	5.370	460100.	3129300.	0.0	13.41	505.4	8.70	0.80	0.00	0.00	0.00
5	0	0	0	2.890	460100.	3129300.	0.0	8.69	505.4	17.20	0.90	0.00	0.00	0.00
6	0	0	0	4.660	471800.	3124900.	0.0	7.92	727.6	34.70	0.76	0.00	0.00	0.00
7	0	0	0	3.780	471800.	3124900.	0.0	8.53	699.8	1.17	0.64	0.00	0.00	0.00
8	0	0	0	6.550	471800.	3124900.	0.0	11.89	727.6	29.51	1.07	0.00	0.00	0.00
11	0	0	0	2.520	451100.	3125800.	0.0	7.32	513.7	11.50	0.46	0.00	0.00	0.00
12	0	0	0	0.130	470800.	3133800.	0.0	9.45	1005.7	11.60	0.61	0.00	0.00	0.00
13	0	0	0	34.020	446300.	3126000.	0.0	7.92	703.7	18.06	4.24	0.00	0.00	0.00
15	0	0	0	0.260	463200.	3143000.	0.0	7.92	394.3	26.95	1.10	0.00	0.00	0.00
16	0	0	0	0.060	470300.	3124100.	0.0	5.49	505.4	15.00	0.46	0.00	0.00	0.00
17	0	0	0	48.900	460100.	3129300.	0.0	9.14	422.0	38.03	2.44	0.00	0.00	0.00

59

DAILY: 325 SO2
24-HR/PD 1
SGROUP# 1
YEAR 1978
*** KISSIMMEE DAY 325 ***

* DAILY 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* ENDING WITH HOUR 24 FOR DAY 325 *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *
* MAXIMUM VALUE EQUALS 135.0 AND OCCURRED AT (460100.0, 3128800.0) *

Y-AXIS (METERS) /	X-AXIS (METERS) 459600.0	459700.0	459800.0	459900.0	460000.0	460100.0	460200.0	460300.0	460400.0
3128900.0 /	9.1	9.3	15.4	26.3	13.3	131.8	30.8	11.3	13.1
3128800.0 /	7.1	8.4	37.6	6.4	27.2	135.0	60.2	13.4	10.9
3128700.0 /	5.3	26.3	24.5	2.3	37.4	128.2	80.6	13.2	10.5
3128600.0 /	15.3	31.4	8.7	3.9	42.9	117.8	90.4	17.1	13.0
3128500.0 /	25.9	19.7	2.6	7.1	45.1	106.8	92.8	24.6	12.3
3128400.0 /	24.1	8.8	1.3	10.5	45.4	96.3	90.7	32.1	10.5
3128300.0 /	15.5	3.3	1.6	13.4	44.6	86.9	86.2	37.7	10.7
3128200.0 /	8.1	1.3	2.6	15.8	43.3	78.6	80.9	41.2	12.7
3128100.0 /	3.7	0.8	3.9	17.5	41.9	71.6	75.4	43.2	15.7
3128000.0 /	1.6	0.9	5.2	18.7	40.5	65.6	70.1	44.0	18.6

96

*** KISSIMMEE INTERACTION WITH ST. CLOUD DAY 113/78 ***

SOURCE # 1---KISS. UTILITIES PT01-04 UNIT #7
SOURCE # 2---KISS. UTILITIES PT01-05,PT01-06 UNITS #8
SOURCE # 3---KISS. UTILITIES PT01-07,PT01-08 UNITS #1
SOURCE # 4---KISS. UTILITIES PT01-11-PT01-15 UNITS #1
SOURCE # 5---KISS. UTILITIES UNITS #19-#20
SOURCE # 6---KISS. UTLITIES COMBUSTION TURBINE
SOURCE # 7---CITY OF ST. CLOUD PT02-02,PT02-04
SOURCE # 8---CITY OF ST. CLOUD PT02-05,PT02-06
SOURCE # 9---CITY OF ST. CLOUD PT02-07,PT02-08

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (G/S) TYPE=2 (G/S) *PER M**2	X (M)	Y (M)	BASE ELEV. (M)	HEIGHT (M)	TEMP. TYPE=0 (DEG.K) VERT.DIM. TYPE=1 (M)	EXIT VEL. TYPE=0 (M/S) HORZ.DIM. TYPE=1,2 (M)	DIAM. TYPE=0 (M)	BLDG. HEIGHT TYPE=0 (M)	BLDG. LENGTH TYPE=0 (M)	BLDG. WIDTH TYPE=0 (M)
1	0	0	0	0.870	0.	0.	0.0	13.11	466.5	16.30	0.61	0.00	0.00	0.00
2	0	0	0	3.360	0.	0.	0.0	16.15	477.6	17.60	0.85	0.00	0.00	0.00
3	0	0	0	2.280	0.	0.	0.0	7.01	466.5	9.60	0.76	0.00	0.00	0.00
4	0	0	0	5.370	0.	0.	0.0	13.41	505.4	8.70	0.80	0.00	0.00	0.00
5	0	0	0	2.890	0.	0.	0.0	8.69	505.4	17.20	0.90	0.00	0.00	0.00
6	0	0	0	48.900	0.	0.	0.0	9.14	422.0	38.03	2.44	0.00	0.00	0.00
7	0	0	0	4.660	-4400.	11700.	0.0	7.92	727.6	34.70	0.76	0.00	0.00	0.00
8	0	0	0	3.780	-4400.	11700.	0.0	8.53	699.8	1.17	0.64	0.00	0.00	0.00
9	0	0	0	6.550	-4400.	11700.	0.0	11.89	727.6	29.51	1.07	0.00	0.00	0.00

DAILY: 113
24-HR/PD 1
SGROUP# 3
YEAR 1978
*** KISSIMMEE INTERACTION WITH ST. CLOUD DAY 113/78 ***

* DAILY 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* ENDING WITH HOUR 24 FOR DAY 113 *
* FROM SOURCES: 1, -9,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 75.8 AND OCCURRED AT (500.0, 290.0) *

DIRECTION / (DEGREES) /	RANGE (METERS) 100.0	300.0	500.0	700.0	900.0
295.0 /	4.1	42.6	43.4	35.0	27.8
290.0 /	4.4	68.0	75.8	63.9	51.8
285.0 /	3.0	64.1	70.0	56.6	44.0

*** KISSIMMEE INTERACTION WITH FPC DAY 158/75 ***

SOURCE # 1---KISS. UTILITIES PT01-04 UNIT #7
SOURCE # 2---KISS. UTILITIES PT01-05,PT01-06 UNITS #8
SOURCE # 3---KISS. UTILITIES PT01-07,PT01-08 UNITS #1
SOURCE # 4---KISS. UTILITIES PT01-11-PT01-15 UNITS #1
SOURCE # 5---KISS. UTILITIES UNITS #19-#20
SOURCE # 6---KISS. UTLITIES COMBUSTION TURBINE
SOURCE # 7---FLA POWER COPR PT14-01-PT14-06

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (G/S) TYPE=2 (G/S) *PER M**2	X (M)	Y (M)	BASE ELEV. (M)	HEIGHT (M)	TEMP. TYPE=0 (DEG.K) VERT.DIM. TYPE=1 (M)	EXIT VEL. TYPE=0 (M/S) HORZ.DIM. TYPE=1,2 (M)	DIAM. TYPE=0 (M)	BLDG. HEIGHT TYPE=0 (M)	BLDG. LENGTH TYPE=0 (M)	BLDG. WIDTH TYPE=0 (M)
1	0	0	0	0.870	0.	0.	0.0	13.11	466.5	16.30	0.61	0.00	0.00	0.00
2	0	0	0	3.360	0.	0.	0.0	16.15	477.6	17.60	0.85	0.00	0.00	0.00
3	0	0	0	2.280	0.	0.	0.0	7.01	466.5	9.60	0.76	0.00	0.00	0.00
4	0	0	0	5.370	0.	0.	0.0	13.41	505.4	8.70	0.80	0.00	0.00	0.00
5	0	0	0	2.890	0.	0.	0.0	8.69	505.4	17.20	0.90	0.00	0.00	0.00
6	0	0	0	48.900	0.	0.	0.0	9.14	422.0	38.03	2.44	0.00	0.00	0.00
7	0	0	0	34.020	-13800.	-3300.	0.0	7.92	703.7	18.06	4.24	0.00	0.00	0.00

DAILY: 158
24-HR/PD 1
SGROUP# 3
YEAR 1975
*** KISSIMMEE INTERACTION WITH FPC DAY 158/75 ***

* DAILY 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* ENDING WITH HOUR 24 FOR DAY 158 *
* FROM SOURCES: 1, -7,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 69.3 AND OCCURRED AT (500.0, 70.0) *

DIRECTION / (DEGREES) /	RANGE (METERS) 100.0	300.0	500.0	700.0	900.0
80.0 /	5.4	41.5	38.7	29.9	23.3
75.0 /	8.4	64.0	62.3	50.0	40.0
70.0 /	9.3	65.8	69.3	60.0	51.7
65.0 /	7.6	42.7	47.0	43.7	40.7

*** KISSIMMEE DAY 325 TSP ***

SOURCE # 1---KISS. UTILITIES PT01-04 UNIT #7
SOURCE # 2---KISS. UTILITIES PT01-05,PT01-06 UNITS #8
SOURCE # 3---KISS. UTILITIES PT01-07,PT01-08 UNITS #1
SOURCE # 4---KISS. UTILITIES PT01-11-PT01-15 UNITS #1
SOURCE # 5---KISS. UTILITIES UNITS #19-#20
SOURCE # 6---KISS. UTLITIES COMBUSTION TURBINE
SOURCE # 7---CITY OF ST. CLOUD PT02-02,PT02-04
SOURCE # 8---CITY OF ST. CLOUD PT02-05,PT02-06
SOURCE # 9---CITY OF ST. CLOUD PT02-07,PT02-08
SOURCE # 10---FLA. DEPT. OF AGRIC. PT05-01
SOURCE # 11---KISS. COMMUNITY HOSP. PT06-01
SOURCE # 12---STOKELY VAN CAMP PT07-01
SOURCE # 13---CW BAILEY PT11-01
SOURCE # 14---FLA POWER COPR PT14-01-PT14-06
SOURCE # 15---OWENS ILL PT32-01,PT32-02
SOURCE # 16---DIXIE ASPHALT PT41-01
SOURCE # 17---GOULD BATTERY PT56-01
SOURCE # 18---GOULD BATTERY PT56-03
SOURCE # 19---GOULD BATTERY PT56-05
SOURCE # 20---ST. CLOUD HOSPITAL PT10-02,PT10-03

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (G/S) TYPE=2 (G/S) *PER M**2	X (M)	Y (M)	BASE ELEV. (M)	HEIGHT (M)	TEMP. TYPE=0 (DEG.K) VERT.DIM. TYPE=1 (M)	EXIT VEL. TYPE=0 (M/S) HORZ.DIM. TYPE=1,2 (M)	DIAM. TYPE=0 (M)	BLDG. HEIGHT TYPE=0 (M)	BLDG. LENGTH TYPE=0 (M)	BLDG. WIDTH TYPE=0 (M)
1	0	0	0	0.520	460100.	3129300.	0.0	13.11	466.5	16.30	0.61	0.00	0.00	0.00
2	0	0	0	2.010	460100.	3129300.	0.0	16.15	477.6	17.60	0.85	0.00	0.00	0.00
3	0	0	0	1.360	460100.	3129300.	0.0	7.01	466.5	9.60	0.76	0.00	0.00	0.00
4	0	0	0	3.210	460100.	3129300.	0.0	13.41	505.4	8.70	0.80	0.00	0.00	0.00
5	0	0	0	1.730	460100.	3129300.	0.0	8.69	505.4	17.20	0.90	0.00	0.00	0.00
6	0	0	0	1.980	460100.	3129300.	0.0	9.14	422.0	38.03	2.44	0.00	0.00	0.00
7	0	0	0	2.820	471800.	3124900.	0.0	7.92	727.6	34.70	0.76	0.00	0.00	0.00
8	0	0	0	2.270	471800.	3124900.	0.0	8.53	699.8	1.17	0.64	0.00	0.00	0.00
9	0	0	0	3.780	471800.	3124900.	0.0	11.89	727.6	29.51	1.07	0.00	0.00	0.00
10	0	0	0	0.190	456700.	3133400.	0.0	9.14	727.6	5.47	0.55	0.00	0.00	0.00
11	0	0	0	0.190	459900.	3130300.	0.0	7.62	755.4	13.78	0.40	0.00	0.00	0.00
12	0	0	0	0.130	451100.	3125800.	0.0	7.32	513.7	11.50	0.46	0.00	0.00	0.00
13	0	0	0	0.320	470800.	3133600.	0.0	9.45	1005.7	11.60	0.61	0.00	0.00	0.00
14	0	0	0	40.900	446300.	3126000.	0.0	7.92	703.7	18.06	4.24	0.00	0.00	0.00
15	0	0	0	1.500	460700.	3142000.	0.0	9.14	299.8	4.17	0.91	0.00	0.00	0.00
16	0	0	0	1.440	463200.	3143000.	0.0	7.92	394.3	26.95	1.10	0.00	0.00	0.00
17	0	0	0	0.170	460400.	3142600.	0.0	7.01	301.5	18.52	0.98	0.00	0.00	0.00

*** KISSIMMEE DAY 325 TSP ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (G/S) TYPE=2 (G/S) *PER M**2	X (M)	Y (M)	BASE ELEV. (M)	HEIGHT (M)	TEMP. TYPE=0 (DEG.K) VERT.DIM. TYPE=1 (M)	EXIT VEL. TYPE=0 (M/S) HORZ.DIM. TYPE=1,2 (M)	DIAM. TYPE=0 (M)	BLDG. HEIGHT TYPE=0 (M)	BLDG. LENGTH TYPE=0 (M)	BLDG. WIDTH TYPE=0 (M)
18	0	0	0	0.140	460400.	3142600.	0.0	4.57	294.3	15.00	0.30	0.00	0.00	0.00
19	0	0	0	0.060	460400.	3142600.	0.0	9.14	305.4	13.95	0.76	0.00	0.00	0.00
20	0	0	0	0.060	470300.	3124100.	0.0	5.49	505.4	15.00	0.46	0.00	0.00	0.00

DAILY: 325
24-HR/PD 1
SGROUP# 1
YEAR 1978
*** KISSIMMEE DAY 325 TSP ***

* DAILY 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* ENDING WITH HOUR 24 FOR DAY 325 *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 81.7 AND OCCURRED AT (460100.0, 3128800.0) *

Y-AXIS (METERS) /	X-AXIS (METERS) 459600.0	459700.0	459800.0	459900.0	460000.0	460100.0	460200.0	460300.0	460400.0
3129400.0 /	0.3	0.5	1.2	2.3	2.2	1.0	0.6	0.6	0.5
3129300.0 /	0.3	0.5	1.1	2.0	2.0	1.1	0.6	0.6	0.5
3129200.0 /	0.3	0.6	1.1	2.5	4.4	1.6	1.0	0.6	0.6
3129100.0 /	0.4	1.2	6.0	9.6	7.1	27.8	3.7	3.0	0.6
3129000.0 /	2.1	6.8	8.3	17.5	3.6	64.8	5.7	9.4	3.1
3128900.0 /	5.8	6.2	10.2	17.1	9.4	79.9	19.1	7.3	8.3
3128800.0 /	4.6	5.6	23.4	5.1	17.6	81.7	36.7	8.5	7.0
3128700.0 /	3.6	16.3	15.6	2.6	23.6	77.6	48.9	8.4	6.8
3128600.0 /	9.6	19.4	6.1	3.4	26.8	71.4	54.8	10.8	8.2
3128500.0 /	15.9	12.4	2.4	5.3	28.1	64.8	56.2	15.3	7.8

DAILY: 325
24-HR/PD 1
SGROUP# 1
YEAR 1978
*** KISSIMMEE DAY 325 TSP ***

* DAILY 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* ENDING WITH HOUR 24 FOR DAY 325 *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 81.7 AND OCCURRED AT (460100.0, 3126800.0) *

Y-AXIS (METERS)	/ 460500.0
3129400.0	0.5
3129300.0	0.5
3129200.0	0.5
3129100.0	0.5
3129000.0	0.6
3128900.0	2.5
3128800.0	6.1
3128700.0	6.3
3128600.0	5.0
3128500.0	5.6

X-AXIS (METERS)

74

LONG-TERM MODELS

- ISCLT INPUT DATA -

NUMBER OF SOURCES = 14
NUMBER OF X AXIS GRID SYSTEM POINTS = 10
NUMBER OF Y AXIS GRID SYSTEM POINTS = 10
NUMBER OF SPECIAL POINTS = 0
NUMBER OF SEASONS = 1
NUMBER OF WIND SPEED CLASSES = 6
NUMBER OF STABILITY CLASSES = 5
NUMBER OF WIND DIRECTION CLASSES = 16
FILE NUMBER OF DATA FILE USED FOR REPORTS = 1
THE PROGRAM IS RUN IN RURAL MODE
CONCENTRATION (DEPOSITION) UNITS CONVERSION FACTOR =0.10000000E+07
ACCELERATION OF GRAVITY (METERS/SEC**2) = 9.800
HEIGHT OF MEASUREMENT OF WIND SPEED (METERS) = 10.000
ENTRAINMENT PARAMETER FOR UNSTABLE CONDITIONS = 0.600
ENTRAINMENT PARAMETER FOR STABLE CONDITIONS = 0.600
CORRECTION ANGLE FOR GRID SYSTEM VERSUS DIRECTION DATA NORTH (DEGREES) = 0.000
DECAY COEFFICIENT =0.00000000E+00
PROGRAM OPTION SWITCHES = 1, 1, 1, 0, 0, 3, 2, 2, 3, 0, 0, 0, 0,-1,-1, 0, 0, 1, 0, 0,
ALL SOURCES ARE USED TO FORM SOURCE COMBINATION 1
DISTANCE X AXIS GRID SYSTEM POINTS (METERS)= 455600.00, 456600.00, 457600.00, 458600.00, 459600.00, 460600.00,
461600.00, 462600.00, 463600.00, 464600.00,
DISTANCE Y AXIS GRID SYSTEM POINTS (METERS)= 3124800.00, 3125800.00, 3126800.00, 3127800.00, 3128800.00, 3129800.00,
3130800.00, 3131800.00, 3132800.00, 3133800.00,

- AMBIENT AIR TEMPERATURE (DEGREES KELVIN) -

	STABILITY CATEGORY 1	STABILITY CATEGORY 2	STABILITY CATEGORY 3	STABILITY CATEGORY 4	STABILITY CATEGORY 5	STABILITY CATEGORY 6
SEASON 1	300.0000	300.0000	300.0000	295.0000	290.0000	

- MIXING LAYER HEIGHT (METERS) -

SEASON 1

	WIND SPEED CATEGORY 1	WIND SPEED CATEGORY 2	WIND SPEED CATEGORY 3	WIND SPEED CATEGORY 4	WIND SPEED CATEGORY 5	WIND SPEED CATEGORY 6
STABILITY CATEGORY 1	0.213800E+04	0.213800E+04	0.213800E+04	0.213800E+04	0.213800E+04	0.213800E+04
STABILITY CATEGORY 2	0.142500E+04	0.142500E+04	0.142500E+04	0.142500E+04	0.142500E+04	0.142500E+04
STABILITY CATEGORY 3	0.142500E+04	0.142500E+04	0.142500E+04	0.142500E+04	0.142500E+04	0.142500E+04
STABILITY CATEGORY 4	0.142500E+04	0.142500E+04	0.142500E+04	0.142500E+04	0.142500E+04	0.142500E+04
STABILITY CATEGORY 5	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05

S7

- ISCLT INPUT DATA (CONT.) -

- FREQUENCY OF OCCURRENCE OF WIND SPEED, DIRECTION AND STABILITY -

SEASON 1

STABILITY CATEGORY 1

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (0.7500MPS)	WIND SPEED CATEGORY 2 (2.5000MPS)	WIND SPEED CATEGORY 3 (4.3000MPS)	WIND SPEED CATEGORY 4 (6.8000MPS)	WIND SPEED CATEGORY 5 (9.5000MPS)	WIND SPEED CATEGORY 6 (12.5000MPS)
0.000	0.00025400	0.00047900	0.00000000	0.00000000	0.00000000	0.00000000
22.500	0.00021800	0.00043400	0.00000000	0.00000000	0.00000000	0.00000000
45.000	0.00020300	0.00063900	0.00000000	0.00000000	0.00000000	0.00000000
67.500	0.00013300	0.00027400	0.00000000	0.00000000	0.00000000	0.00000000
90.000	0.00042800	0.00068500	0.00000000	0.00000000	0.00000000	0.00000000
112.500	0.00019200	0.00029700	0.00000000	0.00000000	0.00000000	0.00000000
135.000	0.00011500	0.00031900	0.00000000	0.00000000	0.00000000	0.00000000
157.500	0.00021200	0.00054800	0.00000000	0.00000000	0.00000000	0.00000000
180.000	0.00023500	0.00052500	0.00000000	0.00000000	0.00000000	0.00000000
202.500	0.00020100	0.00034200	0.00000000	0.00000000	0.00000000	0.00000000
225.000	0.00019100	0.00043400	0.00000000	0.00000000	0.00000000	0.00000000
247.500	0.00018700	0.00041100	0.00000000	0.00000000	0.00000000	0.00000000
270.000	0.00025500	0.00034200	0.00000000	0.00000000	0.00000000	0.00000000
292.500	0.00014500	0.00047900	0.00000000	0.00000000	0.00000000	0.00000000
315.000	0.00019200	0.00029700	0.00000000	0.00000000	0.00000000	0.00000000
337.500	0.00012500	0.00022800	0.00000000	0.00000000	0.00000000	0.00000000

SEASON 1

STABILITY CATEGORY 2

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (0.7500MPS)	WIND SPEED CATEGORY 2 (2.5000MPS)	WIND SPEED CATEGORY 3 (4.3000MPS)	WIND SPEED CATEGORY 4 (6.8000MPS)	WIND SPEED CATEGORY 5 (9.5000MPS)	WIND SPEED CATEGORY 6 (12.5000MPS)
0.000	0.00107600	0.00219099	0.00152900	0.00000000	0.00000000	0.00000000
22.500	0.00093100	0.00125500	0.00079900	0.00000000	0.00000000	0.00000000
45.000	0.00083000	0.00187100	0.00152900	0.00000000	0.00000000	0.00000000
67.500	0.00097400	0.00139200	0.00143800	0.00000000	0.00000000	0.00000000
90.000	0.00113100	0.00262399	0.00250999	0.00000000	0.00000000	0.00000000
112.500	0.00083300	0.00209899	0.00127800	0.00000000	0.00000000	0.00000000
135.000	0.00078200	0.00230499	0.00171100	0.00000000	0.00000000	0.00000000
157.500	0.00068300	0.00148300	0.00180300	0.00000000	0.00000000	0.00000000
180.000	0.00092300	0.00301199	0.00260099	0.00000000	0.00000000	0.00000000
202.500	0.00056600	0.00162000	0.00127800	0.00000000	0.00000000	0.00000000
225.000	0.00067500	0.00166600	0.00120900	0.00000000	0.00000000	0.00000000
247.500	0.00057700	0.00150600	0.00136900	0.00000000	0.00000000	0.00000000
270.000	0.00065700	0.00152900	0.00116400	0.00000000	0.00000000	0.00000000
292.500	0.00072900	0.00148300	0.00111800	0.00000000	0.00000000	0.00000000
315.000	0.00077200	0.00182500	0.00136900	0.00000000	0.00000000	0.00000000
337.500	0.00050600	0.00155200	0.00095800	0.00000000	0.00000000	0.00000000

- ISCLT INPUT DATA (CONT.) -

- FREQUENCY OF OCCURRENCE OF WIND SPEED, DIRECTION AND STABILITY -

SEASON 1

STABILITY CATEGORY 3

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (0.7500MPS)	WIND SPEED CATEGORY 2 (2.5000MPS)	WIND SPEED CATEGORY 3 (4.3000MPS)	WIND SPEED CATEGORY 4 (6.8000MPS)	WIND SPEED CATEGORY 5 (9.5000MPS)	WIND SPEED CATEGORY 6 (12.5000MPS)
0.000	0.00043200	0.00273799	0.00620698	0.00063900	0.00000000	0.00000000
22.500	0.00046900	0.00225899	0.00428999	0.00045600	0.00006800	0.00000000
45.000	0.00056700	0.00321699	0.00570499	0.00095800	0.00000000	0.00000000
67.500	0.00044300	0.00287499	0.00590998	0.00118700	0.00002300	0.00000000
90.000	0.00056600	0.00351399	0.00928698	0.00230499	0.00002300	0.00000000
112.500	0.00032500	0.00198499	0.00463199	0.00132300	0.00000000	0.00000000
135.000	0.00049400	0.00225899	0.00472299	0.00086700	0.00000000	0.00000000
157.500	0.00029200	0.00219099	0.00492899	0.00089000	0.00002300	0.00000000
180.000	0.00039700	0.00292099	0.00883098	0.00175700	0.00016000	0.00000000
202.500	0.00027200	0.00162000	0.00381099	0.00066200	0.00002300	0.00000000
225.000	0.00025700	0.00173400	0.00321699	0.00079900	0.00002300	0.00000000
247.500	0.00023400	0.00143800	0.00294399	0.00057000	0.00004600	0.00000000
270.000	0.00024600	0.00159700	0.00369699	0.00079900	0.00013700	0.00000000
292.500	0.00018800	0.00116400	0.00323999	0.00063900	0.00002300	0.00000000
315.000	0.00023500	0.00146000	0.00442699	0.00098100	0.00002300	0.00000000
337.500	0.00022000	0.00157400	0.00381099	0.00018300	0.00000000	0.00000000

SEASON 1

STABILITY CATEGORY 4

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (0.7500MPS)	WIND SPEED CATEGORY 2 (2.5000MPS)	WIND SPEED CATEGORY 3 (4.3000MPS)	WIND SPEED CATEGORY 4 (6.8000MPS)	WIND SPEED CATEGORY 5 (9.5000MPS)	WIND SPEED CATEGORY 6 (12.5000MPS)
0.000	0.00092300	0.00419899	0.01868795	0.01702296	0.00157400	0.00004600
22.500	0.00067500	0.00417599	0.00949297	0.00981198	0.00127800	0.00018300
45.000	0.00096000	0.00529399	0.01106697	0.00969798	0.00061600	0.00004600
67.500	0.00096100	0.00467799	0.00985797	0.00775798	0.00029700	0.00004600
90.000	0.00104400	0.00572699	0.01572196	0.01266397	0.00038800	0.00000000
112.500	0.00069900	0.00323999	0.00937798	0.00828298	0.00022800	0.00000000
135.000	0.00049900	0.00319499	0.00873998	0.00570499	0.00031900	0.00004600
157.500	0.00050800	0.00330899	0.00853398	0.00835198	0.00105000	0.00004600
180.000	0.00093600	0.00467799	0.01435296	0.01375997	0.00237299	0.00013700
202.500	0.00030700	0.00200799	0.00543099	0.00488299	0.00093600	0.00009100
225.000	0.00070500	0.00237299	0.00705098	0.00654898	0.00102700	0.00022800
247.500	0.00041400	0.00273799	0.00584199	0.00451799	0.00102700	0.00018300
270.000	0.00057600	0.00292099	0.00775798	0.00928698	0.00175700	0.00025100
292.500	0.00045700	0.00234999	0.00574999	0.00748398	0.00152900	0.00022800
315.000	0.00046000	0.00207599	0.00508899	0.00830598	0.00109500	0.00002300
337.500	0.00048800	0.00212199	0.00593298	0.00618398	0.00034200	0.00009100

- ISCLT INPUT DATA (CONT.) -

- FREQUENCY OF OCCURRENCE OF WIND SPEED, DIRECTION AND STABILITY -

SEASON 1

STABILITY CATEGORY 5

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (0.7500MPS)	WIND SPEED CATEGORY 2 (2.5000MPS)	WIND SPEED CATEGORY 3 (4.3000MPS)	WIND SPEED CATEGORY 4 (6.8000MPS)	WIND SPEED CATEGORY 5 (9.5000MPS)	WIND SPEED CATEGORY 6 (12.5000MPS)
0.000	0.01233297	0.02523693	0.01181997	0.00000000	0.00000000	0.00000000
22.500	0.01131597	0.02078795	0.00419899	0.00000000	0.00000000	0.00000000
45.000	0.01238997	0.02598993	0.00387899	0.00000000	0.00000000	0.00000000
67.500	0.01144697	0.02149495	0.00394799	0.00000000	0.00000000	0.00000000
90.000	0.01342797	0.02619594	0.00563599	0.00000000	0.00000000	0.00000000
112.500	0.00845298	0.01332597	0.00385599	0.00000000	0.00000000	0.00000000
135.000	0.00765098	0.01197997	0.00308099	0.00000000	0.00000000	0.00000000
157.500	0.00710998	0.01327997	0.00178000	0.00000000	0.00000000	0.00000000
180.000	0.01033097	0.02067395	0.00333199	0.00000000	0.00000000	0.00000000
202.500	0.00326299	0.00625198	0.00116400	0.00000000	0.00000000	0.00000000
225.000	0.00367199	0.00821498	0.00212199	0.00000000	0.00000000	0.00000000
247.500	0.00448799	0.00823698	0.00209899	0.00000000	0.00000000	0.00000000
270.000	0.00535199	0.01081597	0.00570499	0.00000000	0.00000000	0.00000000
292.500	0.00445199	0.00853398	0.00444999	0.00000000	0.00000000	0.00000000
315.000	0.00192800	0.00342299	0.00292099	0.00000000	0.00000000	0.00000000
337.500	0.00329399	0.00679998	0.00435799	0.00000000	0.00000000	0.00000000

- VERTICAL POTENTIAL TEMPERATURE GRADIENT (DEGREES KELVIN/METER) -

	WIND SPEED CATEGORY 1	WIND SPEED CATEGORY 2	WIND SPEED CATEGORY 3	WIND SPEED CATEGORY 4	WIND SPEED CATEGORY 5	WIND SPEED CATEGORY 6
STABILITY CATEGORY 1	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
STABILITY CATEGORY 2	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
STABILITY CATEGORY 3	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
STABILITY CATEGORY 4	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
STABILITY CATEGORY 5	0.200000E-01	0.200000E-01	0.200000E-01	0.200000E-01	0.200000E-01	0.200000E-01

- WIND PROFILE POWER LAW EXPONENTS -

	WIND SPEED CATEGORY 1	WIND SPEED CATEGORY 2	WIND SPEED CATEGORY 3	WIND SPEED CATEGORY 4	WIND SPEED CATEGORY 5	WIND SPEED CATEGORY 6
STABILITY CATEGORY 1	0.100000E+00	0.100000E+00	0.100000E+00	0.100000E+00	0.100000E+00	0.100000E+00
STABILITY CATEGORY 2	0.150000E+00	0.150000E+00	0.150000E+00	0.150000E+00	0.150000E+00	0.150000E+00
STABILITY CATEGORY 3	0.200000E+00	0.200000E+00	0.200000E+00	0.200000E+00	0.200000E+00	0.200000E+00
STABILITY CATEGORY 4	0.250000E+00	0.250000E+00	0.250000E+00	0.250000E+00	0.250000E+00	0.250000E+00
STABILITY CATEGORY 5	0.300000E+00	0.300000E+00	0.300000E+00	0.300000E+00	0.300000E+00	0.300000E+00

80

202.500	0.00326299	0.00625198	0.00116400	0.00000000	0.00000000	0.00000000
225.000	0.00367199	0.00821498	0.00212199	0.00000000	0.00000000	0.00000000
247.500	0.00448799	0.00823698	0.00209899	0.00000000	0.00000000	0.00000000
270.000	0.00535199	0.01081597	0.00570499	0.00000000	0.00000000	0.00000000
292.500	0.00445199	0.00853398	0.00444999	0.00000000	0.00000000	0.00000000
315.000	0.00192800	0.00342299	0.00292099	0.00000000	0.00000000	0.00000000
337.500	0.00329399	0.00679998	0.00435799	0.00000000	0.00000000	0.00000000

0 - VERTICAL POTENTIAL TEMPERATURE GRADIENT (DEGREES KELVIN/METER) -

	WIND SPEED CATEGORY 1	WIND SPEED CATEGORY 2	WIND SPEED CATEGORY 3	WIND SPEED CATEGORY 4	WIND SPEED CATEGORY 5	WIND SPEED CATEGORY 6
STABILITY CATEGORY 1	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
STABILITY CATEGORY 2	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
STABILITY CATEGORY 3	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
STABILITY CATEGORY 4	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
STABILITY CATEGORY 5	0.200000E-01	0.200000E-01	0.200000E-01	0.200000E-01	0.200000E-01	0.200000E-01

0 - WIND PROFILE POWER LAW EXPONENTS -

	WIND SPEED CATEGORY 1	WIND SPEED CATEGORY 2	WIND SPEED CATEGORY 3	WIND SPEED CATEGORY 4	WIND SPEED CATEGORY 5	WIND SPEED CATEGORY 6
STABILITY CATEGORY 1	0.100000E+00	0.100000E+00	0.100000E+00	0.100000E+00	0.100000E+00	0.100000E+00
STABILITY CATEGORY 2	0.150000E+00	0.150000E+00	0.150000E+00	0.150000E+00	0.150000E+00	0.150000E+00
STABILITY CATEGORY 3	0.200000E+00	0.200000E+00	0.200000E+00	0.200000E+00	0.200000E+00	0.200000E+00
STABILITY CATEGORY 4	0.250000E+00	0.250000E+00	0.250000E+00	0.250000E+00	0.250000E+00	0.250000E+00
STABILITY CATEGORY 5	0.300000E+00	0.300000E+00	0.300000E+00	0.300000E+00	0.300000E+00	0.300000E+00

ORLANDO UTILITIES PT 33-01 - PT 33-03 - SOURCE INPUT DATA -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		2	STACK	463300.00	3159000.00	34.40	0.00	GAS EXIT TEMP (DEG K)= 422.00, GAS EXIT VEL. (M/SEC)= 10.16, STACK DIAMETER (M)= 2.440, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
3.22000E+00			

KISSIMMEE UTILITIES PT01-04 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		5	STACK	460100.00	3129300.00	13.11	0.00	GAS EXIT TEMP (DEG K)= 466.50, GAS EXIT VEL. (M/SEC)= 16.30, STACK DIAMETER (M)= 0.610, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

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SEASON 1 SEASON 2 SEASON 3 SEASON 4
4.46000E+00

KISSIMMEE UTILITIES PT01-05, PT01-06 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		6	STACK	460100.00	3129300.00	16.15	0.00	GAS EXIT TEMP (DEG K)= 477.60, GAS EXIT VEL. (M/SEC)= 17.60, STACK DIAMETER (M)= 0.850, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC)

SEASON 1 SEASON 2 SEASON 3 SEASON 4
1.70900E+01

KISSIMMEE UTILITIES PT01-07, PT01-08 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		7	STACK	460100.00	3129300.00	7.01	0.00	GAS EXIT TEMP (DEG K)= 466.50, GAS EXIT VEL. (M/SEC)= 9.60, STACK DIAMETER (M)= 0.760, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC)

SEASON 1 SEASON 2 SEASON 3 SEASON 4
1.05800E+01

KISSIMMEE UTILITIES PT01-11 - 01-15 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		8	STACK	460100.00	3129300.00	13.41	0.00	GAS EXIT TEMP (DEG K)= 505.40, GAS EXIT VEL. (M/SEC)= 8.70, STACK DIAMETER (M)= 0.800, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC)

SEASON 1 SEASON 2 SEASON 3 SEASON 4
1.13400E+01

08

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
		KISSIMMEE UTILITIES UNITS #19 and #20						
X		9	STACK	460100.00	3129300.00	8.69	0.00	GAS EXIT TEMP (DEG K)= 505.40, GAS EXIT VEL. (M/SEC)= 17.20, STACK DIAMETER (M)= 0.900, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1 SEASON 2 SEASON 3 SEASON 4

1.46600E+01

CITY OF ST. CLOUD PT02-03, PT02-04

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		10	STACK	471800.00	3124900.00	7.92	0.00	GAS EXIT TEMP (DEG K)= 727.60, GAS EXIT VEL. (M/SEC)= 34.70, STACK DIAMETER (M)= 0.760, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1 SEASON 2 SEASON 3 SEASON 4

3.90500E+01

CITY OF ST. CLOUD PT02-05, PT02-06

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		11	STACK	471800.00	3124900.00	8.53	0.00	GAS EXIT TEMP (DEG K)= 699.80, GAS EXIT VEL. (M/SEC)= 1.17, STACK DIAMETER (M)= 0.640, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1 SEASON 2 SEASON 3 SEASON 4

3.16800E+01

CITY OF ST CLOUD PT02-07, PT02-08

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		12	STACK	471800.00	3124900.00	11.89	0.00	GAS EXIT TEMP (DEG K)= 727.60, GAS EXIT VEL. (M/SEC)= 29.51, STACK DIAMETER (M)= 1.070, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF

ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0
- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
5.48900E+01

Florida Power Corp PT 14-01 thru 14-06

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	/ - SOURCE DETAILS DEPENDING ON TYPE -
X		15	STACK	446300.00	3126000.00	7.92	0.00	GAS EXIT TEMP (DEG K)= 703.70, GAS EXIT VEL. (M/SEC)= 18.06, STACK DIAMETER (M)= 4.240, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
8.23300E+01

KISSIMMEE UTILITIES -- NEW COMBUSTION TURBINE

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	/ - SOURCE DETAILS DEPENDING ON TYPE -
X		18	STACK	460100.00	3129300.00	9.14	0.00	GAS EXIT TEMP (DEG K)= 422.00, GAS EXIT VEL. (M/SEC)= 38.03, STACK DIAMETER (M)= 2.440, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
3.85000E+01

SOUTHEA FRUIT PT 39-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	/ - SOURCE DETAILS DEPENDING ON TYPE -
X		41	STACK	462900.00	3153300.00	16.20	0.00	GAS EXIT TEMP (DEG K)= 388.70, GAS EXIT VEL. (M/SEC)= 15.63, STACK DIAMETER (M)= 1.460, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
1.27000E+00

COCA COLA PT 23-02

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		57	STACK	421300.00	3103600.00	17.40	0.00	GAS EXIT TEMP (DEG K)= 547.00, GAS EXIT VEL. (M/SEC)= 15.24, STACK DIAMETER (M)= 1.830, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
2.07000E+00			

1**** ISCLT ************* ISCLT -- ANNUAL NOX ******** PAGE 18 ****

CITY OF ORLANDO INCINERATORS PT 61-01 - 61-08

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		100	STACK	456300.00	3152700.00	11.60	0.00	GAS EXIT TEMP (DEG K)= 922.00, GAS EXIT VEL. (M/SEC)= 12.50, STACK DIAMETER (M)= 1.130, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
3.22000E+00			

1**** ISCLT ************* ISCLT -- ANNUAL NOX ******** PAGE 19 ****

83

** ANNUAL GROUND LEVEL CONCENTRATION (MICROGRAMS PER CUBIC METER) FROM ALL SOURCES COMBINED **

- GRID SYSTEM RECEPTORS -
- X AXIS (DISTANCE, METERS) -

Y AXIS (DISTANCE, METERS)	455600.000	456600.000	457600.000	458600.000	459600.000	460600.000	461600.000	462600.000	463600.000
	- CONCENTRATION -								
3133800.000	7.203840	7.964563	8.739365	10.094641	12.641409	11.831429	7.906047	6.718377	6.766826
3132800.000	8.158581	9.024574	10.281042	11.513060	15.680794	14.248495	7.985918	8.064526	7.872984
3131800.000	9.220030	10.622097	12.266405	14.717760	20.462940	17.504848	10.435093	10.003328	9.036943
3130800.000	11.287207	12.482058	15.444592	19.514755	27.810764	19.813309	14.907787	11.940344	10.217138
3129800.000	15.011848	18.458504	23.717342	30.883835	41.979912	32.367508	19.995598	15.218042	12.624662
3128800.000	16.168568	20.197514	26.816319	38.308418	68.864471	27.363506	21.915806	16.040699	13.286333
3127800.000	14.496395	17.129650	22.702099	32.408699	38.785179	24.626392	13.384481	13.274551	12.466822
3126800.000	13.851397	16.693878	20.721905	23.239521	28.532719	23.279018	12.975653	11.292343	11.945793
3125800.000	13.539406	15.729925	17.290092	18.354015	22.694443	20.341648	12.536428	12.001600	11.948391
3124800.000	12.916681	13.981201	14.924110	16.399517	19.236763	18.162243	13.646818	12.377136	12.907539

- GRID SYSTEM RECEPTORS -
- X AXIS (DISTANCE, METERS) -

Y AXIS (DISTANCE, METERS)	464600.000
	- CONCENTRATION -
3133800.000	6.747674
3132800.000	7.515856
3131800.000	8.364370
3130800.000	9.566696
3129800.000	11.270599
3128800.000	11.962540
3127800.000	11.676460
3126800.000	12.386490
3125800.000	13.252758
3124800.000	13.973961

84

202.500	0.00326299	0.00625198	0.00116400	0.00000000	0.00000000	0.00000000
225.000	0.00367199	0.00821498	0.00212199	0.00000000	0.00000000	0.00000000
247.500	0.00448799	0.00823698	0.00209899	0.00000000	0.00000000	0.00000000
270.000	0.00535199	0.01081597	0.00570499	0.00000000	0.00000000	0.00000000
292.500	0.00445199	0.00853398	0.00444999	0.00000000	0.00000000	0.00000000
315.000	0.00192800	0.00342299	0.00292099	0.00000000	0.00000000	0.00000000
337.500	0.00329399	0.00679998	0.00435799	0.00000000	0.00000000	0.00000000

0 - VERTICAL POTENTIAL TEMPERATURE GRADIENT (DEGREES KELVIN/METER) -

	WIND SPEED CATEGORY 1	WIND SPEED CATEGORY 2	WIND SPEED CATEGORY 3	WIND SPEED CATEGORY 4	WIND SPEED CATEGORY 5	WIND SPEED CATEGORY 6
STABILITY CATEGORY 1	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
STABILITY CATEGORY 2	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
STABILITY CATEGORY 3	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
STABILITY CATEGORY 4	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
STABILITY CATEGORY 5	0.200000E-01	0.200000E-01	0.200000E-01	0.200000E-01	0.200000E-01	0.200000E-01

0 - WIND PROFILE POWER LAW EXPONENTS -

	WIND SPEED CATEGORY 1	WIND SPEED CATEGORY 2	WIND SPEED CATEGORY 3	WIND SPEED CATEGORY 4	WIND SPEED CATEGORY 5	WIND SPEED CATEGORY 6
STABILITY CATEGORY 1	0.100000E+00	0.100000E+00	0.100000E+00	0.100000E+00	0.100000E+00	0.100000E+00
STABILITY CATEGORY 2	0.150000E+00	0.150000E+00	0.150000E+00	0.150000E+00	0.150000E+00	0.150000E+00
STABILITY CATEGORY 3	0.200000E+00	0.200000E+00	0.200000E+00	0.200000E+00	0.200000E+00	0.200000E+00
STABILITY CATEGORY 4	0.250000E+00	0.250000E+00	0.250000E+00	0.250000E+00	0.250000E+00	0.250000E+00
STABILITY CATEGORY 5	0.300000E+00	0.300000E+00	0.300000E+00	0.300000E+00	0.300000E+00	0.300000E+00

ORLANDO UTILITIES PT 33-01 - 33-03 - SOURCE INPUT DATA -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		1	STACK	463300.00	3159000.00	34.40	0.00	GAS EXIT TEMP (DEG K)= 422.00, GAS EXIT VEL. (M/SEC)= 17.00, STACK DIAMETER (M)= 1.830, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
2.25000E+00			

ORLANDO UTILITIES PT 33-04 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		2	STACK	463300.00	3159000.00	34.40	0.00	GAS EXIT TEMP (DEG K)= 422.00, GAS EXIT VEL. (M/SEC)= 10.16, STACK DIAMETER (M)= 2.440, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

98

SEASON 1 SEASON 2 SEASON 3 SEASON 4
2.85000E+00

STANDARD SAND SILICA PT 14-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		3	STACK	441500.00	3118200.00	9.10	0.00	GAS EXIT TEMP (DEG K)= 380.40, GAS EXIT VEL. (M/SEC)= 24.13, STACK DIAMETER (M)= 0.430, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1 SEASON 2 SEASON 3 SEASON 4
1.04000E+00

STANDARD SAND SILICA PT 14-02

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		4	STACK	441500.00	3118200.00	9.10	0.00	GAS EXIT TEMP (DEG K)= 350.90, GAS EXIT VEL. (M/SEC)= 26.55, STACK DIAMETER (M)= 1.400, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1 SEASON 2 SEASON 3 SEASON 4
1.04000E+00

KISSIMMEE UTILITIES PT 35-01 - 3303

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		5	STACK	460100.00	3129300.00	13.11	0.00	GAS EXIT TEMP (DEG K)= 466.50, GAS EXIT VEL. (M/SEC)= 16.30, STACK DIAMETER (M)= 0.610, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1 SEASON 2 SEASON 3 SEASON 4
5.30000E-01

- SOURCE INPUT DATA (CONT.) -

KISSIMMEE UTILITIES PTOI-05, PTOI-06

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		6	STACK	460100.00	3129300.00	16.15	0.00	GAS EXIT TEMP (DEG K)= 477.60, GAS EXIT VEL. (M/SEC)= 17.60, STACK DIAMETER (M)= 0.850, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1 SEASON 2 SEASON 3 SEASON 4

2.02000E+00

KISSIMMEE UTILITIES PTOI-07, PTOI-08 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		7	STACK	460100.00	3129300.00	7.01	0.00	GAS EXIT TEMP (DEG K)= 466.50, GAS EXIT VEL. (M/SEC)= 9.60, STACK DIAMETER (M)= 0.760, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1 SEASON 2 SEASON 3 SEASON 4

1.36000E+00

KISSIMMEE UTILITIES PT 01-11-01-15 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		8	STACK	460100.00	3129300.00	13.41	0.00	GAS EXIT TEMP (DEG K)= 505.40, GAS EXIT VEL. (M/SEC)= 8.70, STACK DIAMETER (M)= 0.800, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1 SEASON 2 SEASON 3 SEASON 4

3.15000E+00

KISSIMMEE UTILITIES UNITS #19 and #20 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		9	STACK	460100.00	3129300.00	8.69	0.00	GAS EXIT TEMP (DEG K)= 505.40, GAS EXIT VEL. (M/SEC)= 17.20, STACK DIAMETER (M)= 0.900, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF

L8

ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0
- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
1.74000E+00

CITY OF ST. CLOUD PT02-02, PT02-04 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	/ / /	- SOURCE DETAILS DEPENDING ON TYPE -
X		10	STACK	471800.00	3124900.00	7.92	0.00		GAS EXIT TEMP (DEG K)= 727.60, GAS EXIT VEL. (M/SEC)= 34.70, STACK DIAMETER (M)= 0.760, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.82000E+00

CITY OF ST. CLOUD PT02-05, PT02-06 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	/ / /	- SOURCE DETAILS DEPENDING ON TYPE -
X		11	STACK	471800.00	3124900.00	8.53	0.00		GAS EXIT TEMP (DEG K)= 699.80, GAS EXIT VEL. (M/SEC)= 1.17, STACK DIAMETER (M)= 0.640, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.27000E+00

CITY OF ST. CLOUD PT02-07, PT02-08 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	/ / /	- SOURCE DETAILS DEPENDING ON TYPE -
X		12	STACK	471800.00	3124900.00	11.89	0.00		GAS EXIT TEMP (DEG K)= 727.60, GAS EXIT VEL. (M/SEC)= 29.51, STACK DIAMETER (M)= 1.070, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 3.78000E+00

88

STOKELY VAN CAMP PT07-01 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		13	STACK	451100.00	3125800.00	7.32	0.00	GAS EXIT TEMP (DEG K)= 513.70, GAS EXIT VEL. (M/SEC)= 11.50, STACK DIAMETER (M)= 0.460, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.30000E-01			

1**** ISCLT ************** ISCLT -- ANNUAL TSP ******** PAGE 18 ****

C W DAILEY PT 11-01 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		14	STACK	470800.00	3133800.00	9.45	0.00	GAS EXIT TEMP (DEG K)=1005.70, GAS EXIT VEL. (M/SEC)= 11.60, STACK DIAMETER (M)= 0.610, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
3.20000E-01			

1**** ISCLT ************** ISCLT -- ANNUAL TSP ******** PAGE 19 ****

FLA. POWER CORP. PT14-01 - 14-06 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		15	STACK	446300.00	3126000.00	7.92	0.00	GAS EXIT TEMP (DEG K)= 703.70, GAS EXIT VEL. (M/SEC)= 18.06, STACK DIAMETER (M)= 4.240, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
4.09000E+01			

1**** ISCLT ************** ISCLT -- ANNUAL TSP ******** PAGE 20 ****

DIXIE ASPHALT PT 41-01 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -

89

X 16 STACK 463200.00 3143000.00 7.92 0.00 GAS EXIT TEMP (DEG K)= 394.30, GAS EXIT VEL. (M/SEC)= 26.95,
STACK DIAMETER (M)= 1.100, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF
ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0
- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
1.44000E+00

- SOURCE INPUT DATA (CONT.) -

ST CLOUD HOSPITAL PT 10-02, PT10-03

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		17	STACK	470300.00	3124100.00	5.49	0.00	GAS EXIT TEMP (DEG K)= 505.40, GAS EXIT VEL. (M/SEC)= 15.00, STACK DIAMETER (M)= 0.460, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 6.00000E-02

KISSIMMEE UTILITIES NEW COMBUSTION TURBINE

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		18	STACK	460100.00	3129300.00	9.14	0.00	GAS EXIT TEMP (DEG K)= 422.00, GAS EXIT VEL. (M/SEC)= 38.03, STACK DIAMETER (M)= 2.440, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.98000E+00

FLA DEPT AGRICULTURE PTOS-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		19	STACK	458700.00	3133400.00	9.14	0.00	GAS EXIT TEMP (DEG K)= 727.60, GAS EXIT VEL. (M/SEC)= 5.47, STACK DIAMETER (M)= 0.550, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.90000E-01

KISSIMMEE COMMUNITY HOSPITAL PT06-01 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		20	STACK	459900.00	3130300.00	7.62	0.00	GAS EXIT TEMP (DEG K)= 744.50, GAS EXIT VEL. (M/SEC)= 13.78, STACK DIAMETER (M)= 0.400, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.90000E-01

1**** ISCLT ********** ISCLT -- ANNUAL TSP ******** PAGE 25 ****

OWENS ILLINOIS PT32-01, PT32-02 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		21	STACK	460700.00	3142000.00	9.14	0.00	GAS EXIT TEMP (DEG K)= 299.80, GAS EXIT VEL. (M/SEC)= 4.17, STACK DIAMETER (M)= 0.910, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.50000E+00

1**** ISCLT ********** ISCLT -- ANNUAL TSP ******** PAGE 26 ****

GOULD BATTERY PT56-01 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		22	STACK	460400.00	3142600.00	7.01	0.00	GAS EXIT TEMP (DEG K)= 301.50, GAS EXIT VEL. (M/SEC)= 18.52, STACK DIAMETER (M)= 0.980, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.70000E-01

1**** ISCLT ********** ISCLT -- ANNUAL TSP ******** PAGE 27 ****

GOULD BATTERY PT56-03 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -

9

D E (M) /

X 23 STACK 460400.00 3142600.00 4.57 0.00 GAS EXIT TEMP (DEG K)= 294.30, GAS EXIT VEL. (M/SEC)= 15.00,
STACK DIAMETER (M)= 0.300, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF
ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0
- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
1.40000E-01

GOULD BATTERY PT56-05

- SOURCE INPUT DATA (CONT.) -

C T SOURCE SOURCE X Y EMISSION BASE / - SOURCE DETAILS DEPENDING ON TYPE -
A A NUMBER TYPE COORDINATE COORDINATE HEIGHT ELEV- /
R P (M) (M) (M) ATION /
D E (M) /

X 24 STACK 460400.00 3142600.00 9.14 0.00 GAS EXIT TEMP (DEG K)= 305.40, GAS EXIT VEL. (M/SEC)= 13.95,
STACK DIAMETER (M)= 0.760, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF
ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0
- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
6.00000E-02

FLA. MIN & MAT'LS PT11-01

- SOURCE INPUT DATA (CONT.) -

C T SOURCE SOURCE X Y EMISSION BASE / - SOURCE DETAILS DEPENDING ON TYPE -
A A NUMBER TYPE COORDINATE COORDINATE HEIGHT ELEV- /
R P (M) (M) (M) ATION /
D E (M) /

X 25 STACK 462000.00 3149000.00 12.20 0.00 GAS EXIT TEMP (DEG K)= 299.80, GAS EXIT VEL. (M/SEC)= 0.32,
STACK DIAMETER (M)= 1.220, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF
ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0
- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
1.04000E+00

FLA. MIN. & MAT'LS PT 12-01

- SOURCE INPUT DATA (CONT.) -

C T SOURCE SOURCE X Y EMISSION BASE / - SOURCE DETAILS DEPENDING ON TYPE -
A A NUMBER TYPE COORDINATE COORDINATE HEIGHT ELEV- /
R P (M) (M) (M) ATION /
D E (M) /

X 26 STACK 444500.00 3160000.00 10.10 0.00 GAS EXIT TEMP (DEG K)= 299.80, GAS EXIT VEL. (M/SEC)= 0.24,
STACK DIAMETER (M)= 1.100, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF
ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0
- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4

20

8.60000E-01

INLAND MAT'LS PT20-01 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		27	STACK	459900.00	3160900.00	16.20	0.00	GAS EXIT TEMP (DEG K)= 299.80, GAS EXIT VEL. (M/SEC)= 1.57, STACK DIAMETER (M)= 0.370, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 7.50000E-01

ORLANDO PAVING PT21-01 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		28	STACK	453900.00	3160700.00	12.80	0.00	GAS EXIT TEMP (DEG K)= 331.50, GAS EXIT VEL. (M/SEC)= 8.55, STACK DIAMETER (M)= 2.260, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.04000E+00

KISSAM ROCK IND PT23-01 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		29	STACK	461300.00	3157900.00	18.30	0.00	GAS EXIT TEMP (DEG K)= 299.80, GAS EXIT VEL. (M/SEC)= 1.34, STACK DIAMETER (M)= 0.400, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.24000E+00

FLA ROCK IND PT24-01 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE	Y COORDINATE	EMISSION	BASE

A R D	A P E	NUMBER	TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		30	STACK	459200.00	3174200.00	3.70	0.00	GAS EXIT TEMP (DEG K)= 299.80, GAS EXIT VEL. (M/SEC)= 17.35, STACK DIAMETER (M)= 0.580, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.24000E+00

FLA ROCK IND PT24-02, PT 24-03

- SOURCE INPUT DATA (CONT.) -

A R D	A P E	NUMBER	TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		31	STACK	459200.00	3174200.00	16.80	0.00	GAS EXIT TEMP (DEG K)= 299.80, GAS EXIT VEL. (M/SEC)= 35.07, STACK DIAMETER (M)= 0.090, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.48000E+00

RINKER MAT'LS PT25-01

- SOURCE INPUT DATA (CONT.) -

A R D	A P E	NUMBER	TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		32	STACK	458300.00	3165000.00	3.40	0.00	GAS EXIT TEMP (DEG K)= 297.00, GAS EXIT VEL. (M/SEC)= 43.12, STACK DIAMETER (M)= 0.370, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.44000E+00

RINKER MATLS PT25-02

- SOURCE INPUT DATA (CONT.) -

A R D	A P E	NUMBER	TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		33	STACK	458300.00	3165000.00	28.90	0.00	GAS EXIT TEMP (DEG K)= 299.80, GAS EXIT VEL. (M/SEC)= 0.11, STACK DIAMETER (M)= 1.220, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

46

- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
1.15000E+00

LONE STAR PT27-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		34	STACK	462600.00	3154200.00	14.60	0.00	GAS EXIT TEMP (DEG K)= 299.80, GAS EXIT VEL. (M/SEC)= 0.52, STACK DIAMETER (M)= 0.910, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
9.50000E-01

ORLANDO PAVING PT31-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		35	STACK	465300.00	3145900.00	9.10	0.00	GAS EXIT TEMP (DEG K)= 644.30, GAS EXIT VEL. (M/SEC)= 5.75, STACK DIAMETER (M)= 0.460, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
1.21000E+00

KINDER MATLS PT 86-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		36	STACK	470700.00	3163900.00	2.70	0.00	GAS EXIT TEMP (DEG K)= 299.80, GAS EXIT VEL. (M/SEC)= 4.22, STACK DIAMETER (M)= 1.070, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
1.15000E+00

- SOURCE INPUT DATA (CONT.) -

95

RINKER MATLS PT37-01

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		37	STACK	462500.00	3154300.00	20.40	0.00	GAS EXIT TEMP (DEG K)= 298.20, GAS EXIT VEL. (M/SEC)= 0.13, STACK DIAMETER (M)= 4.850, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.32000E+00

1**** ISCLT ********** ISCLT -- ANNUAL TSP ******** PAGE 42 ****

RINKER MATLS PT 37-02 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		38	STACK	462500.00	3154300.00	20.40	0.00	GAS EXIT TEMP (DEG K)= 297.00, GAS EXIT VEL. (M/SEC)= 0.17, STACK DIAMETER (M)= 1.340, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.32000E+00

1**** ISCLT ********** ISCLT -- ANNUAL TSP ******** PAGE 43 ****

RINKER MATLS PT 38-02 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		39	STACK	450600.00	3145500.00	15.20	0.00	GAS EXIT TEMP (DEG K)= 299.80, GAS EXIT VEL. (M/SEC)= 0.24, STACK DIAMETER (M)= 4.180, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.76000E+00

1**** ISCLT ********** ISCLT -- ANNUAL TSP ******** PAGE 44 ****

RINKER MATLS PT 38-03, PT38-04 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		40	STACK	450600.00	3145500.00	26.50	0.00	GAS EXIT TEMP (DEG K)= 299.80, GAS EXIT VEL. (M/SEC)= 0.02,

96

STACK DIAMETER (M)= 4.390, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF
ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0
- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
2.88000E+00

SOUTHERN FRUIT PT 39-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		41	STACK	462900.00	3153300.00	16.20	0.00	GAS EXIT TEMP (DEG K)= 388.70, GAS EXIT VEL. (M/SEC)= 15.63, STACK DIAMETER (M)= 1.460, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.58000E+00

CARNS CONCRETE PIPE PT 50-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		42	STACK	454600.00	3167800.00	15.20	0.00	GAS EXIT TEMP (DEG K)= 297.00, GAS EXIT VEL. (M/SEC)= 0.59, STACK DIAMETER (M)= 1.520, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 9.50000E-01

WINTER GARDEN CITRUS PT 53-01, PT 53-02

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		43	STACK	443850.00	3159600.00	24.40	0.00	GAS EXIT TEMP (DEG. K)= 338.70, GAS EXIT VEL. (M/SEC)= 8.08, STACK DIAMETER (M)= 1.190, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.48000E+00

49

WINTER GARDEN CITRUS PT53-06, PT53-12

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		44	STACK	443800.00	3159600.00	15.20	0.00	GAS EXIT TEMP (DEG K)= 308.20, GAS EXIT VEL. (M/SEC)= 17.85, STACK DIAMETER (M)= 1.160, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
2.54000E+00			

WINTER GARDEN CITRUS PT53-14

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		45	STACK	443800.00	3159600.00	24.40	0.00	GAS EXIT TEMP (DEG K)= 340.40, GAS EXIT VEL. (M/SEC)= 17.11, STACK DIAMETER (M)= 0.820, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
3.17000E+00			

A1 BLOCK PT58-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		46	STACK	462500.00	3155000.00	16.80	0.00	GAS EXIT TEMP (DEG K)= 299.80, GAS EXIT VEL. (M/SEC)= 0.20, STACK DIAMETER (M)= 1.220, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.87000E+00			

A1 BLOCK PT58-02

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -

98

X 47 STACK 462500.00 3155000.00 16.80 0.00 GAS EXIT TEMP (DEG K)= 299.80, GAS EXIT VEL. (M/SEC)= 0.30,
STACK DIAMETER (M)= 1.220, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF
ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0
- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
2.16000E+00

MEDUSA CEMENT PT59-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE / ELEV- / ATION / (M) /	- SOURCE DETAILS DEPENDING ON TYPE -
X		48	STACK	462600.00	3154400.00.	11.30	0.00	GAS EXIT TEMP (DEG K)= 299.80, GAS EXIT VEL. (M/SEC)= 19.40, STACK DIAMETER (M)= 0.300, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.12000E+00

MEDUSA CEMENT PT59-02

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE / ELEV- / ATION / (M) /	- SOURCE DETAILS DEPENDING ON TYPE -
X		49	STACK	462600.00	3154400.00	0.60	0.00	GAS EXIT TEMP (DEG K)= 299.80, GAS EXIT VEL. (M/SEC)= 10.78, STACK DIAMETER (M)= 0.090, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 8.60000E-01

FLA. ROCK IND PT71-02, PT71-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE / ELEV- / ATION / (M) /	- SOURCE DETAILS DEPENDING ON TYPE -
X		50	STACK	463000.00	3145500.00	16.80	0.00	GAS EXIT TEMP (DEG K)= 299.80, GAS EXIT VEL. (M/SEC)= 1.62, STACK DIAMETER (M)= 0.370, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.96000E+00

FLA. ROCK IND PT 71-05

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV-ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		51	STACK	463000.00	3145500.00	16.80	0.00	GAS EXIT TEMP (DEG K)= 299.80, GAS EXIT VEL. (M/SEC)= 1.62, STACK DIAMETER (M)= 0.370, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.12000E+00			

STANDARD SAND SILICA PT 14-03

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV-ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		52	STACK	441500.00	3118200.00	25.90	0.00	GAS EXIT TEMP (DEG K)= 377.60, GAS EXIT VEL. (M/SEC)= 26.94, STACK DIAMETER (M)= 0.490, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.76000E+00			

STANDARD SAND SILICA PT 14-04

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV-ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		53	STACK	441500.00	3118200.00	25.90	0.00	GAS EXIT TEMP (DEG K)= 314.80, GAS EXIT VEL. (M/SEC)= 8.85, STACK DIAMETER (M)= 1.220, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
8.10000E-01			

SWIFT AGRICHEM PT 17-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE	Y COORDINATE	EMISSION HEIGHT	BASE ELEV-	- SOURCE DETAILS DEPENDING ON TYPE -

```
R P              (M)          (M)         (M)   ATION /
D E                                              (M)  /
--------------------------------------------------------------------------------------------------------------------------
X       54  STACK   427900.00  3097400.00  10.10     0.00 GAS EXIT TEMP (DEG K)= 297.00, GAS EXIT VEL. (M/SEC)=  6.61,
                                                          STACK DIAMETER (M)= 0.550, HEIGHT OF ASSO. BLDG. (M)=  0.00, WIDTH OF
                                                          ASSO. BLDG. (M)=   0.00, WAKE EFFECTS FLAG = 0
                                                                - SOURCE STRENGTHS ( GRAMS PER SEC                    ) -
                                                                     SEASON 1     SEASON 2     SEASON 3     SEASON 4
                                                                    9.50000E-01
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Swift Agrichem PT 17-04

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                                              - SOURCE INPUT DATA (CONT.) -

C T SOURCE SOURCE      X            Y       EMISSION  BASE /
A A NUMBER  TYPE  COORDINATE  COORDINATE   HEIGHT   ELEV- /            - SOURCE DETAILS DEPENDING ON TYPE -
R P              (M)          (M)         (M)   ATION /
D E                                              (M)  /
--------------------------------------------------------------------------------------------------------------------------
X       55  STACK   427900.00  3097400.00  10.10     0.00 GAS EXIT TEMP (DEG K)= 294.30, GAS EXIT VEL. (M/SEC)= 17.64,
                                                          STACK DIAMETER (M)= 0.340, HEIGHT OF ASSO. BLDG. (M)=  0.00, WIDTH OF
                                                          ASSO. BLDG. (M)=   0.00, WAKE EFFECTS FLAG = 0
                                                                - SOURCE STRENGTHS ( GRAMS PER SEC                    ) -
                                                                     SEASON 1     SEASON 2     SEASON 3     SEASON 4
                                                                    8.90000E-01
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Coca Cola PT23-01

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                                              - SOURCE INPUT DATA (CONT.) -

C T SOURCE SOURCE      X            Y       EMISSION  BASE /
A A NUMBER  TYPE  COORDINATE  COORDINATE   HEIGHT   ELEV- /            - SOURCE DETAILS DEPENDING ON TYPE -
R P              (M)          (M)         (M)   ATION /
D E                                              (M)  /
--------------------------------------------------------------------------------------------------------------------------
X       56  STACK   421300.00  3103600.00  28.30     0.00 GAS EXIT TEMP (DEG K)= 333.20, GAS EXIT VEL. (M/SEC)= 16.84,
                                                          STACK DIAMETER (M)= 1.070, HEIGHT OF ASSO. BLDG. (M)=  0.00, WIDTH OF
                                                          ASSO. BLDG. (M)=   0.00, WAKE EFFECTS FLAG = 0
                                                                - SOURCE STRENGTHS ( GRAMS PER SEC                    ) -
                                                                     SEASON 1     SEASON 2     SEASON 3     SEASON 4
                                                                    1.56000E+00
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Coca Cola PT23-02

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                                              - SOURCE INPUT DATA (CONT.) -

C T SOURCE SOURCE      X            Y       EMISSION  BASE /
A A NUMBER  TYPE  COORDINATE  COORDINATE   HEIGHT   ELEV- /            - SOURCE DETAILS DEPENDING ON TYPE -
R P              (M)          (M)         (M)   ATION /
D E                                              (M)  /
--------------------------------------------------------------------------------------------------------------------------
X       57  STACK   421300.00  3103600.00  17.40     0.00 GAS EXIT TEMP (DEG K)= 547.00, GAS EXIT VEL. (M/SEC)= 15.24,
                                                          STACK DIAMETER (M)= 1.830, HEIGHT OF ASSO. BLDG. (M)=  0.00, WIDTH OF
                                                          ASSO. BLDG. (M)=   0.00, WAKE EFFECTS FLAG = 0
                                                                - SOURCE STRENGTHS ( GRAMS PER SEC                    ) -
```

SEASON 1 SEASON 2 SEASON 3 SEASON 4
1.04000E+00

- SOURCE INPUT DATA (CONT.) -

COCA COLA PT23-03

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		58	STACK	421300.00	3103600.00	30.50	0.00	GAS EXIT TEMP (DEG K)= 334.80, GAS EXIT VEL. (M/SEC)= 15.16, STACK DIAMETER (M)= 0.980, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
9.50000E-01

BORDO CITRUS PT23-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		59	STACK	438000.00	3109000.00	14.60	0.00	GAS EXIT TEMP (DEG K)= 349.80, GAS EXIT VEL. (M/SEC)= 8.41, STACK DIAMETER (M)= 1.680, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
1.30000E+00

BORDO CITRUS PT23-02

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		60	STACK	439000.00	3109000.00	14.60	0.00	GAS EXIT TEMP (DEG K)= 349.80, GAS EXIT VEL. (M/SEC)= 8.41, STACK DIAMETER (M)= 1.680, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
1.58300E+00

- SOURCE INPUT DATA (CONT.) -

201

ADAMS PACKING PT37-01

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		61	STACK	421700.00	3104200.00	28.00	0.00	GAS EXIT TEMP (DEG K)= 347.00, GAS EXIT VEL. (M/SEC)= 7.20, STACK DIAMETER (M)= 1.430, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
9.80000E-01			

HOLLY HILL FRUIT PT61-04

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		62	STACK	441000.00	3115400.00	18.00	0.00	GAS EXIT TEMP (DEG K)= 344.30, GAS EXIT VEL. (M/SEC)= 18.98, STACK DIAMETER (M)= 0.850, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
2.22000E+00			

MASASPHALT PT82-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		63	STACK	423100.00	3101500.00	12.20	0.00	GAS EXIT TEMP (DEG K)= 335.98, GAS EXIT VEL. (M/SEC)= 2.58, STACK DIAMETER (M)= 3.670, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.41000E+00			

KISSAM CONCRETE PT05-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		64	STACK	465100.00	3170400.00	18.30	0.00	GAS EXIT TEMP (DEG K)= 299.80, GAS EXIT VEL. (M/SEC)= 2.26, STACK DIAMETER (M)= 0.300, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF

ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0
- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
1.09000E+00

COCA COLA PT 06-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		65	STACK	459400.00	3170500.00	25.90	0.00	GAS EXIT TEMP (DEG K)= 346.50, GAS EXIT VEL. (M/SEC)= 10.00, STACK DIAMETER (M)= 0.330, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.38000E+00

ALCOMA PACKING PT 01-05

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		66	STACK	451600.00	3085500.00	27.10	0.00	GAS EXIT TEMP (DEG K)= 333.20, GAS EXIT VEL. (M/SEC)= 10.30, STACK DIAMETER (M)= 0.970, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.84000E+00

OWENS ILL PT07-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		67	STACK	423400.00	3102800.00	22.90	0.00	GAS EXIT TEMP (DEG K)= 616.50, GAS EXIT VEL. (M/SEC)= 10.20, STACK DIAMETER (M)= 0.910, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.35000E+00

104

OWENS ILL PT07-02

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		68	STACK	423400.00	3102800.00	30.50	0.00	GAS EXIT TEMP (DEG K)= 667.60, GAS EXIT VEL. (M/SEC)= 8.74, STACK DIAMETER (M)= 0.910, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.32000E+00			

105

Page 106 was removed intentionally.

** ANNUAL GROUND LEVEL CONCENTRATION (MICROGRAMS PER CUBIC METER) FROM ALL SOURCES COMBINED **

- GRID SYSTEM RECEPTORS -
- X AXIS (DISTANCE, METERS) -

Y AXIS (DISTANCE, METERS)	455600.000	456600.000	457600.000	458600.000	459600.000	460600.000	461600.000	462600.000	463600.000
	- CONCENTRATION -								
3133800.000	2.245856	2.427762	2.680215	3.378129	3.260363	3.045914	2.366919	2.121501	2.001099
3132800.000	2.341279	2.533473	2.906910	3.611741	3.649281	3.339121	2.293711	2.234515	2.087627
3131800.000	2.444424	2.698689	3.045435	3.561871	4.352484	3.759547	2.598719	2.452543	2.192334
3130800.000	2.707517	2.926487	3.466785	4.242141	5.697381	4.196010	3.252588	2.695564	2.307661
3129800.000	3.205897	3.776152	4.698115	6.039921	8.169916	6.169805	4.028359	3.135576	2.599305
3128800.000	3.332613	3.975383	5.088609	7.076319	12.141668	5.159636	4.198111	3.176387	2.621487
3127800.000	3.044877	3.453615	4.352426	5.928562	7.002213	4.597054	2.691142	2.605469	2.385247
3126800.000	2.914648	3.329578	3.938472	4.337887	5.140557	4.224217	2.512691	2.164910	2.155656
3125800.000	2.824025	3.117635	3.327342	3.462482	4.072254	3.628188	2.336672	2.154866	2.013765
3124800.000	2.653468	2.774981	2.877188	3.055317	3.417007	3.175718	2.403286	2.101062	2.034462

- GRID SYSTEM RECEPTORS -
- X AXIS (DISTANCE, METERS) -

Y AXIS (DISTANCE, METERS)	464600.000
	- CONCENTRATION -
3133800.000	1.856926
3132800.000	1.899871
3131800.000	1.962985
3130800.000	2.076941
3129800.000	2.257932
3128800.000	2.285676
3127800.000	2.162861
3126800.000	2.095856
3125800.000	2.051329
3124800.000	2.010640

101

202.500	0.00326299	0.00625198	0.00116400	0.00000000	0.00000000	0.00000000
225.000	0.00367199	0.00821498	0.00212199	0.00000000	0.00000000	0.00000000
247.500	0.00448799	0.00823698	0.00209899	0.00000000	0.00000000	0.00000000
270.000	0.00535199	0.01081597	0.00570499	0.00000000	0.00000000	0.00000000
292.500	0.00445199	0.00853398	0.00444999	0.00000000	0.00000000	0.00000000
315.000	0.00192800	0.00342299	0.00292099	0.00000000	0.00000000	0.00000000
337.500	0.00329399	0.00679998	0.00435799	0.00000000	0.00000000	0.00000000

0 - VERTICAL POTENTIAL TEMPERATURE GRADIENT (DEGREES KELVIN/METER) -

	WIND SPEED CATEGORY 1	WIND SPEED CATEGORY 2	WIND SPEED CATEGORY 3	WIND SPEED CATEGORY 4	WIND SPEED CATEGORY 5	WIND SPEED CATEGORY 6
STABILITY CATEGORY 1	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
STABILITY CATEGORY 2	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
STABILITY CATEGORY 3	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
STABILITY CATEGORY 4	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
STABILITY CATEGORY 5	0.200000E-01	0.200000E-01	0.200000E-01	0.200000E-01	0.200000E-01	0.200000E-01

0 - WIND PROFILE POWER LAW EXPONENTS -

	WIND SPEED CATEGORY 1	WIND SPEED CATEGORY 2	WIND SPEED CATEGORY 3	WIND SPEED CATEGORY 4	WIND SPEED CATEGORY 5	WIND SPEED CATEGORY 6
STABILITY CATEGORY 1	0.100000E+00	0.100000E+00	0.100000E+00	0.100000E+00	0.100000E+00	0.100000E+00
STABILITY CATEGORY 2	0.150000E+00	0.150000E+00	0.150000E+00	0.150000E+00	0.150000E+00	0.150000E+00
STABILITY CATEGORY 3	0.200000E+00	0.200000E+00	0.200000E+00	0.200000E+00	0.200000E+00	0.200000E+00
STABILITY CATEGORY 4	0.250000E+00	0.250000E+00	0.250000E+00	0.250000E+00	0.250000E+00	0.250000E+00
STABILITY CATEGORY 5	0.300000E+00	0.300000E+00	0.300000E+00	0.300000E+00	0.300000E+00	0.300000E+00

ORLANDO UTILITIES PT 3301-33-03 - SOURCE INPUT DATA -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		1	STACK	463300.00	3159000.00	34.40	0.00	GAS EXIT TEMP (DEG K)= 422.00, GAS EXIT VEL. (M/SEC)= 17.00, STACK DIAMETER (M)= 1.830, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
6.30000E+01			

ORLANDO UTILITIES PT 33-04, PT 33-05 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		2	STACK	463300.00	3159000.00	34.40	0.00	GAS EXIT TEMP (DEG K)= 422.00, GAS EXIT VEL. (M/SEC)= 10.16, STACK DIAMETER (M)= 2.440, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

801

SEASON 1 SEASON 2 SEASON 3 SEASON 4
7.86500E+01

ORLANDO UTILITIES PT 83-06

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		3	STACK	463300.00	3159000.00	33.20	0.00	GAS EXIT TEMP (DEG K)= 727.60, GAS EXIT VEL. (M/SEC)= 13.02, STACK DIAMETER (M)= 2.900, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1 SEASON 2 SEASON 3 SEASON 4
8.00000E+00

STANDARD SAND SILICA PT 14-04

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		4	STACK	441500.00	3118200.00	25.90	0.00	GAS EXIT TEMP (DEG K)= 314.80, GAS EXIT VEL. (M/SEC)= 8.85, STACK DIAMETER (M)= 1.220, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1 SEASON 2 SEASON 3 SEASON 4
6.90000E+00

KISSIMMEE UTILITIES PT 01-04

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		5	STACK	460100.00	3129300.00	13.11	0.00	GAS EXIT TEMP (DEG K)= 466.50, GAS EXIT VEL. (M/SEC)= 16.30, STACK DIAMETER (M)= 0.610, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1 SEASON 2 SEASON 3 SEASON 4
8.70000E-01

109

- SOURCE INPUT DATA (CONT.) -

KISSIMMEE UTILITIES PTO1-03, PTO1-04

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		6	STACK	460100.00	3129300.00	16.15	0.00	GAS EXIT TEMP (DEG K)= 477.60, GAS EXIT VEL. (M/SEC)= 17.60, STACK DIAMETER (M)= 0.850, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
3.36000E+00			

KISSIMMEE UTILITIES PTO1-07, PTO1-08

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		7	STACK	460100.00	3129300.00	7.01	0.00	GAS EXIT TEMP (DEG K)= 466.50, GAS EXIT VEL. (M/SEC)= 9.60, STACK DIAMETER (M)= 0.760, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
2.28000E+00			

KISSIMMEE UTILITIES PTO1-11 - 01-15

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		8	STACK	460100.00	3129300.00	13.41	0.00	GAS EXIT TEMP (DEG K)= 505.40, GAS EXIT VEL. (M/SEC)= 8.70, STACK DIAMETER (M)= 0.800, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
5.37000E+00			

KISSIMMEE UTILITIES UNITS #19 and #20

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		9	STACK	460100.00	3129300.00	8.69	0.00	GAS EXIT TEMP (DEG K)= 505.40, GAS EXIT VEL. (M/SEC)= 17.20, STACK DIAMETER (M)= 0.900, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF

110

ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0
- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
2.89000E+00

City of St. Cloud PT02-02, 02-04 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	/ / /	- SOURCE DETAILS DEPENDING ON TYPE -
X		10	STACK	471800.00	3124900.00	7.92	0.00		GAS EXIT TEMP (DEG K)= 727.60, GAS EXIT VEL. (M/SEC)= 34.70, STACK DIAMETER (M)= 0.760, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 4.66000E+00

City of St. Cloud PT02-05, PT02-06 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	/ / /	- SOURCE DETAILS DEPENDING ON TYPE -
X		11	STACK	471800.00	3124900.00	8.53	0.00		GAS EXIT TEMP (DEG K)= 699.80, GAS EXIT VEL. (M/SEC)= 1.17, STACK DIAMETER (M)= 0.640, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 3.78000E+00

City of St Cloud PT02-07, PT02-08 - SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	/ / /	- SOURCE DETAILS DEPENDING ON TYPE -
X		12	STACK	471800.00	3124900.00	11.89	0.00		GAS EXIT TEMP (DEG K)= 727.60, GAS EXIT VEL. (M/SEC)= 29.51, STACK DIAMETER (M)= 1.070, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 6.55000E+00

STOKELY VAN CAMP PT07-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		13	STACK	451100.00	3125800.00	7.32	0.00	GAS EXIT TEMP (DEG K)= 513.70, GAS EXIT VEL. (M/SEC)= 11.50, STACK DIAMETER (M)= 0.460, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
2.52000E+00			

1**** ISCLT ************* ISCLT -- ANNUAL SO2 ******** PAGE 18 ****

C W Stiley PT11-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		14	STACK	470800.00	3133800.00	9.45	0.00	GAS EXIT TEMP (DEG K)=1005.70, GAS EXIT VEL. (M/SEC)= 11.60, STACK DIAMETER (M)= 0.610, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.30000E-01			

1**** ISCLT ************* ISCLT -- ANNUAL SO2 ******** PAGE 19 ****

FLA. POWER CORP. PT14-01 - 14-06

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -
X		15	STACK	446300.00	3126000.00	7.92	0.00	GAS EXIT TEMP (DEG K)= 703.70, GAS EXIT VEL. (M/SEC)= 18.06, STACK DIAMETER (M)= 4.240, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
3.40200E+01			

1**** ISCLT ************* ISCLT -- ANNUAL SO2 ******** PAGE 20 ****

DIXIE ASPHALT PT41-01

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	- SOURCE DETAILS DEPENDING ON TYPE -

DIXIE ASPHALT PT 41-01

X 16 STACK 463200.00 3143000.00 7.92 0.00 GAS EXIT TEMP (DEG K)= 394.30, GAS EXIT VEL. (M/SEC)= 26.55,
STACK DIAMETER (M)= 1.100, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF
ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0
- SOURCE STRENGTHS (GRAMS PER SEC) -
SEASON 1 SEASON 2 SEASON 3 SEASON 4
2.60000E-01

ST CLOUD HOSPITAL PT 10-02, PT10-03

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	/ - SOURCE DETAILS DEPENDING ON TYPE -
X		17	STACK	470300.00	3124100.00	5.49	0.00	GAS EXIT TEMP (DEG K)= 505.40, GAS EXIT VEL. (M/SEC)= 15.00, STACK DIAMETER (M)= 0.460, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 6.00000E-02

KISSIMMEE UTILITIES NEW COMBUSTION TURBINE

- SOURCE INPUT DATA (CONT.) -

C A R D	T A P E	SOURCE NUMBER	SOURCE TYPE	X COORDINATE (M)	Y COORDINATE (M)	EMISSION HEIGHT (M)	BASE ELEV- ATION (M)	/ - SOURCE DETAILS DEPENDING ON TYPE -
X		18	STACK	460100.00	3129300.00	9.14	0.00	GAS EXIT TEMP (DEG K)= 422.00, GAS EXIT VEL. (M/SEC)= 38.03, STACK DIAMETER (M)= 2.440, HEIGHT OF ASSO. BLDG. (M)= 0.00, WIDTH OF ASSO. BLDG. (M)= 0.00, WAKE EFFECTS FLAG = 0 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 4.89000E+01

** ANNUAL GROUND LEVEL CONCENTRATION (MICROGRAMS PER CUBIC METER) FROM ALL SOURCES COMBINED **

- GRID SYSTEM RECEPTORS -
- X AXIS (DISTANCE, METERS) -

Y AXIS (DISTANCE, METERS)	455600.000	456600.000	457600.000	458600.000	459600.000	460600.000	461600.000	462600.000	463600.000
	- CONCENTRATION -								
3133800.000	3.674304	3.908367	4.148832	4.581690	5.418777	5.192412	3.960702	3.612009	3.603863
3132800.000	3.894543	4.140950	4.487364	4.829161	6.097342	5.690645	3.811295	3.866843	3.803264
3131800.000	4.159456	4.528245	4.958326	5.588191	7.217253	6.386456	4.363052	4.287263	3.972458
3130800.000	4.721351	4.993611	5.755788	6.814646	8.997168	6.773283	5.457381	4.663729	4.153190
3129800.000	5.818188	6.675803	7.994432	9.787376	12.650610	9.974773	6.710643	5.492033	4.780505
3128800.000	6.107369	7.094499	8.752081	11.702003	19.907223	8.427357	7.125950	5.651487	4.876876
3127800.000	5.516002	6.109768	7.509365	10.043007	11.655142	7.712202	4.715505	4.693777	4.440250
3126800.000	5.324643	5.993368	6.990936	7.513328	8.966705	7.454960	4.466377	3.947322	4.012264
3125800.000	5.264185	5.748311	6.012345	6.168860	7.439410	6.682451	4.208803	3.932830	3.730122
3124800.000	5.022981	5.160911	5.284714	5.628808	6.481002	6.049376	4.440091	3.853153	3.763406

- GRID SYSTEM RECEPTORS -
- X AXIS (DISTANCE, METERS) -

Y AXIS (DISTANCE, METERS)	464600.000
	- CONCENTRATION -
3133800.000	3.444981
3132800.000	3.529097
3131800.000	3.631041
3130800.000	3.849765
3129800.000	4.272913
3128800.000	4.356063
3127800.000	4.096053
3126800.000	3.935273
3125800.000	3.811047
3124800.000	3.700760

114

P 408 530 348

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to James C. Welsh	
Street and No. P. O. Box 1608	
P.O., State and ZIP Code Kissimmee, FL 32741	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date 10/6/83	

PS Form 3800, Feb. 1982

PS Form 3811, Jan. 1979

SENDER: Complete items 1, 2, and 3.
Add your address in the "RETURN TO" space on reverse.

1. The following service is requested (check one.)
   - [X] Show to whom and date delivered..... ¢
   - [ ] Show to whom, date and address of delivery..... ¢
   - [ ] RESTRICTED DELIVERY
     Show to whom and date delivered..... ¢
   - [ ] RESTRICTED DELIVERY.
     Show to whom, date, and address of delivery.$

(CONSULT POSTMASTER FOR FEES)

2. ARTICLE ADDRESSED TO:
Mr. James C. Welsh
P. O. Box 1608
Kissimmee, Florida 32741

3. ARTICLE DESCRIPTION:

REGISTERED NO.	CERTIFIED NO.	INSURED NO.
	P408530348	

(Always obtain signature of addressee or agent)

I have received the article described above.
SIGNATURE [ ] Addressee [ ] Authorized agent

4. DATE OF DELIVERY — POSTMARK

5. ADDRESS (Complete only if requested)

6. UNABLE TO DELIVER BECAUSE: — CLERK'S INITIALS

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

☆GPO : 1979-300-459

DER PERMIT APPLICATION TRACKING SYSTEM MASTER RECORD

FILE#000000074856 COE# DER PROCESSOR:CLAIRE FANCY DER OFFICE:TLH
FILE NAME:KISSIMMEE UTILITIES DATE FIRST REC: 09/06/83 APPLICATION TYPE:AC
APPL NAME:KISSIMMEE UTILITIES UN #1 APPL PHONE:(305)847-2821 PROJECT COUNTY:49
ADDR:P. O. BOX 1608 CITY:KISSIMMEE ST:FLZIP:32741
AGNT NAME: AGNT PHONE:( ) -
ADDR: CITY: ST: ZIP:

ADDITIONAL INFO REQ: / / / / / / REC: / / / / / /
APPL COMPLETE DATE: / / COMMENTS NEC:Y DATE REQ: / / DATE REC: / /
LETTER OF INTENT NEC:Y DATE WHEN INTENT ISSUED: / / WAIVER DATE: / /

HEARING REQUEST DATES: / / / / / /
HEARING WITHDRAWN/DENIED/ORDER -- DATES: / / / / / /
HEARING ORDER OR FINAL ACTION DUE DATE: / / MANUAL TRACKING DESIRED:N
THIS RECORD HAS BEEN SUCESSFULLY ADDED 09/06/83 15:41:08
FEE PD DATE#1: / / $ RECEIPT# REFUND DATE: / / REFUND $
FEE PD DATE#2: / / $ RECEIPT# REFUND DATE: / / REFUND $
APPL:ACTIVE/INACTIVE/DENIED/WITHDRAWN/TRANSFERRED/EXEMPT/ISSUED:TR DATE:09/06/83
REMARKS:ORL, CHECK #1190 ATTACHED TO APPLICATION;

DER

SEP 9 1983

BAQM