AN ENGINEERING REPORT IN SUPPORT OF AN APPLICATION TO MODIFY AIR POLLUTION SOURCE CONSTRUCTION PERMIT AC24-61435 FOR A VATTED SULFUR STORAGE AND HANDLING SYSTEM

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC.
WHITE SPRINGS, FLORIDA
VOLUME 1

JULY 12, 1985

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1.0 INTRODUCTION

On September 16, 1983, Occidental Chemical Agricultural Products, Inc. (Occidental) was issued Air Pollution Source Construction Permit No. AC24-61435 by the Florida Department of Environmental Regulation (Department) for the construction and operation of two 75,000 ton elemental sulfur storage vats to be located at the Occidental Swift Creek Chemical Complex (SCCC) in Hamilton County, Florida. During the first two years of operation, the permit authorizes the placement of 375,000 tons of elemental sulfur into storage each of the annual periods. Beginning with the third annual period, the maximum amount of sulfur poured to both of the sulfur vats is limited to 300,000 tons during any 12-month period. Permit No. AC24-61435 also authorizes the reclamation of up to 300,000 tons of elemental sulfur from the two vats during any 12-month period and requires than any reclamation from the sulfur vats be with an in-situ sulfur melter.

The purpose of this report is to provide engineering and technical data in support of Occidental's request to modify Permit No. AC24-61435 to authorize mechanical reclamation of the vatted elemental sulfur pursuant to Section 17-2.600(11)(c)(6), Florida Administrative Code (FAC). Additionally, Occidental seeks to increase the sulfur reclamation rate from 40 tons per hour (24 hours per day) to 210 tons per hour (8 hours per day). The reclamation rate of 210 tons per hour

will allow the reclamation during an 8-hour work shift of sufficient sulfur to operate the two sulfuric acid plants located at SCCC at their maximum rated capacity of 2,500 tons per day each of 100 percent sulfuric acid. (The 40 ton per hour, or 960 ton per day, rate currently set forth in Permit No. AC24-61435 represents the maximum design operating rate of the in-situ melter proposed by Occidental.)

Conditions of Permit No. AC24-61435 that will not be affected by the requested modification include:

1. The amount of sulfur put into or removed from storage during the annual period,

2. The vatting rate at which sulfur is placed into storage,

3. The reasonable precautions to prevent unconfined particulate matter emissions when building, rebuilding or maintaining the sulfur storage vats,

4. The personnel training and other conditions of operation, and

5. The record keeping requirements.

The proposed modification also adds various permit conditions in order to make the Specific Conditions of Permit No. AC24-61435 consistent with the Sulfur Storage & Handling Rule which was adopted by the Environmental Regulation Commission (ERC) on February 27, 1985. Modified or added permit conditions include:

1. Modification of post-construction monitoring requirements increasing the monitoring time to two years consistent with Section 17-2.540(2)(c), FAC.

2. The requirement for vat inspections each time sulfur is poured consistent with Section 17-2.600(11)(c)3, FAC.

3. Restricting vatting operations when the wind speed exceeds 18 miles per hour for a five minute period consistent with Section 17-2.600(11)(c)4, FAC.

4. Adding the reasonable precautions required by Section 17-2.600(11)(c)6, FAC when the vats are mechanically reclaimed.

5. Refining unconfined particulate matter emission calculations consistent with the requirements of Section 17-2.215(4)(a)-(c), FAC.

6. Refining the preconstruction ambient air quality analysis and the preconstruction sulfur deposition analysis pursuant to Section 17-2.540(2)(a) and (b), FAC and to be consistent with the refined unconfined emission calculations.

2.0 SUMMARY OF THE PERMITTED STORAGE FACILITY AND PERMIT CONDITIONS

Permit No. AC24-61435 (See Exhibit "A") was issued by the Department to Occidental on September 16, 1983. The permit has an expiration date of August 31, 1985, however, a request was made by Occidental to the Department on May 13, 1985 (See Exhibit "B") to extend the construction permit through August 31, 1986.

Basically, Permit No. AC24-61435 authorizes the construction of a vatted sulfur storage facility with a maximum storage capacity at any one time of 150,000 tons of elemental sulfur. The solid sulfur storage area is to consist of two vats, each nominally 200-250 feet on a side by 20-30 feet high. The maximum sulfur storage capacity of each vat is not to exceed 75,000 tons.

The existing permit limits the maximum rate at which molten sulfur can be vatted to 600 gallons per minute (270 tons per hour) and 1,500 tons during any 24-hour period. Furthermore, the permit limits the total amount of sulfur vatted during each of the first two annual periods of operation to a maximum of 375,000 tons annually. Beginning with the third annual period, the maximum amount of molten sulfur placed in storage is not to exceed 300,000 tons during any 12-month period.

Permit No. AC24-61435 further requires that reclamation of the vatted sulfur be by in-situ melter and that the maximum sulfur reclamation rate not exceed 40 tons per hour or 300,000 tons during any 12-month period. The other conditions of the permit specify reasonable precautions be taken during the building or rebuilding of the sulfur vat, requirements for post-construction sulfur deposition monitoring, requirements for record keeping and establish the conditions for initial compliance testing.

3.0 SUMMARY OF THE PROPOSED MODIFIED SULFUR STORAGE FACILITY

3.1 Description of the Modified Facility

The modified sulfur storage facility will consist of two sulfur vats each with a maximum storage capacity of 75,000 tons of elemental sulfur. The sulfur stored in the vats will be received molten by rail; the form in which sulfur is currently received at the SCCC. The two sulfur vats will be established by pumping molten sulfur from the existing rail yard sulfur receiving pit to the storage area and by pouring the sulfur into two vats, each nominally 200-250 feet on a side by 20-30 feet high. The maximum storage capacity of each vat will be 75,000 tons, as currently authorized by Permit No. AC24-61435.

As under existing permit conditions, it was assumed that during the first two years of operation up to 375,000 tons of sulfur will be placed into storage during each of the two annual periods and that the annual sulfur reclamation rate will be up to 300,000 tons; resulting in the establishment of a 150,000 ton inventory of vatted sulfur at the end of the second year of operation. It was further assumed, as under existing permit conditions, that during the third and subsequent years of operation, up to 300,000 tons of elemental sulfur will be placed into storage during each annual period and during all annual periods, there will be two complete turn-overs of inventoried sulfur. The inventoried sulfur will be consumed during periods when molten

sulfur supplies do not meet on-site demand and replacement of the reclaimed vatted sulfur will occur during periods of normal rail delivery of molten sulfur.

Under normal operating conditions, the sulfur, as received in the railroad tank cars, will be heated by steam and bottom dumped into a molten sulfur receiving pit at the rail yard. This pit feeds into the surge storage system (see flow diagram in permit application). The molten sulfur that is to be vatted will be pumped from the molten sulfur receiving pit and vatted at the rate of 600 gallons per minute, or 270 tons per hour. The maximum daily vatting rate will be 1,500 tons of elemental sulfur per day.

Vatted sulfur will be reclaimed from inventory by mechanical reclamation at the rate of 210 tons per hour, during one 8-hour shift per day. This will result in a maximum daily reclamation rate of 1,680 tons per day. This new reclamation rate represents the amount of sulfur required to operate the two 2,500 tons per day sulfuric acid plants at the SCCC. The reclaimed sulfur will be recovered by front-end loader at the rate of 210 tons per hour and placed in a short-term recovered sulfur storage pile located near the reclamation area.

The recovered sulfur will be transferred from the short-term sulfur storage pile by front-end loader at the rate of 70 tons per hour, 24 hours per day, directly to a static sulfur melter. The molten sulfur from the melter will be transferred through the existing molten sulfur system into the surge storage system and subsequently to the sulfuric acid plants for end-use.

3.2 Emission Estimates for the Modified Facility

For design purposes, emission estimates were made for operating conditions that will occur during the first two years of operation of the solid sulfur storage area; that is, during the period of time that 375,000 tons of sulfur per year will be vatted and 300,000 tons of sulfur per year will be removed from the vats by mechanical reclamation.

Emission estimates were made for suspended particulate matter (particles less than 30 micrometers in aerodynamic diameter) based on criteria cited in Sections 3.2.1-8 of this Report. Total particulate matter (particles up to approximately 300 micrometers in aerodynamic diameter) were estimated as discussed in Section 3.2.9. Emission calculations are included in Appendix A of this Report.

The diameter of a typical 10,000 ton molten sulfur storage tank is approximately 85 feet, resulting in a surface area of 5,675 square feet. The sulfur particle emission rate from a 10,000 ton molten sulfur storage tank has been estimated (Supplemental Comments and Testimony, Volume 2, Occidental Chemical Agricultural Products, Inc., January 9, 1985) to be 0.4 pounds per hour for an average wind speed of 7 miles per hour and 1.0 pounds per hour for an 18 mile per hour wind speed; the maximum wind speed under which sulfur vatting is authorized. The sulfur particle emission rate from a single railcar will therefore be the ratio of 5.0/5675 times 0.4 pounds per hour or 0.0004 pounds per hour.

Total particle emissions from railcar vents were considered to be the same as suspended particle emissions since the particles are formed by condensation. Sulfur particles formed by condensation are all considered to be less than 30 micrometers in aerodynamic diameter.

Actual railcar unloading will require only 6 hours per day. However, sulfur particle emissions will be generated 18 hours per day because of the requirement for heating the sulfur prior to unloading. Railcar unloading will not take place during the time that sulfur is being reclaimed from the vats.

3.2.2 Vatting

During the first two years of operation, up to 375,000 tons of elemental sulfur will be placed into two sulfur vats. The emission limiting practices currently imposed by Permit No. AC24-61435 and additional conditions required by Section 17-2.600(11)(c), FAC, will be incorporated to minimize the generation of sulfur particles during vatting.

The sulfur particles generated during vatting are the result of the condensation of sulfur vapor. This emissions have been estimated based upon information previously provided to the Department by Occidental (Section V, Supplemental Requirements of Application for Construction Permit AC24-61435 as amended June 16, 1983 and received by the Department on June 16, 1983). The basis for the emission estimate is that there will be a pool of molten sulfur of approximately 10,000 square feet during vatting operations and that the average sulfur particle concentration in a layer of air 10.6 feet deep over the pool of molten sulfur is 1,200 micrograms per cubic meter. It is further estimated that this volume of air will be swept from over the pool of molten sulfur by an annual wind speed of 4.4 miles per hour at the pour surface. This speed represents the annual average wind speed (at 10 meters) reduced to a height above ground of 12 feet and then reduced by 20 percent to account for the

effectiveness of the block walls. For worst case 24-hour conditions, a wind speed of 17.3 miles per hour was calculated. This represents the surface wind speed (at 25 feet) resulting from the maximum wind speed (18 miles per hour) under which sulfur vatting can take place (Section 17-2.600(11)(c)(4), FAC).

Total particle emissions were estimated to be the same as suspended particle emissions since the particles were formed by condensation.

The time required to vat 1,500 tons of molten sulfur at the rate of 270 tons per hour will be 6 hours per day. This activity will not occur simultaneously with sulfur reclamation activities.

3.2.3 Mechanical Reclamation of Vatted Sulfur

Reclamation of the vatted sulfur will be by mechanical means as described in the original Construction Permit application for a sulfur storage facility submitted by Occidental and received by the Department on October 15, 1982 (See Exhibit "C", page 3 of Attachment 1 and Attachment 3) and supplemental information submitted by Occidental and received by the Department on November 22, 1982 (See Exhibit "D"). The reclamation of vatted sulfur will be by backhoe equipped with a water/surfactant spray system at the rate of 210 tons

per hour during one 8-hour shift per day. The total sulfur reclamation rate for any 12-month period of operation will not exceed 300,000 tons.

It is estimated that the mechanical reclamation equipment will remove 2.6 cubic yard batches of sulfur from the vat wall during each pass. It is further estimated that the average drop height of the reclaimed sulfur to the vat floor will be 5.0 feet. For the annual average period, it is estimated that the wind speed inside the vat walls, at the level where reclamation is taking place, will be 3.7 miles per hour. For the worst case 24-hour conditions, it is estimated that the wind speed will be 14.1 miles per hour inside the vat wall. A 20 percent reduction in emissions was estimated as the result of a further reduction in wind speed by the vat walls.

The silt content of the mechanically reclaimed sulfur is estimated to be 5.6 percent for the annual average period based upon samples of sulfur reclaimed from vatted storage at the Texas Gulf Sulfur Company vatting facility in Beaumont, Texas and the Canterra Energy Ltd. Ram River sulfur vat in Alberta, Canada. For the worst case 24-hour condition, the silt content was estimated to be 6.6 percent; the highest silt content of any reclaimed sulfur sample analyzed by Occidental (Technical Supplement to Comments and Testimony on Florida

Department of Environmental Regulation Draft Sulfur Rule Report, Volume IV, Occidental Chemical Agricultural Products, Inc., October 1984, Table 2).

For both the worst case and annual average conditions, the moisture content of the reclaimed sulfur was estimated to be 1.0 percent. The total particle emisssion rate was calculated to be 2.1 times the suspended particle emission rate pursuant to Section 17-2.215(4)(C), FAC.

3.2.4 Recovery of Reclaimed Sulfur .

The sulfur that is reclaimed from the vat walls will be recovered from the vat floor by front-end loader at the rate of 210 tons per hour during one 8-hour shift per day. The front-end loader will have a bucket capacity of eight cubic yards. The bucket will be filled to six cubic yards (75 percent of capacity) to minimize the potential for spillage.

For design purposes, it is estimated that the front-end loader will travel 200 feet round-trip to place the reclaimed sulfur in a short-term recovered sulfur storage pile. From this pile, the sulfur will be transferred to the static sulfur melter.

Sulfur particle emissions will result from the discharge of the reclaimed sulfur onto the short-term sulfur storage pile. For design purposes, it is estimated that the annual average silt content of the reclaimed sulfur is 5.6 percent and for worst case 24-hour conditions, 6.6 percent. In both cases, the moisture content of the sulfur is estimated to be 1.3 percent and the sulfur drop height is estimated to be 4.0 feet. The increase in sulfur moisture content from 1.0 to 1.3 percent was estimated as a result of the continuous spray from the sulfur reclaimer against the vat wall above the accumulated pile of reclaimed sulfur.

The annual average wind speed within the block walls at a height at which the reclaimed sulfur will be discharged onto the short-term recovered sulfur pile is estimated to be 3.7 miles per hour for the annual average period and 14.1 miles per hour for the worst-case 24-hour condition. Emissions were reduced 20 percent as the result of a further reduction in wind speed by the vat walls.

Total particle emissions were calculated to be 2.1 times the suspended particle emission rate.

3.2.5 Recovered Sulfur to Melter

The sulfur in the short-term recovered sulfur storage pile will be transferred by front-end loader at the rate of 70 tons per hour to a static sulfur melter. The front-end loader transferring the sulfur will have a bucket capacity of eight cubic yards. The bucket will be filled to six cubic yards (75 percent capacity) to minimize the potential for spillage. The front-end loader will operate continually throughout the 24-hour day and will travel an average of 200 feet round-trip from the short-term recovered sulfur storage pile to the static sulfur melter. For worst-case conditions, it is assumed that the round-trip distance will be 700 feet.

The sulfur particle emissions will result from the discharge of the recovered sulfur from the front-end loader into the hopper of the static sulfur melter; a 4 foot drop. To minimize sulfur particle emissions, the hopper on the static melter will have wind-walls on three sides and the top. For design purposes, it is estimated that the wind walls will reduce the wind speed in the hopper at the sulfur drop point to 2.0 miles per hour.

The silt content of the recovered sulfur was estimated to be 5.6 percent for the annual average period and 6.6 percent for the worst-case 24-hour condition. The moisture content of the sulfur in

all cases was estimated to be 1.3 percent. Total particle emissions were calculated to be 2.1 times the suspended particle emission rate.

3.2.6 Vehicle Traffic

For design purposes, it has been estimated that the front-end loader transferring the reclaimed sulfur to the short-term sulfur storage pile will make 311 round trips of 200 feet each during the 8-hour shift when sulfur reclamation is underway. This travel distance was increased by 10 percent to account for other traffic in the storage area and was estimated to occur both under both average and worst-case conditions. The total average travel distance will be 13.0 miles per day; all occurring during an 8-hour period. The total annual travel distance for this front-end loader, based on transferring 300,000 tons of reclaimed sulfur to the short-term recovered sulfur storage pile will be 2,320 miles per year.

The front-end loader transferring the recovered sulfur from the short-term recovered sulfur storage pile to the static melter will make 311 trips per 24-hour day of 200 feet each under average conditions. Under worst-case conditions the travel distance will be 650 feet round trip. Both of these distances were increased by 10 percent to account for other traffic in the storage area. The average daily travel distance for this front-end loader will be 13.0 miles and

the annual average travel distance will be 2,320 miles. The worst-case travel distance will be 42.5 miles per 24-hour day.

The fugitive particulate matter generated by traffic was estimated using the fugitive particulate matter emission factor equation referenced in Section 17-2.215(4)(a), FAC. The annual average silt content of the area over which the front-end loader travels is estimated to be 10.3 percent based on samples collected in vat areas traveled by heavy equipment at the Texas Gulf Sulfur Company vatting facility in Beaumont, Texas and the Canterra Energy Ltd. sulfur vat in Alberta, Canada (Technical Supplement to Comments and Testimony on Florida Department of Environmental Regulation Draft Sulfur Rule Report, Volume IV, Occidental Chemical Agricultural Products, Inc., October, 1984, Table 2). The maximum 24-hour silt content of the sulfur is estimated to be 11.9 percent.

During periods of sulfur reclamation and recovery, the areas in which vehicle traffic occurs will be wetted twice daily with a water/surfactant mixture to reduce fugitive particulate matter emissions generated by vehicle travel. Based upon measurements conducted by Midwest Research Institute under actual field conditions and reported to the Department (Estimation of Nonprocess Fugitive Dust Emissions, A seminar presented to the Florida Department of

Environmental Regulation by Midwest Research Institute, April 5, 1984), it is estimated that the water/surfactant spray will be 66 percent effective for reducing traffic-generated fugitive particulate matter emissions.

The vehicle speed used for estimating fugitive particulate matter emissions was 8 miles per hour. The empty loader weight was estimated at 16.0 tons and the weight of the front-end loader when full was estimated to be 21.5 tons; an average vehicle weight of 18.7 tons was used for emission calculations. Emissions were calculated for front-end loaders having four rubber tired wheels and the number of days per year with at least 0.01 inches of precipitation was determined to be 115 (Compilation of Air Pollutant Emission Factors (AP-42), 3rd edition, Section 11.2). Total particle emissions were calculated to be 2.1 times the suspended particle emission rate.

3.2.7 Static Sulfur Melter

The sulfur reclaimed from the two sulfur vats will be melted in a static sulfur melter at a maximum rate of 70 tons per hour. Sulfur melting will occur approximately 4300 hours per year; the time required to melt the 300,000 tons of elemental sulfur permitted to be reclaimed from the vats. On a daily basis, melting will occur a maximum of 24 hours.

During the time sulfur melting is occurring, sulfur particles will be emitted as a result of the condensation of sulfur vapor over the melter pan. It is estimated that the area of molten sulfur exposed to the atmosphere in the melter pan is 200 square feet (a 10 foot by 20 foot melter pan). It is further estimated that the sulfur particle emission rate from the melter pan will be proportional to emissions from a molten sulfur storage tank; based on the ratio of the surface of molten sulfur.

From Section 3.2.1 of this report, an annual average sulfur particle emission rate of 0.4 pounds per hour has been esablished for a 10,000 ton molten sulfur storage tank with a diameter of 85 feet; or a surface area of 5675 square feet. Based upon the ratio of surface areas, the average sulfur particle emission rate from the melter pan will therefore be the ratio of 200/5675 times 0.4 pounds per hour or 0.01 pounds per hour. Based upon a sulfur melting rate of 70 tons per hour, this emission rate is equivalent to 0.0002 pounds per ton of sulfur melted. The same emission rate was estimated for the worst-case conditions since the melter pan is shielded from the effects of winds. Also, total particle emissions were estimated to be the same as the suspended particle emission rate since the particles are formed by condensation.

3.2.8 Wind Erosion

The area of the sulfur vat where sulfur reclamation is occurring will have reclamation activity approximately 4,300 hours per year. This is the time required to reclaim 300,000 tons of elemental sulfur at a reclamation rate of 70 tons per hour. The remainder of the year, clean-up activity will occur, sulfur pouring will be taking place or the area will be inactive. For design purposes, it has been estimated that the area will be subject to wind erosion 6,400 hours per year; or 73 percent of the time.

The silt content of the sulfur exposed to wind erosion is estimated to be 5.2 percent; one-half the annual average silt content in areas traveled by front-end loaders and other heavy equipment. For worst-case 24-hour conditions, a silt content of 6.0 percent was estimated. In both cases the silt content of the surface area exposed to wind erosion was estimated to be one-half the average or maximum silt content of sulfur in areas heavily traveled by rubber tired vehicles. The reduction takes into account the depletion of silt in the surface layer as a result of continuing wind erosion.

The surface area over which this sulfur was assumed to be distributed for worst-case conditions was estimated to be 2.6 acres; the interior area of the two sulfur vats. For annual average conditions the exposed area was estimated to be 1.3 acres. Precipitation in an amount of 0.01 inches per day or more was determined to be expected 115 days per year. No precipitation was assumed for worst-case conditions.

The annual fraction of time that the wind speed is expected to exceed 12 miles per hour within the vat walls was estimated to be two percent of the time based on an analysis of 1984 meteorological data from Jacksonville, Florida and a 20 percent wind speed reduction resulting from the vat walls (See Exhibit "E" and Appendix A). For worst case 24-hour conditions, the wind was estimated to exceed 12 miles per hour 15 percent of the time (4 hours per day) within the vat walls.

3.2.9 Total Particulate Matter Estimates for All Sources

The particulate matter emission rates discussed for the various sources associated with sulfur vatting activities in the eight preceeding sections have been suspended particulate matter. These are particles defined by the United States Environmental Protection Agency (EPA) to be less than 30 micrometers aerodynamic in diameter. The emission rates of these particles is required for the preconstruction

ambient air quality analysis for a sulfur storage and handling facility required by Section 17-2.540(2)(a), FAC.

In addition to the preconstruction ambient air quality analysis, Section 17-2.540(2)(b), FAC requires a preconstruction deposition analysis. The deposition analysis requires an estimate of the total particle emission rate from sulfur handling activities. The emission rate of total particles is related to the emission rate of suspended particles in Section 17-2.215(4)(c)1.a, FAC. In this section, it is stated that the total particle emission rate is to be determined by multiplying the suspended particle emission rate by a factor of 2.1. This factor was applied, when applicable, to the emission rates of suspended particles calculated in the eight preceeding sections to obtain total particle emission rates. For particles formed by the condensation of sulfur vapor, the suspended and total particle emision rates were estimated to be the same.

The annual total particle emission rates were used for the annual preconstruction sulfur deposition analysis and the monthly total particle emission rates were used to calculate average monthly sulfur deposition rate; both as required by Section 17-2.540(2)(b), FAC.

3.2.10 Summary of Emissions

Suspended and total particle emissions calculated as described in the preceeding sections of this report are summarized in Table 3-1. In this table the maximum suspended particle emission rates for all activities expected to occur during a 24-hour period are stated along with the annual average suspended particle emission rates. The total particle emission rates are stated for both the annual period and monthly period for each activity.

In addition to the maximum hourly and annual suspended particle emission rates, suspended particle emission rates expected to result in the worst-case ambient air quality impact are also stated. These emission rates were calculated using a wind speed, determined by preliminary air quality modeling, to result in the worst-case 24-hour suspended particle impacts. The preliminary modeling indicated that the greatest 24-hour suspended particle impacts occured with wind speeds in the range of two to seven miles per hour. The "worst-case" impact emissions were calculated using a 5.5 mile per hour wind speed.

A point of clarification should be made regarding annual suspended particulate matter emissions permitted under Permit No. AC24-61435 and the annual suspended particulate matter emissions expected from the modified sulfur storage facility as summarized in Table 3-1. Permit

No. AC24-61435 allows a maximum suspended particulate matter emission rate of 5.0 tons per year. The suspended particulate matter emission expected from the modified facility are 4.6 per tons per year. The apparent reduction in suspended particulate matter emissions is more the result of refinements in suspended particulate matter emission estimating procedures over those used in the application for Permit No. AC24-61435 than the result of an actual decrease in emissions resulting from the proposed modification.

TABLE 3-1

SUMMARY OF SUSPENDED AND TOTAL PARTICLE EMISSIONS
FROM SULFUR STORAGE AREA

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

	Suspended Particle Emissions (1)					Total Particle Emissions(2)	
	24-Hour Period			Annual Period			
Source	Maximum Emissions at 18 mph wind(3) (lb/hr)	Highest Impact Emissions at 5.5 mph wind(4) (lb/hr)	Hours of Activity (hrs/day)	Emission (tpy)	Hours of Activity (hrs/yr)	Monthly (tons/mo) (5)	Annual (tons/yr) (6)
Railcar Unloading	0.01	0.01	18	0.012	4500	0.001	0.012
Sulfur Vatting	7.25	2.20	6	1.275	1389	0.166	1.275
Mechanical Reclamation	5.21	1.51	8	0.720	1429	0.254	1.512
Recovery of Reclaimed Sulfur	1.51	0.50	8	0.240	1429	0.086	0.504
Sulfur to Melter	0.09	0.09	24	0.165	4286	0.058	0.346
Traffic 1(7)	2.40	2.40	8	1.024	1429	0.360	2.150
Traffic 2(8)	2.62	2.62	24	1.024	4286	0.360	2.150
Melter	0.01	0.01	24	0.030	4286	0.005	0.030
Wind Erosion	6.86	6.10	3-4	0.145	128	0.035	0.304
Total				4.635			8.283

(1) Suspended particles are those less than 30 micrometers in aerodynamic diameter.
(2) Total particles include particles up to 300 micrometers in aerodynamic diameter.
(3) Maximum hourly emission rate with undisturbed wind speed of 18 mph.
(4) Maximum hourly emission rate with a wind speed of 5.5 mph; the wind speed that normally results in the highest 24-hour particulate matter impact on air quality.
(5) Monthly total particle emission rate assuming activity 30 days per month.
(6) Annual total particle emission rate based on annual hours of activity.
(7) Traffic from reclaimed sulfur recovery.
(8) Traffic from delivery of recovered sulfur to the melter.

4.0 AIR QUALITY REVIEW

4.1 Rule Applicability

The vatted sulfur storage facility that is proposed for modification is located at the Occidental Swift Creek Chemical Complex (SCCC). The area is designated as an attainment area for all criteria pollutants. The SCCC is a major emitting facility for Prevention of Significant Air Quality Deterioration (PSD) air pollution source permitting purposes. That is, the facility emits more than 100 tons per year of one or more criteria air pollutants. The modified sulfur storage facility will have hydrogen sulfide emissions of 7.5 tons per year and suspended particulate matter emissions of 4.6 tons per year.

Hydrogen sulfide and the factors influencing hydrogen sulfide emissions were addressed in the original application for Permit No. AC24-16435 and supplements thereto. Since the emission rate of hydrogen sulfide and the factors influencing this emission rate will not be effected by the proposed modification and since the increase in hydrogen sulfide emissions will be less than the de minimis emission rate increase of 10 tons per year defined in Section 17-2.500(2)(e)2, FAC, there are no further regulatory requirements associated with this pollutant.

The suspended particulate matter emissions from the sulfur storage facility of 4.6 tons per year is also less than the particulate matter de minimis emission rate of 25 tons per year defined in Section 17-2.500(2)(e)2, FAC. Since the increase in particulate matter emissions does not exceed the de minimis emission rate increase for this pollutant, an air quality review and the other requirements of air pollution source permitting under PSD regulations are not applicable.

An air quality review for the sulfur storage facility is required however, under Section 17-2.540(2), FAC. This Section requires both an ambient air quality impact analysis to evaluate the impact of suspended particles emitted from the facility and an evaluation of the deposition rate of total particles. The purpose of this section of the Report is to describe the air quality impact and sulfur deposition analyses.

4.2 Overview of Air Quality Review

The purpose of the air quality review required by Section 17-2.540(2), FAC is to demonstrate compliance with the Florida Ambient Air Quality Standards (AAQS) for total suspended particulate matter and to evaluate the impact of monthly and annual sulfur deposition rates. The air quality review was conducted using the Industrial Source

Complex (ISC) Air Quality Model approved by the U.S. Environmental Protection Agency (EPA) and the Department.

The input to the ISC includes the emission rates and source information developed in Section 3.0 of this Report. The source data actually input to the model are summarized in Table 4-1. The surface meteorological data used with the model were collected during the five year period 1972 - 1976 by the National Weather Service (NWS) in Valdosta, Georgia. Upper air data for the period 1972 - 1976 are from Waycross, Georgia. The receptors, or locations for which the ISC calculates an air quality impact or deposition rate, were located around the sulfur storage facility at 10 degree intervals. The radial distances from the storage area to the receptors ranged from 0.5 to 2.0 kilometers. Receptors at the radial distance of 0.7 kilometers represent the Occidental property line nearest the sulfur storage area; an uninhabited, undeveloped 40 acre tract of land to the northwest of the storage area. The receptors located at 2.0 kilometers from the storage area represent the location of U.S. Highway 41; the nearest point of normal public access to the sulfur storage facility.

4.3 Ambient Air Quality Standards and Existing Air Quality

The Florida AAQS for suspended particulate matter, as defined in Section 17-2.300(3)(b), FAC are:

1. Annual - 60 micrograms per cubic meter, geometric mean; and

2. 24-hour - 150 micrograms per cubic meter, not to be exceeded more than once per year.

The significant impact levels for suspended particulate matter are defined in Section 17-2.210(168)(b), FAC. These impact levels are:

1. Annual - 1 microgram per cubic meter, arithmetic mean; and

2. 24-hour - 5 micrograms per cubic meter, not to be exceeded more than once per year (in attainment and unclassified areas of the state).

Florida has no sulfur deposition standards against which to compare the deposition rates required by Section 17-2.540(2)(b), FAC.

The existing total suspended particulate matter (TSP) levels in the ambient air near SCCC were established from monitoring data.

Occidental has monitored TSP levels in the ambient air around SCCC since 1979. During the six year period for which data were reviewed (1979 - 1984), the annual geometric mean TSP levels ranged from 23 to 45 micrograms per cubic meter and annual second-high 24-hour TSP levels ranged from 80 to 100 micrograms per cubic meter. For purposes of this air quality review, the annual geometric mean TSP level at the SCCC was established as 33 micrograms per cubic meter and the second highest 24-hour TSP expected to occur during a one year period was established as 90 micrograms per cubic meter.

4.4 Model Description

The ISC model was developed for EPA and is an EPA and Department approved model for calculating the concentration of an air pollutant in the ambient air and the deposition rate of a pollutant. For calculating concentrations due to point, volume and area source emissions, the model uses the steady-state Gaussian plume equation for a continuous source. Vertical and/or horizontal dimensions are assigned to each area source and volume source to simulate the initial dispersion of pollutants emitted from the source. For evaluating the dispersion of particulate matter, the ISC considers the gravitational effects of settling on the particles. For the area and volume sources associated with the modified sulfur storage facility, the ISC assumes no plume rise; the assumption being that either there is no vertical

inertia imparted to the particles or that if vertical inertia is imparted, it is immediately dissipated within the down-wind wake generated by the sources.

The ISC consists of two sets of computer codes; one used to calculate short-term air quality impacts and deposition rates and the other used to calculate long-term air quality impacts and deposition rates. The short-term version is referred to as the ISC-ST and the long-term version is referred to as the ISC-LT.

The ISC-ST model requires as input hourly meteorological parameters and source operating parameters. From these input data, the ISC-ST calculates hourly air quality impacts or deposition rates. These hourly values are then averaged over user defined averaging periods to obtain air quality impacts or deposition rates representative of longer periods of time; for example, 3-hour or 24-hour periods. The ISC-LT model utilizes joint frequency distributions of wind direction, wind speed and atmospheric stability to calculate air quality impacts or deposition rates for monthly, seasonal and/or annual periods.

Both versions of the ISC air quality model require user defined receptors. These are locations for which the model calculates air quality impacts or deposition rates. The receptors can be defined

either by a Cartesian or polar coordinate system. This coordinate system also defines the location of the air pollutant sources being evaluated by the model.

4.5 Model Input Data

4.5.1 Source Data

The modified sulfur storage facility is described in detail in Section 3.0 of this Report. The activities that occur within the facility are also described and factors influencing suspended and total particle emissions are delineated. The emission rates summarized in Table 3-1 include suspended particulate matter emissions for the 24-hour period and annual period and total particle emissions for the monthly and annual periods. The suspended and total particle emissions for the annual period represent emissions that will occur during the annual period under average conditions. The monthly total particle emissions are based on the same average operating and environmental conditions used to calculate annual emissions except that activities in the sulfur storage area are considered to occur 30 days per month.

For the 24-hour period, suspended particle emissions have been calculated under two sets of conditions. The first set of conditions represents the combination of operating activities, sulfur characteristics and climatological factors (including wind speed) that

will result in the maximum expected suspended particle emission rate over a 24-hour period. The emission rates from many of the activities in the storage area are directly proportional to wind speed and were calculated on the basis of a wind speed that corresponded to an unrestricted wind speed at 10 meters of 18 miles per hour. This wind speed is the maximum wind speed under which activities in a vatted sulfur storage facility are authorized (Section 17-2.600(11)(c), FAC).

A review of preliminary air quality modeling conducted to evaluate the impact of emissions from the sulfur storage facility indicated that the maximum 24-hour impacts almost always occurred with wind speeds of 1-3 meters per second (2-7 miles per hour). As a result of this preliminary modeling, a suspended particle emission rate was also calculated for each activity for a wind speed of 5.5 miles per hour. The 5.5 mile per hour wind speed emission rates are also summarized in Table 3-1 and are the 24-hour suspended particle emission rates summarized in Table 4-1 as input to the ISC Air Quality Model for determining maximum 24-hour suspended particle impacts resulting from the modified sulfur storage facility.

The particles generated as a result of the activities that will occur in the modified sulfur storage facility are described as unconfined emissions; that is, they are emitted into the atmosphere without being

captured and discharged through a well defined duct or stack. For modeling purposes, the particles can be represented as being an area source or a volume source. Emissions resulting from railcar unloading and sulfur vatting (under worst-case conditions) can best be represented as area sources. Emissions from all activities occurring within the vat walls, including emissions from wind erosion and vehicle traffic, are best represented as a volume source with cross-wind dimensions representative of a single sulfur vat; that is, 250 feet wide and 25 feet high. Emissions associated with the static sulfur melter are represented as volume sources with cross-wind dimensions corresponding to the physical dimensions of the melter.

All source characteristics, including the daily operating hours of each activity, are summarized in Table 4-1. The duration of activities range from six hours per day for sulfur vatting to 24 hours per day for sulfur recovery and melting. Further, it should be recognized that none of the activities associated with sulfur reclamation and sulfur recovery will occur during rail car unloading and sulfur vatting. If molten sulfur is available for sulfur vatting, it will also be available for use in the sulfuric acid plants; making sulfur reclamation unnecessary.

4.5.2 Meteorological Data

The surface meteorological data input to the ISC model were collected in Valdosta, Georgia by the NWS during the period 1972-1976. Upper air data for the same time period were collected by the NWS in Waycross, Georgia. For the ISC-ST model, the meteorological data consists of hourly records of wind speed, wind direction, ambient temperature, atmospheric stability and mixing height. For the ISC-LT model, the meteorological data are summarized into joint frequency distributions of wind speed, wind direction and atmospheric stability. Joint frequency distributions were prepared for monthly periods for calculating monthly deposition rates and for the annual period for calculating annual suspended particulate matter concentrations and annual deposition rates.

4.5.3 Receptor Data

The receptors used in both the ISC-ST and ISC-LT models are defined by polar coordinates. The coordinate system is centered near the southwest corner of the modified sulfur storage facility. The receptors are spaced at 10 degree intervals around the facility and at radial distances of 0.5, 0.7 and 2.0 kilometers from the origin. The receptors 0.7 kilometers from the modified sulfur storage facility represent the Occidental property line nearest the facility. The land beyond this property line is a 40-acre tract which is undeveloped and

uninhabited. This property is shown in Figure 4-1. The receptors located 2.0 kilometers from the facility represent U.S. Highway 41. This is normally the nearest access that the general public has to the SCCC and the modified sulfur storage facility.

4.5.4 Particle Settling Velocities

The short-term and long-term versions of the ISC consider the settling rate of particles when calculating air quality impacts and deposition rates. Both models account for the settling rates and the reflection coefficients of particles in up to 20 size ranges. The reflection coefficient is defined as the fraction of particles that is reflected from the ground surface and remains airborne after contacting the ground surface. Normally, the smaller the particle, the greater the reflection coefficient. For particles nominally larger than 70 microns in aerodynamic diameter, the reflection coefficient approaches zero; that is, once these particles contact the ground surface they are permanently removed from the atmosphere.

Particles emitted from activities associated with modified sulfur storage facility are of two origins. First, there are the particles resulting from the condensation of sulfur vapor that are associated with rail car unloading, sulfur vatting and sulfur melting. These particles are nominally less than 30 micrometers in aerodynamic

diameter; that is, all are suspended particulate matter. The other particles are generated by physical activities such as sulfur reclamation and vehicle traffic. These particles range in size up to approximately 300 micrometers in aerodynamic diameter, with approximately 50 percent being less than 30 micrometers in aerodynamic diameter. The size distribution of these particles is defined in Section 17-2.215(4)(c), FAC.

The particles formed by the condensation of sulfur vapor are divided into five size fractions; each fraction representing 20 percent of the total mass fraction. Mass mean diameters were calculated for each size fraction pursuant to Section 17-2.215(4)(c)4, FAC. Settling velocities were calculated using Stoke's equation and reflection coefficients were assigned as suggested in the User's Manual for the ISC air quality model.

The particles generated by mechanical means were subdivided into 10 size fractions; each size fraction representing 10 percent of the mass fraction. Mass mean diameters, settling velocities and reflection coefficients were determined for each size fraction as described in the preceding paragraph. The settling rate parameters for both types of particles are summarized in Table 4-2.

TABLE 4-1

SOURCES IN SULFUR STORAGE AREA USED FOR THE AIR QUALITY IMPACT AND SULFUR DEPOSITION ANALYSES

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

Source	Source Type	Daily Operating Hours	Source Dimensions (ft)	Release Height (ft)	Release Height (m)	σ_{yo} (m)	σ_{zo} (m)	Width (m)	Location X (m)	Location Y (m)	Particle Emissions Suspended (g/sec or g/s/m^2) 24-Hour	Particle Emissions Suspended (g/sec or g/s/m^2) Annual	Particle Emissions Total (gr or gr/m^2) Monthly	Particle Emissions Total (gr or gr/m^2) Annual
Railcar Unloading(1)	Area	18	105 x 105	16	5.0	---	---	32.0	25	0	1.23E-06	3.37E-07	1.24E00	1.06E01
Sulfur Vatting(1)	Area	6	100 x 100	20	6.0	---	---	30.5	25	82	2.98E-04	3.94E-05	1.61E02	1.24E03
Reclamation	Volume	8	H - 25 W - 250	12	3.8	17.7	3.5	----	35	120	0.190	0.021	2.30E05	1.37E06
Sulfur Recovery	Volume	8	H - 25 W - 250	12	3.8	17.7	3.5	----	35	120	0.063	0.007	0.78E05	0.46E06
Sulfur to Melter	Volume	24	H - 10 W - 10	20	6.0	1.4	1.4	----	52	63	0.011	0.005	0.52E05	3.14E05
Traffic - Reclaim	Volume	8	H - 25 W - 250	12	3.8	17.7	3.5	----	35	120	0.302	0.029	3.26E05	1.95E06
Traffic to Melter	Volume	24	H - 25 W - 250	12	3.8	17.7	3.5	----	35	120	0.330	0.029	3.26E05	1.95E06
Melter	Volume	24	H - 25 W - 15	13	4.0	1.1	3.6	----	52	63	0.001	0.001	4.54E03	2.72E04
Wind Erosion 1	Volume	3-4	H - 25 W - 250	12	3.7	17.7	3.5	----	35	120	0.384	0.004	3.18E04	2.76E05
Wind Erosion 2	Volume	3-4	H - 25	12	3.8	17.7	3.5	----	115	120	0.384	0.0	3.18E04	0.0

(1) Source not active when other sources are active and other sources are not active when this source is active.

TABLE 4-2

PARTICLE SETTLING CHARACTERISTICS

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

Class	Mass Fraction Range (%)	Size Range (umA)	Mass Mean Diameter (umA)	Settling Velocity (m/s)	Reflection Coefficient
Particles from Condensation					
1	0-20	0.5-4.0	2.6	0.0004	1.00
2	20-40	4.0-8.5	6.5	0.0025	0.90
3	40-60	8.5-15	12.0	0.0086	0.78
4	60-80	15-21	18.2	0.0197	0.72
5	80-100	21-30	26.3	0.0412	0.65
Particles from Mechanical Activities					
1	0-10	0.5-4.0	2.6	0.0004	1.00
2	10-20	4.0-8.5	6.5	0.0025	0.90
3	20-30	8.5-15	12.0	0.0086	0.78
4	30-40	15-21	18.2	0.0197	0.72
5	40-50	21-30	26.3	0.0412	0.65
6	50-60	30-45	38.4	0.0877	0.53
7	60-70	45-62	53.9	0.1729	0.34
8	70-80	62-90	76.9	0.3519	0.00
9	80-90	90-125	108	0.0940	0.00
10	90-100	125-300	224	2.9856	0.00

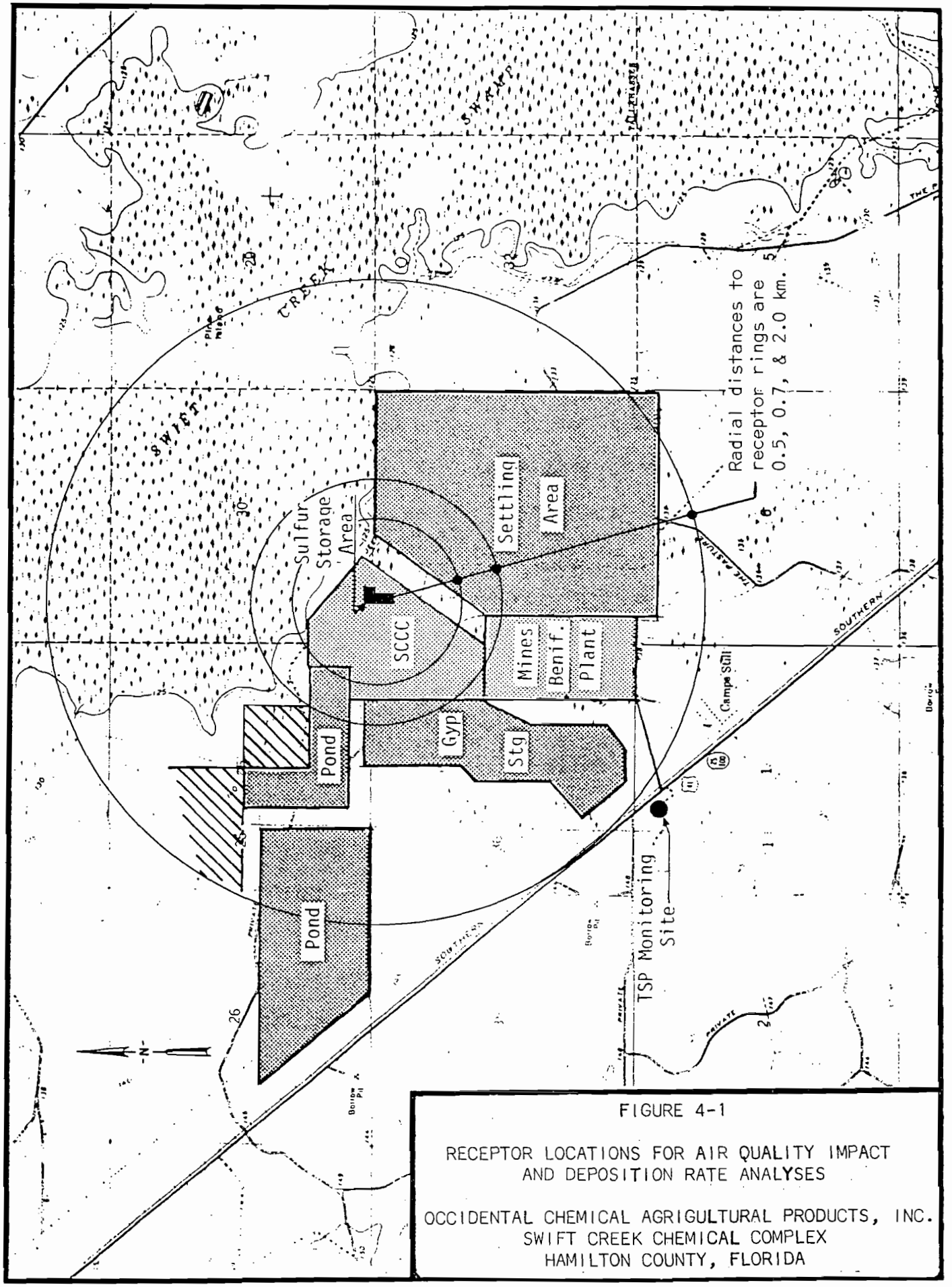

FIGURE 4-1

RECEPTOR LOCATIONS FOR AIR QUALITY IMPACT AND DEPOSITION RATE ANALYSES

OCCIDENTAL CHEMICAL AGRIGULTURAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

5.0 AIR QUALITY REVIEW

The impact of particles emitted from the modified sulfur storage facility on ambient air quality and the deposition rates of these particles were calculated in accordance with modeling guidelines acceptable to the Department. The source data, particle settling characteristics, meteorological data and receptors described in preceding Sections of this Report, were input into the ISC-ST and ISC-LT air quality models. The ISC-ST model was used to calculate the maximum expected 24-hour TSP concentrations resulting from activities at the modified sulfur storage facility. The ISC-LT model was used to calculate annual TSP concentrations and deposition rates for monthly and annual periods resulting from particles emitted from the modified sulfur storage facility.

The TSP levels calculated by the ISC models for the annual and 24-hour periods were combined with existing TSP levels to determine the total expected TSP levels once the modified sulfur storage facility is active. These levels were then compared with the Florida 24-hour and annual AAQS for TSP. Since there are no other sources of elemental sulfur in the area, the sulfur deposition rates calculated by the ISC-LT model will represent the total sulfur deposition rate expected at the site.

5.1 24-Hour TSP Impact Analysis

TSP levels were calculated for consecutive, non-overlapping 24-hour periods for the five annual periods 1970-1976 with the ISC-ST air quality model. The 24-hour TSP levels were calculated at receptor rings 0.5, 0.7 and 2.0 kilometers from the modified sulfur storage facility. The TSP impacts at receptors 0.7 kilometers from the sulfur storage facility, and in the direction range 290 degrees through 330 degrees 230° (from north) represent the impacts of suspended particles at the Occidental property line nearest the facility. The TSP impacts calculated for receptors 2.0 kilometers from the facility and in the direction range 220 degrees through 240 degrees represent the impacts of suspended particulate matter emissions at US Highway 41; the nearest point of normal public access to the SCCC and the sulfur storage facility.

The 24-hour TSP impacts at the nearest Occidental property line and US Highway 41 are summarized in Table 5-1 for each of the five annual periods for which the concentrations were calculated. These data show that the maximum 24-hour TSP impact at the Occidental property line nearest to the sulfur storage facility will be 13.7 micrograms per cubic meter and that the maximum 24-hour TSP impact at US Highway 41 (the point at which the general public normally has access) will be 2.6 micrograms per cubic meter.

The calculated 24-hour impacts resulting from suspended particle emissions from the sulfur storage facility were combined with existing TSP levels in the ambient air to determine the maximum expected total TSP levels that can be expected once the sulfur storage facility becomes active. These data are also summarized in Table 5-1 and show that the maximum expected 24-hour TSP level at the property line nearest the sulfur storage facility will be 104 micrograms per cubic meter. The maximum expected 24-hour TSP concentration at a point where the general public normally has access will be 93 micrograms per cubic meter. These impacts compare with the Florida 24-hour TSP AAQS of 150 micrograms per cubic meter, not to be exceeded more than once per year.

5.2 Annual TSP Impact Analysis

The annual average TSP levels were calculated with the ISC-LT air quality model at the same receptors used for the 24-hour TSP impact analysis. The results of this modeling indicate that the maximum annual TSP impact resulting from emissions from the sulfur storage facility will be 0.3 micrograms per cubic meter at the Occidental property line nearest the sulfur storage facility and 0.06 micrograms per cubic meter at US Highway 41. Both of these impacts are less than the annual significant impact level for TSP of 1.0 micrograms per

cubic meter (17-2.100(168, FAC) and neither of the impacts will significantly alter the annual TSP level of 33 micrograms per cubic meter presently observed in the vicinity of the SCCC. The results of the annual TSP impact analysis are also summarized in Table 5-1.

5.3 Monthly and Annual Sulfur Deposition Analyses

Sulfur deposition rates were calculated for the 12 monthly periods January through December with the ISC-LT air quality model. To obtain the total annual deposition rate, the deposition rates for the 12 monthly periods were totalled.

Sulfur deposition rates were calculated at the same receptors as were used for the TSP impact analyses. The receptors in the direction range 290 degrees through 330 degrees (from north) and a distance of 0.7 kilometers from the sulfur storage facility represent the Occidental property line nearest the sulfur storage facility. The monthly sulfur deposition rates at these receptors ranged from 0.0018 to 0.0055 grams per square meter per month (0.040 to 0.121 pounds per hectare per month). The annual sulfur deposition rate at these receptors averaged 0.0413 grams per square meter per year or 0.910 pounds per hectare per year.

Sulfur deposition rates at US Highway 41 (2.0 kilometers from the sulfur storage facility) ranged from 0.00019 to 0.00076 grams per square meter per month (0.004 to 0.017 pounds per hectare per month). The annual sulfur deposition rate at US Highway 41 averaged 0.0043 grams per square meter per year or 0.095 pounds per hectare per year.

Florida has no sulfur deposition standards against which to compare these sulfur deposition rates. As a point of comparison, however, information previously submitted to the Department (Sulfur Dust and the Environment, prepared by G.M. Volk for the Agrico Chemical Company and submitted to the Florida Department of Environmental Regulation, undated) indicates that a sulfur application rate of 187 pounds per hectare per year is a "reasonable maximum" tolerance limit for Florida vegetation and soils.

TABLE 5-1

ANNUAL AND 24-HOUR TOTAL SUSPENDED PARTICULATE MATTER
IMPACTS FROM THE MODIFIED SULFUR STORAGE FACILITY

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

	TSP Levels ($\mu g/m^3$)					
Year	Impact @ 0.7km	Total TSP 0.7km (1)	Impact @ 2.0km	Total TSP 2.0km (1)	Significant Impact	AAQS
24-Hour						
1972	11.9	102	2.5	93	5.0	150(2)
1973	13.7	104	2.5	93	5.0	150
1974	13.4	103	2.6	93	5.0	150
1975	12.3	102	2.4	92	5.0	150
1976	13.7	104	3.0	93	5.0	150
Annual	0.34	33	0.06	33	1.0	60(3)

(1) Maximum 24-hour TSP levels include 90 micrograms per cubic meter background and Annual TSP level incudes 33 micrograms per cubic meter background.

(2) Maximum impact not to be exceeded more than once per year.

(3) Geometric mean.

TABLE 5-2

ANNUAL AND MONTHLY SULFUR DEPOSITION RATES
FROM THE MODIFIED SULFUR STORAGE FACILITY

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

	Sulfur Deposition Rate			
	@ 0.7 km		@ 2.0 km	
Month	(g/m^2/mo)	(lb/ hectare/mo)	(g/m^2/mo)	(lb/ hectare/mo)
Jan	0.0018	0.040	0.00039	0.009
Feb	0.0023	0.051	0.00032	0.007
Mar	0.0039	0.086	0.00026	0.006
Apr	0.0043	0.095	0.00027	0.006
May	0.0055	0.121	0.00019	0.004
Jun	0.0041	0.090	0.00026	0.006
Jul	0.0038	0.084	0.00020	0.004
Aug	0.0037	0.082	0.00044	0.010
Sep	0.0046	0.101	0.00051	0.011
Oct	0.0021	0.046	0.00076	0.017
Nov	0.0021	0.046	0.00038	0.008
Dec	0.0031	0.068	0.00031	0.007
Annual	0.0413(1)	0.910(2)	0.0043(1)	0.095(2)

(1) $g/m^2/yr.$
(2) lb/hectare/yr.

EXHIBIT "A"

PERMIT AC24-61435 FOR
VATTED SULFUR STORAGE FACILITY WITH
IN SITU SULFUR RECLAMATION

SHOLTES & KOOGLER

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
Occidental Chemical Co.
P. O. Box 300
White Springs, FL 32096

Permit Number: AC 24-61435
Expiration Date: August 31, 1985
County: Hamilton
Latitude/Longitude: 30° 27' 09"N/ 83° 51' 36"W
Project: Two 75,000 ton elemental sulfur vats and 2 steam heated sulfur melters

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the construction of two 75,000 ton elemental sulfur vats and two steam heated in-situ sulfur melters to be located at the Swift Creek Chemical Complex off U.S. 41 in Hamilton County northeast of White Springs, Florida. The Universal Transverse Mercator (UTM) coordinates of the proposed source are Zone 17, 321.4 km East, 3070.15 km North.

Construction shall be in accordance with the attached permit application and plans, documents and drawing except as otherwise noted on pages 5-9, "Specific Conditions".

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Response to Incompleteness Letter received Nov. 22, 1982.
3. Additional Information received Feb. 4, 1983.
4. Additional Information received March 24, 1983.
5. Additional Information received April 20, 1983.
6. Additional Information received April 29, 1983.
7. Amendment to Application to employ in-situ melter received June 17, 1983.
8. Additional Information received July 5, 1983.
9. Dr. John B. Koogler's letter of August 17, 1983

PERMITTEE:
Occidental Chemical Co.
P. O. Box 300
White Springs, FL 32096

I. D. Number:
Permit Number: AC 24-61435
Expiration Date: August 31, 1985

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, unless specifically authorized by an order from the department.

PERMITTEE:
Occidental Chemical Co.
P. O. Box 300
White Springs, FL 32096

I. D. Number:
Permit Number: AC 24-61435
Expiration Date: August 31, 1985

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

a. Having access to and copying any records that must be kept under the conditions of the permit;

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Occidental Chemical Co.
P. O. Box 300
White Springs, FL 32096

I. D. Number:
Permit Number: AC 24-61435
Expiration Date: August 31, 1985

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or department rules.

11. This permit is transferable only upon department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

( ) Determination of Best Available Control Technology (BACT)
( ) Determination of Prevention of Significant Deterioration (PSD)
( ) Compliance with New Source Performance Standards.

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

PERMITTEE:
Occidental Chemical Co
P. O. Box 300
White Springs, FL 32096

I. D. Number:
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Expiration Date: August 31, 1985

GENERAL CONDITIONS:

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the department, such facts or information shall be submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. The maximum net emissions increase of hydrogen sulfide at the Swift Creek Chemical Complex as a result of building and reclaiming sulfur from the two sulfur vats shall not exceed 10 tons per year.

2. Maximum particulate emissions shall not exceed:

Source	lb/hr	TPY
Pouring to block (vat)	4	3
Wind Erosion	1	1
Spillage in Vat Area	1	1
Total	6	5

PERMITTEE:
Occidental Chemical Co.
P. O. Box 300
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Expiration Date: August 31, 1985

SPECIFIC CONDITIONS:

3. The maximum amount of vatted sulfur stored at the facility at any time shall not exceed 150,000 tons. For each sulfur vat the height of the vat shall be established between 20 feet minimum and 30 feet maximum and the product of 0.062 x h x l x w (height, length, and width in feet) shall not exceed 75,000.

4. The maximum rate of pouring molten sulfur to both vats (blocks) shall not exceed 600 gallons per minute or 1500 tons during any 24 hour period.

5. During each of the first two annual periods following the issuance of this permit, the maximum amount of molten sulfur poured to both sulfur vats shall not exceed 375,000 tons during each annual period. Beginning with the third annual period, the maximum amount of molten sulfur poured to both sulfur vats shall not exceed 300,000 tons during any twelve month period.

6. Sulfur shall not be reclaimed from the vats through the use of any other means than the permitted in-situ melter, except as provided in Specific Condition 9.

7. The maximum rate of sulfur reclamation shall not exceed 40 tons per hour or 300,000 tons during any twelve month period. Reclamation shall commence only when demand for sulfur exceeds on-site available molten sulfur supplies.

8. Reasonable precautions to prevent unconfined particulate matter emissions when building or rebuilding the vat shall be:

a. The molten sulfur pouring arm shall be positioned within five feet of the surface of the vat to reduce splatter of molten sulfur.

b. The forms used to create the vats shall have a smooth surface.

c. The permittee shall establish and the equipment operators shall attend a training program on equipment operating practices for the minimization of unconfined particulate matter emissions.

PERMITTEE:
Occidental Chemical Co.
P. O. Box 300
White Springs, FL 32096

Permit Number AC 24-61435
Expiration Date: August 31, 1985

SPECIFIC CONDITIONS:

9. Reasonable precautions to prevent unconfined particulate matter emissions as a result of reclaiming sulfur from the vats shall be:

a. The use of the permitted in-situ melters to reclaim sulfur in molten form from the vats.

b. Careful operation to avoid physically breaking any part of the vat or spilling any of the remelted sulfur.

c. Careful recovery of any spilled sulfur as expeditiously as possible but no less frequently than daily if any part of the spill extends more than ten feet from the base of the vat. Any spills within a ten foot zone around the base of the vat shall be recovered prior to allowing any traffic within that zone but in no case less frequently than quarterly. Such recovered sulfur may be recycled through the molten sulfur system.

10. There shall be no visible emissions resulting from the building or reclaiming of the vat in excess of 20 percent opacity (six minute average) at any point in the plume that is more than two meters downwind of the point at which molten sulfur leaves the pouring spout or impacts the surface of the vat.

a. Within 6 months after issuance of this permit, the department shall conduct visible emissions testing by Method 9 during pouring operations to determine whether specific condition No. 10 should be modified to reflect an opacity limit of 10%.

b. The boom of the pouring arm shall be marked by contrasting lines at five and fifteen feet from the spout as reference points for distance determinations during site inspections.

PERMITTEE:
Occidental Chemical Co.
P. O. Box 300
White Springs, FL 32096

I. D. Number:
Permit Number: AC 24-61435
Expiration Date: August 31, 1985

SPECIFIC CONDITIONS:

11. Within thirty days after issuance of the construction permit, a deposition monitoring plan that describes the sampling locations, the sample collection and analysis procedures, and quality assurance measures to be employed shall be submitted to the Bureau of Air Quality Management by the permittee. After approval by the department, the monitoring network shall be operated continuously. A data report shall be submitted to the department within 30 days of the end of each calendar quarter. After twelve months of data have been collected and validated, the department will re-evaluate the monitoring network results and design, and make any changes to the approved monitoring plan that are warranted.

12. Compliance with the process limitations of this permit shall be demonstrated by recordkeeping of: the daily hours of operation for vat building, sulfur reclamation, and any spillage recovery in accordance with specific condition 9c; the amounts of sulfur associated with each such activity; the times of such spillage recovery; and any other related information necessary to properly interpret the recorded data. An annual report shall be filed with the Northeast District office March 1 of each following year. The first such report shall be submitted on or before March 1, 1984.

13. The initial compliance test for these two sources shall consist of the following:

a. An on-site inspection by department personnel verifying that construction of the vats is in accordance with permit conditions;

b. Certification by the permittee that the employee training program required by specific condition No. 8 has been instituted.

c. The witnessing by department personnel of a satisfactory demonstration of pouring and reclamation.

PERMITTEE:
Occidental Chemical Co
P. O. Box 300
White Springs, FL 32096

I. D. Number:
Permit Number: AC 24-61435
Expiration Date: August 31, 1985

SPECIFIC CONDITIONS

14. After satisfactory completion of the initial compliance test and prior to ninety days before the expiration of this permit a complete application for an operating permit shall be submitted to the Northeast District office. The permittee may continue to operate in compliance with all terms of this construction permit until its expiration date or the issuance of an operating permit. The department may extend the expiration date of this permit as authorized by Florida Administrative Code Rule 17-2.210(1).

15. All conditions of this permit that do not relate solely to the construction of the initial vats shall be made a part of any subsequent operating permit.

16. Should the department adopt any new rule that establishes a performance standard for the storage and handling of elemental sulfur that would be applicable to the source authorized for construction by this permit, the permittee shall comply with such new performance standard within the time period established in the rule, or, if no time period is so specified, on a reasonable time schedule developed between the permittee and the department.

Issued this 16 day of September 1983

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

Victoria J. Tschinkel

VICTORIA J. TSCHINKEL, Secretary

EXHIBIT "B"

LETTER REQUESTING EXTENSION OF
PERMIT AC24-61435

OCCIDENTAL CHEMICAL COMPANY, FLORIDA OPERATIONS, Post Office Box 300, White Springs, Florida 32096, Telephone 904 397-8101

May 13, 1985

Mr. John Brown, P.E.
Florida Department of
Environmental Regulation
3426 Bills Road
Jacksonville, Florida 32207

Reference: AC24-61435
Sulfur Vat

Dear Mr. Brown:

This will respond to your letter of April 15, 1985 concerning referenced construction permit.

It is requested that this construction permit be extended to August 31, 1986 to allow for modifications required or allowed under the new Sulfur Rule.

We intend to submit such a modification request in June.

Sincerely,

OCCIDENTAL CHEMICAL
AGRICULTURAL PRODUCTS, INC.

for W.W. Atwood

WWA:net

cc: W. Thomas
E. Huck
J. Koogler

EXHIBIT "C"

ORIGINAL APPLICATION FOR
PERMIT AC24-61435 PROPOSING
MECHANICAL SULFUR RECLAMATION

BEST AVAILABLE COPY

AC 24-61435

DER

OCT 15 1982

BAQM

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Vat Sulfur Storage [X] New[1] [ ] Existing[1]

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

COMPANY NAME: Occidental Chemical Company COUNTY: Hamilton

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Vat Sulfur Storage Area at SCCC

SOURCE LOCATION: Street US 41 City White Springs

UTM: East 231.30 km North 3369.83

Latitude ____ ° ____ ' ____ "N Longitude ____ ° ____ ' ____ "W

APPLICANT NAME AND TITLE: M. P. McArthur, Vice President and General Manager

APPLICANT ADDRESS: Post Office Box 300, White Springs, FL 32096

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Occidental Chemical Company

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: M P McArthur

M.P. McArthur, Vice Pres. and General Manager
Name and Title (Please Type)

Date: 9.30.82 Telephone No. (904) 397-8101

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 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: J B Koogler

John B. Koogler, Ph.D., P.E.
Name (Please Type)

(Affix Seal)

SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS, INC
Company Name (Please Type)

1213 NW 6th Street, Gainesville, FL 32601
Mailing Address (Please Type)

Florida Registration No. 12925 Date: _____ Telephone No. (904) 377-5822

[1]See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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.

Two vats, each with a capacity of 75,000 tons, will be formed at the SCCC to provide an on-site inventory of sulfur which can be used to provide continuity of operations if the normal supply of molten sulfur is disrupted. See Attachment 1 under cover of letter dated September 8, 1982 for further detail.

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

Start of Construction January 1, 1982 Completion of Construction October, 1982

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.)

$5,000. for water spray system

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

None

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? ____ Yes X No

F. Normal equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ; if power plant, hrs/yr ____ ; if seasonal, describe: Activity around the vats will normally occur when there is an interruption in deliveries of molten sulfur and when sulfur reclaimed from a vat is being replaced. Activity around the vats could occur about 50 percent of the time.

G. 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.	NO; emissions < 25 TPY
3. Does the State "Prevention of Significant Deterioriation" (PSD) requirements apply to this source? If yes, see Sections VI and VII.	NO; emissions < 25 TPY
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?	NO
5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?	NO

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

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Sulfur	Dust	1-2	136,464*	A
* Maximum utilization rate; this use rate will normally occur when there is an interruption in the normal supply of molten sulfur and the E and F sulfuric acid plants are operating at 100 percent permitted capacity.				

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

1. Total Process Input Rate (lbs/hr): 83,333 sulfur vatting rate

2. Product Weight (lbs/hr): 136,464 maximum reclaimation rate of sulfur from a vat.

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission[1]		Allowed Emission[2] Rate per Ch. 17-2, F.A.C.	Allowable[3] Emission lbs/hr	Potential Emission[4]		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Fugitive Part.	7.5	16.5	NA	7.5	34.1	75.7	B
Matter*							
* These emissions will be generated only when sulfur is being reclaimed from a vat.							

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles[5] Size Collected (in microns)	Basis for Efficiency (Sec. V, It[5])
Water Sprays	Sulfur Dust	78	< 75 μm	Estimate

[1] See Section V, Item 2.

[2] Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. – 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)

[5] If Applicable

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
None			

*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ 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.

Rainfall runoff from the storage area will be contained and used for dust control and the fire control systems associated with the sulfur storage area. Excess run-off will be treated and controlled prior to an existing NPDES discharge point.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack): NOT APPLICABLE; all emissions will be fugitive.

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

Gas Flow Rate: _____ ACFM Gas Exit Temperature: _____ °F.

Water Vapor Content: _____ % Velocity: _____ FPS

SECTION IV: INCINERATOR INFORMATION

(NOT APPLICABLE)

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste _____

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

Approximate Number of Hours of Operation per day _____ days/week _____

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.):

_____

_____

_____

_____

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight — show derivation.
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.,) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, etc.).
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3, and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8½" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8½" 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).
8. An 8½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

SECTION V - SUPPLEMENTAL REQUIREMENTS

1. Use Rate

Sulfur will be reclaimed from rail cars in a molten state and pumped to the vats at a rate of 83,333 pounds per hour (1000 tpd).

Sulfur will be reclaimed from the vats and delivered to a sulfur melter at the rate of 136,464 pounds per hour. This is the maximum rate at which sulfur will be consumed in the E and F sulfur acid plants.

2&3. Uncontrolled and Actual Emissions

Activity	Uncontrolled Emission Factor (1) (lb/ton)	Control Efficiency (2) (%)	Sulfur Handling Rate (tph)	Uncontrolled Emissions (lb/hr)	Uncontrolled Emissions (tpy) (3)	Controlled Emissions (lb/hr)	Controlled Emissions (tpy)
Loading Vat (4)	0	--	41.7	0	0	0	0
Traffic (5)	0	--	--	0	0	0	0
Wind Erosion (5)	0	--	--	0	0	0	0
Off-Loading	0.1	50	68.2	6.8	14.9	3.4	7.5
Loading Melter	0.4	85	68.2	27.3	59.8	4.1	9.0
TOTAL				34.1	75.7	7.5	16.5

(1) EPA 450/3-77-010
(2) EPA 450/3-77-010
(3) Based on 4380 hours per year of activity
(4) Sulfur is in molten form; therefore there will be no significant emissions
(5) Sulfur in vat form is not subject to effects of wind erosion or traffic

4. Attachment 2

5. Control Efficiency

Uncontrolled Emissions (V, 2 & 3) - 34.1 lb/hr
Controlled Emissions (V, 2 & 3) - 7.5 lb/hr

Efficiency = (34.1 - 7.5) x 100/34.1
= 78.0%

6. Attachment 3

7. Attachment 4

8. Attachment 5

9. An application fee of $20, unless exempted by Section 17-4.05(3), F.A.C. The check should be made payable to the Department of Environmental Regulation.

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

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY
(NOT APPLICABLE)

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?
[ ] Yes [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy) [ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:
5. Useful Life:
6. Operating Costs:
7. Energy:
8. Maintenance Cost:
9. Emissions:

Contaminant	Rate or Concentration

*Explain method of determining D 3 above.

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:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy*: h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy**: h. Maintenance Costs:

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:

*Explain method of determining efficiency.

**Energy to be reported in units of electrical power – KWH design rate.

3.

a. Control Device:

b. Operating Principles:

c. Efficiency*: d. Capital Cost:

e. Life: f. Operating Cost:

g. Energy: h. Maintenance Cost:

*Explain method of determining efficiency above.

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*:

d. Capital Cost:

e. Life:

f. Operating Cost:

g. Energy:

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency*:

3. Capital Cost:

4. Life:

5. Operating Cost:

6. Energy:

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

*Explain method of determining efficiency above.

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

b.

(1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions*:

Contaminant	Rate or Concentration

(8) Process Rate*:

10. Reason for selection and description of systems:

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

SECTION VII – PREVENTION OF SIGNIFICANT DETERIORATION

(NOT APPLICBLE)

A. Company Monitored Data

1. _____ no sites _____ TSP _____ ( ) SO^2* _____ Wind spd/dir

Period of monitoring ___/___/___ (month day year) to ___/___/___ (month day year)

Other data recorded _____

Attach all data or statistical summaries to this application.

2. Instrumentation, Field and Laboratory

a) Was instrumentation EPA referenced or its equivalent? _____ Yes _____ No

b) Was instrumentation calibrated in accordance with Department procedures? _____ Yes _____ No _____ Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from ___/___/___ (month day year) to ___/___/___ (month day year)

2. Surface data obtained from (location) _____

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

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

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

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

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO^2	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description on 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.

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

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

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

OCCIDENTAL CHEMICAL COMPANY, FLORIDA OPERATIONS, Post Office Box 300, White Springs, Florida 32096, Telephone 904 397-8101

September 8, 1981

Mr. Johnny Cole
Department of Environmental
Regulation
3426 Bills Road
Jacksonville, Florida 32207

Dear Johnny:

In accordance with our past conversation I am submitting the attached description which covers Occidental's proposed plant to "Vat" sulfur at the Swift Creek Chemical Complex. Molten sulfur will be placed inside of forms similar to a pour of concrete. When the sulfur freezes it forms a free standing block.

In the reclaim operation a payloader delivers chunks of solid sulfur to a melter.

Rainfall on the sulfur will be contained to protect against run-off of low pH water. Existing steam will supply the melter.

There will be no sources of air emission requiring control or permits and the water will be retained.

If you have any questions on the plan please contact me.

Sincerely,

OCCIDENTAL CHEMICAL COMPANY

Wes Atwood

W. W. Atwood
Manager of Environmental Control

pb

Attachments

cc: R. E. McNeill

bcc: H. C. Smith

OCCIDENTAL CHEMICAL COMPANY, FLORIDA OPERATIONS, Post Office Box 300, White Springs, Florida 32096, Telephone 904 397-8101

SULFUR VATTING
PROCESS DESCRIPTION

I. INTRODUCTION

Molten sulfur is burned during the manufacture of sulfuric acid. The molten sulfur is brought to Occidental Chemical's White Springs operation in insulated railroad tankcars which are unloaded at Suwannee River Chemical Complex (SRCC) and Swift Creek Chemical (SCCC). During transit to White Springs the sulfur, which was loaded molten by suppliers in Texas, Canada and other locations, solidifies requiring remelting prior to unloading. Remelting the sulfur requires attaching a steam supply to the tankcar steam coils. This requires approximately four (4) days steaming before the sulfur becomes totally molten and can be unloaded. Some cars require more or less steaming time to unload due to the degree of tankcar insulation and the condition of the insulation. The tankcar is then dumped into a steam heated launder which runs into a receiving pit. The sulfur in the receiving pit is then pumped to insulated steam heated day tanks. The tanks maintain a level in a second pit, by gravity feed, which supplies sulfur to pumps feeding the sulfur burners.

II. WHY STORAGE IS NEEDED

Occidental Chemical's sulfur suppliers are at least eight days transit time from White Springs. Some suppliers in Canada are 30 days transit time. In the past the supply line has been disrupted resulting in a sulfur shortage in the six (6) sulfuric acid plants. Currently less than five (5) days inventory is maintained on site in launders and tanks. It is imperative that inventory levels are increased to insure that the sulfuric acid plants are maintained at maximum capacity. A second factor is the forecast that sulfur supplies in the future could be tight and inadequate to maintain maximum capacity at White Springs. Indications are that stockpiling now to meet potential shortages is the proper course of action.

III. PURPOSE OF VATTING

Storage of sulfur can be accomplished by several methods:

1. Insulated, steam heated tanks.
2. Storage in solid form.

Storage in tanks requires very high capital costs ($50/ton) and continuing energy costs to maintain the sulfur in a molten state. A vat, which stores the sulfur in the open is a significantly lower capital cost ($14/ton) and requires no energy costs to maintain the sulfur molten.

IV. DESCRIPTION OF VAT

A sulfur vat is a stockpile of solid sulfur. The stockpile is produced by spraying molten sulfur into a contained area, letting the sulfur solidify and repeating the process to build the pile. When the sulfur is required for production it is torn down from the pile, remelted and pumped into the sulfuric acid production process.

V. LOCATION OF VAT

Space limitations at SRCC and high efficiency unloading facilities at SCCC require location of the vat just East of the sulfur unloading area at SCCC.

VI. UNLOADING

Sulfur will be unloaded in the normal manner through the launders and pits. During vatting the molten sulfur will be taken from the outlet line of the day tanks at SCCC. The sulfur will then be pumped through steam jacketed lines to the vat.

VII. MAKING A VAT

The vat is formed by pumping molten sulfur into a contained area which is formed, much like pouring concrete. Using the proper nozzle velocity and area (approximately 20 fps and 250 ft X 250 ft) requires a single nozzle which will provide a uniform distribution over the vat area. Approximately 3-4 inches of molten sulfur can be poured before discontinuing the operation to let the sulfur solidify. As the vat height increases the forms are moved up the vat until a height of 20 feet is attained. At this time 75,000 tons of sulfur will be vatted and a second vat will start immediately adjacent to the completed vat.

VIII. USING SULFUR FROM VAT

When sulfur is needed from the vat the solid sulfur will be broken down by a rubber tired excavator. The sulfur will then be moved to a melter by a rubber tired front-end loader. The melter can be one of three designs:

1. Jacketed tube melter
2. Pit heated with steam coils
3. Agitated vessel with steam coils

All designs are steam heated. Operation of any unit will require the front-end loader dumping into the top of the melter. The sulfur melts and can flow by gravity or be pumped back to the receiving pit for processing into sulfuric acid.

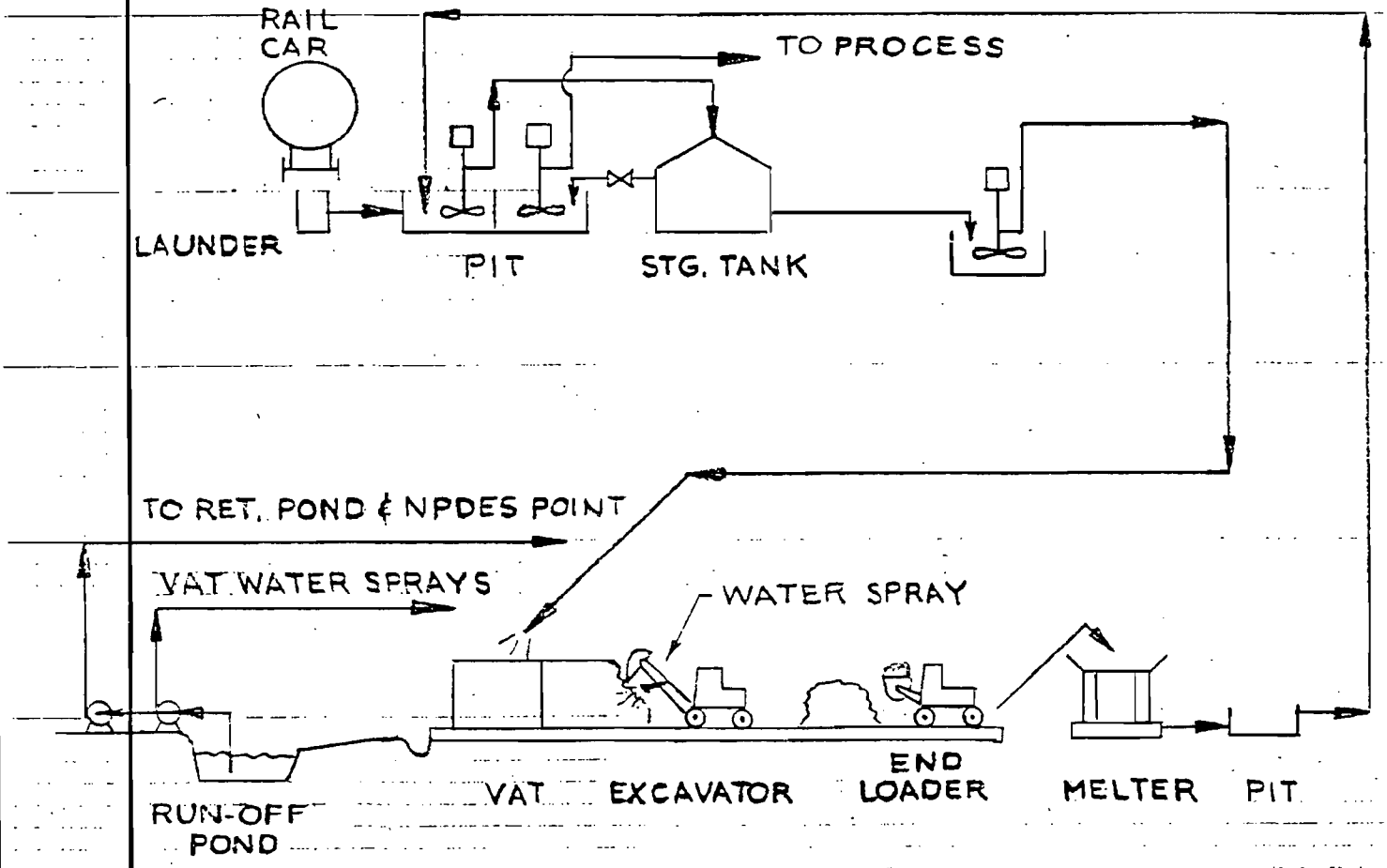
IX. ENVIRONMENTAL CONSIDERATIONS

Sulfur in a vat offers no environmental hazards other than a acidic runoff from rainfall on the vat, and a potential dust problem when the vat is being broken apart for remelting. Both problems will be controlled.

Rainfall on a sulfur vat will form sulfurous acid, which is very unstable, but can result in a pH as low as 2 in the runoff. This water will be contained with ditching and a retention basin. The system will be designed for a 25 year 24 hour rainfall or approximately 8" of rainfall in a 24 hour period. The contained runoff will then be recirculated to sprays in the vat. The sprays will wet the vatted sulfur, which will control dust and reduce the fire hazard. Rainfalls above the 25 year 24 hour level can be pumped to existing process retention ponds for lime treatment, if required, and discharged from the site.

The major potential for dust is when the vat is being torn apart for remelting. The excavator will be equipped with spray nozzles to control dust as the evacuator tears the vat apart. The retention pond water will provide water to these nozzles as well as the sprays to control dust during the "tearing down" operation.

ATTACH 3



DRAWN BY FT STANFIELD	TITLE	OCCIDENTAL CHEMICAL CO.
DATE 9-21-82	VAT SULFUR HANDLING FLOW SHEET	
SCALE NONE		JOB NO OC 357 / REV NO 0
REVISION		CHARGE NO. / SKETCH NO
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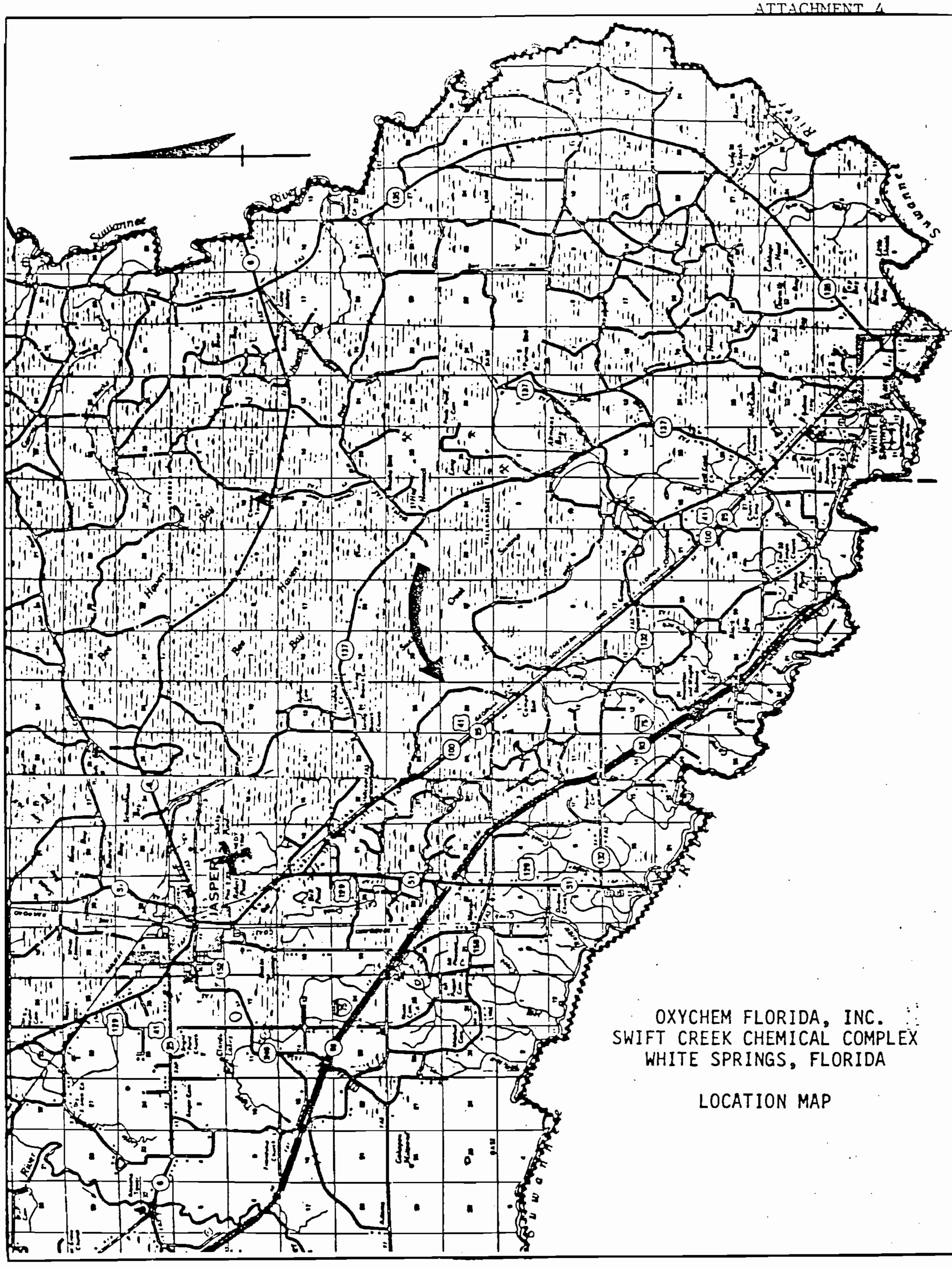


OXYCHEM FLORIDA, INC.
SWIFT CREEK CHEMICAL COMPLEX
WHITE SPRINGS, FLORIDA

LOCATION MAP

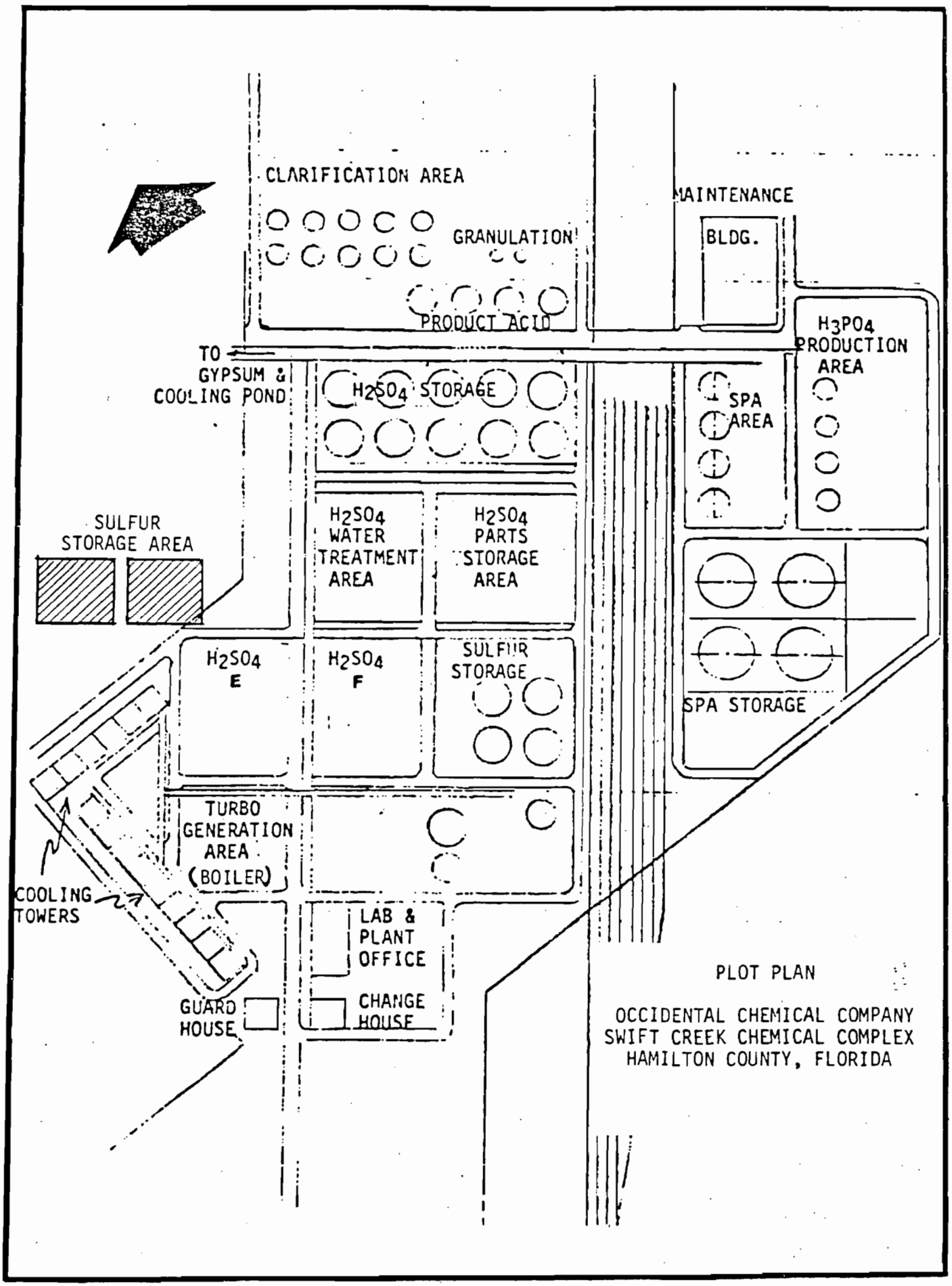


EXHIBIT "D"

SUPPLEMENTAL INFORMATION TO ORIGINAL
APPLICATION FOR PERMIT AC24-61435
DESCRIBING MECHANICAL SULFUR RECLAMATION EQUIPMENT

SULFUR VAT
ENGINEERING JOB NO. OC-357
AFE NO. 560
EXCAVATOR WATERING SYSTEM

PURPOSE:

To control dust and prevent bucket/sulfur sparking by directing a fine water spray against vat surfaces during the reclaiming operation.

DESCRIPTION:

A pipe header shall be mounted on the excavator boom near the bucket pivot point. The header shall be in the horizontal position, 90° to the boom centerline and extend one (1) foot beyond each side of the bucket.

Spray nozzles, one near each bucket side, shall be mounted on the header and positioned to direct a spray at the vat area being ripped. The nozzles shall be Spraying Systems Co. Unijet #1/2T9515, or equal, each with a capacity of 13 gpm.

The header will be supplied with water by a piping system consisting of rigid and flexible pipe which runs along the boom and machinery section and terminates at the rear of the excavator with a quick acting hose connection. A valve in the line shall be accessible from the operators cab. The flexible pipe shall be used at all articulating joints of the boom. Water supply for the excavator shall be by hose from the nearest of several hose connections around the vat perimeter. The operator will be required to connect his excavator to the water source before commencing operation.

NOTE:

The type, number and location of spray nozzles are subject to change depending upon results obtained when operation is started.

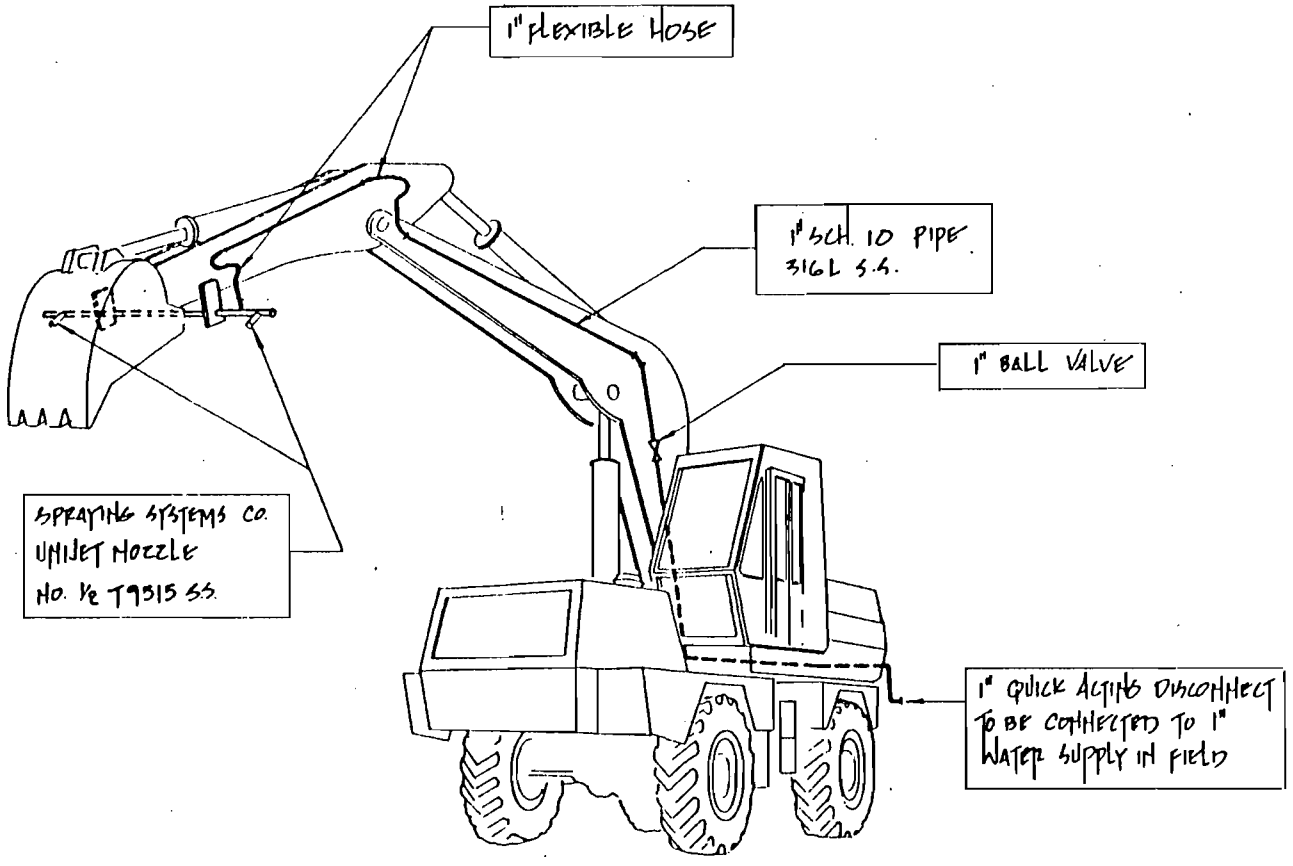
SULFUR VAT
ENGINEERING JOB NO. OC-357
AFE NO. 560
EXCAVATOR WATERING SYSTEM

During reclaiming operations from the sulfur vat, it is required that the vat surfaces being ripped be sprayed with water continuously. The excavator has been equipped with a watering system for this purpose.

The excavator operator must adhere to the following Operating Instructions.

OPERATING INSTRUCTIONS:

1. Close ball valve in excavator water line, near operator's cab.
2. Connect one end of hose (supplied for this purpose) to coupling at rear of excavator. Connect other end to nearest base bib and open bib valve.
3. Lay out hose on the ground to prevent fouling with or limiting movement of the excavator.
4. Once in cab, operator is to check for water supply at spray nozzles by opening ball valve near cab. If sprays are functioning properly, Operator may procede to operate. If sprays are not working or are misdirected, Operator is to turn off water valve and notify his supervisor at once.
5. Operation is not to commence until sprays are working correctly.
6. When operation stops, for any reason, the water sprays are to be turned off by using the ball valve near the operators cab.
7. Overspray may be corrected by adjusting ball valve.



NO.	REVISIONS	REV.	DATE

ISSUE	PURPOSE	REV.	DATE
DRAWING HISTORY			

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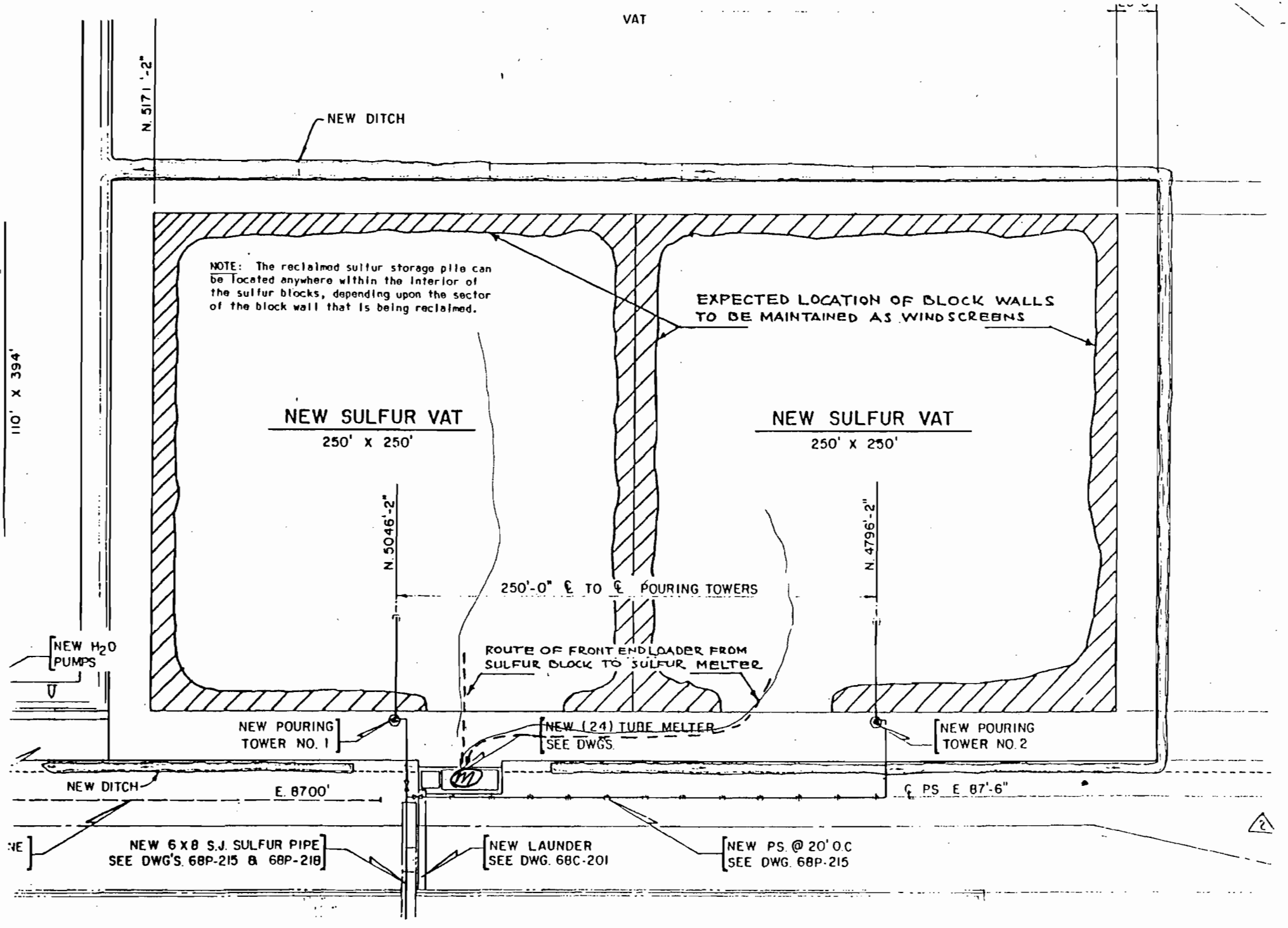
TITLE
SULFUR VATTING
EXCAVATOR WATERING SYSTEM

OXY OCCIDENTAL CHEMICAL COMPANY

JOB NO. OL-357
AREA SCCC
DRAWING NO. SK-357-1117
REV.

EXHIBIT "E"

PLOT PLAN OF SULFUR VATS
SHOWING VAT WALL RETAINED AS
WIND SHIELD



ENGINEERING REPORT IN SUPPORT OF AN APPLICATION FOR A FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION AIR POLLUTION SOURCE CONSTRUCTION PERMIT FOR A PRILLED SULFUR STORAGE & HANDLING FACILITY

OCCIDENTAL CHEMICAL AGRICULATURAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

APRIL 1986

SHOLTES & KOOGLER
Environmental Consultants
1213 NW 6TH ST ■ GAINESVILLE, FL 32601 ■ 904-377-5822

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SHOLTES & KOOGLER

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1.0 EXECUTIVE SUMMARY

Occidental Chemical Agricultural Products, Inc. (Occidental) is applying to the Florida Department of Environmental Regulation (FDER) for an air pollution source construction permit to construct a prilled sulfur storage and handling facility at Occidental's Swift Creek Chemical Complex (SCCC) in Hamilton County, Florida. The facility will be designed to receive prilled sulfur by rail or truck and provide on-site storage for 150,000 tons of prilled solid sulfur. The facility is designed for a maximum annual sulfur throughput of 300,000 tons per year.

1.1 Applicant

Occidental Chemical Agricultural Products, Inc.
Post Office Box 300
White Springs, Florida 32096
Contact: Mr. W.W. Atwood, Manager
Environmental Control

1.2 Project Summary and Location

Occidental proposes to construct a prilled sulfur storage and handling facility at their existing SCCC in Hamilton County, Florida. The facility will be designed to receive prilled sulfur by either railcar or truck and to provide open, on-site storage for 150,000 tons of prilled sulfur. The prilled sulfur storage facility is proposed as an adjunct to the sulfur vatting and reclamation facility that Occidental

has permitted under FDER Permit No. AC24-61435. The sulfur vatting and reclamation facility is permitted to provide on-site storage for 150,000 tons of vatted solid sulfur and for a annual throughput of 300,000 tons of sulfur. The proposed prilled sulfur storage and handling facility will be designed for an annual throughput of 300,000 tons of sulfur. The total annual sulfur throughput of these two facilities (600,000 tons per year) is sufficient to provide 100 percent of the sulfur requirement for the two existing sulfuric acid plants at the SCCC.

The proposed prilled sulfur storage and handling facility is designed to receive prilled solid sulfur by railcar or truck. The sulfur received by either means will be off-loaded in a receiving building and transferred by covered conveyor belt to an open storage area. The maximum designed sulfur receiving rate is 1,000 tons per hour, 10 hours per day for railcar receiving and 600 tons per hour, 24 hours per day for truck receiving. Sulfur will be recovered from the sulfur storage pile by front-end loader and loaded into a portable hopper-conveyor system that will transfer the recovered sulfur to a fixed ground-level conveyor belt running along one side of the sulfur storage area. The sulfur will be transferred by the fixed conveyor belt system to an existing 1,680 tons per day static sulfur melter (permitted under FDER Permit No. AC24-61435). The sulfur recovery and

melting rate of 1,680 tons per day (70 tons per hour) is the recovery and melting rate required to satisfy the sulfur requirements of the two existing sulfuric acid plants at the SCCC.

The proposed prilled sulfur storage and handling facility will be located at Occidental's SCCC located in Hamilton County, Florida. The UTM Coordinates of the proposed facility are; Zone 17, 321.30 kilometers east and 3369.83 kilometers north. Figure 1-1 is a site location map of the SCCC.

1.3 Air Pollution Sources and Operating Rates

The proposed prilled solid sulfur storage and handling facility will be a source of confined and unconfined particulate matter emissions. The melting of the prilled sulfur will additionally result in the release of hydrogen sulfide. The main air pollution sources in the facility are:

(a) railcar and truck unloading (confined and unconfined emissions),

(b) prilled sulfur transfer by conveyor to storage,

(c) recovery of prilled sulfur by front-end loader and transfer to conveyor system,

(d) vehicle travel in the sulfur recovery area,

(e) transfer of recovered prilled sulfur to melter,

(f) prilled sulfur melting in static melter permitted by FDER Permit No. AC24-61435, and

(g) wind erosion from the prilled sulfur storage area.

Prilled sulfur will be received by railcar or truck. Sulfur delivered by railcars will be unloaded at a maximum design rate of 1,000 tons per hour, 10 hours per day or 10,000 tons per day. Sulfur unloading from trucks is designed for a rate of 600 tons per hour, 24 hours per day or 14,400 tons per day. The sulfur received by both railcar and truck will be transferred by conveyor belt at the rate received, to an open sulfur storage pile.

Sulfur recovery from storage will occur at a rate of 70 tons per hour, 24 hours per day or 1,680 tons per day. This is the sulfur recovery rate necessary to supply sulfur to the two existing sulfuric acid plants at the SCCC. The sulfur will be recovered from storage by front-end loader and transferred to a portable hopper-conveyor system that will transfer the sulfur to a fixed conveyor system. The sulfur will be conveyed by the fixed conveyor system to the static sulfur melter presently permitted under FDER Permit No. AC24-61435.

The prilled sulfur storage and handling facility is designed to operate in conjunction with the sulfur vatting and reclamation facility currently permitted by Occidental. Some, but not all, of the

activities at the two sulfur storage and handling facilities can operate simultaneously. For example, sulfur can be received at both facilities simultaneously or sulfur can be received at one facility while it is being recovered from the other. Also, it will be possible to receive and recover sulfur from the prilled sulfur storage and handling facility simultaneously and also to receive molten sulfur at the sulfur vatting facility at the same time. Activities that will not occur simultaneously are the recovery of sulfur from both facilities or the recovery of sulfur from the vatting facility while sulfur is being vatted.

1.4 Rule Applicability

The SCCC is defined as a major facility for Prevention of Significant Air Quality Deterioration (PSD) review purposes. The proposed prilled sulfur storage and handling facility will be a minor modification to the SCCC. Furthermore, the proposed project will be located in an area (Hamilton County) designated as attainment for all pollutants in accordance with Rule 17-2.420, FAC.

The proposed project will be a minor modification to an existing major facility. The project, therefore, is not subject to the PSD review requirements of Rule 17-2.500(2)(d)4, FAC. The project will be subject to the source specific New Source Review requirements of Rule

17-2.540(2), FAC, Sulfur Storage and Handling Facilities. The requirements include:

(a) pre-construction ambient air quality analysis,

(b) pre-construction sulfur deposition analysis,

(c) post-construction ambient air quality monitoring,

(d) post-construction sulfur deposition monitoring.

1.5 Content of Construction Permit Application

The air pollution source construction permit application for the proposed prilled sulfur storage and handling facility includes a description of the proposed project, a description of the design and work practice standards that will be employed in the facility to provide the Department with reasonable assurance that air pollutant emissions will be adequately controlled and environmental impacts minimized, a detailed estimate of air pollutant emissions from the proposed facility and an evaluation of the impact of total and suspended particles generated by the sulfur storage and handling activities.

The design and work practice standards incorporated into the proposed facility are consistent with the requirements of Rule 17-2.540(2), FAC, Sulfur Storage and Handling Facilities. The air quality review prepared to evaluate the impact of total and suspended particulate matter generated by activities within the proposed prilled sulfur

storage and handling facilities demonstrates that the proposed facility will not cause or contribute to a contravention of Florida Ambient Air Quality Standards. The air quality review also demonstrates that the sulfur deposition rate in the vicinity of the proposed facility will be at a level that is not expected to cause adverse environmental impacts.

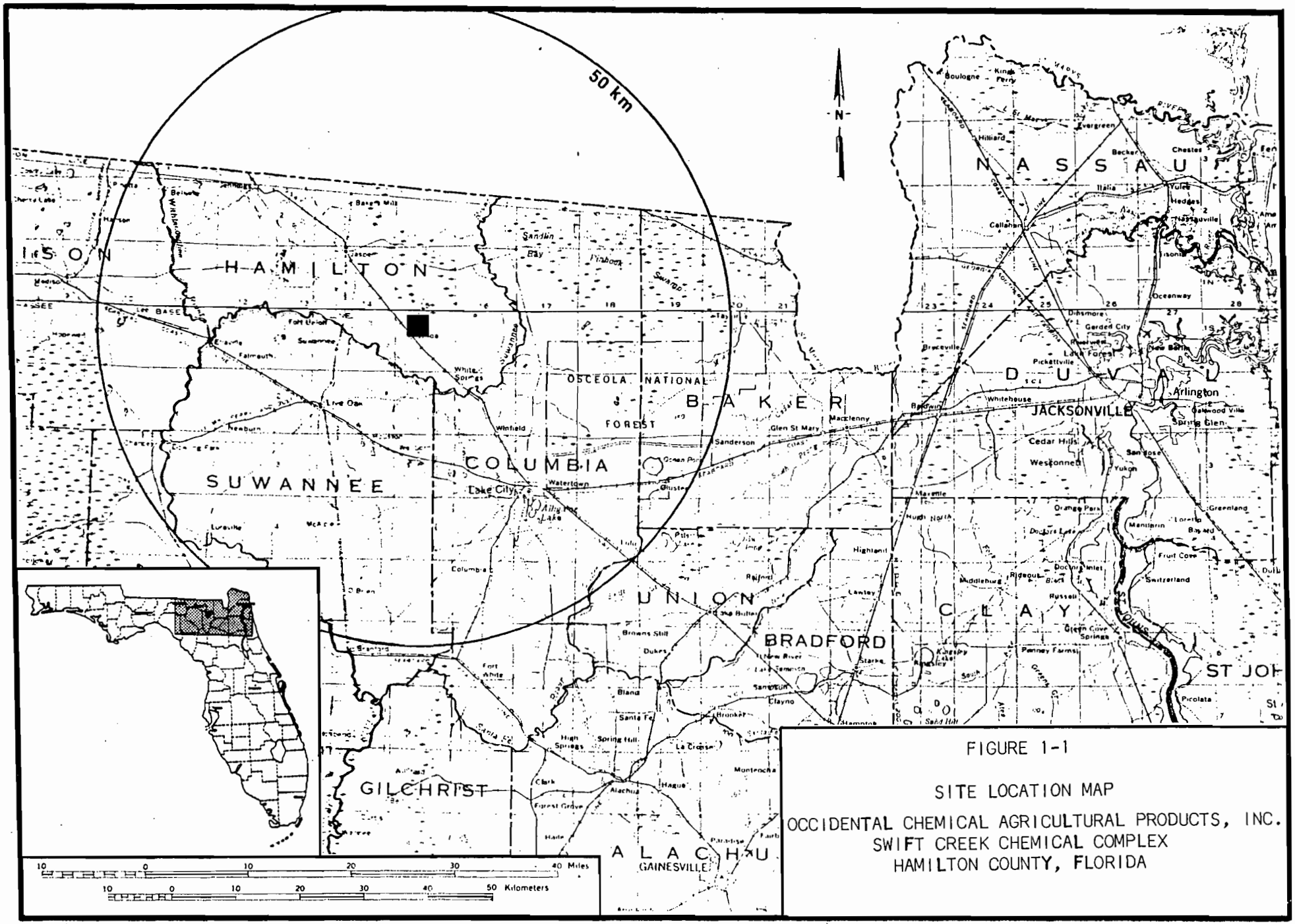

FIGURE 1-1

SITE LOCATION MAP

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

2.0 DESCRIPTION OF PROPOSED PRILLED SOLID SULFUR STORAGE AND HANDLING FACILITY

2.1 Swift Creek Chemical Complex

Occidental's SCCC is a phosphate fertilizer production facility designed to produce phosphoric acid and superphosphoric acid. The phosphoric acid is produced by reacting sulfuric acid with phosphate rock mined by Occidental from the Swift Creek Mine. The sulfuric acid required in the process is produced at the SCCC in two 2,500 tons per day contact sulfuric acid plants. In these plants, molten sulfur is burned in a sulfur burner to produce a gas rich in sulfur dioxide. The sulfur dioxide is converted to sulfur trioxide and subsequently absorbed in 93 percent sulfuric acid to produce a 98 percent sulfuric acid.

2.2 Sulfur Handling Activities at the SCCC

The sulfur requirements of the SCCC are necessary to support the two existing sulfuric acid plants. Presently, sulfur is received in a molten form at the SCCC in rail tank cars. The tank cars are steamed to remelt the sulfur and then bottom dumped into a covered concrete receiving trench. The molten sulfur flows through the covered concrete trenches to an existing covered underground molten sulfur

distribution pit. From the distribution pit, the molten sulfur is presently pumped to one of two existing 5,600 ton molten sulfur storage tanks or to the two sulfuric acid plants.

Air pollution source construction permit No. AC24-61435 recently issued to Occidental by FDER allows up to 300,000 tons per year (375,000 tons per year for the first two years) of the molten sulfur to be received at the SCCC to be pumped to a sulfur vatting area immediately east of the SCCC. The permit further allows the vatted sulfur to be reclaimed and remelted at a rate of 70 tons per hour (1,680 tons per day) to provide sulfur for the two existing sulfuric acid plants when normal molten sulfur supply to the SCCC is disrupted.

The proposed prilled solid sulfur storage and handling facility will give Occidental additional flexibility in receiving and storing sulfur required for the production of phosphate fertilizer products at the SCCC. The proposed prilled sulfur storage and handling facility is, like the permitted sulfur vatting and reclamation facility, designed for a total annual sulfur throughput of 300,000 tons per year. The total sulfur throughput for the two facilities will be sufficient to providing the total sulfur requirements of the SCCC should conditions require.

The proposed prilled solid sulfur storage and handling facility will provide Occidental with the option of receiving sulfur in either a molten or solid form and of storing sulfur in a molten, solid vatted or prilled form. The molten sulfur storage is limited to the two existing 5,600 ton molten sulfur storage tanks at the SCCC. Vatted sulfur storage is provided by the two 75,000 ton sulfur vats permitted by FDER Permit No. AC24-61435 and prilled sulfur storage will be provided by the proposed 150,000 ton open prilled sulfur storage pile.

Reclamation from the three storage facilities will be by:

(a) direct discharge from the molten sulfur storage tanks into the existing molten sulfur distribution pit,

(b) mechanical reclamation from the sulfur vats with subsequent melting and discharge into the existing molten sulfur distribution pit, or

(c) recovery by front-end loader from the prilled sulfur storage pile with subsequent melting and discharge into the existing molten sulfur distribution pit.

The sulfur reclamation rate from any of the three storage facilities will be a maximum of 70 tons per hour or 1,680 tons per day; the reclamation rate necessary to provide sulfur to the two existing SCCC sulfuric acid plants.

The basic activities at the three sulfur storage and handling facilities at SCCC (molten, vatted and proposed prill) include sulfur receiving and sulfur recovery. These basic activities will potentially result in the generation of fugitive particulate matter and/or hydrogen sulfide gas. Additionally, there is a potential for wind erosion to generate additional particualte matter emissions from the vatted and prilled sulfur storage areas. The basic activities in each of the sulfur handling systems can occur alone or in conjunction with activities in the same or other sulfur handling systems. The combinations of activities that can occur are summarized in Table 2-1.

From this Table it can be seen that while prilled sulfur is being received, any of the other activities associated with sulfur receiving and recovery can take place. On the other hand, while sulfur vat reclamation is occurring, the only other activity that can occur is prilled sulfur receiving. The footnote in Table 2-1 indicates that the simultaneous occurrence of sulfur vat reclamation and prilled sulfur receiving is unlikely, however. Wind erosion can ocur simultaneously with any of the sulfur handling activities.

2.3 Description of the Proposed Prilled Sulfur Storage and Handling Facility

The proposed prilled sulfur storage facility will consist of a receiving building, an open prilled sulfur storage area and the associated conveyor systems for transferring the sulfur from the receiving building to the storage area and from the storage area to the existing static sulfur melter. The proposed facility will be located to the southeast of the SCCC as shown in Figure 2-1.

The receiving building will be designed to receive prilled sulfur by railcar or truck. The building will accommodate the off-loading (by bottom dumping) of three railcars simultaneously or the off-loading (by back dumping) of three trucks simultaneously. Fugitive particulate matter within the receiving building will be captured and vented through a scrubber system. The sulfur will be transferred from the receiving building to an open 150,000 ton prilled sulfur storage area by covered conveyor belts. A single belt will transfer the sulfur from the receiving building to an elevated stacker-conveyor belt which will discharge the prilled sulfur onto the storage pile. The sulfur transferred to the storage pile will be dropped through a flexible drop-chute to minimize the free-fall distance of the sulfur. All of the transfer points on the conveyor system will be enclosed.

Sulfur will be recovered from the prilled sulfur storage pile by a front-end loader and transferred to a portable hopper-conveyor system. The hopper will be positioned in the area where sulfur recovery is occurring to minimize the travel distance of the front-end loader. The hopper will discharge to the conveyor belt which is part of the portable hopper-conveyor system. This conveyor will transfer the sulfur to a fixed, covered conveyor belt system that runs parallel to one side of the sulfur storage pile and then through a series of covered conveyor belts to the existing static sulfur melter permitted under FDER Permit No. AC24-61435.

For permitting purposes, it has been assumed that the prilled sulfur will be received by Occidental at the SCCC will be shipped from a permitted port facility or directly from a prilled sulfur supplier. The maximum sulfur receiving rate will be 1,000 tons per hour; the design rate for railcar unloading. The maximum sulfur receiving rate by truck will be 600 tons per hour. The maximum daily sulfur transfer rate to the sulfur storage pile will be 14,400 tons per day; the 600 tons per hour truck off-loading rate over a 24-hour period. For design purposes, it has been assumed that railcar off-loading will occur at a rate of 1,000 tons per hour for a maximum of 10 hours per day. This is equivalent to one 100-car train arriving at the SCCC per

day from a prilled sulfur producer. For railcar receiving from a port facility, it is expected that one 50-car train per day will arrive at the SCCC.

For permitting purposes, this application has been based on the "worst case" assumption that prilled sulfur will be received by truck at the rate of 600 tons per hour, 24 hours per day. The maximum annual sulfur throughput has been established at 300,000 tons (a rate independent of rail car or truck receiving). The sulfur transfer rate to the storage area for permit review purposes will be 600 tons per hour, 24 hours per day; consistent with the "worst case" receiving rate. The sulfur recovery rate from the prilled sulfur storage area, and the subsequent prilled sulfur transfer and melting rate, will be 70 tons per hour, 24 hours per day (1,680 tons per day); the recovery rate necessary to supply sulfur to the two existing sulfuric acid plants. Wind erosion from the prilled sulfur storage area has been assumed to occur when the wind speed at the pile height exceeds 12 miles per hour (see Compilation of Air Pollutant Emission Factors (Publication AP-42, U.S. Environmental Protection Agency, Section 11.2.3).

For air pollution source construction permit review purposes, air pollutant emissions have been estimated for all activities associated

with prilled sulfur receiving, storage, transfer and melting. These emission rate calculations are documented in the following sections. For permitting purposes, it has been assumed that the melting of 300,000 tons per year of prilled sulfur (the maximum requested sulfur throughput) will result in the generation of no more hydrogen sulfide than would be generated by receiving and transferring 300,000 tons per year of molten sulfur under current operating practices at the SCCC. This assumption is based upon information previously provided to FDER by Occidental (see correspondence dated April 20, 1983 in support of Application for FDER Permit No. AC24-61435). The information suggests that the hydrogen sulfide/hydrogen polysulfide content of molten sulfur and solid sulfur are similar and further suggests that all of the hydrogen sulfide/hydrogen polysulfide in both forms of sulfur will be released prior to the sulfur being burned in the sulfuric plants. Since both forms of sulfur have equivalent concentrations of hydrogen sulfide/hydrogen polysulfide and since all of these compounds will be released, the form of sulfur will have no effect on the hydrogen sulfide/hydrogen polysulfide emissions. Since there will be no change in hydrogen sulfide emissions resulting from the proposal to use prilled sulfur in lieu of molten sulfur, hydrogen sulfide emissions will not be addressed further in this permit application.

Since prilled sulfur handling activities can occur simultaneously with other permitting sulfur handling activities at the SCCC, various combinations of sulfur handling activities have also been included in the air quality review sections of this application, in addition to the evaluation of emissions from the proposed prilled sulfur storage and handling facility alone. The combinations include:

(a) receiving of prilled sulfur simultaneous with the reclamation and melting of vatted sulfur, and

(b) receiving, recovery and melting of prilled sulfur simultaneous with the vatting of molten sulfur.

In all combinations of activities, wind erosion from both the prilled sulfur storage area and the vatted sulfur storage area has been included.

2.3.1 Sulfur Receiving

Prilled sulfur will be received at the SCCC by railcar and/or truck at an annual rate of 300,000 tons per year. The prilled sulfur will be shipped from a permitted port facility or directly from prilled sulfur producer. If the prilled sulfur is received from a permitted port facility, it is estimated that approximately 30,000 tons of sulfur will be received at the port and immediately transferred to Occidental's SCCC. The transfer of this quantity of sulfur will require six 50-car trains (at 100 tons of prilled sulfur per railcar) or 1200 25-ton trucks. The trains will arrive at the SCCC one per day

for six consecutive days. The trucks will arrive at the SCCC at the maximum rate of 24 trucks per hour for 50 consecutive hours. It is anticipated that the transfer of prilled sulfur from a permitted port facility to the SCCC will occur at a frequency of approximately once per month. The sulfur received from a prilled sulfur producer, in all probability, will be received at the SCCC by railcar. Delivery of sulfur direct from a producer will be scheduled by Occidental as necessary. It is expected that the sulfur received from a producer will be received in a 100-car unit train. At a railcar off-loading rate of 1,000 tons per hour, 10 hours will be required to off-load such a train.

The sulfur received at the SCCC by rail or truck will be off-loaded in the receiving building. The building will house three below-ground receiving hoppers that will allow the simultaneous off-loading of three railcars or three trucks. Figure 2-2 is a diagram of the prilled sulfur storage and handling facility showing the receiving building and the direction of traffic flow through the building.

The rail cars will pass through the building parallel to the long axis of the building (a southwest-northeast direction). It will require approximately 18 minutes to off-load each group of three rail cars. When prilled sulfur is delivered by trucks, the trucks will pass

through the building in a southeast-northwest direction using the same three receiving hoppers. The off-loading time for trucks, at the maximum receiving rate, will be approximately 7.5 minutes. It should be recognized that railcars and trucks cannot be off-loaded simultaneously.

During the time sulfur is being off-loaded from railcars, the six sets of doors for truck ingress and egress (three doors on each side of the building) will be closed. The doors through which the railcars will enter and leave the building will be as small as practical to minimize wind flow through the building during railcar unloading. During truck off-loading, the six sets of doors for truck ingress and egress will be open and the two railcar doors will be closed. Ribbon curtains will cover the truck ingress and egress doors during truck off-loading to minimize wind flow through the building.

The receiving building (Points 1A-1C, Figure 2-2) and the transfer points beneath the building (Points 2-4, Figure 2-2) will be vented at a rate of approximately 30,000 actual cubic feet per minute with the vented air passing through a scrubber for particulate matter control before being vented to the atmosphere. The estimated control

efficiency of the scrubber for sulfur particles is 85 percent. The scrubber water will be recirculated through the existing process water ponds at the SCCC.

The capture of fugitive particulate matter generated during rail car and truck unloading is estimated to be 60 percent; i.e., 60 percent of the fugitive particulate matter generated will be captured and vented through the air pollution control system. The capture of the particulate matter generated at Points 2-4, below ground level and under the receiving building, has been estimated to be 80 percent. A higher capture efficiency is estimated for Points 2-4 because the transfer points are in a more confined area than transfer Points 1A-1C and the ventilation rate, therefore, is less. The particles that are not captured and vented through the scrubber will escape into the receiving building. It has been estimated that 50 percent of the uncaptured particles in the receiving building will settle out and the remainder will be released into the atmosphere (Fugitive Dust Emission Factors and Control Methods Important to Forest Products Industry Manufacturing Operations, Technical Bulletin No. 424, Table 16, NCASI, March 1984).

Fugitive particulate matter emissions have been estimated for the discharge of prilled sulfur from railcars or trucks into hoppers

(Points 1A-1C, Figure 2-2). Using the continuous drop fugitive particulate matter emission factor equation from Compilation of Air Pollutant Emission Factors, Publication AP-42, U.S. Environmental Protection Agency (henceforth referred to as AP-42). The continuous drop fugitive particulate matter emission factor equation is in Section 11.2.3 of AP-42. This equation, and the other equations from AP-42 used for estimating fugitive particulate matter emission rates, are presented in Table 2-2.

The factors that affect the fugitive particulate matter emission rate, and those accounted for in the continuous drop equation are:

(a) the silt content of the sulfur (the fraction passing a 200 mesh sieve by dry sieving),

(b) the moisture content of the sulfur,

(c) the drop height, and

(d) the wind speed to which the dropped sulfur is exposed.

For purposes of this application, a silt content for the prilled sulfur received at the SCCC by railcar or truck was estimated to be 3.0 percent and the moisture content was estimated to be 1.6 percent. Both of these values are based upon data presented to the FDER by Occidental in the report The Evaluation of Sulfur Particle Emission Rates from Alternative Sulfur Handling Facilities in Florida, October

1984. In Section 1.1 of this report (see Appendix A of this Application) a silt content of 2.0 percent is reported for prilled sulfur received in Florida and a silt content of 3.0 percent is reported for a 50 percent slate, 50 percent prilled sulfur mixture received in Florida. Since the prilled sulfur that will be received at the SCCC will have undergone additional handling during transport to the SCCC, it was estimated for "worst case" conditions that the silt content of the prilled sulfur will be 3.0 percent.

The referenced report also states that the moisture content for prilled and slate/prill sulfur received in Florida will be 1.6 percent based on the reported moisture contents of prilled and slate sulfur shipped from Vancouver, Canada (see Appendix A). This moisture content was adopted as the estimated moisture content of the prilled sulfur that will be received at the SCCC.

The drop height of the prilled sulfur from the railcar or truck into the receiving hopper is estimated to be eight feet. The wind speed to which the unloaded sulfur is exposed is estimated to be 2.5 miles per hour. This is equivalent to a wind speed of 12 miles per hour (at 30 feet) adjusted to a height of four feet and then reduced by 60 percent

to account for shielding provided by the receiving building and the fact that approximately half of the fall distance is below ground level.

It is estimated that 60 percent of the fugitive particulate matter generated during the sulfur off-loading will be captured and vented through the scrubber system. The particulate matter vented through the scrubber system will be controlled at an 85 percent efficiency by the scrubber before discharge to the atmosphere. Half of the fugitive particulate matter generated by sulfur off-loading that is not captured (40 percent) is estimated to settle out in the receiving building before it escapes to the atmosphere. The variables affecting the calculation of fugitive emissions from the receiving hoppers are summarized in Table 2-3. The sulfur receiving rates, receiving hours and emission rates are summarized in Table 2-4.

The sulfur from the three hoppers (Points 1A-1C) will be transferred through enclosed transfer points to three shuttle conveyors operating beneath the receiving building. The hopper to conveyor transfer points are identified as Points 2A-2C (Figure 2-2) and are enclosed. The sulfur transfer rate through these three points, collectively, will be 1000 tons per hour for up to 10 hour per day when railcars are being off-loaded or 600 tons per hour for 24 hours per day when trucks

are being off-loaded. Eighty percent of the fugitive particulate matter generated by these three sources is assumed to be captured and vented through the scrubber system for the receiving building. The remaining 20 percent of fugitive emissions will enter the receiving building where half will settle and half will escape to the atmosphere. The emissions from sources 2A-2C were estimated using the continuous drop fugitive particulate matter emission factor equation from Section 11.2.3 of AP-42. The silt and moisture content of the prilled sulfur at these points was again estimated to be 3.0 percent and 1.6 percent, respectively. The drop height was estimated to be one foot and the wind speed was estimated to be one mile per hour; the latter, since the transfer points are enclosed and underground. The parameters used in the equation are summarized in Table 2-3. The sulfur throughput, the hours of operation and the particulate matter emissions from the sources are summarized in Table 2-4.

The underground shuttle conveyors transfer the prilled sulfur to an underground collector conveyor. The three transfer points to the collector conveyor (Points 3A-3C, Figure 2-2) are all enclosed. It has been estimated that 80 percent of the fugitive dust generated at these transfer points will be captured and vented through the scrubber system for the receiving building. The remaining 20 percent of the

particulate matter generated at these sources will escape into the receiving building where half will settle. The remaining 50 percent will escape to the atmosphere through the receiving building. The fugitive particulate matter emissions generated at the three transfer points were collectively estimated using the continuous drop fugitive particulate matter emission factor equation from Section 11.2.3 of AP-42. The variables that affect the fugitive particulate matter emission rate at these points were estimated to be the same as the variables for Points 2A-2C. These variables are summarized in Table 2-3. The sulfur throughput, the hours of operation and the collective emission rates from Points 3A-3C are summarized in Table 2-4.

From the collector conveyor, the prilled sulfur is transferred to a conveyor belt for transfer to the sulfur storage pile (Point 4, Figure 2-2). This transfer point is also located beneath the receiving building. The transfer point is enclosed and 80 percent of the emissions that are generated at the transfer are estimated to be collected and vented through the receiving building scrubber system. The fugitive emissions that are not captured will escape into the receiving building where 50 percent will settle. The remaining 50 percent will escape to the atmosphere through the receiving building. Fugitive particulate matter emissions from the transfer point were estimated using the continuous drop fugitive particulate matter

emission factor equation from Section 11.2.3. of AP-42. The parameters in the equation that affect particulate matter emissions for this point are the same as the parameters for points 2 and 3. These parameters are summarized in Table 2-3. The operating parameters of the transfer point are summarized in Table 2-4.

2.3.2 Storage Area

The prilled sulfur will be transferred by a covered conveyor belt from the receiving building to an open storage area southeast of the SCCC. The storage area will be approximately 200 feet wide and 1000 feet long and will be paved with asphalt concrete or a comparable impermeable cover to eliminate the potential for groundwater contamination. The storage area will also be graded and curbed to prevent surface water run-off. Water that is collected within the storage area will be accumulated in a sump and sprayed over the storage pile for dust control. During periods of excessive rainfall, the overflow from the prilled sulfur storage area will be pumped to the existing permitted process water pond at the SCCC.

The prilled sulfur will be delivered to the sulfur storage area from the receiving building by covered conveyor. The transfer conveyor will discharge onto an elevated stacker-conveyor that runs longitudinally above the storage area. The elevation of the

stacker-conveyor belt will be approximately 50 feet above grade. The prilled sulfur will be discharged from the stacker-conveyor by a tripper with the sulfur being discharge through an adjustable, flexible chute to the storage pile.

The transfer from the conveyor to the stacker-conveyor (Point 5, Figure 2-2) will be an enclosed transfer point at an elevation 50 feet above grade. The emissions from this transfer point were estimated using the continous drop fugitive particulate matter emission factor equation from Section 11.2.3 of AP-42. A wind speed of four miles per hour was estimated as the effective wind speed at this transfer point, even though it is enclosed, because of the elevation of the transfer point. The silt and moisture content of the prilled sulfur at this transfer point is estimated to be 3.0 percent and 1.6 percent, respectively. The drop height of the prilled sulfur was estimated to be two feet. These variables are summarized in Table 2-3. The operating parameters for the source and particulate matter emissions from the source are summarized in Table 2-4.

From the stacker-conveyor the prilled sulfur will be tripped to the sulfur storage pile (Point 6, Figure 2-2). The sulfur will be discharged through an adjustable, flexible drop chute designed to minimize the free-fall distance of the prilled sulfur. The chute will

be adjusted during the storage prilled sulfur so that the maximum free-fall distance of the prilled sulfur will be five feet. Another practice to minimize fugitive particulate matter emissions during the placement of prilled sulfur into storage will be to discharge the sulfur that is being placed into storage on the sloping side of an existing storage pile, when practical, rather than onto the flat, paved surface of the storage area. One additional work practice that will be incorporated into the prilled sulfur storage and handling facility will be the termination of the transfer of sulfur to storage during periods when wind speed exceeds 18 miles per hour for a five minute period or more.

The fugitive particulate matter emissions that will be generated during the transfer of prilled sulfur to storage were estimated using the continuous drop fugitive particulate matter emission factor equation from Section 11.2.3. of AP-42. In the application of this equation, it was assumed that the prilled sulfur will fall 25 feet through the drop chute and five feet through the open air. The wind speed that was assumed to affect the sulfur in the drop chute was a horizontal wind speed of one mile per hour. A wind speed of 12 miles per hour (an estimated wind speed typical of "worst case" atmospheric dispersion conditions) was assumed to affect the prilled sulfur during the free-fall from the bottom of the chute to the prilled sulfur

storage pile. The silt and moisture content of the sulfur being placed into storage was again estimated to be 3.0 percent and 1.6 percent, respectively. The parameters affecting the generation of fugitive particulate matter at Point 6 are summarized in Table 2-3. The operating parameters associated with the placement of prilled sulfur into storage are summarized in Table 2-4.

2.3.3 Prilled Sulfur Recovery

The maximum proposed sulfur throughput of the prilled sulfur storage and handling facility at the SCCC is 300,000 tons per year. This will require two complete turnovers of the prilled sulfur inventory. The sulfur will be recovered from inventory in the sulfur storage area at the maximum rate of 70 tons per hour; the rate necessary to operate the two existing sulfuric acid plants at the SCCC. The recovered sulfur will be transferred by front-end loader to a conveyor system and then to the static sulfur melter presently permitted under FDER permit AC24-61435. The melter is presently permitted to operate at a maximum rate of 70 tons per hour with a throughput of 300,000 tons per year reclaimed vatted sulfur. The use of the existing static melter for melting prilled sulfur will not effect the maximum permitted hourly operating rate of 70 tons per hour but it will increase the permitted total sulfur throughput of the melter from 300,000 tons per year to 600,000 tons per year.

The prilled sulfur will be recovered from the storage area with a front-end loader having an eight cubic yard bucket. The bucket will be filled to three quarters capacity to prevent the spillage of prilled sulfur during the transfer from the storage pile to a portable receiving hopper. The route traveled by the front-end loader will be the paved surface of the prilled storage pad.

The portable hopper-conveyor will be located as near to the sulfur recovery area as practical to minimize the travel distance of the front-end loader. Furthermore, the route traveled by the front-end loader will be wetted once each shift with water containing a wetting agent to minimize fugitive particulate matter emissions (unless there is sufficient rainfall). Also, the entire travel area will be cleaned by weekly washing with water to minimize the buildup of fine sulfur particles with the wash water and sulfur particles being accumulated in the storage area water sump. This water will be sprayed back on the pile for dust control as needed.

The average distance traveled by the front-end loader during the transfer of sulfur from the storage pile to the portable hopper is estimated to be 250 feet round trip (Point 7, Figure 2-2). Based upon a transfer of 5.7 tons per trip (six cubic yards of prilled sulfur at

a density of 70 pounds per cubic foot) and a maximum hourly and annual transfer rate of 70 tons per hour and 300,000 tons per year, the front-end loader will travel a maximum of 0.6 miles per hour, 14.2 miles per day and 2510 miles per year. The uncontrolled fugitive particulate matter emissions that will be generated as a result of this travel have been estimated using the industrial paved road emission factor equation from Section 11.2.6 of AP-42. The actual fugitive particulate matter emissions resulting from front-end loader travel were estimated by reducing the uncontrolled emissions by 50 percent to account for the control that would result from wetting the travel area once every eight hours with a water/surfactant mixture. (See NCASI Technical Bulletin 476, Table 16, March 1984.)

The parameters from the paved road emission factor equation that affect the emission rate of fugitive particulate matter are:

(a) an augmentation factor that was set equal to 1.0 since the front-end loader will only travel on the paved storage pad,

(b) the effective number of traffic lanes which was set equal to 2.0 based on a recommendation of the Midwest Research Institute (MRI) (Measurement of Fugitive Dust Emissions from Prilled Sulfur Handling, Final Report, Midwest Research Institute, June 1984). It should be noted that MRI developed the referenced paved road emission factor equation for EPA.,

(c) the silt content of the sulfur on the traveled surface which was set equal to 7.0 percent based upon measurements made by MRI and reported in the above referenced MRI report and in Appendix A of this application,

(d) the surface dust loading of the surface traveled by the front-end loader which was set equal to 12,000 pounds per mile of equivalent lane length based upon measurements reported by MRI in the above referenced MRI report, and

(e) the weight of the front-end loader which was set at 19 tons as the average of the loaded weight and empty weight.

These variables are summarized in Table 2-3. The operating time, the travel distances and the fugitive particulate matter emission rates associated with front-end loader travel are summarized in Table 2-4.

The prilled sulfur recovered from storage will be transferred by the front-end loader to a portable receiving hopper (Point 8, Figure 2-2). The sulfur will be transferred at the rate of 5.7 tons per batch with approximately one batch being transferred every five minutes. This will be equivalent to a transfer rate of 70 tons per hour; a transfer rate that will continue 24-hours a day, potentially for several consecutive days. The fugitive particulate matter emissions generated by this transfer were estimated using the batch drop fugitive particulate matter emission factor equation from Section 11.2.3. of AP-42. The silt content of the prilled sulfur transferred from the storage pile was estimated to be 3.0 percent. The moisture content was estimated to be 2.0 percent; a slight increase over moisture content of the prilled sulfur placed into storage. The two percent moisture content will be maintained in the storage pile by

precipitation, drain-down and evaporation. The drop height of prilled sulfur from the front-end loader bucket to the hopper was estimated to be four feet and the wind speed to which the dropped sulfur will be exposed was estimated to be eight miles per hour (a 12 mile per hour "worst case" wind, adjusted for a height above grade of six feet). The parameters used in the estimation of fugitive particulate matter emissions from the transfer of prilled sulfur into the hopper are summarized in Table 2-3. The sulfur handling rate, the hours of operation and the particulate matter emission rate from the transfer are summarized in Table 2-4.

From the hopper, the prilled sulfur is transferred to a conveyor belt which is part of the portable hopper-conveyor system (Point 9, Figure 2-2). The hopper to conveyor transfer is an enclosed transfer. The fugitive particulate matter emissions from this transfer were estimated using the continuous drop fugitive particulate matter emission factor equation from Section 11.2.3 of AP-42. The silt and moisture content of the transferred prilled sulfur were estimated to be 3.0 percent and 2.0 percent, respectively; the same as the sulfur transferred by the front-end loader into the hopper. The drop height from the hopper to the conveyor was estimated to be one foot and the wind speed to which the sulfur is exposed was estimated to be one mile per hour since the transfer point is enclosed. The parameters used

for estimating fugitive particulate matter emissions are summarized in Table 2-3. The sulfur throughput rate, the hours of operation and the fugitive particulate matter emission rate are summarized in Table 2-4.

2.3.4 Transfer of Recovered Prilled Sulfur to the Melter

The sulfur recovered from the sulfur storage pile will be transferred to the existing static sulfur melter permitted under FDER permit AC24-61435 by a series of conveyor belts. The first conveyor belt in the system will be part of the portable hopper-conveyor system that was described in the previous section. From the portable conveyor belt, the prilled sulfur will be transferred to a conveyor belt that runs longitudinally along the northwest side of the prilled sulfur storage area. From the collector belt in the sulfur storage area, the prilled sulfur will be transferred to a two conveyor belt system that will convey the sulfur directly to the sulfur melter. All of the conveyors, with the exception of the conveyor belt on the portable hopper-conveyor system, will be covered to prevent windage losses during the transfer of prilled sulfur. All of the transfer points (Points 10-12, Figure 2-2) in the conveying system will be enclosed to prevent the exposure of sulfur to wind. The wind speed to which the sulfur is exposed at each of the transfer points has been estimated to be two miles per hour. The silt and moisture content of the prilled

sulfur transferred through the conveying system has been estimated to be 3.0 percent and 2.0 percent, respectively; the same as sulfur removed from the storage pile. The drop height of sulfur at each of the transfer points has been estimated to be two feet. The fugitive emissions from all of the conveyor transfer points were estimated using the continuous drop fugitive particulate matter emission factor equation from Section 11.2.3 of AP-42. The parameters used in this equation, as applied to each of the transfer points, are summarized in Table 2-3. The sulfur throughput rate at each of the transfer points, the hours of operation and the fugitive particulate matter emission rate of each transfer point is summarized in Table 2-4.

The fugitive particulate matter emissions generated as the prilled sulfur is discharged into the static sulfur melter (Point 13, Figure 2-2) were estimated using the continuous drop fugitive particulate matter emission factor equation from Section 11.2.3 of AP-42. This transfer will take place within the hooded enclosure of the static sulfur melter (see Occidental Chemical Agricultural Products, Inc., Reply to Request for Additional Information by Florida Department of Environmental Regulation, Dated August 20, 1985, Application to Modify Permit No. AC24-61435, Response to FDER Request No. 2(b), October 28, 1985). The silt and moisture content of the sulfur being discharged into the static sulfur melter was estimated to be 3.0 percent and 2.0

percent, respectively. The drop height of the sulfur is estimated to be five feet and the wind speed to which the sulfur will be exposed was estimated to be two miles per hour. The two miles per hour wind speed was estimated because of the hooded enclosure surrounding the static sulfur melter hopper. The parameters used in estimating emissions during the discharge of sulfur into the melter are summarized in Table 2-3. The sulfur transfer rate, hours of operation and fugitive particulate matter emission rate for the transfer point are summarized in Table 2-4.

2.3.5 Wind Erosion

Prilled sulfur in the storage area and the sulfur fines in the area where the front-end loader travels will be subject to wind erosion when the wind speed exceeds 12 miles per hour (see AP-42, Section 11.3.2). Information previously submitted to FDER by Occidental documented the fact that the wind speed at the SCCC will exceed 12 miles per hour approximately five percent of the time during an annual period (See An Engineering Report in Support of an Application to Modify Air Pollution Source Construction Permit AC24-61435 for a Vatted Sulfur Storage and Handling System, Volume I, Occidental Chemical Agricultural Products, Inc., July 12, 1985, Appendix A). For estimating wind generated fugitive particulate matter emissions, the prilled sulfur storage area was subdivided into four equal areas, each

225 feet square. The silt content of the sulfur in three of the areas was estimated to be 3.0 percent; the silt content of the prilled sulfur in storage. The silt content of the sulfur covering the fourth area was estimated to be 7.0 percent; the silt content in the area traveled by the front-end loader.

For estimating the maximum hourly wind generated fugitive particulate matter emission rate, it was assumed that there was no precipitation and that the wind speed exceeded 15 miles per hour 100 percent of the time. For estimating annual wind generated fugitive particulate matter emissions, it was estimated that precipitation in excess of 0.01 inches per day occurred 115 days per year (see AP-42, Section 11.2.3). It was further estimated that, on an annual basis, the wind speed exceeded 15 miles per hour five percent of the time. The parameters influencing wind generated fugitive particulate matter emissions are summarized in Table 2-3. The wind generated fugitive particulate matter emissions are summarized in Table 2-4.

2.3.6 Total Particulate Matter Emission Estimates for All Sources

The particulate matter emission rates for the proposed prilled sulfur storage and handling facility that are reported in the preceding sections have been for suspended particulate matter. These are particles defined by the EPA to be less than 30 micrometers

aerodynamic diameter. The emission rates of these particles are required for the pre-construction ambient air quality impact analysis required by Rule 17-2.540(2)(a), FAC.

In addition to the pre-construction ambient air quality impact analysis, Rule 17-2.540(2)(b), FAC, requires a pre-construction sulfur deposition analysis. The sulfur deposition analysis requires an estimate of the <u>total</u> sulfur particle emission rate from the sulfur storage and handling activities. The emission rate of total particles is related to the emission rate of suspended particles in Rule 17-2.215(4)(c)1.a, FAC. In this Rule, it is stated that the total particle emission rate can be estimated by multiplying the suspended particle emission rate by a factor of 2.1. This factor was applied to the emission rate of suspended particles calculated for each of the emission points in the prilled sulfur storage and handling facility to obtain the emission rate for total particles.

The annual total particle emission rates were divided by 12 to obtain monthly average total particle emission rates. The monthly total particle emission rates were then used to determine the monthly sulfur deposition rates required by Rule 17-2.540(2)(b), FAC. The monthly sulfur deposition rates were totalled to provide an annual total sulfur particle deposition rate.

2.3.7 Emissions From Combined Sulfur Vat and Prilled Sulfur Facility Activities

As discussed in Section 2.3 of this application, there is a potential for certain activities associated with the sulfur vatting and reclamation facility to be conducted simultaneously with certain activities in the proposed prilled sulfur storage and handling facility. When evaluating the air quality impact of the combined activities, the maximum hourly sulfur particle emission rates (both suspended and total particles) were assumed to apply to the ongoing activities. The maximum hourly emission rates for the sulfur vatting and reclamation facility are those emission rates reported to FDER in Appendix A of An Engineering Report in Support of an Application to Modify Air Pollution Source Construction Permit AC24-61435 for a Vatted Sulfur Storage and Handling System, Volume I, Occidental Chemical Agricultural Products, Inc., July 12, 1985. The exception to this is that the maximum hourly sulfur particle emission rate for molten sulfur railcar unloading is the modified emission rate reported in response to FDER Request No. 11 for additional information reported to FDER in Occidental Chemical Agricultural Products Inc. Reply to Request for Additional Information by Florida Department of Environmental Regulation, Dated August 28, 1985, Application to Modify Permit AC24-61435, October 28, 1985. The maximum hourly emission

rates for the vatted sulfur storage and handling facility are summarized in Table 2-5 of this Application. Emissions from the proposed prilled sulfur storage and handling facility are summarized in Table 2-4.

For estimating the annual average impact of suspended sulfur particles from combined activities in the sulfur vatting and reclamation facility and the proposed prilled sulfur storage and handling facility and to estimate the monthly and annual deposition rates of total sulfur particles from the two facilities, annual average emission rates and monthly average emission rates were used. The assumption was made that 300,000 tons per year of sulfur would be processed through both the sulfur vatting facility and the proposed prilled sulfur facility; or a total annual sulfur throughput of 600,000 tons. The annual average emission rates for the proposed prilled sulfur facility are summarized in Table 2-4 and annual average emission rates for the vatted sulfur storage and handling facility are reported in Table 2-5.

2.3.8 Summary of Emissions

The suspended and total particle emission rates calculated as described in the preceeding sections of this application are summarized in Table 2-4. In this table, the maximum suspended sulfur

particle emission rates expected to occur during a 24-hour period are presented along with the annual average suspended particle emission rates. The total particle emission rates are presented for the annual period only. Monthly average total particle emission rates were calculated by dividing the annual average total particle emission rate by twelve.

In reviewing Table 2-4 it will be noted that the maximum hourly suspended particle emission rate from the proposed prilled sulfur storage and handling facility, including those particles generated by wind erosion, will be 12.36 pounds per hour. The maximum annual suspended sulfur particle emission rate from the facility will be 4.6 tons per year. This annual emission rate is well below the 25 ton per year de minimis emission rate defined by Rule 17-2.500(2)(e)2, FAC, that would trigger a PSD review for this construction permit application if exceeded.

TABLE 2-1

SUMMARY OF ACTIVITIES AT THE
OCCIDENTAL VATTED AND PRILLED SULFUR FACILITIES THAT CAN
OCCUR SIMULTANEOUSLY

OCCIDENTAL AGRICULTURAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

Activity	Prilled Sulfur Receiving	Prilled Sulfur Recovery	Molten Sulfur Vatting	Vat Reclamation	Molten Sulfur Receiving	Wind Erosion (Vat and Prill)
Prilled Sulfur Receiving	X(1)	X	X	X(2)	X	X
Prilled Sulfur Recovery	X	X(1)	X			X
Molten Sulfur Vatting	X	X	X(1)		X	X
Vat Reclamation	X(2)			X(1)		X
Molten Sulfur Receiving	X		X		X(1)	X
Wind Erosion (Vat and Prill)	X	X	X	X	X	X(1)

(1) Activity can occur alone.
(2) A possible but unlikely combination of activities.

TABLE 2-2

FUGITIVE PATICULATE MATTER EMISSION FACTOR EQUATIONS(1)
FOR PROPOSED PRILLED SULFUR STORAGE AND HANDLING FACILITY

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

Continuous Material Drop Equation

$$E_1 = K_c(0.0018)(s/5)(u/5)(H/10)/(M/2)^2 \qquad \text{(eq 1)}$$

Batch Material Drop Equation

$$E_1 = K_b(0.0018)(s/5)(u/5)(H/10)/(M/2)^2(Y/6)^{0.33} \qquad \text{(eq 2)}$$

Wind Erosion

$$E_2 = 1.7(s/1.5)[(365-p)/235](f/15) \qquad \text{(eq 3)}$$

Industrial Paved Roads

$$E_3 = K_r(0.090)(I)(4/n)(s/10)(L/1000)(W/3)^{0.7} \qquad \text{(eq 4)}$$

Where:
- E_1 = Emission factor (lb/ton),
- E_1 = Emission factor (lb/acre/day),
- E_2 = Emission factor (lb/vehicle mile traveled),
- K_c = Fraction of particles $\leq$ 30 umA = 0.77,
- K_b = Fraction of particles $\leq$ 30 umA = 0.73,
- K_r = Fraction of particles $\leq$ 30 umA = 0.86,
- s = material silt content (%),
- u = wind speed (mi/hr),
- H = material drop height (ft),
- M = material moisture content (%),
- Y = dumping device capacity (cu.yd.),
- p = days per year with $\geq$ 0.01 inches rainfall,
- f = fraction of time wind speed exceeds 12 mph,
- I = augmentation factor = 1.0 (see reference),
- n = equivalent number of traffic lanes = 2,
- L = surface dust loading (lb/mile), and
- W = vehicle weight (tons).

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(1) Compilation of Air Pollutant Emission Factors, Publication AP-42, U.S. Environmental Protection Agency, Section 11.2.

TABLE 2-3

SUMMARY OF FACTORS AFFECTING FUGITIVE PARTICULATE MATTER EMISSIONS FOR SOURCES IN PROPOSED PRILLED SULFUR FACILITY

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

Activity	Equation(1)	Equation Parameters					
		Silt (%)	Moisture (%)	Drop Height (ft)	Wind Speed (mph)	Batch Size (cu.yd.)	Other
1. Railcar off-loading	1	3	1.6	8	2.5	--	
Truck off-loading	1	3	1.6	8	2.5	--	
2. Hopper to Belt	1	3	1.6	1	1.0	--	
3. Belt to Belt	1	3	1.6	1	1.0	--	
4. Belt to Belt	1	3	1.6	1	1.0	--	
5. Belt to Belt	1	3	1.6	2	4.0	--	
6. Belt to Storage Pile	1	3	1.6	25/5	1.0/12.0	--	
7. Loader Travel	4	7	--	--	--	--	(3)
8. Loader to Hopper	2	3	2.0	4	8.0	6	
9. Hopper to Belt	1	3	2.0	1	1.0	--	
10. Belt to Belt	1	3	2.0	2	2.0	--	
11. Belt to Belt	1	3	2.0	2	2.0	--	
12. Belt to Belt	1	3	2.0	2	2.0	--	
13. Belt to Melter	1	3	2.0	5	2.0	--	
14. Wind Erosion	3	3/7	2.0	--	>12.0	--	(4)
15. Melter	(2)	--	--	--	--	--	(4)

(1) See Table 2-2.
(2) Emission parameters as in permit application for Permit No. AC24-61435.
(3) Augmentation factor = 1.0; Number of equivalent traffic lanes = 2.0; Surface dust loading = 12,000 lb/mi; Vehicle weight = 19 tons (average).
(4) Number of days with precipitation $\geq$ 0.01 inches = 115; fraction of time wind speed $\geq$ 12 mph = 5 percent (annual).

TABLE 2-4

SULFUR THROUGHPUT RATES, DURATION OF ACTIVITY AND EMISSION RATES
FOR ACTIVITIES IN PROPOSED PRILLED SULFUR STORAGE AND HANDLING FACILITY

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

Source No.(1)	Activity	Sulfur Throughput Rate (tons/hr)	Sulfur Throughput Rate (tons/yr)	Duration of Activity (hr/day)	Duration of Activity (hr/yr)	Uncontrolled Emission Factor (lb/ton)	Control Type	Control Efficiency	E(30um), Controlled (lb/hr)	E(30um), Controlled (tpy)	E(total), Controlled (tpy)
1	Railcar Unloading(2)(3)	1000	300,000	5-10	300 Max.	0.00052	Bldg/Scrubber	50/91	--	--	--
	Truck Unloading(2)(3)	600	300,000	24	500 Max.	0.00052	Bldg/Scrubber	50/91	0.03	0.007	0.015
2	Hopper to Conveyor(2)	1000/600	300,000	5-10/24	300/500	0.00003	Bldg/Scrubber	50/97	<0.01	<0.001	<0.001
3	Belt to Belt(2)	1000/600	300,000	5-10/24	300/500	0.00003	Bldg/Scrubber	50/97	<0.01	<0.001	<0.001
4	Belt to Belt	1000/600	300,000	5-10/24	300/500	0.00003	Bldg/Scrubber	50/97	<0.01	<0.001	<0.001
	Scrubber stack venting controlled emission from points 1-4, collectively.								0.03	0.007	0.016
	Receiving building from which uncaptured emissions from points 1-4 are collectively discharged.								0.07	0.017	0.036
5	Belt to Belt	1000/600	300,000	5-10/24	300/500	0.00021	Enclosure	-----	0.12	0.031	0.065
6	Belt to Storage Pile	1000/600	300,000	5-10/24	300/500	0.00234	Drop Chute	-----	1.40	0.351	0.737
7	Loader Travel	0.6 mi/hr	2510 mi/yr	24	4285	4.197 lb/VMT	Sprays	50	1.26	2.634	5.531
8	Loader to Hopper	70	300,000	24	4285	0.00095	None	-----	0.07	0.142	0.298
9	Hopper to Belt	70	300,000	24	4285	0.00002	Enclosure	-----	<0.01	0.002	0.004
10	Belt to Belt	70	300,000	24	4285	0.00007	Enclosure	-----	<0.01	0.010	0.021
11	Belt to Belt	70	300,000	24	4285	0.00007	Enclosure	-----	<0.01	0.010	0.021
12	Belt to Belt	70	300,000	24	4285	0.00007	Enclosure	-----	<0.01	0.010	0.021
13	Belt to Melter	70	300,000	24	4285	0.00017	Enclosure	-----	0.01	0.025	0.053
14	Melter	70	300,000	24	4285	0.00571	None	-----	0.01	0.030	0.030
15	Wind Erosion	4.8 ac	4.8 ac	Variable(4)	Variable(4)	---	Sprays	-----	9.39	1.408	2.957
TOTAL									12.36	4.647	9.760

(1) See Figure 2-2 for source location.
(2) Three identical points; data shown are for all points totaled.
(3) These activities will not occur simultaneously. Emissions from truck unloading were selected as "worst case" emissions.
(4) Emissions are generated when the wind speed exceeds 12 miles per hour.

TABLE 2-5

SUSPENDED AND TOTAL PARTICLE EMISSION RATES FOR SOURCES IN THE VATTED SULFUR STORAGE AREA PERMITTED BY PERMIT AC24-61435

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

Source	Duration of Activity (hr/day)	Duration of Activity (hr/yr)	Sulfur Throughput (lb/hr)	Sulfur Throughput (tons/yr)	Emissions: Suspended Particles (lb/hr)	Emissions: Suspended Particles (tpy)	Emissions: Total Particles (tpy)
Railcar Unloading	2	107	2800	300,000(2)	0.76	0.051	0.051
Sulfur Vatting	6	1200	270	300,000(2)	2.20	1.275	1.275
Vat Reclamation	8	1428	210	300,000	1.51	0.720	1.521
Sulfur Recovery	8	1428	210	300,000	0.50	0.240	0.504
Sulfur to Melter	24	4285	70	300,000	0.09	0.165	0.346
Vehicle Travel Reclaim	13 mi/day	2320 mi/yr	--	---	2.40	1.024	2.150
To Melter	13 mi/day	2320 mi/yr	--	---	2.62	1.024	2.150
Melter	24	4285	70	300,000	0.01	0.015	0.030
Wind Erosion	Variable(1)	Variable(1)	--	---	7.63	0.145	0.304
TOTAL				300,000	17.72	4.659	8.331

(1) Wind erosion occurs when wind speed exceeds 12 miles per hour.
(2) Throughput is 375,000 tons during the first two years of operation.

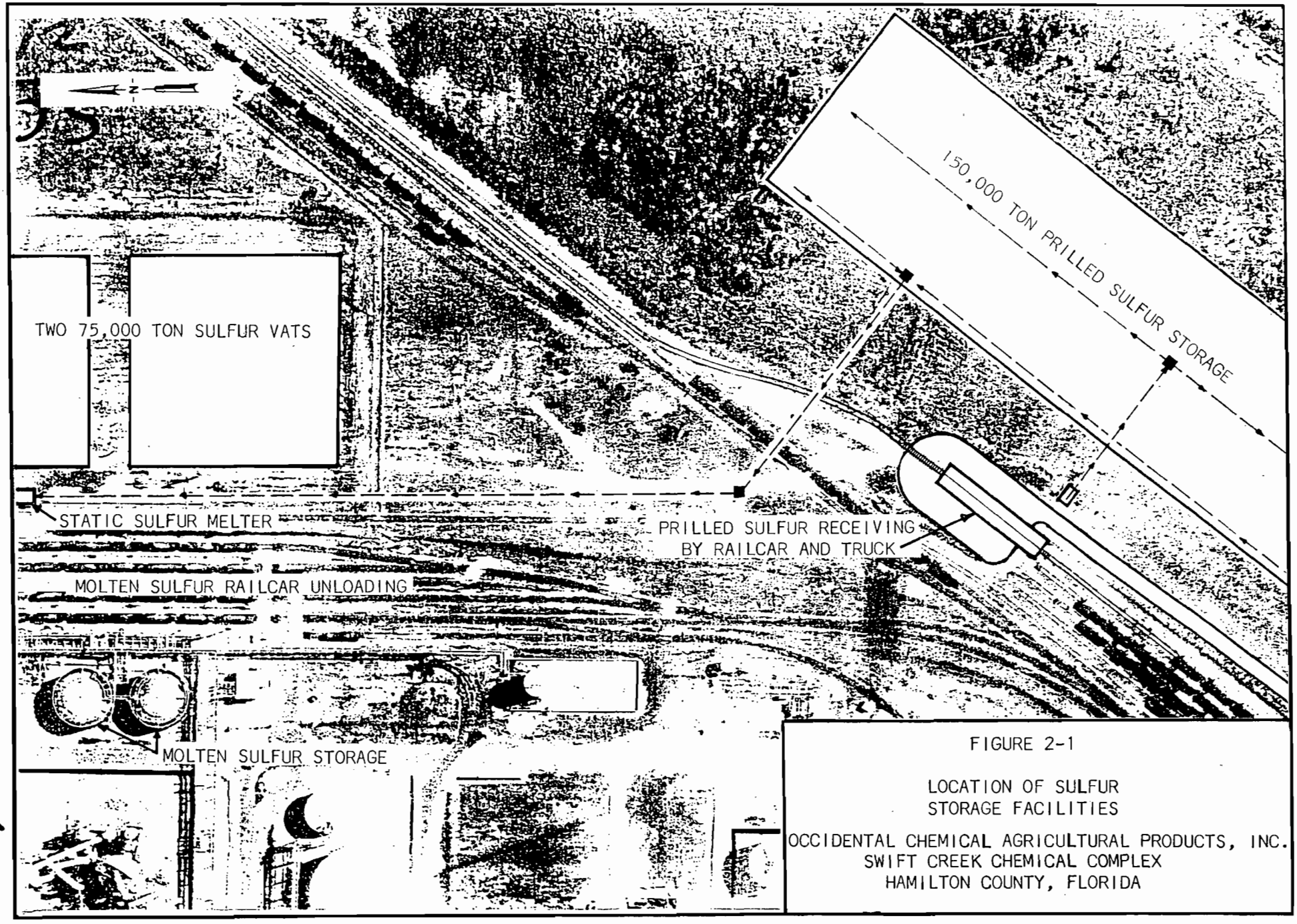

FIGURE 2-1

LOCATION OF SULFUR
STORAGE FACILITIES

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

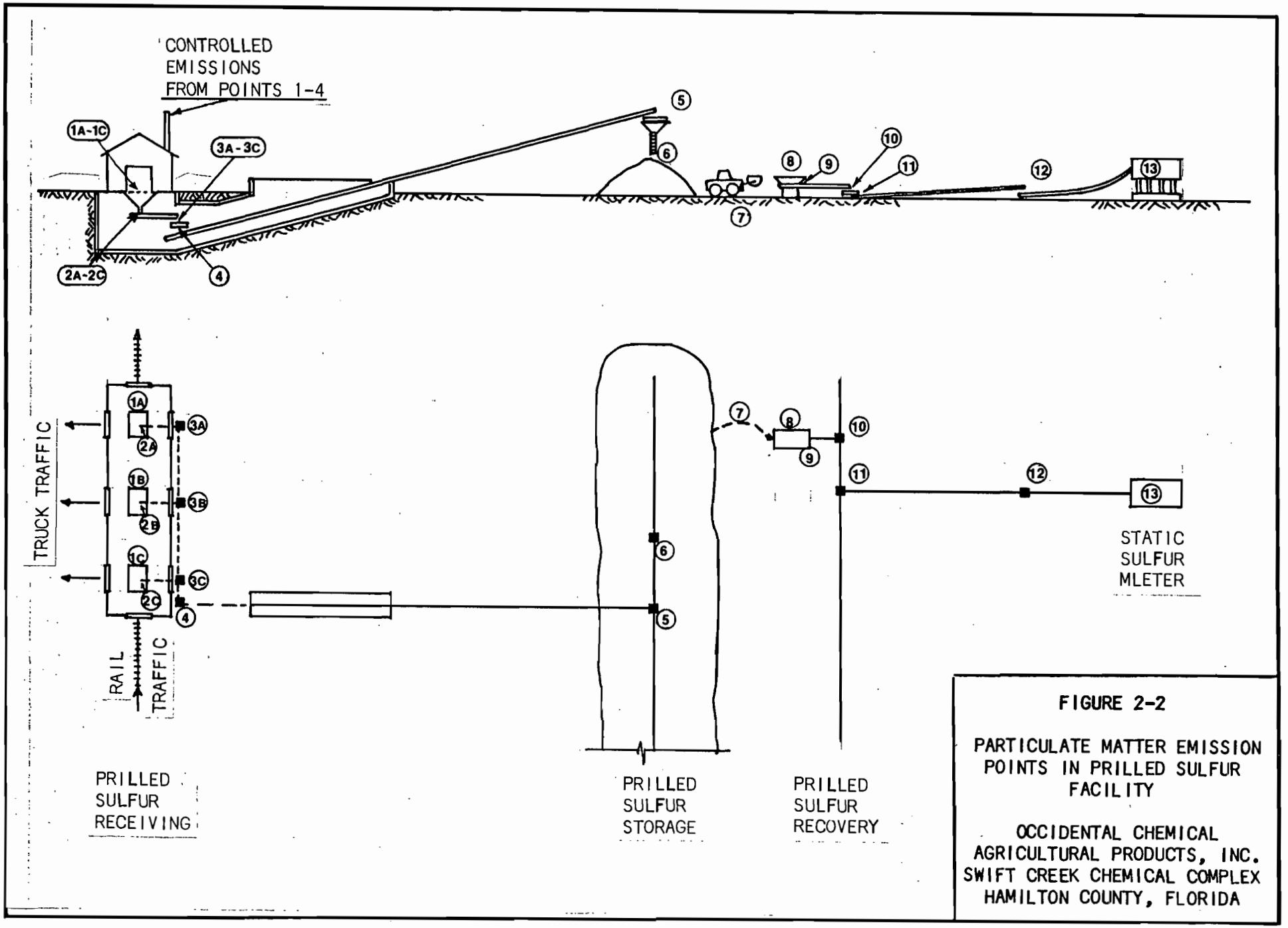

FIGURE 2-2

PARTICULATE MATTER EMISSION POINTS IN PRILLED SULFUR FACILITY

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC. SWIFT CREEK CHEMICAL COMPLEX HAMILTON COUNTY, FLORIDA

3.0 AIR QUALITY REVIEW

3.1 Rule Applicability

The prilled sulfur storage and handling facility is proposed for the Occidental SCCC in Hamilton County, Florida. The area has been designated as an attainment area for all criteria pollutants by the FDER. The SCCC is a major emitting facility for PSD air pollution source permit review purposes; that is, the facility emits more than 100 tons per year of one or more criteria air pollutants.

The proposed prilled sulfur storage and handling facility will have suspended particulate matter emissions of 4.6 tons per year. The proposed facility will also result in hydrogen sulfide being emitted due to the melting of the prilled sulfur. The hydrogen sulfide emissions, however, will be off-set by a reduction in hydrogen sulfide emissions from the molten sulfur that will be replaced by the prilled sulfur. As a result, there will be no net change in hydrogen sulfide emissions at the SCCC as a result of the proposed prilled sulfur storage and handling facility.

The expected suspended particulate matter emissions from the proposed prilled sulfur storage and handling facility of 4.6 tons per year, when combined with the suspended particulate matter emission increase of 4.6 tons per year resulting from the vatted sulfur storage and

handling facility, will be less than the de minimis particulate matter emission rate increase of 25 tons per year defined in Rule 17-2.500(2)(e)2, FAC. Since the increase in particulate matter emissions from the two sulfur handling facilities combined does not exceed the de minimis emission rate increase for particulate matter and since there will be no net increase in hydrogen sulfide emissions as a result of the proposed prilled sulfur facility, the air quality review and the other requirements of air pollution source permitting under PSD rules (17-2.500, FAC) are not applicable.

An air quality review for the sulfur storage facility is required however, under Rule 17-2.540(2), FAC. This Rule requires both an ambient air quality impact analysis to evaluate the impact of suspended particles an ambient air quality and an evaluation of the deposition rate of total particles. The purpose of this section of the Application is to describe the air quality impact and sulfur deposition analysis.

3.2 Overview of Air Quality Review

The purpose of the air quality review required by Rule 17-2.540(2), FAC, is to demonstrate compliance with the Florida Ambient Air Quality Standards (AAQS) for total suspended particulate matter and to evaluate the impact of monthly and annual sulfur deposition rates.

The air quality review was conducted using the Industrial Source Complex (ISC) Air Quality Model approved by the EPA and the FDER.

The input to the ISC model includes the emission rates and source information developed in Section 2.3 of this application. The source data input to the model are summarized in Table 3-1. The surface meteorological data used with the model were collected during the five year period 1972 - 1976 by the National Weather Service (NWS) in Valdosta, Georgia. Upper air data for the period 1972 - 1976 are from Waycross, Georgia. The receptors, or locations for which the ISC calculates air quality impacts and deposition rates, were located around the two SCCC sulfur storage and handling facilities at ten degree intervals. The radial distances from the storage area to the receptors ranged from 0.5 to 2.0 kilometers. Receptors at the radial distance of 0.7 kilometers represent the Occidental property line nearest the sulfur storage areas; an uninhabited, undeveloped 40-acre tract of land to the northwest of the storage areas (see Figure 3-1). The receptors located at 2.0 kilometers from the storage areas represent the location of U.S. Highway 41; the nearest point of normal public access to the sulfur storage facility.

3.3 Ambient Air Quality Standards and Existing Air Quality

The Florida AAQS for suspended particulate matter, as defined in Rule 17-2.300(3)(b), FAC are:

1. Annual - 60 micrograms per cubic meter, geometeric mean; and
2. 24-Hour - 150 micrograms per cubic meter, not to be exceeded more than once per year.

The significant impact levels for suspended particulate matter are defined in Rule 17-2.210(168)(b), FAC. These impact levels are:

1. Annual - One microgram per cubic meter, arithmetic mean; and
2. 24-Hour - Five micrograms per cubic meter, not to be exceeded more than once per year (in attainment and unclassified areas of the state).

Florida has no sulfur deposition standards against which to compare the sulfur deposition rates required by Rule 17-2.540(2)(b), FAC.

The existing total suspended particulate matter (TSP) levels in the ambient air near SCCC (including the impacts of existing particulate matter sources) were established from monitoring data gathered at a site operated near the SCCC during the period of January 1980 through August 1984. Monitoring was discontinued in 1984 because of logging operations in the area. These monitoring data were reported to FDER in supplemental information in support of the permit application for

permit AC24-61435 (Occidental Chemical Agricultural Products, Inc. Reply to Request for Additional Information by the Florida Department of Environmental Regulation Dated August 20, 1985, Application to Modify Permit No. AC24-61435, Reply to FDER Response No. 17, October 28, 1985). A copy of this Response is attached as Appendix B. Based upon these data, the annual geometric mean TSP level at the SCCC was established as 36 micrograms per cubic meter and the second highest 24-hour TSP expected to occur during a one year period was established as 112 micrograms per cubic meter.

3.4 Model Description

The ISC model was developed for EPA and is an EPA and FDER approved model for calculating the concentration of an air pollutant in the ambient air and the deposition rate of a pollutant on the ground surface. For calculating concentrations due to point, volume and area source emissions, the model uses the steady-state Gaussian plume equation for a continuous source. Vertical and/or horizontal dimensions are assigned to each area source and volume source to simulate the initial dispersion of pollutants emitted from the source. For evaluating the dispersion of particulate matter, the ISC considers the gravitational effects of settling on the particles. For the area and volume sources associated with the proposed prilled sulfur storage and handling facility, the ISC assumes no plume rise; the assumption

being that either there is no vertical inertia imparted to the particles or that if vertical inertia is imparted, it is immediately dissipated within the down-wind wake generated by the sources.

The ISC consists of two sets of computer codes; one used to calculate short-term air quality impacts and deposition rates and the other used to calculate long-term air quality impacts and deposition rates. The short-term version is referred to as the ISC-ST and the long-term version is referred to as the ISC-LT.

The ISC-ST model requires as input hourly meteorological parameters and source operating parameters. From these input data, the ISC-ST calculates hourly ambient air concentrations or deposition rates of the defined pollutant. These hourly values are then averaged over user defined averaging periods to obtain air quality impacts or deposition rates representative of longer periods of time; for example, 3-hour or 24-hour periods. The ISC-LT model utilizes joint frequency distributions of wind direction, wind speed and atmospheric stability to calculate ambient air concentrations or deposition rates of a pollutant for monthly, seasonal and/or annual periods.

Both versions of the ISC air quality model require user defined receptors. These are locations for which the model calculates

pollutant concentrations or deposition rates. The receptors can be defined either by a Cartesian or polar coordinate system. This coordinate system also defines the location of the air pollutant sources being evaluated by the model.

3.5 Model Input Data

3.5.1 Source Data

The prilled sulfur storage and handling facility is described in detail in Section 2.3 of this Application. The activities that occur within the facility are also described and factors influencing suspended and total particle emissions are delineated. The emission rates summarized in Table 2-4 include maximum suspended particulate matter emissions for the 24-hour period and average suspended and total particle emissions for the annual period. The monthly total particle emissions were obtained by dividing the annual total particle emission rates by 12. Sulfur particle emission rates from the vatted sulfur storage and handling facility permitted under permit AC24-61435, were as previously reported to the FDER and referenced in previous sections of this application. These emission rates are summarized in Table 2-5.

The particles generated as a result of the activities that will occur in the proposed prilled sulfur storage and handling facility are

described as unconfined emissions except for those emitted from the prilled sulfur receiving building scrubber. Unconfined emissions are those emitted into the atmosphere without being captured and discharged through a well defined duct or stack. For modeling purposes, therefore, many of the particles were represented as being emitted from a volume source. This representation was made since the larger (physically larger) sources of emissions are three dimensional; i.e., they have a height as well as a horizontal length and width. Physically small sources, such as individual conveyor transfer points were represented as point sources. All source characteristics, including the daily operating hours of each activity, are summarized in Table 3-1. The duration of activities range from 5-10 hours per day for railcar unloading to 24 hours per day for all other activities. Wind erosion will occur whenever the wind speed exceeds 12 miles per hour.

3.5.2 Meteorological Data

The surface meteorological data input to the ISC model were collected in Valdosta, Georgia by the NWS during the period 1972 - 1976. Upper air data for the same time period were collected by the NWS in Waycross, Georgia. For the ISC-ST model, the meteorological data consists of hourly records of wind speed, wind direction, ambient temperature, atmospheric stability and mixing height. For the ISC-LT

model, the meteorological data are summarized into joint frequency distributions of wind speed, wind direction and atmospheric stability. Joint frequency distributions were prepared for monthly periods for calculating monthly deposition rates and for the annual period for calculating annual suspended particulate matter concentrations. Annual deposition rates were calculated by totaling the 12 monthly deposition rates at each receptor.

3.5.3 Receptor Data

The receptors used in both the ISC-ST and ISC-LT models are defined by polar coordinates. The receptors are spaced at ten degree intervals around the facilities and at radial distances of 0.5, 0.7 and 2.0 kilometers from the origin. The receptors at 0.7 kilometers represent the Occidental property line nearest the facility. The land beyond this property line is a 40 acre tract which is undeveloped and uninhabited. This property is shown in Figure 3-1. The receptors located 2.0 kilometers from the facility represent U.S. Highway 41. This is normally the nearest access that the general public has to the SCCC and the sulfur storage facilities.

The general public is excluded from areas nearer the SCCC, all of which is on Occidental property, by the cooling ponds, gypsum storage area, the clay settling area, a fence along U.S. Highway 41, and Swift

Creek Swamp; the latter being to the north through east of the SCCC. In addition, the entire area is routinely patrolled by plant security personnel and/or mines personnel to assure that trespassing does not occur. All of the Occidental property is also posted.

3.5.4 Particle Settling Rates

The short-term and long-term versions of the ISC consider the settling rate of particles when calculating particle concentrations in the ambient air and deposition rates. Both models account for the settling rates and the reflection of particles in up to 20 in size ranges. Particle reflection is defined as the fraction of particles that is reflected from the ground surface and remains airborne after contacting the ground surface. Normally, the smaller the particle, the greater the reflection coefficient. For particles nominally larger than 70 microns in aerodynamic diameter, the reflection coefficient approaches zero; that is, once these particles contact the ground surface they are permanently removed from the atmosphere.

Particles emitted from activities associated with proposed prilled sulfur storage and handling facility are all generated by physical activities such as prilled sulfur handling and vehicle traffic. These particles range in size up to approximately 300 micrometers in

aerodynamic diameter, with approximately 50 percent being less than 30 micrometers in aerodynamic diameter. The size distribution of these particles is defined in Rule 17-2.215(4)(c), FAC.

The particles from all sources in the proposed prilled sulfur storage and handling facility were subdivided into ten size fractions; each size fraction representing ten percent of the mass fraction. Mass means diameters were calculated for each size fraction pursuant to Rule 17-2.215(4)(c)4, FAC. Settling velocities were calculated using Stoke's equation and reflection coefficients were assigned as suggested in the User's Manual for the ISC air quality model. The settling rate parameters for the particles are summarized in Table 3-2.

TABLE 3-1

PARAMETERS FOR SOURCES IN PROPOSED PRILLED SULFUR FACILITY
USED FOR AIR QUALITY IMPACT AND SULFUR DEPOSITION ANALYSES

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

Source No.	Source Description	Source Type	Daily Operating Hours	Source Dimensions (ft)	Release Height (ft)	Release Height (m)	Initial Dispersion σ_{yo} (m)	Initial Dispersion σ_{zo} (m)	Particle Emissions Suspended 24-Hour (gr/sec)	Particle Emissions Suspended Annual (gr/sec)	Total Monthly (gr/month)
1-4	Receiving Building Controlled Emissions	Point	24	-----	40	12.2	---	---	0.005	0.0002	1271
1-4	Receiving Building Unconfined Emissions	Volume	24	H=30 W=150	15	4.6	10.6	4.3	0.008	0.0005	2701
5	Belt to Belt	Point	24	-----	50	15.2	---	---	0.015	0.0009	4926
6	Belt to Pile	Point	24	-----	20	6.1	---	---	0.176	0.0101	55774
7	Loader Travel	Volume	24	H=20 W=100	10	3.0	7.1	2.8	0.159	0.0758	418534
8	Loader to Hopper	Point	24	-----	8	2.4	---	---	0.009	0.0041	22564
9	Hopper to Belt	Point	24	-----	4	1.2	---	---	0.001	0.0001	318
10	Belt to Belt	Point	24	-----	4	1.2	---	---	0.001	0.0003	1589
11	Belt to Belt	Point	24	-----	4	1.2	---	---	0.001	0.0003	1589
12	Belt to Belt	Point	24	-----	20	6.1	---	---	0.001	0.0003	1589
13	Belt to Melter	Volume	24	H=20 W=30	10	3.0	2.1	4.3	0.001	0.0007	3972
14A	Wind Erosion	Volume	Variable	H=40 W=250	20	6.1	17.7	5.7	0.296	0.0101	55933
14B	Wind Erosion	Volume	Variable	H=40 W=250	20	6.1	17.7	5.7	0.296	0.0101	55933
14C	Wind Erosion	Volume	Variable	H=40 W=250	20	6.1	17.7	5.7	0.296	0.0101	55933
14D	Wind Erosion	Volume	Variable	H=40 W=250	20	6.1	17.7	5.7	0.296	0.0101	55933
15	Melter	Volume	24	H=25	13	4.0	1.1	3.6	0.0001	0.0001	2500

TABLE 3-2

SETTLING CHARACTERISTICS OF SULFUR PARTICLES
EXPECTED TO BE EMITTED FROM PROPOSED PRILLED SULFUR FACILITY

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

Class	Mass Fraction Range (%)	Size Range (umA)	Mean Diameter (umA)	Settling Velocity (m/s)	Reflection Coefficient
1	0-10	0.5-4.0	2.6	0.0004	1.00
2	10-20	4.0-8.5	6.5	0.0025	0.90
3	20-30	8.5- 15	12.0	0.0086	0.78
4	30-40	15 - 21	18.2	0.0197	0.72
5	40-50	21 - 30	26.3	0.0412	0.65
6	50-60	30 - 45	38.4	0.0877	0.53
7	60-70	45 - 62	53.9	0.1729	0.34
8	70-80	62 - 90	76.9	0.3519	0.00
9	80-90	90 -125	108.0	0.6940	0.00
10	90-100	125 -300	224.0	2.9856	0.00

FIGURE 3-1

RECEPTOR LOCATIONS FOR AIR QUALITY IMPACT AND DEPOSITION RATE ANALYSES

OCCIDENTAL CHEMICAL AGRIGULTURAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

4.0 AIR QUALITY AND DEPOSITION IMPACT ANALYSIS

The impact of particles emitted from the proposed prilled sulfur storage and handling facility on ambient air quality and the deposition rates of these particles on the ground surface were calculated in accordance with modeling guidelines acceptable to the FDER. The source data, particle settling characteristics, meteorological data and receptors described in the preceding sections of this application, were input into the ISC-ST and ISC-LT air quality models. The ISC-ST model was used to calculate the maximum expected 24-hour TSP concentrations resulting from activities at the proposed facility and from joint activities at the sulfur vatting facility and the proposed prilled sulfur facility. The ISC-LT model was used to calculate annual TSP concentrations and deposition rates for monthly and annual periods resulting from particles emitted from the proposed facility and from both sulfur facilities combined. A listing of all air quality modeling is included as Appendices C-E of this Application.

The TSP levels calculated by the ISC models for the annual and 24-hour periods were combined with existing TSP levels to determine the total expected TSP levels once the two sulfur storage facilities at the SCCC are active. These levels were then compared with the Florida Ambient Air Quality Standards for TSP. Since there are no other sources of

elemental sulfur in the area, the sulfur deposition rates calculated by the ISC-LT model were reported as the total sulfur deposition rate expected at the SCCC.

4.1 24-Hour TSP Impact Analysis

TSP levels were calculated for consecutive, non-overlapping 24-hour periods for the five annual periods 1972 - 1976 with the ISC-ST air quality model. The 24-hour TSP levels were calculated at receptor rings 0.5, 0.7 and 2.0 kilometers from the two SCCC sulfur storage facilities. The TSP impacts at receptors 0.7 kilometers from the sulfur storage facilities, and in the direction range 290 degrees through 330 degrees (from north) represent the impacts of suspended particles at the Occidental property line nearest the facility. The TSP impacts calculated for receptors 2.0 kilometers from the two facilities and in the direction range 220 degrees through 240 degrees represent the impacts of suspended particulate matter emissions at U.S. Highway 41; the nearest point of normal public access to the SCCC and the sulfur storage facilities.

The 24-hour TSP impacts at the nearest Occidental property line and U.S. Highway 41 are summarized in Table 4-1 for each of the five annual periods for which the concentrations were calculated and for three different sulfur handling scenarios. The scenarios were:

a. Receiving, reclaiming and melting prilled sulfur with wind erosion from both the sulfur vats and the prilled sulfur storage area,

b. Receiving prilled sulfur while reclaiming and melting vatted sulfur with wind erosion from both facilities, and

c. Receiving, reclaiming and melting prilled sulfur while vatting moten sulfur with wind erosion from both facilities.

The calculated 24-hour impacts resulting from suspended particle emissions from the sulfur storage facility were next combined with existing TSP levels at the SCCC to determine the maximum total TSP levels that can be expected once the two sulfur storage facilities become active. These data are also summarized in Table 4-1 and show that the maximum expected 24-hour TSP level at the property line nearest the sulfur storage facilities will be 129 micrograms per cubic meter. The maximum expected 24-hour TSP concentration at a point where the general public normally has access will be 116 micrograms per cubic meter. These impacts both occur when prilled sulfur is being received and vatted sulfur is simultaneously being reclaimed and melted. These impacts compare with the Florida 24-hour TSP AAQS of 150 micrograms per cubic meter, not to be exceeded more than once per year.

4.2 Annual TSP Impact Analysis

The annual average TSP levels were calculated with the ISC-LT air quality model at the same receptors used for the 24-hour TSP impact analysis. For the annual period, the only sulfur handling scenario considered was the concurrent annual average operation of both the vatted and the proposed prilled sulfur facilities. A maximum sulfur throughput of 300,000 tons per year was assumed for each facility; or 600,000 tons per year total. This sulfur throughput will provide the annual sulfur requirement of the SCCC.

The results of this modeling indicate that the maximum annual TSP impact resulting from emissions from the two sulfur storage facilities will be 0.7 micrograms per cubic meter at the Occidental property line nearest the two sulfur storage facilities and 0.1 micrograms per cubic meter at U.S. Highway 41. Both impacts are less than the annual significant impact level for TSP of 1.0 micrograms per cubic meter (17-2.100(168), FAC) and neither will significantly alter the annual TSP level of 36 micrograms per cubic meter presently observed in the vicinity of the SCCC. The results of the annual TSP impact analysis are also summarized in Table 4-1.

4.3 Monthly and Annual Sulfur Deposition Analyses

Sulfur deposition rates were calculated for the 12 monthly periods January through December with the ISC-LT air quality model. To obtain the total annual deposition rate, the deposition rates for the 12 monthly periods were totaled. Sulfur deposition rates are summarized in Table 4-2.

Sulfur deposition rates were calculated at the receptors that were used for the TSP impact analyses. The receptors in the direction range 290 degrees through 330 degrees (from north) and a distance of 0.7 kilometers from the sulfur storage facilities represent the Occidental property line nearest the sulfur storage facility. The monthly sulfur deposition rates at these receptors ranged from 0.0022 to 0.0061 grams per square meter per month (0.048 to 0.134 pounds per hectare month). The annual sulfur deposition rate at these receptors averaged 0.0479 grams per square meter per year or 1.055 pounds per hectare per year.

Sulfur deposition rate at U.S. Highway 41 (2.0 kilometers from the sulfur storage facilities) ranged from 0.00025 to 0.00099 grams per square meter per month (0.0055 to 0.0218 pounds per hectare per

month). The annual sulfur deposition rate at U.S. Highway 41 averaged 0.0057 grams per square meter per year or 0.1265 pounds per hectare per year.

Florida has no sulfur deposition standards against which to compare the calculated sulfur deposition rates. As a point of comparison, however, information previously submitted to the FDER (Sulfur Dust and the Environment, prepared by G.M. Volk for the Agrico Chemical Company and submitted to the Florida Department of Environmental Regulation, undated) indicates that a sulfur application rate of 187 pounds per hectare per year is a "reasonable maximum" tolerance limit for Florida vegetation and soils.

TABLE 4-1

ANNUAL AND 24-HOUR TOTAL SUSPENDED PARTICULATE MATTER
IMPACTS FROM THE TWO OCCIDENTAL SOLID
SULUR FACILITIES

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

	TOTAL SUSPENDED PARTICULATE MATTER LEVEL (ug/m3)									
	Property Line				U.S. Hwy 41					
	Scenario(1)			Max	Scenario(1)			Max	Significant	Ambient Air
Year	I	II	III	Total TSP(2)	I	II	III	Total TSP(2)	Impact Level	Quality Standard
24-Hour Impacts										
1972	9.4	15.0	10.2	127	2.8	3.7	2.8	116	5.0	150(3)
1973	9.3	17.0	9.9	129	2.5	3.1	2.6	115	5.0	150
1974	9.1	15.9	10.5	128	2.9	3.9	3.0	116	5.0	150
1975	7.9	13.3	8.2	125	2.6	3.6	2.7	116	5.0	150
1976	7.7	13.4	7.8	125	2.9	4.4	3.1	116	5.0	150
Annual Impacts										
		0.74		37		0.14		36	1.0	60(4)

(1)

Scenario	Description
I	Prilled sulfur receiving, reclaiming and melting plus wind erosion
II	Prilled sulfur receiving with sulfur vat reclamation and melting plus wind erosion
III	Prilled sulfur receiving, reclaiming and melting with molten sulfur vatting and wind erosion

(2) Maximum 24-hour TSP levels include 112 micrograms per cubic meter background and Annual TSP level includes 36 micrograms per cubic meter background.

(3) Maximum impact not to be exceeded more than once per year.

(4) Geometric mean.

TABLE 4-2

ANNUAL AND MONTHLY SULFUR DEPOSITION RATES
FROM THE TWO OCCIDENTAL SOLID SULFUR FACILITIES

OCCIDENTAL AGRICULTURAL CHEMICAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

	Maximum Sulfur Deposition Rate			
	Property Line (1)		US Route 41 (2)	
Month	(g/m^2/mo)	(lb/hectare/mo)	(g/m^2/mo)	(lb/hectare/mo)
Jan	0.0022	0.048	0.00053	0.0117
Feb	0.0027	0.059	0.00043	0.0095
Mar	0.0046	0.101	0.00035	0.0077
Apr	0.0047	0.104	0.00036	0.0079
May	0.0061	0.134	0.00025	0.0055
Jun	0.0045	0.101	0.00037	0.0082
Jul	0.0045	0.099	0.00027	0.0059
Aug	0.0042	0.093	0.00059	0.0130
Sep	0.0055	0.121	0.00067	0.0148
Oct	0.0025	0.055	0.00099	0.0218
Nov	0.0026	0.057	0.00051	0.0112
Dec	0.0037	0.082	0.00042	0.0093
Annual	0.0479(3)	1.055(4)	0.0057(3)	0.1265(4)

(1) Maximum sulfur deposition rate at the Occidental property line nearest the sulfur facilities; 0.7 kilometers between 290 and 300 degrees.

(2) Maximum sulfur deposition rate at the point of nearest public access to the sulfur facilities; 2.0 kilometers between 220 and 240degrees.

(3) g/m^2/year.

(4) lb/hectare/year.

AN ENGINEERING REPORT IN SUPPORT OF AN APPLICATION TO MODIFY AIR POLLUTION SOURCE CONSTRUCTION PERMIT AC24-61435 FOR A VATTED SULFUR STORAGE AND HANDLING SYSTEM

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC.
WHITE SPRINGS, FLORIDA

VOLUME 2

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SHOLTES & KOOGLER

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APPENDIX A

SUSPENDED AND TOTAL PARTICLE EMISSION RATE CALCULATIONS

Railcar Unloading

Max rate: 270 tph
1500 tpd
375,000 tpy

Time of activity:
daily = 1500 / 270 = 5.6 hours
yearly = 375,000 / 1500 = 250 days
= 375,000 / 270 = 1389 hours

Emission factors:
average wind speed (7 mph) = 0.4 lb P.M. (< 30 μm) / hr for tank with 5675 ft² surface area
18 mph wind speed = 1.0 lb P.M. (< 30 μm) / hr for tank with 5675 ft² surface area

Railcar factors:

No. cars/yr = 375,000 / 100 ton/car = 3750 cars/yr
No cars/day = 1500 / 100 = 15 cars/day
Area of car vent = 5 ft²
Time molten sulfur is at vent = 12 hr/day (estimate)
Total exposure time of molten sulfur at vent opening = 12 + 5.6 ≈ 18 hr/day

Emission Rates:

Max 24-hour = 5/5675 area ratio × 1.0 lb/hr × 15 cars/day
= 0.01 lb/hr (< 30 μm) for 18 hr/day

Annual Avg = 5/5675 × 0.4 lb/hr × 3750 cars/yr
× 18 hr/car × 1/2000
= 0.012 tpy over 4500 hours
(18 hr/day × 250 days)

Total Particulate
Same as suspended particles since particles formed by condensation are all assumed to be < 30 μm

Max monthly @ 30 days activity and 7 mph wind
= (5/5675) × 0.4 lb/hr × 18 hr/car × 15 car/day
× 30 days/mo × 1/2000
= 0.0014 ton/mo

Sulfur Vatting

Max rate: 270 tph
1500 tpd
375,000 tpy

Time of activity:
daily = 1500/270 = 5.6 hr/day
yearly = 375,000/1500 = 250 days/yr
= 375,000/270 = 1389 hr/yr

Emission factor:
particle concentration of 1200 ug/m³ in a 10.6 ft. layer of air over a 100x100 ft pool of molten sulfur

Wind speed:
max = 18 mph @ 10 meters and "B" stability
= 18 (7.6/10)^0.15 = 17.3 mph @ 25 ft

max impact = 5.5 (7.6/10)^0.15 = 5.3 mph @ 25 ft and "B" stability
annual avg = 7 mph @ 10 meters and "D" stability
= 7 (3.7/10)^0.25 = 5.4 mph @ 12 ft
x 0.8 for 20% reduction due to vat walls
= 4.4 mph

Emission Rates:

Max 24-hour

Flushing time = time to remove one volume of air from over the 100x100 ft pool of sulfur
= 100 ft / (17.3 mph x 1.47 fps/mph)
= 3.94 sec

Sulfur particles removed in 3.94 sec
= (100 x 100 x 10.6) ft³ x 1/35.31 m³/ft³ x 1200 ug/m³
x 1/453.6 x 10⁶ lb/ug
= 0.0079 lb

Emission rate = 0.0079 lb x 1/3.94 sec x 3600 sec/hr
= 7.25 lb/hr for 6 hr/day

Max Impact

Flushing time = 100 / (5.3 x 1.47)
= 12.9 sec

Sulfur particles removed
= 0.0079 lb

Emission rate = 0.0079 lb x 1/12.9 sec x 3600 sec/hr
= 2.20 lb/hr for 6 hr/day

Annual Avg

Flushing time = 100 / (4.4 x 1.47)
= 15.50 sec

Emission rate = (0.0079 / 15.50) x 3600
= 1.84 lb/hr
x 1389 hr/yr x 1/2000
= 1.275 tpy over 1389 hours

Sulfur Vatting (cont'd)

Total Particles - same as suspended particles

Max monthly @ 30 days activity and 4.4 mph wind
= 1.84 lb/hr x 6 hr/day x 30 day/mo x 1/2000
= 0.1656 ton/mo

Mechanical Reclamation

Max rate: 210 tph
1680 tpd
300,000 tpy

Time of activity:
daily = 1680/210 = 8 hr/day (one shift)
yearly = 300,000/1680 = 179 days/yr
= 300,000/210 = 1429 hr/yr

Emission factors:
Batch drop equation from AP-42, Sect 11.2

Parameters:

Batch size	=	2.6 yd^3
Silt	=	5.6 % avg
	=	6.6 % worst case
Moisture	=	1.0 %
Drop Height	=	5 ft avg
	=	6 ft worst case
Wind speed avg	=	$7(2/10)^{0.25} \times 0.8$
	=	3.7 mph @ 7 ft, "D" stability with 20% control for vat walls
Wind Speed max impact	=	$5.5(2/10)^{0.15}$ = 4.3 mph @ 7 ft and "B" stability
Wind Speed max 24-hr	=	$18(2/10)^{0.15}$ can't have 18 mph wind and B stab.
	=	14.1 mph @ 7 ft and "B" stability

Emission Rates:

Max 24-hr

$E = 0.73(0.0018)(6.6/5\text{-silt})(14.1/5\text{-wind})(6/5\text{-drop}) \times 1/(1.0/2)^{2}\text{-moist} \times 1/(2.6/6)^{0.33}\text{-batch}$

= 0.031 lb/ton
× 210 tph × $(1-0.2)^{\text{vat wall control}}$ = 5.21 lb/hr for 8 hr/day

Max Impact

$E = 0.73(0.0018)(6.6/5)(4.3/5)(6/5)/(1.0/2)^2(2.6/6)^{0.33}$
= 0.009 lb/ton
× 210 tph × (1-0.2) = 1.51 lb/hr for 8 hr/day

Annual Avg

$E = 0.73(0.0018)(5.6/5)(3.7/5)(5/5)/(1.0/2)^2(2.6/6)^{0.33}$
= 0.006 lb/ton
× 210 tph × (1-0.2) = 1.01 lb/hr
× 1429 hr/yr × 1/2000
= 0.720 tpy

Total Particles

Annual = Suspended particles × 2.1
= 0.720 × 2.1
= 1.512 tpy

Monthly @ 30 days activity and 3.7 mph wind
= 1.01 lb/hr × 8 hr/day × 30 day/mo × 2.1 × 1/2000
= 0.254 tons/mo

Recovery of Reclaimed Sulfur

Max rate: 210 tph
1680 tpd
300,000 tpy

Time of activity:
daily = 1680/210 = 8 hr/day (one shift)
yearly = 300,000/1680 = 179 days/yr
= 300,000/210 = 1429 hr/yr

Emission Factors:
Batch drop equation from AP-42, Sect. 11.2

Parameters:

Batch size	= 6 yd³ (8 yd³ bucket × 0.75)
Silt	= 5.6% avg
	= 6.6% worst case
Moisture	= 1.3%
Drop ht.	= 4 ft
Wind speed avg	= $7(2/10)^{0.25} \times 0.8$
	= 3.7 mph @ 7 ft & "D" stability with 20% control for vat walls
Wind speed max impact	= $5.5(2/10)^{0.15}$ = 4.3 mph @ 7 ft & "B" stability
Wind speed max 24-hr	= $18(2/10)^{0.15}$
	= 14.1 mph @ 7 ft & "B" stability

Emission Rates:

Max 24-hr

$E = 0.73(0.0018)(6.6/5)(14.1/5)(4/5)/(1.3/2)^2(6/6)^{0.33}$
= 0.009 lb/ton
× 210 tph × (1 − 0.2) − vat wall control
= 1.51 lb/hr for 8 hr/day

Max Impact

$E = 0.73(0.0018)(6.6/5)(4.3/5)(4/5)/(1.3/2)^2(6/6)^{0.33}$
= 0.003 lb/ton
× 210 tph × (1 − 0.2)
= 0.50 lb/hr for 8 hr/day

Annual Avg

$E = 0.73(0.0018)(5.6/5)(3.7/5)(4/5)/(1.3/2)^2(6/6)^{0.33}$
= 0.002 lb/ton
× 210 tph × (1 − 0.2) = 0.34 lb/hr
× 1429 hr/yr × 1/2000
= 0.240 tpy over 1429 hours

Total Particles

Annual = 0.240 | × 2.1
= 0.504 | tpy

Monthly @ 30 days activity and 3.7 mph wind
= 0.34 lb/hr × 8 hr/day × 30 day/mo × 2.1 × 1/2000
= 0.086 | ton/mo

Recovered Sulfur to Melter

Max rate: 70 tph
1680 tpd
300,000 tpy

Time of activity:
daily = 1680/70 = 24 hr/day
yearly = 300,000/1680 = 179 days/yr
= 300,000/70 = 4286 hr/yr

Emission Factor:
Batch drop equation from AP-42, Sect 11.2
Parameters:

Batch size	= 6 yd³ (8 yd³ bucket x 0.75)
Silt	= 5.6% avg
	= 6.6% worst case
Moisture	= 1.3%
Drop ht	= 4 ft
Wind speed	= 2 mph within hopper enclosure

Emission Rates:

Max 24-hr

$$E = 0.73(0.0018)(66/5)(2/5)(4/5)/(1.3/2)^2(6/6)^{0.33}$$
= 0.0013 lb/ton
x 70 tph
= 0.09 lb/hr

Max Impact

E = 0.09 lb/hr

Annual Avg

$$E = 0.73(0.0018)(5.6/5)(2/5)(4/5)/(1.3/2)^2(6/6)^{0.33}$$
= 0.0011 lb/ton
x 70 tph = 0.077 lb/hr
x 4286 hr/yr x 1/2000
= 0.165 tpy

Total Particles

Annual = 0.165 x 2.1
= 0.346 tpy

Monthly @ 30 days activity and 2 mph wind
= 0.077 lb/hr x 24 hr/day x 30 day/mo x 2.1 x 1/2000
= 0.058 tons/mo

Traffic

Max rate: 70 & 210 tph
1680 tpd
300,000 tpy

Time of Activity:
daily - reclaim to recovered pile = 8 hr/day
pile to melter = 24 hr/day
yearly - reclaim to recovered pile
= 300,000/1680 = 179 day/year
= 300,000/210 = 1429 hr/yr
- pile to melter
= 300,000/1680 = 179 day/yr
= 300,000/70 = 4286 hr/yr

Emission Factor:
Unpaved road equation from AP-42, Sect 11.2
Parameters:
Silt = 10.3 % avg
= 11.9 % worst case
Speed = 8 mph
Vehicle wt = 16.0 tons empty
= 21.5 tons full
= 18.7 tons avg
Wheels/vehicle = 4
Days w/ ≥0.01" ppt = 115
Watering control efficiency = 66 %

Travel Distance:
Average:
Reclaim to pile = 220 ft round-trip including misc. traffic (8hr/day)
Pile to melter = 220 ft round-trip including misc. traffic (24 hr/day)

Worst Case:
Reclaim to pile = 220 ft round-trip (8 hr/day)
Pile to melter = 720 ft round-trip (24 hr/day)

Number of Trips:
Bucket capacity = 6 yd^3 (8 yd^3 x 75%)
Sulfur density = 66 lb/ft^3
Sulfur transferred per trip = 66 lb/ft^3 x 27 ft^3/yd^3 x 6 yd^3 x 1/2000
= 5.4 tons/trip

Travel Distance:
Average:
Reclaim to pile
daily = 1680 ton/day x 1/5.4 trip/ton x 220 ft/trip x 1/5280 mi/ft
= 13.0 mi/day (8 hr/day)
x 179 day/yr
annual = 2320 mi/yr

Traffic (con't)

Travel Distance (con't):

Average (con't):

Pile to melter

daily = 1680 x 1/5.4 x 220 ft/trip x 1/5280
= 13.0 mi/day (24-hr/day)
x 179 day/yr
annual = 2320 mi/yr

Worst case:

Reclaim to pile

daily = 210 ton/hr x 1/5.4 trip/ton x 220 ft/trip x 1/5280
= 1.62 mi/hr (8-hr/day)

Pile to melter

daily = 70 ton/hr x 1/5.4 x 720 ft/trip x 1/5280
= 1.77 mi/hr (24-hr/day)

Emission Rates:

Max 24-hr

Reclaim to pile

$E = 0.80(5.9)(11.9/12 - silt)(8/30 - spd)(18.7/3 - wt)^{0.7} \times (4/4 - wheels)^{0.5} \times (1 - 0.66 - control)[(365-0)/365 - ppt]$
= 1.48 lb/VMT w/ no rain @ 10 mph
x 1.62 mi/hr
= 2.40 lb/hr (8 hr/day)

Pile to melter

E = 1.48 lb/VMT x 1.77 mi/hr
= 2.62 lb/hr (24 hr/day)

Max Impact

Reclaim to pile

E = 2.40 lb/hr (8-hr/day)

Pile to melter

E = 2.62 lb/hr (24-hr/day)

Annual Avg

Reclaim to pile

$E = 0.80(5.9)(10.3/12)(8/30)(18.7/3)^{0.7}(4/4)^{0.5} \times (1-0.66)[(365-115)/365]$
= 0.88 lb/VMT
x 13.0 mi/day = 11.44 lb/day
x 179 day/yr x 1/2000
= 1.024 ton/yr

Pile to melter

E = 0.88 lb/VMT x 13.0 mi/day = 11.44 lb/day
x 179 day/yr x 1/2000
= 1.024 ton/yr

Total Particles

Annual - Reclaim to pile = 1.024 tpy x 2.1 = 2.150 tpy
- Pile to melter = 1.024 tpy x 2.1 = 2.150 tpy

Monthly @ 30 days activity

- Reclaim to pile = 11.44 lb/day x 30 day/mo x 1/2000 x 2.1
= 0.360 ton/mo
- Pile to melter = 11.44 lb/day x 30 day/mo x 1/2000 x 2.1
= 0.360 ton/mo

Sulfur Melter

Max rate: 70 tph
1680 tpd
300,000 tpy

Time of activity:
daily = 1680 / 70 = 24 hr/day
yearly = 300,000 / 1680 = 179 days/yr
= 300,000 / 70 = 4286 hr/yr

Emission factor:
0.4 lb/hr of P.M. (≤ 30 μm) for tank with 5675 ft² surface area

Melter Pan:
Area = 10' x 20'
= 200 ft²

Emission Rates:

Max 24-hour

E = (200/5675) surface ratio x 0.4 lb/hr
= 0.01 lb/hr 24 hr/day

Max Impact

E = 0.01 lb/hr 24 hr/day

Annual

E = 0.01 lb/hr x 24 hr/day
= 0.338 lb/day
x 179 day/yr x 1/2000
= 0.030 tpy

Total Particles

Annual = 0.030 tpy (same as suspended part.)

Monthly @ 30 days activity
= 0.338 lb/day x 30 day/mo x 1/2000
= 0.005 ton/mo

Wind Erosion

Time of activity:

daily - 15% of time wind speed ≥ 12 mph over 2.6 acres within vat walls

yearly - 2% of time wind speed ≥ 12 mph over 1.3 acres within vat walls (see following page) with area subject to wind erosion 73% of this time

Emission factor:

Wind erosion equation from AP-42, Sect 11.2

Parameters:

Silt = 5.2 % avg
= 6.0 % worst-case

Area = 1.3 acres, avg
= 2.6 acres, worst-case

Days with ≥ 0.01" ppt = 115

Emission Rates:

Max 24-hr

$E = 1.7 (6.0/1.5 - silt)[(365-0)/235 - ppt](15/15 - spd fract.)$
$\times 2.6$ acres $= 27.46$ lb/day
$= 6.86$ lb/hr for 4 hr/day

Max Impact

Assume wind speed ≥ 12 mph for 10% of day

$E = 1.7 (6.0/1.5)(365/235)(10/15)(2.6_{ac.})(1/12\ day/hr)$
$= 18.31$ lb/day
$= 6.10$ lb/hr for 3 hr/day

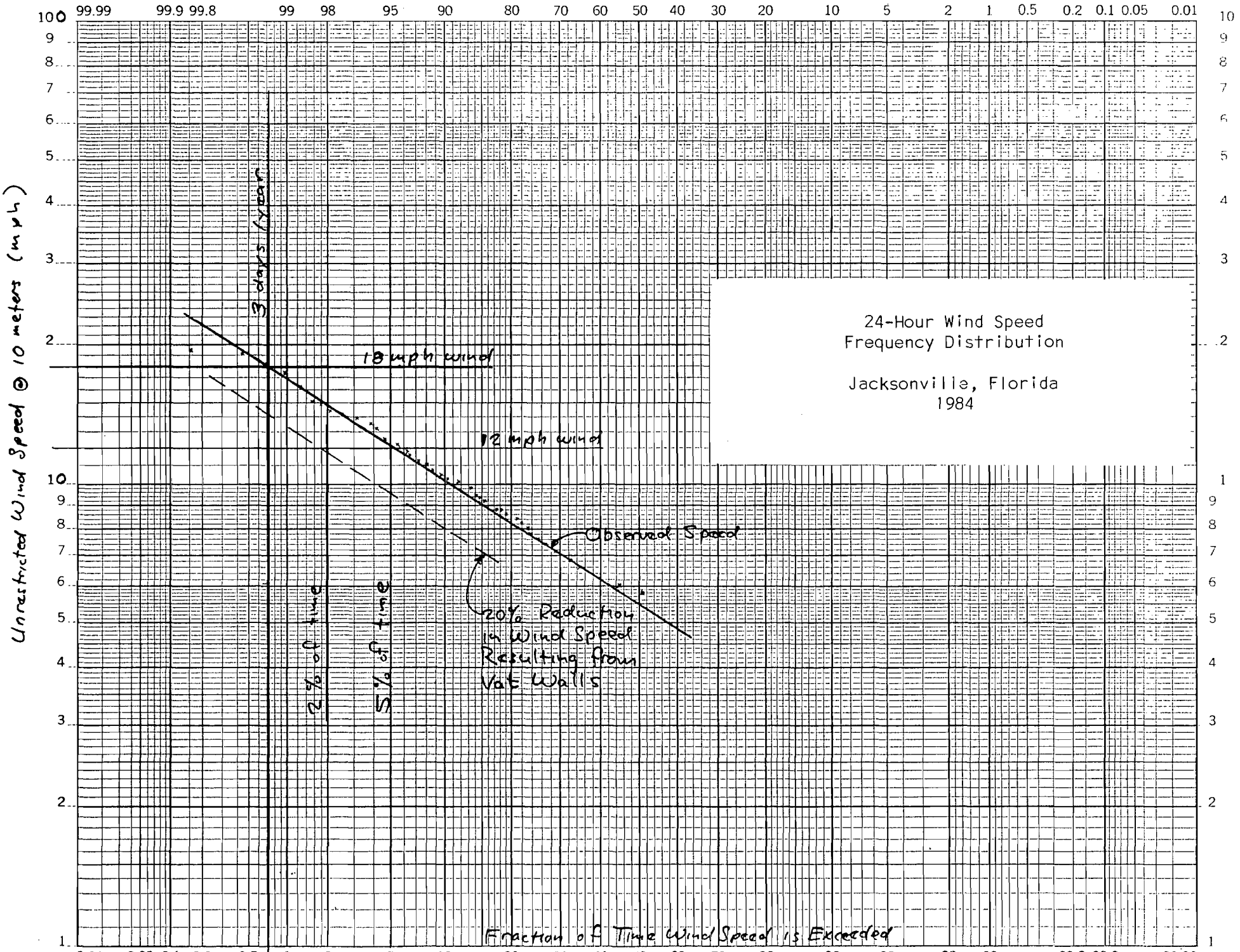
Annual avg

$E = 1.7 (5.2/1.5)[(365-115)/235](2/15)(1.3_{ac.})$
$= 1.09$ lb/day
$\times 365$ day/yr $\times 1/2000 \times 0.73$ exposure time
$= 0.145$ tpy

Total Particles

Annual = 0. 0.145 tpy $\times$ 2.1
$= 0.304$ tpy

Monthly = Annual $\times$ 1/12 yr/mo $\times$ 1/0.73 - exposure for entire month
$= 0.304/(12 \times 0.73)$
$= 0.035$ ton/mo.



APPENDIX B

ANNUAL SUSPENDED PARTICULATE MATTER IMPACTS

- ISCLT INPUT DATA -

NUMBER OF SOURCES = 7
NUMBER OF X AXIS GRID SYSTEM POINTS = 3
NUMBER OF Y AXIS GRID SYSTEM POINTS = 36
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) = 0.0
DECAY COEFFICIENT =0.0
PROGRAM OPTION SWITCHES = 1, 2, 1, 0, 0, 3, 2, 2, 3, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0,
ALL SOURCES ARE USED TO FORM SOURCE COMBINATION 1
RANGE X AXIS GRID SYSTEM POINTS (METERS)= 500.00, 700.00, 2000.00,
AZIMUTH BEARING Y AXIS GRID SYSTEM POINTS (DEGREES)= 10.00, 20.00, 30.00, 40.00, 50.00, 60.00,
70.00, 80.00, 90.00, 100.00, 110.00, 120.00, 130.00, 140.00, 150.00, 160.00,
170.00, 180.00, 190.00, 200.00, 210.00, 220.00, 230.00, 240.00, 250.00, 260.00,
270.00, 280.00, 290.00, 300.00, 310.00, 320.00, 330.00, 340.00, 350.00, 360.00,

- 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	298.0000	298.0000	298.0000	298.0000	298.0000	

- 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	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 2	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 3	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 4	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 5	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05

- 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)
0.0	0.00054300	0.00066100	0.0	0.0	0.0	0.0
22.500	0.00040000	0.00070700	0.0	0.0	0.0	0.0
45.000	0.00039700	0.00054700	0.0	0.0	0.0	0.0
67.500	0.00032500	0.00045600	0.0	0.0	0.0	0.0
90.000	0.00054900	0.00075300	0.0	0.0	0.0	0.0
112.500	0.00054000	0.00050200	0.0	0.0	0.0	0.0
135.000	0.00066000	0.00093500	0.0	0.0	0.0	0.0
157.500	0.00025400	0.00036500	0.0	0.0	0.0	0.0
180.000	0.00047500	0.00073000	0.0	0.0	0.0	0.0
202.500	0.00031900	0.00036500	0.0	0.0	0.0	0.0
225.000	0.00042200	0.00068400	0.0	0.0	0.0	0.0
247.500	0.00049400	0.00077500	0.0	0.0	0.0	0.0
270.000	0.00064700	0.00098100	0.0	0.0	0.0	0.0
292.500	0.00038000	0.00066100	0.0	0.0	0.0	0.0
315.000	0.00030900	0.00057000	0.0	0.0	0.0	0.0
337.500	0.00031200	0.00050200	0.0	0.0	0.0	0.0

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)
0.0	0.00151501	0.00447001	0.00218901	0.0	0.0	0.0
22.500	0.00108400	0.00282801	0.00118600	0.0	0.0	0.0
45.000	0.00096800	0.00273701	0.00161901	0.0	0.0	0.0
67.500	0.00145601	0.00346701	0.00184701	0.0	0.0	0.0
90.000	0.00143201	0.00424201	0.00173301	0.0	0.0	0.0
112.500	0.00091500	0.00291901	0.00127700	0.0	0.0	0.0
135.000	0.00114200	0.00287401	0.00125400	0.0	0.0	0.0
157.500	0.00091700	0.00216701	0.00100300	0.0	0.0	0.0
180.000	0.00119400	0.00344401	0.00132300	0.0	0.0	0.0
202.500	0.00078700	0.00216701	0.00116300	0.0	0.0	0.0
225.000	0.00084300	0.00257701	0.00136801	0.0	0.0	0.0
247.500	0.00086300	0.00253101	0.00200701	0.0	0.0	0.0
270.000	0.00116900	0.00383101	0.00260001	0.0	0.0	0.0
292.500	0.00083900	0.00330701	0.00191601	0.0	0.0	0.0
315.000	0.00086900	0.00257701	0.00139101	0.0	0.0	0.0
337.500	0.00079200	0.00239501	0.00111700	0.0	0.0	0.0

- 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)
0.0	0.00050400	0.00364901	0.00654502	0.00043300	0.0	0.0
22.500	0.00050000	0.00278201	0.00494902	0.00031900	0.0	0.0
45.000	0.00045100	0.00305601	0.00586102	0.00047900	0.0	0.0
67.500	0.00043600	0.00344401	0.00668202	0.00059300	0.0	0.0
90.000	0.00058900	0.00431002	0.00652302	0.00054700	0.0	0.0
112.500	0.00068100	0.00285101	0.00387701	0.00041100	0.0	0.0
135.000	0.00035900	0.00314701	0.00303301	0.00013700	0.0	0.0
157.500	0.00027500	0.00221201	0.00271401	0.00013700	0.0	0.0
180.000	0.00085500	0.00339801	0.00581602	0.00057000	0.00004600	0.0
202.500	0.00033900	0.00209801	0.00346701	0.00047900	0.0	0.0
225.000	0.00043800	0.00237201	0.00549602	0.00084400	0.00002300	0.0
247.500	0.00033700	0.00262301	0.00556502	0.00086700	0.00002300	0.0
270.000	0.00050000	0.00387701	0.00581602	0.00061600	0.00002300	0.0
292.500	0.00042000	0.00271401	0.00506302	0.00041100	0.00002300	0.0
315.000	0.00035100	0.00278201	0.00494902	0.00041100	0.0	0.0
337.500	0.00033100	0.00228101	0.00405902	0.00054700	0.0	0.0

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)
0.0	0.00143001	0.00522302	0.01117504	0.00586102	0.00016000	0.0
22.500	0.00104900	0.00440202	0.00832403	0.00269101	0.00002300	0.0
45.000	0.00111000	0.00595202	0.01297705	0.00476601	0.00004600	0.0
67.500	0.00183801	0.00793703	0.01208704	0.00421901	0.00004600	0.0
90.000	0.00204001	0.00916803	0.01341005	0.00408202	0.00011400	0.0
112.500	0.00155001	0.00620302	0.00723002	0.00228101	0.00009100	0.0
135.000	0.00152901	0.00456101	0.00501702	0.00095800	0.00002300	0.0
157.500	0.00077400	0.00403702	0.00497202	0.00182401	0.00016000	0.0
180.000	0.00207101	0.00816503	0.01587306	0.00944204	0.00104900	0.00009100
202.500	0.00110300	0.00526802	0.01172204	0.00912203	0.00057000	0.0
225.000	0.00125200	0.00606602	0.01165404	0.00944204	0.00107200	0.00009100
247.500	0.00096900	0.00458401	0.00764003	0.00463001	0.00016000	0.00002300
270.000	0.00085800	0.00451602	0.00620302	0.00492602	0.00041100	0.00002300
292.500	0.00089400	0.00376301	0.00421901	0.00526802	0.00022800	0.00006800
315.000	0.00101500	0.00328401	0.00526802	0.00469802	0.00011400	0.00002300
337.500	0.00058700	0.00271401	0.00499502	0.00333001	0.00013700	0.0

- 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)
0.0	0.01277205	0.01290805	0.00549602	0.0	0.0	0.0
22.500	0.01041404	0.00967003	0.00296501	0.0	0.0	0.0
45.000	0.01194404	0.01487006	0.00348901	0.0	0.0	0.0
67.500	0.01302905	0.01516606	0.00246301	0.0	0.0	0.0
90.000	0.01399205	0.01703606	0.00488001	0.0	0.0	0.0
112.500	0.00969203	0.01131204	0.00269101	0.0	0.0	0.0
135.000	0.00985504	0.00923603	0.00091200	0.0	0.0	0.0
157.500	0.00873903	0.00773103	0.00043300	0.0	0.0	0.0
180.000	0.01429805	0.01400305	0.00225801	0.0	0.0	0.0
202.500	0.01118004	0.01297705	0.00346701	0.0	0.0	0.0
225.000	0.01603506	0.01772007	0.00535902	0.0	0.0	0.0
247.500	0.01101004	0.01151704	0.00298801	0.0	0.0	0.0
270.000	0.01116104	0.01211004	0.00177901	0.0	0.0	0.0
292.500	0.00900804	0.01033104	0.00230301	0.0	0.0	0.0
315.000	0.00792203	0.00798203	0.00266801	0.0	0.0	0.0
337.500	0.00697302	0.00818703	0.00328401	0.0	0.0	0.0

- 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	0.0	0.0	0.0	0.0	0.0	0.0
STABILITY CATEGORY 2	0.0	0.0	0.0	0.0	0.0	0.0
STABILITY CATEGORY 3	0.0	0.0	0.0	0.0	0.0	0.0
STABILITY CATEGORY 4	0.0	0.0	0.0	0.0	0.0	0.0
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

- 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	VOLUME	35.00	120.00	3.80	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 MASS FRACTION 0.2000 0.2000 0.2000 0.2000 0.2000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.10000E-02
X		2	VOLUME	35.00	120.00	3.80	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 MASS FRACTION 0.2000 0.2000 0.2000 0.2000 0.2000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 7.00000E-03
X		3	VOLUME	52.00	63.00	6.00	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.40 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 1.40 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 MASS FRACTION 0.2000 0.2000 0.2000 0.2000 0.2000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 5.00000E-03
X		4	VOLUME	35.00	120.00	3.80	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 MASS FRACTION 0.2000 0.2000 0.2000 0.2000 0.2000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.90000E-02

- SOURCE INPUT DATA (CONT.) -

C A R O	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	VOLUME	35.00	120.00	3.80	0.0		STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 MASS FRACTION 0.2000 0.2000 0.2000 0.2000 0.2000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.90000E-02
X		6	VOLUME	52.00	63.00	4.00	0.0		STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.10 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.60 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 MASS FRACTION 0.2000 0.2000 0.2000 0.2000 0.2000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.00000E-03
X		7	VOLUME	35.00	120.00	3.80	0.0		STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 MASS FRACTION 0.2000 0.2000 0.2000 0.2000 0.2000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 4.00000E-03

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

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

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- CONCENTRATION -		
360.000	0.923720	0.490035	0.073723
350.000	0.749346	0.375816	0.056134
340.000	0.625351	0.324304	0.046858
330.000	0.604943	0.290019	0.041065
320.000	0.562128	0.307581	0.044802
310.000	0.621580	0.294886	0.045406
300.000	0.599413	0.345088	0.046457
290.000	0.637232	0.326288	0.054380
280.000	0.653282	0.406885	0.061267
270.000	0.565041	0.336409	0.066120
260.000	0.601506	0.343283	0.062943
250.000	0.493454	0.310834	0.064160
240.000	0.460079	0.271904	0.056320
230.000	0.467312	0.298615	0.054270
220.000	0.371436	0.229786	0.049241
210.000	0.388111	0.230813	0.045365
200.000	0.396728	0.240888	0.044464
190.000	0.357258	0.227183	0.048210
180.000	0.413634	0.261213	0.054345
170.000	0.391200	0.229910	0.044904
160.000	0.333148	0.200474	0.037087
150.000	0.349154	0.203501	0.031898
140.000	0.303921	0.166311	0.033496
130.000	0.316956	0.199404	0.037207
120.000	0.378250	0.210711	0.038103
110.000	0.374921	0.223153	0.043371
100.000	0.481954	0.278679	0.045089
90.000	0.497545	0.272420	0.048731
80.000	0.606660	0.363575	0.051351
70.000	0.644302	0.322712	0.051922
60.000	0.780382	0.441413	0.059598
50.000	0.877873	0.429205	0.069072
40.000	1.029497	0.564495	0.073893
30.000	1.015910	0.469582	0.067288
20.000	1.090487	0.539398	0.065382
10.000	1.006806	0.477614	0.068361

APPENDIX C

MAXIMUM 24-HOUR
SUSPENDED PARTICULATE MATTER IMPACTS

OXY72

J8993A

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*A START JOB 8993 OXY72     1       001 001 NER      OXY SULFUR          80001046,002 12.44.53 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 8993 OXY72     1       001 001 NER      OXY SULFUR          80001046,002 12.44.53 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 8993 OXY72     1       001 001 NER      OXY SULFUR          80001046,002 12.44.53 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 8993 OXY72     1       001 001 NER      OXY SULFUR          80001046,002 12.44.53 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 8993 OXY72     1       001 001 NER      OXY SULFUR          80001046,002 12.44.53 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 8993 OXY72     1       001 001 NER      OXY SULFUR          80001046,002 12.44.53 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 8993 OXY72     1       001 001 NER      OXY SULFUR          80001046,002 12.44.53 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 8993 OXY72     1       001 001 NER      OXY SULFUR          80001046,002 12.44.53 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 8993 OXY72     1       001 001 NER      OXY SULFUR          80001046,002 12.44.53 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 8993 OXY72     1       001 001 NER      OXY SULFUR          80001046,002 12.44.53 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 8993 OXY72     1       001 001 NER      OXY SULFUR          80001046,002 12.44.53 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 8993 OXY72     1       001 001 NER      OXY SULFUR          80001045,002 12.44.53 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 8993 OXY72     1       001 001 NER      OXY SULFUR          80001046,002 12.44.53 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 8993 OXY72     1       001 001 NER      OXY SULFUR          80001046,002 12.44.53 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 8993 OXY72     1       001 001 NER      OXY SULFUR          80001046,002 12.44.53 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 8993 OXY72     1       001 001 NER      OXY SULFUR          80001046,002 12.44.53 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 8993 OXY72     1       001 001 NER      OXY SULFUR          80001046,002 12.44.53 AM 19JUL85 PRINTER1 NER1 START A*
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*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1972 ***

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) = 1
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) = 1
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) = 0
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) = 0
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 = 8
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 = 3
NUMBER OF Y (THETA) GRID VALUES	NYPNTS = 36
NUMBER OF DISCRETE RECEPTORS	NXNYPT = 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 = 10.00 METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA	IMET = 9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION	DECAY =0.000000E+00
SURFACE STATION NO.	ISS = 93845
YEAR OF SURFACE DATA	ISY = 72
UPPER AIR STATION NO.	IUS = 13861
YEAR OF UPPER AIR DATA	IUY = 72
LOGICAL UNIT OF CALCULATION 'SAVE' TAPE	ITAP = 3
ALLOCATED DATA STORAGE	LIMIT = 43500 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MINIT = 2083 WORDS

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1972 ***

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

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

*** 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

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1972 ***

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

500.0, 700.0, 2000.0,

*** RADIAL ANGLES OF POLAR GRID SYSTEM ***
(DEGREES)

10.0,	20.0,	30.0,	40.0,	50.0,	60.0,	70.0,	80.0,	90.0,	100.0,
110.0,	120.0,	130.0,	140.0,	150.0,	160.0,	170.0,	180.0,	190.0,	200.0,
210.0,	220.0,	230.0,	240.0,	250.0,	260.0,	270.0,	280.0,	290.0,	300.0,
310.0,	320.0,	330.0,	340.0,	350.0,	360.0,				

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1972 ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	TAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	1	0	5	0.19000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
2	1	0	5	0.63000E-01	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
3	1	0	5	0.11000E-01	52.0	63.0	0.0	6.00	1.40	1.40	0.00	0.00	0.00	0.00
4	1	0	5	0.30200E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
5	1	0	5	0.33000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
6	1	0	5	0.10000E-02	52.0	63.0	0.0	4.00	3.60	1.10	0.00	0.00	0.00	0.00
7	1	0	5	0.39400E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
8	1	0	5	0.30400E+00	115.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00

Source No	Source Description
1	Sulfur Reclamation
2	Recovery of Reclaimed Sulfur
3	Sulfur to Melter
4	Traffic - Reclaim Area
5	Traffic - Melter Area
6	Sulfur Melter
7	Wind Erosion - Vat 1
8	Wind Erosion - Vat 2

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1972 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 1 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 2 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 3 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1972 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 4 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 5 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 6 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1972 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 7 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0080, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 8 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0080, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1972 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE NO. = 1											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 2											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 4											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 7											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 8											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

ISCST POST PROCESSOR VERSION 30-MAR-85

OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1972

ISW(26) = 0 CALMS WILL BE CONSIDERED.

CONTRIBUTION LEVEL IS: 0.2000E-03 MICROGRAMS/CUBIC METER

NOTES:

THE NUMBER OF HOURS USED TO CALCULATE THE CONCENTRATIONS ARE SHOWN WITH THE DAY AND PERIOD, E.G., 1.23456 (103, 1.23)

ISC CALMS
PROCESSOR

HIGH
24-HR
SGROUP# 1

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1972 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 60.57045 AND OCCURRED AT (500.0, 30.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	41.38789 (240, 1,19)	19.43651 (240, 1,19)	2.50325 (27, 1,22)
350.0	23.69046 (240, 1,19)	18.14540 (240, 1,19)	4.23599 (332, 1,21)
340.0	25.80374 (333, 1,21)	12.82581 (267, 1,18)	3.06038 (242, 1,23)
330.0	32.03101 (272, 1,18)	18.60684 (272, 1,18)	3.03789 (333, 1,24)
320.0	21.19072 (213, 1,22)	13.79591 (333, 1,22)	2.59572 (266, 1,21)
310.0	21.79989 (270, 1,23)	11.39093 (340, 1,24)	2.58058 (213, 1,22)
300.0	21.00279 (33, 1,24)	12.82981 (270, 1,23)	2.94173 (347, 1,24)
290.0	17.91051 (22, 1,22)	11.03396 (22, 1,22)	2.77095 (33, 1,24)
280.0	13.09817 (127, 1,23)	12.97090 (225, 1,21)	2.59668 (22, 1,22)
270.0	17.27993 (167, 1,24)	10.69282 (167, 1,24)	1.81389 (283, 1,23)
260.0	15.49689 (18, 1,24)	11.30171 (18, 1,24)	2.35005 (167, 1,24)
250.0	19.42702 (338, 1,22)	10.87068 (338, 1,22)	1.73526 (37, 1,24)
240.0	17.78418 (234, 1,22)	10.79766 (234, 1,22)	3.01707 (121, 1,24)
230.0	11.92837 (246, 1,24)	7.78525 (234, 1,22)	2.14989 (329, 1,24)
220.0	14.95437 (353, 1,20)	9.97436 (353, 1,20)	1.70367 (201, 1,24)
210.0	14.69966 (251, 1,20)	9.61163 (251, 1,20)	1.82608 (286, 1,20)
200.0	12.95554 (312, 1,22)	8.80248 (312, 1,22)	2.24961 (312, 1,22)
190.0	13.56327 (139, 1,24)	8.56303 (139, 1,24)	1.92382 (69, 1,20)
180.0	9.99981 (320, 1,18)	7.27215 (84, 1,23)	1.94709 (84, 1,23)
170.0	19.40837 (116, 1,23)	10.62163 (116, 1,23)	2.20637 (65, 1,24)
160.0	15.60928 (65, 1,24)	9.10298 (328, 1,24)	1.80134 (309, 1,24)
150.0	23.64243 (309, 1,24)	14.22688 (309, 1,24)	1.51566 (281, 1,24)
140.0	13.90598 (7, 1,23)	9.28722 (313, 1,22)	2.32591 (313, 1,22)
130.0	15.26814 (7, 1,23)	11.63535 (327, 1,24)	3.36010 (327, 1,24)
120.0	28.08664 (327, 1,24)	15.26010 (327, 1,24)	2.50619 (125, 1,22)
110.0	18.53014 (336, 1,18)	12.82668 (336, 1,18)	2.09111 (358, 1,24)
100.0	19.43237 (358, 1,24)	13.10197 (358, 1,24)	1.95265 (358, 1,24)
90.0	20.77518 (358, 1,24)	9.15676 (232, 1,24)	3.72022 (363, 1,18)
80.0	36.97873 (363, 1,18)	20.63557 (363, 1,18)	1.97529 (83, 1,24)
70.0	28.55579 (363, 1,18)	12.94339 (363, 1,18)	1.58568 (247, 1,23)
60.0	13.81857 (172, 1,24)	11.61035 (172, 1,24)	1.96709 (126, 1,23)
50.0	19.94705 (135, 1,23)	11.26283 (74, 1,24)	1.87140 (57, 1,23)
40.0	27.99448 (221, 1,23)	17.03517 (273, 1,19)	3.90902 (292, 1,19)
30.0	60.57045 (292, 1,19)	33.14781 (292, 1,19)	4.45385 (292, 1,19)
20.0	26.25199 (56, 1,21)	12.78661 (56, 1,21)	2.19397 (57, 1,24)
10.0	36.37016 (48, 1,24)	20.81819 (48, 1,24)	3.30274 (214, 1,18)

ISC CALMS
PROCESSOR

2ND HIGH
24-HR
SGROUP# 1

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1972 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 31.77695 AND OCCURRED AT (500.0, 30.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	28.37721 (230, 1,23)	14.89509 (230, 1,23)	2.42723 (240, 1,20)
350.0	23.49073 (212, 1,24)	14.53146 (332, 1,21)	3.76575 (240, 1,19)
340.0	23.14093 (20, 1,18)	10.90027 (349, 1,21)	2.17853 (349, 1,21)
330.0	24.54662 (333, 1,22)	10.28949 (20, 1,18)	2.25026 (20, 1,18)
320.0	20.80900 (340, 1,24)	11.91428 (213, 1,22)	2.42882 (333, 1,23)
310.0	19.92654 (347, 1,24)	11.32890 (236, 1,24)	2.38249 (246, 1,18)
300.0	19.67279 (32, 1,24)	11.12501 (32, 1,24)	2.28985 (71, 1,21)
290.0	15.86094 (225, 1,21)	9.88873 (165, 1,24)	2.62407 (32, 1,24)
280.0	12.61388 (343, 1,24)	9.36327 (366, 1,23)	1.82343 (168, 1,23)
270.0	13.22835 (203, 1,21)	8.55063 (127, 1,23)	1.51355 (278, 1,24)
260.0	14.14209 (121, 1,24)	8.85485 (132, 1,24)	1.89184 (269, 1,24)
250.0	16.91040 (121, 1,24)	8.94105 (122, 1,24)	1.54921 (121, 1,24)
240.0	17.16931 (329, 1,24)	10.58966 (317, 1,24)	2.46168 (338, 1,22)
230.0	11.72010 (224, 1,22)	7.78013 (246, 1,24)	1.98888 (234, 1,22)
220.0	10.33195 (338, 1,20)	8.47482 (234, 1,22)	1.70056 (338, 1,20)
210.0	11.31100 (286, 1,19)	7.48146 (286, 1,19)	1.78213 (338, 1,21)
200.0	12.15745 (321, 1,21)	8.31994 (321, 1,21)	1.99971 (279, 1,22)
190.0	10.45047 (334, 1,24)	6.44619 (334, 1,24)	1.66133 (139, 1,24)
180.0	9.82995 (84, 1,23)	6.92697 (320, 1,18)	1.83148 (144, 1,24)
170.0	13.67084 (320, 1,18)	8.25013 (320, 1,18)	1.92540 (7, 1,24)
160.0	13.32979 (328, 1,24)	8.21905 (309, 1,24)	1.78801 (360, 1,24)
150.0	14.49844 (280, 1,23)	10.18178 (281, 1,24)	1.51075 (7, 1,23)
140.0	13.23365 (313, 1,22)	8.83698 (7, 1,23)	1.66856 (327, 1,24)
130.0	14.72769 (313, 1,22)	10.27930 (35, 1,24)	2.42663 (35, 1,24)
120.0	19.04961 (35, 1,24)	10.11779 (175, 1,23)	1.97266 (336, 1,20)
110.0	17.32883 (125, 1,22)	11.25333 (282, 1,18)	1.86988 (83, 1,23)
100.0	16.93820 (322, 1,24)	11.85707 (174, 1,23)	1.90392 (280, 1,24)
90.0	18.36481 (83, 1,23)	9.67699 (363, 1,18)	1.84445 (185, 1,21)
80.0	20.25893 (185, 1,21)	13.72251 (185, 1,21)	1.93260 (363, 1,18)
70.0	15.91588 (59, 1,24)	12.09647 (187, 1,24)	1.57430 (172, 1,24)
60.0	16.33730 (247, 1,23)	9.72403 (319, 1,24)	1.77558 (182, 1,24)
50.0	19.71274 (182, 1,24)	10.23981 (179, 1,22)	1.86317 (221, 1,24)
40.0	27.34985 (292, 1,19)	16.87914 (292, 1,19)	2.36201 (29, 1,24)
30.0	31.77695 (208, 1,21)	14.39138 (208, 1,23)	2.77440 (359, 1,23)
20.0	25.22757 (88, 1,23)	11.63365 (88, 1,24)	1.99183 (9, 1,24)
10.0	28.12015 (214, 1,18)	16.38232 (214, 1,18)	3.28473 (48, 1,24)

BEST AVAILABLE COPY

OXY73

J9004A

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*A START JOB 9004 OXY73    1    001 001 NER    OXY SULFUR    80001046,002  1.06.35 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9004 OXY73    1    001 001 NER    OXY SULFUR    80001046,002  1.06.35 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9004 OXY73    1    001 001 NER    OXY SULFUR    80001046,002  1.06.35 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9004 OXY73    1    001 001 NER    OXY SULFUR    80001046,002  1.06.35 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9004 OXY73    1    001 001 NER    OXY SULFUR    80001046,002  1.06.35 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9004 OXY73    1    001 001 NER    OXY SULFUR    80001046,002  1.06.35 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9004 OXY73    1    001 001 NER    OXY SULFUR    80001046,002  1.06.35 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9004 OXY73    1    001 001 NER    OXY SULFUR    80001046,002  1.06.35 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9004 OXY73    1    001 001 NER    OXY SULFUR    80001046,002  1.06.35 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9004 OXY73    1    001 001 NER    OXY SULFUR    80001046,002  1.06.35 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9004 OXY73    1    001 001 NER    OXY SULFUR    80001046,002  1.06.35 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9004 OXY73    1    001 001 NER    OXY SULFUR    80001046,002  1.06.35 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9004 OXY73    1    001 001 NER    OXY SULFUR    80001046,002  1.06.35 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9004 OXY73    1    001 001 NER    OXY SULFUR    80001046,002  1.06.35 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9004 OXY73    1    001 001 NER    OXY SULFUR    80001046,002  1.06.35 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9004 OXY73    1    001 001 NER    OXY SULFUR    80001046,002  1.06.35 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9004 OXY73    1    001 001 NER    OXY SULFUR    80001046,002  1.06.35 AM 19JUL85 PRINTER1 NER1 START A*
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*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1973 ***

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) = 1
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) = 1
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) = 0
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) = 0
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 = 8
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 = 3
NUMBER OF Y (THETA) GRID VALUES	NYPNTS = 36
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 = 10.00 METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA	IMET = 9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION	DECAY =0.000000E+00
SURFACE STATION NO.	ISS = 93845
YEAR OF SURFACE DATA	ISY = 73
UPPER AIR STATION NO.	IUS = 13861
YEAR OF UPPER AIR DATA	IUY = 73
LOGICAL UNIT OF CALCULATION 'SAVE' TAPE	ITAP = 3
ALLOCATED DATA STORAGE	LIMIT = 43500 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MIMIT = 2083 WORDS

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1973 ***

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

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 0
```

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

1.54, 3.09, 5.14, 8.23, 10.8C,

*** 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+0C	.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+0C	.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

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1973 ***

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

500.0, 700.0, 2000.0,

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

(DEGREES)

10.0,	20.0,	30.0,	40.0,	50.0,	60.0,	70.0,	80.0,	90.0,	100.0,
110.0,	120.0,	130.0,	140.0,	150.0,	160.0,	170.0,	180.0,	190.0,	200.0,
210.0,	220.0,	230.0,	240.0,	250.0,	260.0,	270.0,	280.0,	290.0,	300.0,
310.0,	320.0,	330.0,	340.0,	350.0,	360.0,				

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1973 ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	1	0	5	0.19000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
2	1	0	5	0.63000E-01	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
3	1	0	5	0.11000E-01	52.0	63.0	0.0	6.00	1.40	1.40	0.00	0.00	0.00	0.00
4	1	0	5	0.30200E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
5	1	0	5	0.33000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
6	1	0	5	0.10000E-02	52.0	63.0	0.0	4.00	3.60	1.10	0.00	0.00	0.00	0.00
7	1	0	5	0.38400E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
8	1	0	5	0.38400E+00	115.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 1 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 2 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 3 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1973 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 4 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 5 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 6 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1973 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 7 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 8 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1973 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE NO. = 1											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 2											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 4											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 7											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 8											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

ISC ST POST PROCESSOR VERSION 30-MAR-85

OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1973

ISW(20) = 0 CALMS WILL BE CONSIDERED.

CONTRIBUTION LEVEL IS: 0.2000E-08 MICROGRAMS/CUBIC METER

NOTES:

THE NUMBER OF HOURS USED TO CALCULATE THE CONCENTRATIONS ARE SHOWN WITH THE DAY AND PERIOD, E.G., 1.23456 (103, 1,23)

ISC_CALMS
PROCESSOR

HIGH
24-HR
SGROUP# 1

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1973 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 36.66206 AND OCCURRED AT (500.0, 360.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	36.66206 (261, 1,21)	23.12384 (261, 1,21)	4.44315 (261, 1,23)
350.0	21.49296 (228, 1,21)	13.17900 (228, 1,21)	2.35162 (228, 1,22)
340.0	21.67828 (228, 1,21)	8.86193 (96, 1,24)	1.85303 (216, 1,18)
330.0	26.10689 (250, 1,22)	12.68371 (228, 1,21)	2.11763 (229, 1,20)
320.0	20.37466 (83, 1,24)	13.58885 (326, 1,20)	2.68481 (250, 1,24)
310.0	21.78052 (324, 1,24)	15.36823 (324, 1,24)	2.46791 (326, 1,20)
300.0	15.72919 (270, 1,24)	9.48327 (270, 1,24)	2.40350 (69, 1,23)
290.0	21.80241 (248, 1,24)	11.60608 (248, 1,24)	1.57199 (270, 1,24)
280.0	14.90611 (69, 1,24)	14.45384 (246, 1,24)	2.86456 (248, 1,24)
270.0	15.68061 (69, 1,24)	10.29289 (69, 1,24)	1.77580 (3, 1,24)
260.0	14.00038 (200, 1,23)	8.38945 (310, 1,24)	1.98373 (69, 1,24)
250.0	19.81918 (265, 1,23)	13.62146 (241, 1,23)	1.91459 (284, 1,24)
240.0	19.22507 (315, 1,24)	13.68478 (315, 1,24)	2.72068 (315, 1,24)
230.0	18.92641 (293, 1,24)	11.79045 (293, 1,24)	2.49770 (235, 1,24)
220.0	18.85812 (293, 1,24)	12.66770 (293, 1,24)	2.71577 (293, 1,24)
210.0	14.46268 (294, 1,24)	9.14847 (293, 1,24)	1.91687 (293, 1,24)
200.0	14.55161 (267, 1,23)	9.96865 (267, 1,23)	2.38526 (267, 1,23)
190.0	11.74477 (297, 1,19)	7.48731 (297, 1,19)	1.72897 (2, 1,24)
180.0	19.77652 (297, 1,19)	13.65377 (297, 1,19)	3.15895 (297, 1,19)
170.0	17.01686 (340, 1,20)	10.30636 (340, 1,21)	2.56641 (25, 1,22)
160.0	17.53450 (340, 1,19)	11.76485 (340, 1,19)	2.52064 (356, 1,24)
150.0	12.51773 (340, 1,19)	7.24394 (175, 1,18)	3.10420 (135, 1,24)
140.0	24.55612 (135, 1,24)	13.40240 (135, 1,24)	1.93775 (35, 1,22)
130.0	14.33305 (53, 1,24)	7.52834 (53, 1,24)	1.82665 (345, 1,24)
120.0	13.79891 (345, 1,24)	11.74447 (356, 1,18)	3.07456 (356, 1,18)
110.0	23.40158 (356, 1,18)	11.58121 (345, 1,24)	2.39752 (95, 1,24)
100.0	20.33865 (339, 1,23)	12.88911 (100, 1,24)	2.71642 (100, 1,24)
90.0	24.34261 (100, 1,24)	14.56963 (302, 1,24)	4.48315 (302, 1,24)
80.0	24.13971 (302, 1,24)	12.46552 (80, 1,24)	1.76514 (253, 1,22)
70.0	20.40048 (253, 1,21)	10.18767 (253, 1,22)	2.14962 (14, 1,19)
60.0	29.43674 (14, 1,19)	20.02376 (14, 1,19)	2.62439 (186, 1,24)
50.0	28.33188 (15, 1,24)	14.21130 (15, 1,24)	2.27568 (196, 1,24)
40.0	27.20022 (37, 1,19)	15.95947 (72, 1,20)	2.36036 (72, 1,21)
30.0	30.13225 (192, 1,18)	18.83743 (187, 1,22)	3.25000 (187, 1,23)
20.0	31.65068 (256, 1,22)	16.85683 (256, 1,22)	2.63482 (256, 1,22)
10.0	33.59951 (331, 1,22)	16.95386 (331, 1,22)	3.06407 (227, 1,22)

ISC CALMS
PROCESSOR

2ND HIGH
24-HR
SGROUP# 1

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1973 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 36.59395 AND OCCURRED AT (500.0, 360.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	36.59395 (227, 1,22)	22.36124 (227, 1,22)	3.39686 (227, 1,22)
350.0	18.84445 (185, 1,20)	7.81884 (304, 1,22)	2.00427 (62, 1,23)
340.0	20.47366 (229, 1,19)	9.63712 (216, 1,18)	1.71993 (185, 1,22)
330.0	18.74319 (359, 1,22)	8.73001 (56, 1,24)	1.89306 (228, 1,21)
320.0	20.00142 (326, 1,20)	10.70672 (126, 1,21)	2.20310 (359, 1,22)
310.0	18.62475 (83, 1,23)	13.71487 (83, 1,24)	1.85931 (109, 1,24)
300.0	14.27446 (248, 1,24)	8.90214 (251, 1,18)	2.05435 (156, 1,22)
290.0	15.26151 (283, 1,24)	9.46155 (49, 1,24)	1.36697 (248, 1,24)
280.0	14.85765 (246, 1,24)	13.23956 (61, 1,24)	1.73055 (83, 1,23)
270.0	12.69049 (31, 1,24)	7.99619 (336, 1,24)	1.72426 (286, 1,24)
260.0	13.90633 (241, 1,24)	8.31356 (200, 1,23)	1.67912 (31, 1,24)
250.0	16.27383 (241, 1,23)	11.36069 (292, 1,24)	1.75772 (67, 1,24)
240.0	17.75485 (235, 1,24)	12.36283 (265, 1,23)	2.53981 (265, 1,23)
230.0	17.08566 (291, 1,24)	10.21351 (291, 1,24)	2.24220 (293, 1,24)
220.0	14.62118 (234, 1,24)	9.39997 (314, 1,24)	2.34004 (290, 1,24)
210.0	13.46172 (293, 1,24)	8.89127 (294, 1,24)	1.74393 (237, 1,24)
200.0	13.77808 (268, 1,22)	9.29298 (268, 1,22)	2.05822 (268, 1,23)
190.0	10.45007 (2, 1,24)	6.77420 (2, 1,24)	1.60160 (297, 1,19)
180.0	17.87701 (342, 1,24)	11.90439 (342, 1,24)	2.75684 (342, 1,24)
170.0	15.51637 (342, 1,24)	9.70315 (25, 1,22)	1.86862 (51, 1,23)
160.0	11.31328 (24, 1,23)	6.09887 (24, 1,23)	2.25075 (340, 1,19)
150.0	11.91892 (305, 1,18)	8.97500 (340, 1,19)	1.49541 (176, 1,18)
140.0	15.92157 (333, 1,24)	12.83971 (333, 1,24)	1.89753 (53, 1,24)
130.0	11.55536 (35, 1,22)	7.13573 (339, 1,23)	1.42536 (190, 1,24)
120.0	13.28207 (309, 1,24)	11.11333 (309, 1,24)	2.59352 (29, 1,24)
110.0	19.62564 (29, 1,24)	11.49175 (29, 1,24)	2.15498 (339, 1,23)
100.0	18.93228 (100, 1,24)	10.28827 (118, 1,21)	2.34826 (344, 1,22)
90.0	20.22400 (344, 1,21)	13.43670 (351, 1,23)	2.62968 (77, 1,23)
80.0	22.32559 (77, 1,23)	12.14623 (54, 1,24)	1.54902 (92, 1,22)
70.0	14.96831 (225, 1,23)	10.02284 (167, 1,24)	1.58148 (141, 1,23)
60.0	19.49452 (283, 1,23)	11.35589 (289, 1,23)	2.40201 (187, 1,22)
50.0	24.36824 (187, 1,22)	11.99362 (144, 1,24)	2.01911 (37, 1,24)
40.0	25.57355 (197, 1,24)	14.06886 (197, 1,24)	2.05875 (295, 1,22)
30.0	28.46146 (187, 1,22)	15.67253 (192, 1,18)	2.52108 (125, 1,22)
20.0	27.74940 (73, 1,23)	15.16789 (73, 1,23)	2.44292 (73, 1,23)
10.0	29.93033 (227, 1,22)	15.04743 (227, 1,22)	2.36466 (331, 1,22)

OXY74

J9012A

```
*A START JOB 9012 OXY74    1    001 001 NER    OXY SULFUR    80001046,002  1.24.14 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9012 OXY74    1    001 001 NER    OXY SULFUR    80001046,002  1.24.14 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9012 OXY74    1    001 001 NER    OXY SULFUR    80001046,002  1.24.14 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9012 OXY74    1    001 001 NER    OXY SULFUR    80001046,002  1.24.14 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9012 OXY74    1    001 001 NER    OXY SULFUR    80001046,002  1.24.14 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9012 OXY74    1    001 001 NER    OXY SULFUR    80001046,002  1.24.14 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9012 OXY74    1    001 001 NER    OXY SULFUR    80001046,002  1.24.14 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9012 OXY74    1    001 001 NER    OXY SULFUR    80001046,002  1.24.14 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9012 OXY74    1    001 001 NER    OXY SULFUR    80001046,002  1.24.14 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9012 OXY74    1    001 001 NER    OXY SULFUR    80001046,002  1.24.14 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9012 OXY74    1    001 001 NER    OXY SULFUR    80001046,002  1.24.14 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9012 OXY74    1    001 001 NER    OXY SULFUR    80001046,002  1.24.14 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9012 OXY74    1    001 001 NER    OXY SULFUR    80001046,002  1.24.14 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9012 OXY74    1    001 001 NER    OXY SULFUR    80001046,002  1.24.14 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9012 OXY74    1    001 001 NER    OXY SULFUR    80001046,002  1.24.14 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9012 OXY74    1    001 001 NER    OXY SULFUR    80001046,002  1.24.14 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9012 OXY74    1    001 001 NER    OXY SULFUR    80001046,002  1.24.14 AM 19JUL85 PRINTER1 NER1 START A*
```

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 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) =	1
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) =	1
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) =	0
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) =	0
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 =	8
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 =	3
NUMBER OF Y (THETA) GRID VALUES	NYPNTS =	36
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 =	10.00 METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA	IMET =	9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION	DECAY =	0.000000E+00
SURFACE STATION NO.	ISS =	93845
YEAR OF SURFACE DATA	ISY =	74
UPPER AIR STATION NO.	IUS =	13861
YEAR OF UPPER AIR DATA	IUY =	74
LOGICAL UNIT OF CALCULATION 'SAVE' TAPE	ITAP =	3
ALLOCATED DATA STORAGE	LIMIT =	43500 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MIMIT =	2083 WORDS

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1974 ***

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

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 0
```

*** 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

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1974 ***

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

500.0, 700.0, 2000.0,

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

(DEGREES)

10.0,	20.0,	30.0,	40.0,	50.0,	60.0,	70.0,	80.0,	90.0,	100.0,
110.0,	120.0,	130.0,	140.0,	150.0,	160.0,	170.0,	180.0,	190.0,	200.0,
210.0,	220.0,	230.0,	240.0,	250.0,	260.0,	270.0,	280.0,	290.0,	300.0,
310.0,	320.0,	330.0,	340.0,	350.0,	360.0,				

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1974 ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	AVE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	1	0	5	0.19000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
2	1	0	5	0.63000E-01	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
3	1	0	5	0.11000E-01	52.0	63.0	0.0	6.00	1.40	1.40	0.00	0.00	0.00	0.00
4	1	0	5	0.30200E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
5	1	0	5	0.33000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
6	1	0	5	0.10000E-02	52.0	63.0	0.0	4.00	3.60	1.10	0.00	0.00	0.00	0.00
7	1	0	5	0.38400E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
8	1	0	5	0.38400E+00	115.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1974 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 1 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 2 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 3 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 4 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 5 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 6 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 7 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 8 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1974 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE NO. = 1											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 2											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 4											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 7											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 8											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

ISCST POST PROCESSOR VERSION 30-MAR-85

CXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1974

ISW(26) = 0 CALMS WILL BE CONSIDERED.

CONTRIBUTION LEVEL IS: 0.2000E-08 MICROGRAMS/CUBIC METER

NOTES:

THE NUMBER OF HOURS USED TO CALCULATE THE CONCENTRATIONS ARE SHOWN WITH THE DAY AND PERIOD, E.G., 1.23456 (103, 1.23)

ISC CALMS
PROCESSOR

HIGH
24-HR
SGROUP* 1

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1974 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 39.38817 AND OCCURRED AT (500.0, 30.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	22.75876 (353, 1,24)	17.01379 (353, 1,24)	4.02804 (353, 1,24)
350.0	16.62770 (116, 1,20)	8.62119 (244, 1,24)	1.25887 (236, 1,23)
340.0	28.41177 (356, 1,24)	14.67466 (243, 1,21)	2.35231 (116, 1,23)
330.0	21.93959 (134, 1,22)	19.10144 (134, 1,23)	3.55574 (356, 1,24)
320.0	19.53484 (8, 1,24)	11.38582 (52, 1,23)	2.68823 (5, 1,22)
310.0	19.71153 (52, 1,23)	13.40320 (52, 1,23)	1.70841 (52, 1,23)
300.0	16.21925 (214, 1,23)	12.04596 (101, 1,24)	2.69311 (52, 1,23)
290.0	31.28650 (302, 1,21)	18.71272 (302, 1,21)	1.96608 (101, 1,24)
280.0	20.70094 (217, 1,18)	14.60063 (302, 1,21)	3.30214 (302, 1,21)
270.0	14.67970 (19, 1,24)	9.73452 (19, 1,24)	2.17959 (348, 1,24)
260.0	23.37732 (303, 1,21)	10.55520 (303, 1,22)	1.80570 (19, 1,24)
250.0	18.70894 (303, 1,21)	15.27191 (321, 1,21)	2.91593 (303, 1,22)
240.0	18.67075 (256, 1,24)	12.17146 (313, 1,23)	2.77014 (339, 1,19)
230.0	22.93948 (333, 1,22)	15.45165 (333, 1,22)	2.60223 (277, 1,24)
220.0	23.76678 (313, 1,23)	17.69586 (313, 1,23)	5.56269 (313, 1,23)
210.0	14.71882 (264, 1,20)	10.17257 (264, 1,20)	2.61543 (357, 1,23)
200.0	22.63330 (319, 1,22)	14.89849 (319, 1,22)	3.27259 (319, 1,22)
190.0	16.32974 (82, 1,22)	10.27052 (82, 1,22)	2.20810 (311, 1,24)
180.0	15.02661 (12, 1,24)	9.34449 (57, 1,22)	2.41646 (273, 1,22)
170.0	17.36388 (281, 1,22)	12.30025 (281, 1,22)	3.02578 (311, 1,24)
160.0	13.64719 (310, 1,24)	9.36629 (310, 1,24)	2.29222 (310, 1,24)
150.0	13.00758 (310, 1,24)	7.90570 (250, 1,24)	2.62517 (347, 1,24)
140.0	21.58600 (347, 1,23)	14.71245 (347, 1,23)	2.57085 (343, 1,24)
130.0	19.88622 (343, 1,24)	9.47137 (290, 1,18)	1.91731 (99, 1,21)
120.0	15.47941 (99, 1,21)	8.76173 (17, 1,22)	2.85216 (337, 1,24)
110.0	23.20731 (355, 1,21)	17.09549 (355, 1,21)	2.66877 (355, 1,21)
100.0	31.04701 (355, 1,21)	15.23271 (351, 1,22)	2.36790 (51, 1,21)
90.0	20.94987 (351, 1,22)	12.60492 (364, 1,24)	3.71267 (364, 1,24)
80.0	35.49371 (354, 1,24)	17.40517 (364, 1,24)	2.81302 (342, 1,24)
70.0	24.12799 (342, 1,24)	12.65543 (124, 1,20)	2.59087 (90, 1,24)
60.0	27.84271 (363, 1,24)	13.86933 (71, 1,24)	2.62643 (70, 1,23)
50.0	24.59550 (197, 1,22)	15.09111 (197, 1,23)	3.61894 (123, 1,24)
40.0	28.53161 (130, 1,21)	15.56167 (130, 1,21)	3.02875 (5, 1,18)
30.0	39.38817 (6, 1,18)	21.54645 (6, 1,18)	2.64385 (6, 1,18)
20.0	27.52953 (119, 1,22)	17.12337 (119, 1,22)	3.14444 (119, 1,23)
10.0	36.22633 (1, 1,20)	19.74306 (1, 1,20)	3.02152 (1, 1,21)

ISC CALMS PROCESSOR

2ND HIGH 24-HR SGROUP# 1

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1974 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 34.30681 AND OCCURRED AT (500.0, 30.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	21.05699 (87, 1,21)	12.46521 (212, 1,24)	2.16161 (10, 1.22)
350.0	15.76295 (391, 1,22)	8.61527 (103, 1,24)	1.21740 (52, 1.24)
340.0	23.55068 (301, 1,18)	11.08887 (238, 1,19)	2.28079 (66, 1.20)
330.0	19.46631 (5, 1,22)	10.98039 (185, 1,23)	2.33741 (301, 1.22)
320.0	19.14284 (52, 1,23)	10.45571 (187, 1,23)	1.70577 (318, 1.24)
310.0	17.61661 (111, 1,24)	13.37622 (237, 1,20)	1.62519 (8, 1.24)
300.0	15.56904 (101, 1,24)	9.63700 (19, 1,24)	2.33401 (3, 1.19)
290.0	25.68178 (217, 1,18)	13.52072 (217, 1,18)	1.67488 (140, 1.23)
280.0	17.22893 (348, 1,24)	12.80158 (217, 1,18)	2.42902 (217, 1.18)
270.0	12.12202 (194, 1,23)	9.00679 (217, 1,18)	1.82499 (217, 1.18)
260.0	14.09961 (13, 1,24)	8.48780 (73, 1,22)	1.65190 (160, 1.23)
250.0	18.63004 (321, 1,21)	10.78585 (303, 1,21)	1.98018 (255, 1.24)
240.0	17.19391 (312, 1,23)	11.89305 (256, 1,24)	2.62651 (303, 1.21)
230.0	22.24863 (276, 1,24)	13.05242 (276, 1,24)	2.43726 (333, 1.22)
220.0	16.29753 (314, 1,22)	8.96806 (169, 1,21)	2.65048 (305, 1.21)
210.0	13.89267 (357, 1,23)	10.14274 (357, 1,23)	2.08496 (264, 1.20)
200.0	13.72758 (82, 1,22)	8.56621 (82, 1,22)	2.17200 (331, 1.24)
190.0	12.54611 (311, 1,24)	8.66244 (311, 1,24)	2.09815 (82, 1.22)
180.0	14.02245 (57, 1,21)	9.22037 (12, 1,24)	2.15626 (57, 1.24)
170.0	15.42423 (310, 1,24)	9.41902 (310, 1,24)	2.67014 (281, 1.22)
160.0	13.58210 (311, 1,24)	7.52866 (126, 1,24)	1.67776 (329, 1.22)
150.0	12.01614 (35, 1,21)	7.02516 (35, 1,21)	1.47378 (343, 1.24)
140.0	17.52655 (343, 1,24)	14.20951 (343, 1,24)	1.91944 (76, 1.24)
130.0	17.00301 (347, 1,22)	7.52656 (343, 1,24)	1.56329 (272, 1.24)
120.0	14.85430 (290, 1,18)	8.49088 (99, 1,21)	2.84981 (355, 1.22)
110.0	22.32184 (337, 1,24)	16.39791 (337, 1,24)	2.63510 (145, 1.23)
100.0	21.33997 (337, 1,24)	13.56846 (355, 1,21)	1.75950 (145, 1.23)
90.0	17.97403 (51, 1,20)	11.02348 (51, 1,21)	1.48195 (40, 1.23)
80.0	14.30752 (40, 1,23)	9.53243 (342, 1,24)	2.39497 (121, 1.19)
70.0	20.79105 (121, 1,19)	10.54329 (4, 1,24)	2.50365 (363, 1.24)
60.0	24.33503 (99, 1,24)	13.84818 (363, 1,24)	2.32303 (191, 1.24)
50.0	24.19272 (7, 1,24)	12.16488 (7, 1,24)	2.33344 (181, 1.18)
40.0	26.36987 (359, 1,24)	14.64982 (202, 1,24)	2.27861 (45, 1.24)
30.0	34.30681 (5, 1,18)	13.78764 (5, 1,18)	2.07767 (162, 1.20)
20.0	27.20834 (10, 1,21)	14.96662 (271, 1,24)	2.62109 (271, 1.24)
10.0	33.32437 (208, 1,24)	18.25543 (229, 1,23)	2.61939 (229, 1.23)

R

U.S. 41

OXY75

J9016A

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*A START JOB 9016 OXY75     1        001 001 NER       OXY SULFUR          80001046.002  1.50.07 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9016 OXY75     1        001 001 NER       OXY SULFUR          80001046.002  1.50.07 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9016 OXY75     1        001 001 NER       OXY SULFUR          80001046.002  1.50.07 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9016 OXY75     1        001 001 NER       OXY SULFUR          80001046.002  1.50.07 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9016 OXY75     1        001 001 NER       OXY SULFUR          80001046.002  1.50.07 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9016 OXY75     1        001 001 NER       OXY SULFUR          80001046.002  1.50.07 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9016 OXY75     1        001 001 NER       OXY SULFUR          80001046.002  1.50.07 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9016 OXY75     1        001 001 NER       OXY SULFUR          80001046.002  1.50.07 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9016 OXY75     1        001 001 NER       OXY SULFUR          80001046.002  1.50.07 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9016 OXY75     1        001 001 NER       OXY SULFUR          80001046.002  1.50.07 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9016 OXY75     1        001 001 NER       OXY SULFUR          80001046.002  1.50.07 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9016 OXY75     1        001 001 NER       OXY SULFUR          80001046.002  1.50.07 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9016 OXY75     1        001 001 NER       OXY SULFUR          80001046.002  1.50.07 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9016 OXY75     1        001 001 NER       OXY SULFUR          80001046.002  1.50.07 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9016 OXY75     1        001 001 NER       OXY SULFUR          80001046.002  1.50.07 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9016 OXY75     1        001 001 NER       OXY SULFUR          80001046.002  1.50.07 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9016 OXY75     1        001 001 NER       OXY SULFUR          80001046.002  1.50.07 AM 19JUL85 PRINTER1 NER1 START A*
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*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1975 ***

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) = 1
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) = 1
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) = 0
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) = 0
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 = 8
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 = 3
NUMBER OF Y (THETA) GRID VALUES	NYPNTS = 36
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 = 10.00 METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA	IMET = 9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION	DECAY =0.000000E+00
SURFACE STATION NO.	ISS = 93845
YEAR OF SURFACE DATA	ISY = 75
UPPER AIR STATION NO.	IUS = 13861
YEAR OF UPPER AIR DATA	IUY = 75
LOGICAL UNIT OF CALCULATION 'SAVE' TAPE	ITAP = 3
ALLOCATED DATA STORAGE	LIMIT = 43500 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MIMIT = 2083 WORDS

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1975 ***

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

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 0
```

*** 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

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1975 ***

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

500.0, 700.0, 2000.0,

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

(DEGREES)

10.0,	20.0,	30.0,	40.0,	50.0,	60.0,	70.0,	80.0,	90.0,	100.0,
110.0,	120.0,	130.0,	140.0,	150.0,	160.0,	170.0,	180.0,	190.0,	200.0,
210.0,	220.0,	230.0,	240.0,	250.0,	260.0,	270.0,	280.0,	290.0,	300.0,
310.0,	320.0,	330.0,	340.0,	350.0,	360.0,				

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1975 ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	TAK	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC /PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	1	0	5	0.19000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
2	1	0	5	0.63000E-01	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
3	1	0	5	0.11000E-01	52.0	63.0	0.0	6.00	1.40	1.40	0.00	0.00	0.00	0.00
4	1	0	5	0.30200E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
5	1	0	5	0.33000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
6	1	0	5	0.10000E-02	52.0	63.0	0.0	4.00	3.60	1.10	0.00	0.00	0.00	0.00
7	1	0	5	0.38400E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
8	1	0	5	0.38400E+00	115.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1975 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 1 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 2 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 3 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1975 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 4 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 5 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 6 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1975 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 7 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 8 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** CXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1975 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE NO. = 1											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 2											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 4											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 7											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 8											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

ISCST POST PROCESSOR VERSION 30-MAR-85

SAY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1975

ISW(26) = 0 CALMS WILL BE CONSIDERED.

CONTRIBUTION LEVEL IS: 0.2000E-08 MICROGRAMS/CUBIC METER

NOTES:

THE NUMBER OF HOURS USED TO CALCULATE THE CONCENTRATIONS ARE SHOWN WITH THE DAY AND PERIOD, E.G., 1.23456 (103, 1.23)

ISC CALMS
PROCESSOR

HIGH
24-HR
SGROUP# 1

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1975 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 37.74002 AND OCCURRED AT (500.0, 180.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	23.82675 (238, 1,24)	14.27939 (243, 1,20)	2.34384 (136, 1,24)
350.0	24.53214 (262, 1,19)	11.54174 (71, 1,24)	2.40696 (71, 1,24)
340.0	35.42231 (281, 1,22)	17.71790 (281, 1,22)	1.75492 (262, 1,22)
330.0	19.20760 (226, 1,22)	12.90973 (123, 1,24)	3.00838 (281, 1,22)
320.0	22.54059 (287, 1,18)	11.51413 (113, 1,24)	1.72894 (46, 1,18)
310.0	23.07533 (286, 1,24)	9.69097 (200, 1,24)	2.52695 (314, 1,23)
300.0	24.11768 (195, 1,20)	12.33932 (195, 1,20)	2.46389 (286, 1,24)
290.0	21.60307 (195, 1,20)	12.64042 (149, 1,24)	2.68021 (195, 1,22)
280.0	23.74960 (307, 1,24)	15.69865 (307, 1,24)	2.61001 (149, 1,24)
270.0	18.14853 (347, 1,21)	11.07547 (347, 1,22)	2.90173 (307, 1,24)
260.0	22.90546 (3, 1,24)	11.45317 (3, 1,24)	1.95010 (347, 1,24)
250.0	21.12871 (264, 1,21)	13.69516 (264, 1,22)	3.47830 (3, 1,24)
240.0	17.00133 (35, 1,24)	12.23422 (241, 1,24)	3.24035 (263, 1,20)
230.0	17.31628 (177, 1,24)	10.57982 (177, 1,24)	2.38403 (277, 1,24)
220.0	12.27013 (177, 1,24)	8.54771 (112, 1,24)	2.27227 (246, 1,19)
210.0	20.91075 (338, 1,24)	15.32052 (338, 1,24)	4.09561 (338, 1,24)
200.0	17.05879 (284, 1,20)	11.34042 (284, 1,20)	2.69184 (284, 1,20)
190.0	21.34006 (320, 1,18)	14.88519 (320, 1,18)	2.88970 (320, 1,23)
180.0	37.74002 (51, 1,22)	25.53679 (51, 1,22)	6.06375 (51, 1,22)
170.0	28.65542 (51, 1,22)	13.76321 (51, 1,22)	2.47607 (336, 1,18)
160.0	22.87816 (336, 1,18)	14.87359 (336, 1,18)	2.82910 (95, 1,24)
150.0	18.58409 (356, 1,24)	11.64602 (356, 1,24)	2.86729 (269, 1,23)
140.0	22.58398 (38, 1,22)	13.30562 (38, 1,22)	2.09674 (361, 1,24)
130.0	14.54175 (318, 1,24)	8.31881 (318, 1,24)	3.46058 (79, 1,23)
120.0	21.83525 (79, 1,23)	13.25416 (325, 1,24)	2.71805 (344, 1,24)
110.0	20.74036 (13, 1,24)	14.98667 (79, 1,23)	2.34657 (138, 1,24)
100.0	18.69723 (138, 1,24)	10.20409 (138, 1,24)	1.45913 (122, 1,19)
90.0	18.21516 (1, 1,24)	10.03652 (65, 1,24)	2.01087 (95, 1,24)
80.0	18.90466 (124, 1,22)	10.78230 (124, 1,22)	1.87178 (56, 1,24)
70.0	20.98724 (56, 1,21)	12.51007 (164, 1,24)	2.49191 (32, 1,18)
60.0	31.99654 (32, 1,18)	17.29761 (32, 1,18)	2.27706 (244, 1,21)
50.0	34.62643 (107, 1,20)	17.55261 (107, 1,20)	2.99785 (350, 1,24)
40.0	34.05150 (160, 1,19)	17.10414 (160, 1,19)	2.83471 (158, 1,24)
30.0	29.34093 (217, 1,22)	15.89357 (217, 1,22)	2.81045 (217, 1,22)
20.0	27.42026 (152, 1,24)	15.73061 (245, 1,19)	2.94971 (245, 1,19)
10.0	34.41452 (311, 1,24)	18.89439 (311, 1,24)	3.23184 (311, 1,24)

ISC CALMS PROCESSOR

2ND HIGH 24-HR SGROUP# 1

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1975 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 27.29031 AND OCCURRED AT (500.0, 40.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	23.24866 (227, 1,20)	13.06513 (136, 1,24)	2.29539 (243, 1,20)
350.0	17.85559 (71, 1,24)	11.47052 (226, 1,24)	2.34287 (223, 1,18)
340.0	19.08170 (314, 1,23)	13.03379 (262, 1,18)	1.55559 (209, 1,24)
330.0	18.73732 (46, 1,18)	12.35882 (46, 1,18)	1.75458 (114, 1,21)
320.0	19.01584 (314, 1,23)	11.11051 (313, 1,24)	1.67976 (311, 1,23)
310.0	19.37135 (288, 1,18)	9.57613 (286, 1,24)	2.45327 (287, 1,18)
300.0	19.36780 (314, 1,23)	11.67044 (348, 1,24)	2.00339 (148, 1,24)
290.0	18.78242 (149, 1,24)	11.77724 (314, 1,23)	1.83030 (310, 1,24)
280.0	20.62276 (315, 1,24)	16.00371 (310, 1,24)	2.43410 (195, 1,21)
270.0	12.65996 (346, 1,23)	10.06502 (279, 1,24)	2.67736 (315, 1,24)
260.0	18.08525 (264, 1,22)	9.68287 (339, 1,24)	1.72782 (340, 1,24)
250.0	16.93123 (263, 1,20)	9.32372 (130, 1,24)	2.60646 (264, 1,22)
240.0	16.35304 (241, 1,24)	9.86061 (35, 1,24)	2.26283 (264, 1,22)
230.0	14.89305 (277, 1,24)	9.84131 (35, 1,24)	2.35292 (332, 1,19)
220.0	12.25682 (271, 1,23)	8.12724 (259, 1,24)	1.89629 (112, 1,24)
210.0	15.29588 (271, 1,23)	10.72288 (271, 1,24)	2.51016 (271, 1,24)
200.0	15.92952 (337, 1,18)	10.22399 (337, 1,18)	2.24328 (337, 1,18)
190.0	18.59618 (297, 1,24)	12.41657 (297, 1,24)	2.82463 (297, 1,24)
180.0	17.33150 (44, 1,19)	11.13255 (44, 1,19)	2.18862 (270, 1,19)
170.0	15.11579 (275, 1,24)	9.45765 (275, 1,24)	1.72438 (297, 1,24)
160.0	12.29646 (352, 1,24)	9.91559 (95, 1,24)	1.76367 (356, 1,24)
150.0	15.05936 (326, 1,20)	9.76618 (326, 1,20)	2.57847 (38, 1,22)
140.0	20.06093 (269, 1,23)	10.35496 (269, 1,23)	1.99785 (318, 1,24)
130.0	14.31236 (38, 1,22)	7.96413 (268, 1,23)	2.69917 (318, 1,24)
120.0	19.64355 (318, 1,24)	12.28333 (78, 1,24)	2.18951 (61, 1,24)
110.0	17.94522 (344, 1,24)	12.12896 (13, 1,24)	2.01236 (344, 1,24)
100.0	17.39541 (344, 1,24)	9.87180 (344, 1,24)	1.45352 (207, 1,24)
90.0	12.69144 (56, 1,19)	8.17911 (116, 1,23)	1.75175 (291, 1,24)
80.0	15.17912 (138, 1,24)	10.45933 (230, 1,24)	1.77378 (55, 1,24)
70.0	18.29065 (55, 1,24)	12.41410 (107, 1,21)	2.42282 (337, 1,24)
60.0	20.17390 (230, 1,24)	10.40785 (207, 1,23)	2.20199 (191, 1,24)
50.0	24.36059 (350, 1,24)	17.10136 (350, 1,24)	2.59002 (138, 1,24)
40.0	27.29031 (159, 1,24)	14.59676 (29, 1,23)	2.59482 (49, 1,24)
30.0	26.82936 (48, 1,23)	14.16423 (48, 1,23)	2.51776 (203, 1,21)
20.0	26.45493 (245, 1,19)	15.18121 (156, 1,24)	2.67526 (156, 1,24)
10.0	21.94059 (364, 1,24)	11.97381 (150, 1,24)	2.41673 (206, 1,20)

OXY76

J9019A

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*A START JOB 9019 OXY76     1     001 001 NER     OXY SULFUR     80001046.002  2.09.24 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9019 OXY76     1     001 001 NER     OXY SULFUR     80001046.002  2.09.24 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9019 OXY76     1     001 001 NER     OXY SULFUR     80001046.002  2.09.24 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9019 OXY76     1     001 001 NER     OXY SULFUR     80001046.002  2.09.24 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9019 OXY76     1     001 001 NER     OXY SULFUR     80001046.002  2.09.24 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9019 OXY76     1     001 001 NER     OXY SULFUR     80001046.002  2.09.24 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9019 OXY76     1     001 001 NER     OXY SULFUR     80001046.002  2.09.24 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9019 OXY76     1     001 001 NER     OXY SULFUR     80001046.002  2.09.24 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9019 OXY76     1     001 001 NER     OXY SULFUR     80001046.002  2.09.24 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9019 OXY76     1     001 001 NER     OXY SULFUR     80001046.002  2.09.24 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9019 OXY76     1     001 001 NER     OXY SULFUR     80001046.002  2.09.24 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9019 OXY76     1     001 001 NER     OXY SULFUR     80001046.002  2.09.24 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9019 OXY76     1     001 001 NER     OXY SULFUR     80001046.002  2.09.24 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9019 OXY76     1     001 001 NER     OXY SULFUR     80001046.002  2.09.24 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9019 OXY76     1     001 001 NER     OXY SULFUR     80001046.002  2.09.24 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9019 OXY76     1     001 001 NER     OXY SULFUR     80001046.002  2.09.24 AM 19JUL85 PRINTER1 NER1 START A*
*A START JOB 9019 OXY76     1     001 001 NER     OXY SULFUR     80001046.002  2.09.24 AM 19JUL85 PRINTER1 NER1 START A*
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*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1976 ***

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) = 1
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) = 1
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) = 0
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) = 0
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 = 8
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 = 3
NUMBER OF Y (THETA) GRID VALUES	NYPNTS = 36
NUMBER OF DISCRETE RECEPTORS	NXNYPT = 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 = 10.00 METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA	IMET = 9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION	DECAY =0.000000E+00
SURFACE STATION NO.	ISS = 93845
YEAR OF SURFACE DATA	ISY = 76
UPPER AIR STATION NO.	IUS = 13861
YEAR OF UPPER AIR DATA	IUY = 76
LOGICAL UNIT OF CALCULATION 'SAVE' TAPE	ITAP = 3
ALLOCATED DATA STORAGE	LIMIT = 43500 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MIMIT = 2083 WORDS

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1976 ***

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

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 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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*** 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

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1976 ***

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

500.0, 700.0, 2000.0,

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

(DEGREES)

10.0,	20.0,	30.0,	40.0,	50.0,	60.0,	70.0,	80.0,	90.0,	100.0,
110.0,	120.0,	130.0,	140.0,	150.0,	160.0,	170.0,	180.0,	190.0,	200.0,
210.0,	220.0,	230.0,	240.0,	250.0,	260.0,	270.0,	280.0,	290.0,	300.0,
310.0,	320.0,	330.0,	340.0,	350.0,	360.0,				

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1976 ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	1	0	5	0.19000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
2	1	0	5	0.68000E-01	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
3	1	0	5	0.11000E-01	52.0	63.0	0.0	6.00	1.40	1.40	0.00	0.00	0.00	0.00
4	1	0	5	0.30200E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
5	1	0	5	0.33000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
6	1	0	5	0.10000E-02	52.0	63.0	0.0	4.00	3.60	1.10	0.00	0.00	0.00	0.00
7	1	0	5	0.38400E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
8	1	0	5	0.38400E+00	115.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00

*** OAY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1976 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 1 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 2 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 3 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1976 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 4 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 5 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 6 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** CAY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1976 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 7 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 8 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1976 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE NO. = 1											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 2											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 4											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 7											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 8											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

ISCST POST PROCESSOR VERSION 30-MAR-85

OKY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1976

ISW(26) = 0 CALMS WILL BE CONSIDERED.

CONTRIBUTION LEVEL IS: 0.2000E-08 MICROGRAMS/CUBIC METER

NOTES:

THE NUMBER OF HOURS USED TO CALCULATE THE CONCENTRATIONS ARE SHOWN WITH THE DAY AND PERIOD. E.G., 1.23456 (103, 1.23)

ISC CALMS
PROCESSOR

HIGH
24-HR
SGROUP# 1

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1976 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 37.64929 AND OCCURRED AT (500.0, 30.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	23.88525 (270, 1,24)	11.90348 (281, 1,24)	2.50238 (204, 1,22)
350.0	20.47713 (61, 1,18)	15.15107 (48, 1,22)	2.89973 (48, 1,22)
340.0	25.01421 (106, 1,23)	14.51922 (64, 1,23)	1.93937 (64, 1,23)
330.0	23.85034 (188, 1,22)	13.45463 (178, 1,18)	2.73030 (178, 1,18)
320.0	20.51176 (165, 1,18)	11.57720 (188, 1,22)	2.74097 (188, 1,23)
310.0	19.67160 (144, 1,24)	10.96146 (176, 1,21)	2.10985 (165, 1,20)
300.0	16.42464 (175, 1,23)	10.57378 (216, 1,23)	2.13756 (144, 1,24)
290.0	17.98709 (231, 1,24)	13.91399 (331, 1,24)	2.19909 (280, 1,22)
280.0	12.94961 (252, 1,22)	8.55944 (217, 1,24)	2.33596 (331, 1,24)
270.0	19.99014 (237, 1,24)	11.62900 (279, 1,24)	1.92304 (176, 1,21)
260.0	20.95644 (345, 1,24)	12.48135 (345, 1,24)	3.25001 (237, 1,24)
250.0	19.05928 (345, 1,24)	12.23336 (345, 1,24)	2.33743 (345, 1,24)
240.0	22.26581 (230, 1,22)	14.72938 (230, 1,22)	3.07569 (252, 1,22)
230.0	18.04393 (19, 1,24)	12.69411 (19, 1,24)	2.50382 (349, 1,24)
220.0	17.26842 (286, 1,21)	12.41002 (98, 1,24)	3.18942 (98, 1,24)
210.0	16.00990 (82, 1,23)	9.96960 (62, 1,23)	2.37021 (286, 1,22)
200.0	13.90418 (233, 1,24)	9.09294 (233, 1,24)	2.17946 (233, 1,24)
190.0	15.93506 (285, 1,23)	10.24980 (285, 1,23)	2.24250 (285, 1,23)
180.0	13.20071 (335, 1,24)	8.31831 (335, 1,24)	1.82900 (335, 1,24)
170.0	14.54360 (320, 1,24)	9.27647 (320, 1,24)	2.00551 (320, 1,24)
160.0	12.93987 (313, 1,19)	8.47623 (313, 1,19)	2.12843 (313, 1,19)
150.0	12.79770 (28, 1,24)	8.66314 (234, 1,21)	2.03500 (327, 1,24)
140.0	15.07323 (283, 1,24)	10.34962 (283, 1,24)	4.01578 (295, 1,24)
130.0	24.04947 (295, 1,24)	12.64734 (300, 1,20)	2.49340 (366, 1,24)
120.0	19.01346 (366, 1,24)	11.85930 (365, 1,24)	2.08494 (352, 1,24)
110.0	19.12135 (352, 1,24)	11.83926 (73, 1,23)	3.29655 (70, 1,23)
100.0	21.09634 (70, 1,23)	11.34673 (70, 1,23)	2.21451 (22, 1,24)
90.0	21.16826 (21, 1,20)	12.86566 (22, 1,24)	2.36244 (29, 1,24)
80.0	20.69326 (29, 1,24)	11.60239 (117, 1,24)	1.82374 (198, 1,24)
70.0	17.13814 (194, 1,24)	17.17761 (194, 1,24)	1.80382 (196, 1,22)
60.0	18.26566 (193, 1,19)	10.35335 (37, 1,24)	2.20362 (62, 1,22)
50.0	32.09390 (62, 1,22)	14.86127 (62, 1,22)	2.93593 (207, 1,22)
40.0	35.39941 (354, 1,18)	18.80685 (354, 1,18)	3.99029 (315, 1,21)
30.0	37.64929 (35, 1,18)	20.71883 (35, 1,18)	3.12191 (35, 1,18)
20.0	27.80087 (33, 1,18)	14.74395 (211, 1,24)	2.53053 (355, 1,24)
10.0	30.43144 (215, 1,20)	19.44823 (215, 1,20)	3.66914 (215, 1,20)

ISC CALMS
PROJ 5003

2ND HIGH
24-HR
SGROUP# 1

*** OXY SULFUR STORAGE - SHORT TERM SUSPENDED P.M. IMPACT - 1976 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 33.06342 AND OCCURRED AT (500.0, 30.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	21.46457 (281, 1,24)	11.60423 (270, 1,24)	1.96988 (137, 1,24)
350.0	17.85278 (64, 1,23)	10.75241 (365, 1,18)	2.37925 (365, 1,18)
340.0	24.42830 (55, 1,23)	13.10963 (55, 1,24)	1.90948 (162, 1,24)
330.0	19.28517 (270, 1,24)	11.81202 (25, 1,22)	2.43901 (128, 1,22)
320.0	16.70251 (189, 1,22)	9.84342 (178, 1,18)	2.18773 (79, 1,24)
310.0	19.75610 (111, 1,22)	10.07467 (107, 1,23)	1.83979 (188, 1,23)
300.0	15.48743 (297, 1,22)	9.78442 (253, 1,18)	1.96024 (111, 1,23)
290.0	15.51328 (217, 1,24)	13.73776 (175, 1,23)	1.81701 (226, 1,22)
280.0	12.90439 (176, 1,20)	8.21058 (332, 1,23)	1.61826 (279, 1,24)
270.0	16.98030 (218, 1,24)	9.15945 (252, 1,22)	1.76971 (56, 1,24)
260.0	14.64348 (251, 1,22)	11.11543 (166, 1,23)	2.40495 (218, 1,24)
250.0	19.74748 (252, 1,22)	9.07613 (252, 1,24)	1.98113 (251, 1,22)
240.0	17.85159 (349, 1,24)	11.35962 (252, 1,22)	2.99132 (19, 1,24)
230.0	14.86118 (286, 1,21)	9.80873 (286, 1,21)	2.18558 (19, 1,24)
220.0	17.01187 (98, 1,24)	10.17392 (167, 1,21)	2.96352 (167, 1,21)
210.0	13.73900 (340, 1,24)	9.33170 (340, 1,24)	2.36097 (340, 1,24)
200.0	11.04624 (337, 1,24)	7.65739 (311, 1,20)	2.07514 (311, 1,20)
190.0	15.55106 (337, 1,24)	9.76130 (337, 1,24)	2.16264 (337, 1,24)
180.0	13.03480 (337, 1,24)	8.14170 (337, 1,24)	1.76980 (338, 1,21)
170.0	13.96446 (338, 1,21)	8.65708 (352, 1,24)	1.94733 (313, 1,19)
160.0	10.76826 (338, 1,21)	7.55379 (16, 1,21)	1.45470 (129, 1,21)
150.0	12.51110 (234, 1,19)	7.73128 (28, 1,24)	1.93486 (350, 1,23)
140.0	14.74189 (350, 1,23)	9.03921 (350, 1,23)	2.25548 (294, 1,24)
130.0	15.32740 (283, 1,24)	10.59770 (295, 1,24)	1.73092 (256, 1,24)
120.0	13.90769 (358, 1,24)	10.20525 (73, 1,23)	1.84688 (283, 1,24)
110.0	17.12292 (282, 1,24)	9.95181 (352, 1,24)	1.99919 (29, 1,24)
100.0	16.15421 (29, 1,24)	9.88354 (21, 1,20)	1.93542 (21, 1,20)
90.0	18.72905 (22, 1,24)	9.00092 (351, 1,24)	2.30582 (254, 1,24)
80.0	17.70532 (39, 1,23)	11.26314 (39, 1,23)	1.37463 (39, 1,23)
70.0	13.97201 (39, 1,23)	10.69879 (208, 1,20)	1.78543 (193, 1,23)
60.0	17.22494 (194, 1,24)	9.70767 (195, 1,24)	1.92153 (42, 1,24)
50.0	19.72568 (65, 1,23)	14.11672 (323, 1,21)	2.22855 (187, 1,24)
40.0	28.67630 (315, 1,20)	19.51796 (201, 1,18)	2.68597 (132, 1,23)
30.0	33.06342 (315, 1,21)	17.96736 (272, 1,22)	3.10303 (315, 1,21)
20.0	27.29004 (211, 1,24)	14.36781 (355, 1,24)	1.92645 (211, 1,24)
10.0	28.85022 (184, 1,22)	17.34337 (184, 1,22)	2.48638 (184, 1,23)

PL

U.S. 41

APPENDIX D

MONTHLY SULFUR DEPOSITION RATES

- ISCLT INPUT DATA -

NUMBER OF SOURCES = 8
NUMBER OF X AXIS GRID SYSTEM POINTS = 3
NUMBER OF Y AXIS GRID SYSTEM POINTS = 36
NUMBER OF SPECIAL POINTS = 0
NUMBER OF SEASONS = 3
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+01
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) = 0.0
DECAY COEFFICIENT =0.0
PROGRAM OPTION SWITCHES = 2, 2, 1, 0, 0, 3, 1, 2, 3, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0,
ALL SOURCES ARE USED TO FORM SOURCE COMBINATION 1
RANGE X AXIS GRID SYSTEM POINTS (METERS)= 500.00, 700.00, 2000.00,
AZIMUTH BEARING Y AXIS GRID SYSTEM POINTS (DEGREES)= 10.00, 20.00, 30.00, 40.00, 50.00, 60.00,
70.00, 80.00, 90.00, 100.00, 110.00, 120.00, 130.00, 140.00, 150.00, 160.00,
170.00, 180.00, 190.00, 200.00, 210.00, 220.00, 230.00, 240.00, 250.00, 260.00,
270.00, 280.00, 290.00, 300.00, 310.00, 320.00, 330.00, 340.00, 350.00, 360.00,

- 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	298.0000	298.0000	298.0000	298.0000	298.0000	
SEASON 2	298.0000	298.0000	298.0000	298.0000	298.0000	
SEASON 3	298.0000	298.0000	298.0000	298.0000	298.0000	

3.2.1 Railcar Unloading

The 375,000 tons of sulfur that will be vatted will be delivered to Occidental in 3,750 rail tank cars, each delivering 100 tons of molten sulfur. This is how elemental sulfur is presently received at the SCCC.

The railcars will be vented and connected to steam lines for approximately 24 hours to heat the sulfur prior to off-loading. For design purposes, it is estimated that during the first 12 hours of steaming the sulfur exposed at the railcar vent will be solid and during the second 12 hours, the sulfur exposed at the vent will be molten. During the 12-hour period the sulfur is molten and the subsequent 6 hours during which time the sulfur is being vatted, sulfur particles will be emitted from the railcar vents as a result of the condensation of sulfur vapor.

It is estimated that the area of sulfur exposed in each railcar vent will be 5.0 square feet. It is further estimated that the sulfur particle emission rate from the railcar vents will be proportional to emissions from a molten sulfur storage tank; based upon the ratio of the surface areas of exposed molten sulfur.

- ISCLT INPUT DATA (CONT.) -

- 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	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 2	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 3	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 4	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 5	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05

SEASON 2

	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+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 2	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 3	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 4	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 5	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05

SEASON 3

	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+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 2	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 3	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 4	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 5	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1 - APL

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)
0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.500	0.0	0.0	0.0	0.0	0.0	0.0
45.000	0.0	0.0	0.0	0.0	0.0	0.0
67.500	0.0	0.0	0.0	0.0	0.0	0.0
90.000	0.0	0.0	0.0	0.0	0.0	0.0
112.500	0.0	0.0	0.0	0.0	0.0	0.0
135.000	0.0	0.0	0.0	0.0	0.0	0.0
157.500	0.0	0.0	0.0	0.0	0.0	0.0
180.000	0.00032002	0.00064004	0.0	0.0	0.0	0.0
202.500	0.00016001	0.00032002	0.0	0.0	0.0	0.0
225.000	0.00016001	0.00032002	0.0	0.0	0.0	0.0
247.500	0.00048003	0.00096006	0.0	0.0	0.0	0.0
270.000	0.0	0.0	0.0	0.0	0.0	0.0
292.500	0.00016001	0.00032002	0.0	0.0	0.0	0.0
315.000	0.0	0.0	0.0	0.0	0.0	0.0
337.500	0.0	0.0	0.0	0.0	0.0	0.0

SEASON 1 - APL

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)
0.0	0.00084006	0.00064004	0.0	0.0	0.0	0.0
22.500	0.00005000	0.00032002	0.0	0.0	0.0	0.0
45.000	0.00192013	0.00289019	0.00096006	0.0	0.0	0.0
67.500	0.00243016	0.00385025	0.00096006	0.0	0.0	0.0
90.000	0.00127008	0.00353023	0.00481031	0.0	0.0	0.0
112.500	0.00174011	0.00417027	0.00513034	0.0	0.0	0.0
135.000	0.00290019	0.00449029	0.00289019	0.0	0.0	0.0
157.500	0.00056004	0.00128008	0.00064004	0.0	0.0	0.0
180.000	0.00052003	0.00096006	0.00096006	0.0	0.0	0.0
202.500	0.00019001	0.00128008	0.00096006	0.0	0.0	0.0
225.000	0.00137009	0.00417027	0.00385025	0.0	0.0	0.0
247.500	0.00192013	0.00289019	0.00353023	0.0	0.0	0.0
270.000	0.00083005	0.00545036	0.00096006	0.0	0.0	0.0
292.500	0.00113007	0.00256017	0.00256017	0.0	0.0	0.0
315.000	0.00192013	0.00289019	0.00160011	0.0	0.0	0.0
337.500	0.00125008	0.00096006	0.00096006	0.0	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1 - APL

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)
0.0	0.00004000	0.00224015	0.00096006	0.00032002	0.0	0.0
22.500	0.00004000	0.00192013	0.00032002	0.0	0.0	0.0
45.000	0.00005000	0.00289019	0.00096006	0.00032002	0.0	0.0
67.500	0.00006000	0.00321021	0.00449029	0.00449029	0.0	0.0
90.000	0.00105007	0.00385025	0.00898059	0.00705046	0.0	0.0
112.500	0.00005000	0.00256017	0.00994065	0.00513034	0.0	0.0
135.000	0.00042003	0.00513034	0.00769050	0.00802052	0.00032002	0.0
157.500	0.00007000	0.00385025	0.00385025	0.00064004	0.0	0.0
180.000	0.00107007	0.00481031	0.00353023	0.0	0.00032002	0.0
202.500	0.00005000	0.00256017	0.00256017	0.00032002	0.0	0.0
225.000	0.00040003	0.00385025	0.01058069	0.00321021	0.00192013	0.0
247.500	0.00040003	0.00385025	0.01058069	0.00545036	0.00128008	0.0
270.000	0.00005000	0.00256017	0.00769050	0.00289019	0.00064004	0.0
292.500	0.00002000	0.00128008	0.00385025	0.00481031	0.00032002	0.0
315.000	0.00005000	0.00256017	0.00256017	0.00224015	0.0	0.0
337.500	0.00067004	0.00064004	0.00096006	0.00032002	0.0	0.0

SEASON 1 - APL

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)
0.0	0.00232015	0.00353023	0.00449029	0.00128008	0.00032002	0.0
22.500	0.00016001	0.00224015	0.00321021	0.00385025	0.0	0.0
45.000	0.00012001	0.00160011	0.00705046	0.00994065	0.00321021	0.00064004
67.500	0.00083005	0.00192013	0.00577038	0.01122074	0.00160011	0.0
90.000	0.00060004	0.00353023	0.00930061	0.01603105	0.00064004	0.0
112.500	0.00019001	0.00256017	0.00834055	0.01347088	0.0	0.0
135.000	0.00009001	0.00128008	0.00481031	0.01539101	0.00032002	0.0
157.500	0.00085006	0.00224015	0.00641042	0.00417027	0.00032002	0.0
180.000	0.00062004	0.00385025	0.01218080	0.00962063	0.00096006	0.0
202.500	0.00009001	0.00128008	0.00834055	0.01026068	0.00064004	0.0
225.000	0.00026002	0.00353023	0.01250082	0.01828120	0.00192013	0.0
247.500	0.00048003	0.00192013	0.01122074	0.02244148	0.00160011	0.0
270.000	0.00147010	0.00128008	0.00834055	0.01379091	0.00481031	0.00064004
292.500	0.00149010	0.00160011	0.00513034	0.01347088	0.00128008	0.00064004
315.000	0.00080005	0.00160011	0.00385025	0.00802052	0.00128008	0.00064004
337.500	0.00021001	0.00289019	0.00192013	0.00192013	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1 - APL

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)
0.0	0.01077071	0.00930061	0.00192013	0.0	0.0	0.0
22.500	0.00345023	0.00385025	0.00064004	0.0	0.0	0.0
45.000	0.00632041	0.00417027	0.00385025	0.0	0.0	0.0
67.500	0.01040068	0.01058069	0.00289019	0.0	0.0	0.0
90.000	0.00607040	0.00898059	0.00128008	0.0	0.0	0.0
112.500	0.00363024	0.00321021	0.00064004	0.0	0.0	0.0
135.000	0.00549036	0.00545036	0.00224015	0.0	0.0	0.0
157.500	0.00554036	0.00449029	0.00128008	0.0	0.0	0.0
180.000	0.01020067	0.01443095	0.00513034	0.0	0.0	0.0
202.500	0.00758050	0.00930061	0.00449029	0.0	0.0	0.0
225.000	0.01238081	0.01635107	0.00641042	0.0	0.0	0.0
247.500	0.01716113	0.01795118	0.00994065	0.0	0.0	0.0
270.000	0.02230147	0.02148141	0.01282084	0.0	0.0	0.0
292.500	0.00818054	0.00641042	0.00866057	0.0	0.0	0.0
315.000	0.01100072	0.00769050	0.00609040	0.0	0.0	0.0
337.500	0.00381025	0.00577038	0.00353023	0.0	0.0	0.0

SEASON 2 - MAY

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)
0.0	0.00032006	0.00124024	0.0	0.0	0.0	0.0
22.500	0.0	0.0	0.0	0.0	0.0	0.0
45.000	0.0	0.0	0.0	0.0	0.0	0.0
67.500	0.0	0.0	0.0	0.0	0.0	0.0
90.000	0.00008002	0.00031006	0.0	0.0	0.0	0.0
112.500	0.00008002	0.00031006	0.0	0.0	0.0	0.0
135.000	0.00008002	0.00031006	0.0	0.0	0.0	0.0
157.500	0.0	0.0	0.0	0.0	0.0	0.0
180.000	0.00055011	0.00062012	0.0	0.0	0.0	0.0
202.500	0.00008002	0.00031006	0.0	0.0	0.0	0.0
225.000	0.00055011	0.00062012	0.0	0.0	0.0	0.0
247.500	0.00032006	0.00124024	0.0	0.0	0.0	0.0
270.000	0.00094018	0.00062012	0.0	0.0	0.0	0.0
292.500	0.0	0.0	0.0	0.0	0.0	0.0
315.000	0.0	0.0	0.0	0.0	0.0	0.0
337.500	0.00008002	0.00031006	0.0	0.0	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 2 -MAY

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)
0.0	0.00078015	0.00217043	0.00186037	0.0	0.0	0.0
22.500	0.00066013	0.0	0.0	0.0	0.0	0.0
45.000	0.00071014	0.00093018	0.00093018	0.0	0.0	0.0
67.500	0.00111022	0.00217043	0.00093018	0.0	0.0	0.0
90.000	0.00091018	0.00434085	0.00651128	0.0	0.0	0.0
112.500	0.00273054	0.00744146	0.00900177	0.0	0.0	0.0
135.000	0.00353069	0.00993195	0.00993195	0.0	0.0	0.0
157.500	0.00111022	0.00217043	0.00186037	0.0	0.0	0.0
180.000	0.00306060	0.00186037	0.00155030	0.0	0.0	0.0
202.500	0.00051010	0.00310061	0.00248049	0.0	0.0	0.0
225.000	0.00156031	0.00434085	0.00341067	0.0	0.0	0.0
247.500	0.00253050	0.00403079	0.00558110	0.0	0.0	0.0
270.000	0.00116023	0.00310061	0.00434085	0.0	0.0	0.0
292.500	0.00142028	0.00186037	0.00341067	0.0	0.0	0.0
315.000	0.00049010	0.00279055	0.00186037	0.0	0.0	0.0
337.500	0.00100020	0.00031006	0.00062012	0.0	0.0	0.0

SEASON 2 -MAY

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)
0.0	0.00013003	0.00217043	0.00093018	0.00093018	0.0	0.0
22.500	0.00007001	0.00124024	0.00124024	0.0	0.0	0.0
45.000	0.00004001	0.00062012	0.00186037	0.00062012	0.0	0.0
67.500	0.00063012	0.00496097	0.00372073	0.00310061	0.00031006	0.0
90.000	0.00048009	0.00248049	0.00868170	0.00868170	0.0	0.0
112.500	0.00015003	0.00248049	0.01024201	0.00900177	0.0	0.0
135.000	0.00066013	0.00558110	0.00962189	0.00775152	0.00031006	0.0
157.500	0.00009002	0.00155030	0.00310061	0.00062012	0.0	0.0
180.000	0.00057011	0.00403079	0.00341067	0.0	0.0	0.0
202.500	0.00011002	0.00186037	0.00310061	0.00062012	0.0	0.0
225.000	0.00011002	0.00186037	0.00775152	0.00341067	0.00031006	0.0
247.500	0.00052010	0.00310061	0.00962189	0.00248049	0.0	0.0
270.000	0.00011002	0.00186037	0.00868170	0.00279055	0.0	0.0
292.500	0.00038007	0.00093018	0.00248049	0.00341067	0.0	0.0
315.000	0.00081016	0.00248049	0.00341067	0.00062012	0.0	0.0
337.500	0.00009002	0.00155030	0.00031006	0.00031006	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 2 - MAY

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)
0.0	0.00022004	0.00465091	0.00775152	0.00403079	0.0	0.0
22.500	0.00009002	0.00186037	0.00310061	0.00186037	0.0	0.00031006
45.000	0.00012002	0.00248049	0.00434085	0.00527103	0.0	0.0
67.500	0.00007001	0.00155030	0.00682134	0.01024201	0.00093018	0.0
90.000	0.00019004	0.00403079	0.00962189	0.01210238	0.00124024	0.0
112.500	0.00018004	0.00372073	0.01148225	0.00993195	0.00031006	0.0
135.000	0.00009002	0.00186037	0.01055207	0.01303256	0.00155030	0.0
157.500	0.00007001	0.00155030	0.00651128	0.00837164	0.00093018	0.0
180.000	0.00055011	0.00465091	0.00931183	0.00806158	0.00031006	0.0
202.500	0.00024005	0.00496097	0.00868170	0.00620122	0.00062012	0.0
225.000	0.00061012	0.00589116	0.01396274	0.00744146	0.00093018	0.0
247.500	0.00050010	0.00372073	0.01551304	0.00651128	0.00093018	0.0
270.000	0.00047009	0.00310061	0.01055207	0.01210238	0.00093018	0.00031006
292.500	0.00037007	0.00093018	0.00434085	0.00837164	0.00124024	0.0
315.000	0.00111022	0.00279055	0.00558110	0.00341067	0.0	0.0
337.500	0.00040008	0.00155030	0.00310061	0.00155030	0.0	0.0

SEASON 2 - MAY

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)
0.0	0.00849167	0.00993195	0.00341067	0.0	0.0	0.0
22.500	0.00212042	0.00279055	0.00217043	0.0	0.0	0.0
45.000	0.00516101	0.00589116	0.00124024	0.0	0.0	0.0
67.500	0.00322063	0.00496097	0.00031006	0.0	0.0	0.0
90.000	0.00190037	0.00465091	0.00062012	0.0	0.0	0.0
112.500	0.00331065	0.00651128	0.00186037	0.0	0.0	0.0
135.000	0.00959188	0.01210238	0.00124024	0.0	0.0	0.0
157.500	0.00524103	0.00744146	0.00372073	0.0	0.0	0.0
180.000	0.01051207	0.01241244	0.00589116	0.0	0.0	0.0
202.500	0.00924182	0.01613317	0.00372073	0.0	0.0	0.0
225.000	0.01389273	0.02171426	0.00403079	0.0	0.0	0.0
247.500	0.01480291	0.02326457	0.00806158	0.0	0.0	0.0
270.000	0.02292450	0.01923378	0.00620122	0.0	0.0	0.0
292.500	0.01167229	0.00962189	0.00620122	0.0	0.0	0.0
315.000	0.01021200	0.01148225	0.00682134	0.0	0.0	0.0
337.500	0.00886174	0.01365268	0.00248049	0.0	0.0	0.0

- ISCLT INPUT DATA -

NUMBER OF SOURCES = 8
NUMBER OF X AXIS GRID SYSTEM POINTS = 3
NUMBER OF Y AXIS GRID SYSTEM POINTS = 36
NUMBER OF SPECIAL POINTS = 0
NUMBER OF SEASONS = 3
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+01
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) = 0.0
DECAY COEFFICIENT =0.0
PROGRAM OPTION SWITCHES = 2, 2, 1, 0, 0, 3, 1, 2, 3, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0,
ALL SOURCES ARE USED TO FORM SOURCE COMBINATION 1
RANGE X AXIS GRID SYSTEM POINTS (METERS)= 500.00, 700.00, 2000.00,
AZIMUTH BEARING Y AXIS GRID SYSTEM POINTS (DEGREES)= 10.00, 20.00, 30.00, 40.00, 50.00, 60.00,
70.00, 80.00, 90.00, 100.00, 110.00, 120.00, 130.00, 140.00, 150.00, 160.00,
170.00, 180.00, 190.00, 200.00, 210.00, 220.00, 230.00, 240.00, 250.00, 260.00,
270.00, 280.00, 290.00, 300.00, 310.00, 320.00, 330.00, 340.00, 350.00, 360.00,

- 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	298.0000	298.0000	298.0000	298.0000	298.0000	
SEASON 2	298.0000	298.0000	298.0000	298.0000	298.0000	
SEASON 3	298.0000	298.0000	298.0000	298.0000	298.0000	

- ISCLT INPUT DATA (CONT.) -

- 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	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 2	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 3	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 4	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 5	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05

SEASON 2

	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+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 2	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 3	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 4	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 5	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05

SEASON 3

	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+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 2	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 3	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 4	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 5	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1 - JAN

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)
0.0	0.00002000	0.0	0.0	0.0	0.0	0.0
22.500	0.00002000	0.0	0.0	0.0	0.0	0.0
45.000	0.00002000	0.0	0.0	0.0	0.0	0.0
67.500	0.00002000	0.0	0.0	0.0	0.0	0.0
90.000	0.00002000	0.0	0.0	0.0	0.0	0.0
112.500	0.00002000	0.0	0.0	0.0	0.0	0.0
135.000	0.00002000	0.0	0.0	0.0	0.0	0.0
157.500	0.00002000	0.0	0.0	0.0	0.0	0.0
180.000	0.00002000	0.0	0.0	0.0	0.0	0.0
202.500	0.00002000	0.0	0.0	0.0	0.0	0.0
225.000	0.00002000	0.0	0.0	0.0	0.0	0.0
247.500	0.00002000	0.0	0.0	0.0	0.0	0.0
270.000	0.00002000	0.0	0.0	0.0	0.0	0.0
292.500	0.00002000	0.0	0.0	0.0	0.0	0.0
315.000	0.00002000	0.0	0.0	0.0	0.0	0.0
337.500	0.00002000	0.0	0.0	0.0	0.0	0.0

SEASON 1 - JAN

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)
0.0	0.00135013	0.00062006	0.0	0.0	0.0	0.0
22.500	0.00008001	0.00031003	0.0	0.0	0.0	0.0
45.000	0.00039004	0.0	0.00062006	0.0	0.0	0.0
67.500	0.00056005	0.00062006	0.00186018	0.0	0.0	0.0
90.000	0.00135013	0.00062006	0.00093009	0.0	0.0	0.0
112.500	0.00120011	0.00155015	0.00062006	0.0	0.0	0.0
135.000	0.00269025	0.00124012	0.00124012	0.0	0.0	0.0
157.500	0.00126012	0.00031003	0.00031003	0.0	0.0	0.0
180.000	0.00056005	0.00062006	0.0	0.0	0.0	0.0
202.500	0.00238022	0.00155015	0.0	0.0	0.0	0.0
225.000	0.00168016	0.00186018	0.00186018	0.0	0.0	0.0
247.500	0.00364034	0.00186018	0.00062006	0.0	0.0	0.0
270.000	0.00255024	0.00217020	0.00062006	0.0	0.0	0.0
292.500	0.00182017	0.00093009	0.00062006	0.0	0.0	0.0
315.000	0.00143013	0.00093009	0.0	0.0	0.0	0.0
337.500	0.00033003	0.00124012	0.00031003	0.0	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1 - JAN

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)
0.0	0.00021002	0.00248023	0.00124012	0.0	0.0	0.0
22.500	0.00047004	0.00155015	0.00093009	0.0	0.0	0.0
45.000	0.00057005	0.00279026	0.00155015	0.0	0.0	0.0
67.500	0.00041004	0.00496047	0.00620059	0.0	0.0	0.0
90.000	0.00013001	0.00155015	0.00589056	0.0	0.0	0.0
112.500	0.00085008	0.00217020	0.00403038	0.0	0.0	0.0
135.000	0.00088008	0.00248023	0.00217020	0.00031003	0.0	0.0
157.500	0.00065006	0.00372035	0.00062006	0.0	0.0	0.0
180.000	0.00018002	0.00217020	0.00124012	0.0	0.0	0.0
202.500	0.00085008	0.00217020	0.00465044	0.0	0.0	0.0
225.000	0.00059006	0.00310029	0.00279026	0.00031003	0.0	0.0
247.500	0.00057005	0.00279026	0.00496047	0.00062006	0.0	0.0
270.000	0.00052005	0.00217020	0.00651061	0.00031003	0.0	0.0
292.500	0.00010001	0.00124012	0.00372035	0.00093009	0.0	0.0
315.000	0.00054005	0.00248023	0.00496047	0.0	0.0	0.0
337.500	0.00054005	0.00248023	0.00155015	0.0	0.0	0.0

SEASON 1 - JAN

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)
0.0	0.00517049	0.01582149	0.03257307	0.01179111	0.0	0.0
22.500	0.00341032	0.01024096	0.01737164	0.01086102	0.00124012	0.0
45.000	0.00220021	0.01179111	0.02419228	0.01892179	0.00372035	0.0
67.500	0.00283027	0.01117105	0.01117105	0.00713067	0.0	0.0
90.000	0.00442042	0.00993093	0.00682064	0.00310029	0.0	0.0
112.500	0.00117011	0.00372035	0.00403038	0.00031003	0.0	0.0
135.000	0.00141013	0.00279026	0.00341032	0.00403038	0.00031003	0.0
157.500	0.00300028	0.00434041	0.00248023	0.00279026	0.00031003	0.0
180.000	0.00293028	0.00651061	0.01148108	0.00962090	0.0	0.0
202.500	0.00152014	0.00372035	0.01458137	0.00993093	0.00062006	0.0
225.000	0.00118011	0.00651061	0.01241117	0.01179111	0.00217020	0.0
247.500	0.00192018	0.00682064	0.01241117	0.01055099	0.00093009	0.0
270.000	0.00243023	0.00806076	0.00900085	0.01520143	0.00248023	0.0
292.500	0.00378036	0.00496047	0.00496047	0.00993093	0.00341032	0.0
315.000	0.00204019	0.00775073	0.01303123	0.00713067	0.00434041	0.00093009
337.500	0.00215020	0.00589056	0.01055099	0.00651061	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1 - JAN

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)
0.0	0.01182111	0.01365129	0.00403038	0.0	0.0	0.0
22.500	0.00499047	0.00465044	0.00124012	0.0	0.0	0.0
45.000	0.00346033	0.00310029	0.00155015	0.0	0.0	0.0
67.500	0.00492046	0.00434041	0.00186018	0.0	0.0	0.0
90.000	0.00376035	0.00434041	0.00093009	0.0	0.0	0.0
112.500	0.00200019	0.00186018	0.0	0.0	0.0	0.0
135.000	0.00484046	0.00558053	0.0	0.0	0.0	0.0
157.500	0.00468044	0.00651061	0.00124012	0.0	0.0	0.0
180.000	0.01040098	0.02047193	0.00558053	0.0	0.0	0.0
202.500	0.00449042	0.01365129	0.00465044	0.0	0.0	0.0
225.000	0.00826078	0.01644155	0.00527050	0.0	0.0	0.0
247.500	0.00928088	0.01272120	0.00651061	0.0	0.0	0.0
270.000	0.01442136	0.01954184	0.00744070	0.0	0.0	0.0
292.500	0.01214114	0.01024096	0.00558053	0.0	0.0	0.0
315.000	0.01174111	0.01334126	0.00651061	0.0	0.0	0.0
337.500	0.00575054	0.00775073	0.00682064	0.0	0.0	0.0

SEASON 2 - FEB

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)
0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.500	0.0	0.0	0.0	0.0	0.0	0.0
45.000	0.0	0.0	0.0	0.0	0.0	0.0
67.500	0.0	0.0	0.0	0.0	0.0	0.0
90.000	0.0	0.0	0.0	0.0	0.0	0.0
112.500	0.0	0.0	0.0	0.0	0.0	0.0
135.000	0.0	0.0	0.0	0.0	0.0	0.0
157.500	0.0	0.0	0.0	0.0	0.0	0.0
180.000	0.0	0.0	0.0	0.0	0.0	0.0
202.500	0.0	0.0	0.0	0.0	0.0	0.0
225.000	0.0	0.0	0.0	0.0	0.0	0.0
247.500	0.0	0.0	0.0	0.0	0.0	0.0
270.000	0.0	0.0	0.0	0.0	0.0	0.0
292.500	0.0	0.0	0.0	0.0	0.0	0.0
315.000	0.0	0.0	0.0	0.0	0.0	0.0
337.500	0.0	0.0	0.0	0.0	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 2 - FEB

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)
0.0	0.00133006	0.00172008	0.00034002	0.0	0.0	0.0
22.500	0.00046002	0.00069003	0.0	0.0	0.0	0.0
45.000	0.00046002	0.00069003	0.00034002	0.0	0.0	0.0
67.500	0.00148007	0.00309014	0.00137006	0.0	0.0	0.0
90.000	0.00148007	0.00309014	0.00034002	0.0	0.0	0.0
112.500	0.00095004	0.00172008	0.00069003	0.0	0.0	0.0
135.000	0.00126006	0.00103005	0.00172008	0.0	0.0	0.0
157.500	0.00084004	0.00069003	0.0	0.0	0.0	0.0
180.000	0.00133006	0.00172008	0.00069003	0.0	0.0	0.0
202.500	0.00126006	0.00103005	0.00069003	0.0	0.0	0.0
225.000	0.00125006	0.00446020	0.0	0.0	0.0	0.0
247.500	0.00164007	0.00103005	0.00103005	0.0	0.0	0.0
270.000	0.00171008	0.00172008	0.00069003	0.0	0.0	0.0
292.500	0.00091004	0.00137006	0.00069003	0.0	0.0	0.0
315.000	0.00110005	0.00309014	0.0	0.0	0.0	0.0
337.500	0.00008000	0.00069003	0.00034002	0.0	0.0	0.0

SEASON 2 - FEB

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)
0.0	0.00088004	0.00206009	0.00103005	0.0	0.0	0.0
22.500	0.00046002	0.00137006	0.00137006	0.00034002	0.0	0.0
45.000	0.00012001	0.00172008	0.00275012	0.00034002	0.0	0.0
67.500	0.00051002	0.00206009	0.00309014	0.00034002	0.0	0.0
90.000	0.00012001	0.00172008	0.00721032	0.00103005	0.0	0.0
112.500	0.00019001	0.00275012	0.00652029	0.00103005	0.0	0.0
135.000	0.00056002	0.00275012	0.00309014	0.00034002	0.0	0.0
157.500	0.00019001	0.00275012	0.00412018	0.0	0.0	0.0
180.000	0.00088004	0.00206009	0.00309014	0.00034002	0.0	0.0
202.500	0.00046002	0.00137006	0.00240011	0.00034002	0.0	0.0
225.000	0.00017001	0.00240011	0.00481021	0.00034002	0.0	0.0
247.500	0.00019001	0.00275012	0.00515023	0.0	0.0	0.0
270.000	0.00022001	0.00309014	0.00652029	0.00172008	0.0	0.0
292.500	0.00038002	0.00549025	0.00378017	0.0	0.0	0.0
315.000	0.00010000	0.00137006	0.00549025	0.00069003	0.0	0.0
337.500	0.00007000	0.00103005	0.00412018	0.0	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 2 - FEB

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)
0.0	0.00161007	0.00824037	0.01545069	0.00927041	0.00103005	0.0
22.500	0.00084004	0.00446020	0.01717077	0.01957088	0.00137006	0.0
45.000	0.00119005	0.00412018	0.01477066	0.01751078	0.00137006	0.00103005
67.500	0.00254011	0.00618028	0.00687031	0.00618028	0.0	0.0
90.000	0.00088004	0.00481021	0.00378017	0.00343015	0.0	0.0
112.500	0.00097004	0.00206009	0.00275012	0.00378017	0.0	0.0
135.000	0.00126006	0.00481021	0.00343015	0.00618028	0.00069003	0.00034002
157.500	0.00070003	0.00309014	0.00515023	0.00652029	0.0	0.0
180.000	0.00126006	0.00481021	0.01889085	0.02026090	0.00034002	0.0
202.500	0.00074003	0.00343015	0.00927041	0.01202054	0.00069003	0.0
225.000	0.00091004	0.00515023	0.01408063	0.01168052	0.00069003	0.0
247.500	0.00140006	0.00618028	0.00927041	0.01408063	0.00206009	0.00137006
270.000	0.00091004	0.00515023	0.00755034	0.02301103	0.00859039	0.00378017
292.500	0.00104005	0.00275012	0.01030046	0.02747123	0.00721032	0.00275012
315.000	0.00094004	0.00172008	0.00652029	0.02850127	0.00343015	0.0
337.500	0.00032001	0.00309014	0.00584026	0.01202054	0.00137006	0.0

SEASON 2 - FEB

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)
0.0	0.00802036	0.01648074	0.00927041	0.0	0.0	0.0
22.500	0.00349016	0.00275012	0.00103005	0.0	0.0	0.0
45.000	0.00599027	0.00515023	0.00206009	0.0	0.0	0.0
67.500	0.00654029	0.00549025	0.00137006	0.0	0.0	0.0
90.000	0.00226010	0.00309014	0.00103005	0.0	0.0	0.0
112.500	0.00164007	0.00103005	0.00034002	0.0	0.0	0.0
135.000	0.00582026	0.00309014	0.00069003	0.0	0.0	0.0
157.500	0.00482021	0.00721032	0.00172008	0.0	0.0	0.0
180.000	0.00660029	0.00721032	0.00515023	0.0	0.0	0.0
202.500	0.00694031	0.00687031	0.00309014	0.0	0.0	0.0
225.000	0.00772034	0.01099049	0.00378017	0.0	0.0	0.0
247.500	0.01224055	0.01271057	0.00446020	0.0	0.0	0.0
270.000	0.01871084	0.01648074	0.00962043	0.0	0.0	0.0
292.500	0.01567070	0.01374061	0.00996044	0.0	0.0	0.0
315.000	0.01121050	0.01374061	0.01065048	0.0	0.0	0.0
337.500	0.00732033	0.00962043	0.00893040	0.0	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3 - MAR

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)
0.0	0.00010001	0.0	0.0	0.0	0.0	0.0
22.500	0.00010001	0.0	0.0	0.0	0.0	0.0
45.000	0.00010001	0.0	0.0	0.0	0.0	0.0
67.500	0.00010001	0.0	0.0	0.0	0.0	0.0
90.000	0.00010001	0.0	0.0	0.0	0.0	0.0
112.500	0.00010001	0.0	0.0	0.0	0.0	0.0
135.000	0.00010001	0.0	0.0	0.0	0.0	0.0
157.500	0.00010001	0.0	0.0	0.0	0.0	0.0
180.000	0.00010001	0.0	0.0	0.0	0.0	0.0
202.500	0.00010001	0.0	0.0	0.0	0.0	0.0
225.000	0.00010001	0.0	0.0	0.0	0.0	0.0
247.500	0.00010001	0.0	0.0	0.0	0.0	0.0
270.000	0.00010001	0.0	0.0	0.0	0.0	0.0
292.500	0.00010001	0.0	0.0	0.0	0.0	0.0
315.000	0.00010001	0.0	0.0	0.0	0.0	0.0
337.500	0.00010001	0.0	0.0	0.0	0.0	0.0

SEASON 3 - MAR

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)
0.0	0.00005001	0.00062008	0.00031004	0.0	0.0	0.0
22.500	0.00106014	0.00062008	0.00031004	0.0	0.0	0.0
45.000	0.00042006	0.00093013	0.00031004	0.0	0.0	0.0
67.500	0.00066009	0.00372051	0.00093013	0.0	0.0	0.0
90.000	0.00170023	0.00403055	0.00062008	0.0	0.0	0.0
112.500	0.00313043	0.00496067	0.00217030	0.0	0.0	0.0
135.000	0.00110015	0.00496067	0.00155021	0.0	0.0	0.0
157.500	0.00120016	0.00217030	0.00124017	0.0	0.0	0.0
180.000	0.00213029	0.00124017	0.0	0.0	0.0	0.0
202.500	0.00039005	0.00062008	0.00062008	0.0	0.0	0.0
225.000	0.00086012	0.00217030	0.00124017	0.0	0.0	0.0
247.500	0.00112015	0.00124017	0.00155021	0.0	0.0	0.0
270.000	0.00094013	0.00310042	0.00124017	0.0	0.0	0.0
292.500	0.00109015	0.00093013	0.00124017	0.0	0.0	0.0
315.000	0.00081011	0.00155021	0.0	0.0	0.0	0.0
337.500	0.00039005	0.00062008	0.0	0.0	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3 - MAR

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)
0.0	0.00007001	0.00093013	0.00062008	0.0	0.0	0.0
22.500	0.00040005	0.00093013	0.0	0.0	0.0	0.0
45.000	0.0	0.0	0.00217030	0.0	0.0	0.0
67.500	0.00018002	0.00248034	0.00496067	0.00186025	0.0	0.0
90.000	0.00087012	0.00279038	0.00744101	0.00186025	0.0	0.0
112.500	0.00082011	0.00217030	0.01117152	0.00093013	0.0	0.0
135.000	0.00155021	0.00310042	0.00900123	0.0	0.0	0.0
157.500	0.00051007	0.00248034	0.00465063	0.00031004	0.0	0.0
180.000	0.00075010	0.00124017	0.00372051	0.0	0.0	0.0
202.500	0.00009001	0.00124017	0.00217030	0.00093013	0.0	0.0
225.000	0.00007001	0.00093013	0.00651089	0.00155021	0.0	0.0
247.500	0.00020003	0.00279038	0.00837114	0.00093013	0.00031004	0.00031004
270.000	0.00020003	0.00279038	0.00620084	0.00186025	0.00031004	0.0
292.500	0.00009001	0.00124017	0.00589080	0.00031004	0.0	0.0
315.000	0.00007001	0.00093013	0.00527072	0.00124017	0.0	0.0
337.500	0.00002000	0.00031004	0.00155021	0.0	0.0	0.0

SEASON 3 - MAR

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)
0.0	0.00315043	0.00434059	0.00962131	0.00186025	0.0	0.0
22.500	0.00180025	0.00248034	0.00372051	0.00465063	0.0	0.00031004
45.000	0.00142019	0.00465063	0.00806110	0.00868118	0.00155021	0.0
67.500	0.00215029	0.00713097	0.00744101	0.01365186	0.00248034	0.0
90.000	0.00286039	0.00713097	0.00744101	0.01024139	0.0	0.00031004
112.500	0.00205028	0.00651089	0.00496067	0.00713097	0.00031004	0.0
135.000	0.00269037	0.00837114	0.00744101	0.01489203	0.00062008	0.0
157.500	0.00137019	0.00434059	0.00558076	0.00620084	0.00062008	0.0
180.000	0.00217030	0.00962131	0.01520207	0.01489203	0.00124017	0.0
202.500	0.00306042	0.00372051	0.01179161	0.00993135	0.00031004	0.00031004
225.000	0.00170023	0.00651089	0.01551211	0.02574351	0.00248034	0.00031004
247.500	0.00118016	0.00310042	0.01086148	0.02481338	0.00496067	0.00062008
270.000	0.00052007	0.00341046	0.00372051	0.02326317	0.00682093	0.00434059
292.500	0.00059008	0.00155021	0.00341046	0.01520207	0.00775106	0.00217030
315.000	0.00123017	0.00341046	0.00620084	0.01427194	0.00341046	0.00031004
337.500	0.00059008	0.00155021	0.00496067	0.00589080	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3 - MAR

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)
0.0	0.01236168	0.00993135	0.00465063	0.0	0.0	0.0
22.500	0.00371051	0.00279038	0.00062008	0.0	0.0	0.0
45.000	0.00494067	0.00341046	0.00124017	0.0	0.0	0.0
67.500	0.00587080	0.00434059	0.00093013	0.0	0.0	0.0
90.000	0.00433059	0.00310042	0.00062008	0.0	0.0	0.0
112.500	0.00340046	0.00217030	0.00031004	0.0	0.0	0.0
135.000	0.00571078	0.00589080	0.00093013	0.0	0.0	0.0
157.500	0.00773105	0.00434059	0.00217030	0.0	0.0	0.0
180.000	0.01776242	0.01613220	0.00589080	0.0	0.0	0.0
202.500	0.00911124	0.00993135	0.00434059	0.0	0.0	0.0
225.000	0.01436196	0.01117152	0.00713097	0.0	0.0	0.0
247.500	0.01111151	0.01210165	0.01272173	0.0	0.0	0.0
270.000	0.01529208	0.01303178	0.00993135	0.0	0.0	0.0
292.500	0.01173160	0.01148156	0.00403055	0.0	0.0	0.0
315.000	0.00834114	0.00744101	0.00372051	0.0	0.0	0.0
337.500	0.01004137	0.00900123	0.00372051	0.0	0.0	0.0

- 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	0.0	0.0	0.0	0.0	0.0	0.0
STABILITY CATEGORY 2	0.0	0.0	0.0	0.0	0.0	0.0
STABILITY CATEGORY 3	0.0	0.0	0.0	0.0	0.0	0.0
STABILITY CATEGORY 4	0.0	0.0	0.0	0.0	0.0	0.0
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

- 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	VOLUME	35.00	120.00	3.80	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.30000E+05 2.30000E+05 2.30000E+05
X		2	VOLUME	35.00	120.00	3.80	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 7.80000E+04 7.80000E+04 7.80000E+04
X		3	VOLUME	52.00	63.00	6.00	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.40 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 1.40 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 5.20000E+04 5.20000E+04 5.20000E+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	VOLUME	35.00	120.00	3.80	0.0		STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 3.26000E+05 3.26000E+05 3.26000E+05
X		5	VOLUME	35.00	120.00	3.80	0.0		STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 3.26000E+05 3.26000E+05 3.26000E+05
X		6	VOLUME	52.00	63.00	4.00	0.0		STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.10 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.60 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 MASS FRACTION 0.2000 0.2000 0.2000 0.2000 0.2000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 4.54000E+03 4.54000E+03 4.54000E+03

- SOURCE INPUT DATA (CONT.) -

C A R O	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	VOLUME	35.00	120.00	3.80	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 3.18000E+04 3.18000E+04 3.18000E+04
X		8	VOLUME	115.00	120.00	3.80	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 3.18000E+04 3.18000E+04 3.18000E+04

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED **

SEASON 1 — JAN

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	0.010807	0.004649	0.000412
350.000	0.007609	0.003166	0.000289
340.000	0.005516	0.002357	0.000203
330.000	0.004558	0.001833	0.000159
320.000	0.003591	0.001688	0.000159
310.000	0.003511	0.001348	0.000134
300.000	0.003218	0.001469	0.000114
290.000	0.003668	0.001480	0.000133
280.000	0.004265	0.002067	0.000170
270.000	0.004162	0.002032	0.000218
260.000	0.005410	0.002352	0.000244
250.000	0.005236	0.002652	0.000303
240.000	0.005568	0.002778	0.000341
230.000	0.006155	0.003335	0.000390
220.000	0.005149	0.002759	0.000381
210.000	0.005221	0.002587	0.000336
200.000	0.005376	0.002750	0.000329
190.000	0.005303	0.002852	0.000396
180.000	0.006345	0.003420	0.000475
170.000	0.006199	0.003093	0.000397
160.000	0.005374	0.002705	0.000315
150.000	0.005663	0.002790	0.000292
140.000	0.005328	0.002613	0.000347
130.000	0.006079	0.003253	0.000399
120.000	0.007412	0.003422	0.000362
110.000	0.007084	0.003387	0.000375
100.000	0.008926	0.004174	0.000404
90.000	0.009560	0.004342	0.000470
80.000	0.011940	0.005843	0.000482
70.000	0.012729	0.005199	0.000455
60.000	0.014069	0.006145	0.000438
50.000	0.014257	0.005341	0.000452
40.000	0.015562	0.006454	0.000449
30.000	0.014597	0.005402	0.000429
20.000	0.015479	0.006039	0.000423
10.000	0.012843	0.005108	0.000419

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED (CONT.) **

SEASON 2 - FEB

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	0.012920	0.005498	0.000480
350.000	0.009748	0.003995	0.000353
340.000	0.006907	0.002992	0.000261
330.000	0.005800	0.002347	0.000206
320.000	0.004512	0.002118	0.000197
310.000	0.004133	0.001702	0.000165
300.000	0.003435	0.001655	0.000142
290.000	0.003424	0.001445	0.000136
280.000	0.003535	0.001758	0.000146
270.000	0.003260	0.001589	0.000166
260.000	0.004125	0.001792	0.000182
250.000	0.004003	0.002014	0.000225
240.000	0.004369	0.002151	0.000260
230.000	0.005109	0.002720	0.000303
220.000	0.004599	0.002439	0.000324
210.000	0.004934	0.002486	0.000319
200.000	0.005110	0.002649	0.000325
190.000	0.004739	0.002536	0.000345
180.000	0.005399	0.002863	0.000378
170.000	0.005277	0.002623	0.000342
160.000	0.004917	0.002535	0.000313
150.000	0.005979	0.003082	0.000347
140.000	0.006346	0.003202	0.000427
130.000	0.007763	0.004222	0.000534
120.000	0.010377	0.004971	0.000561
110.000	0.010982	0.005444	0.000654
100.000	0.014387	0.006802	0.000644
90.000	0.014812	0.006614	0.000665
80.000	0.016733	0.007871	0.000600
70.000	0.016083	0.006212	0.000518
60.000	0.015506	0.006583	0.000438
50.000	0.014349	0.005178	0.000426
40.000	0.014379	0.005887	0.000392
30.000	0.012719	0.004581	0.000358
20.000	0.014299	0.005441	0.000363
10.000	0.013704	0.005327	0.000425

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED (CONT.) **

SEASON 3 - MAR

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	0.013982	0.005935	0.000532
350.000	0.011569	0.004451	0.000396
340.000	0.009817	0.003988	0.000311
330.000	0.009854	0.003786	0.000310
320.000	0.008323	0.003883	0.000361
310.000	0.007709	0.003193	0.000325
300.000	0.006140	0.003000	0.000277
290.000	0.005795	0.002524	0.000257
280.000	0.005726	0.002902	0.000267
270.000	0.005033	0.002496	0.000284
260.000	0.005353	0.002551	0.000294
250.000	0.004197	0.002259	0.000315
240.000	0.003604	0.001883	0.000260
230.000	0.003174	0.001739	0.000223
220.000	0.002206	0.001181	0.000176
210.000	0.002142	0.001059	0.000144
200.000	0.002106	0.001068	0.000132
190.000	0.002072	0.001119	0.000168
180.000	0.002674	0.001444	0.000212
170.000	0.002861	0.001470	0.000207
160.000	0.002795	0.001456	0.000197
150.000	0.003544	0.001851	0.000226
140.000	0.003927	0.001996	0.000280
130.000	0.004913	0.002684	0.000352
120.000	0.006701	0.003219	0.000373
110.000	0.007199	0.003561	0.000444
100.000	0.010073	0.004859	0.000498
90.000	0.011351	0.005262	0.000574
80.000	0.014964	0.007340	0.000629
70.000	0.016732	0.006971	0.000646
60.000	0.019562	0.008691	0.000654
50.000	0.020049	0.007695	0.000656
40.000	0.020699	0.008569	0.000592
30.000	0.017010	0.006135	0.000485
20.000	0.016845	0.006380	0.000421
10.000	0.014718	0.005761	0.000478

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3 - JUNE

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)
0.0	0.00057008	0.00096014	0.0	0.0	0.0	0.0
22.500	0.0	0.0	0.0	0.0	0.0	0.0
45.000	0.0	0.0	0.0	0.0	0.0	0.0
67.500	0.00013002	0.00064009	0.0	0.0	0.0	0.0
90.000	0.0	0.0	0.0	0.0	0.0	0.0
112.500	0.00045007	0.00032005	0.0	0.0	0.0	0.0
135.000	0.00019003	0.00096014	0.0	0.0	0.0	0.0
157.500	0.00006001	0.00032005	0.0	0.0	0.0	0.0
180.000	0.00063009	0.00128019	0.0	0.0	0.0	0.0
202.500	0.00013002	0.00064009	0.0	0.0	0.0	0.0
225.000	0.00056008	0.00288042	0.0	0.0	0.0	0.0
247.500	0.00013002	0.00064009	0.0	0.0	0.0	0.0
270.000	0.00057008	0.00096014	0.0	0.0	0.0	0.0
292.500	0.00025004	0.00128019	0.0	0.0	0.0	0.0
315.000	0.00045007	0.00032005	0.0	0.0	0.0	0.0
337.500	0.00006001	0.00032005	0.0	0.0	0.0	0.0

SEASON 3 - JUNE

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)
0.0	0.00290042	0.00256037	0.0	0.0	0.0	0.0
22.500	0.00081012	0.00192028	0.00032005	0.0	0.0	0.0
45.000	0.00047007	0.00192028	0.00064009	0.0	0.0	0.0
67.500	0.00055008	0.00321047	0.00481070	0.0	0.0	0.0
90.000	0.00177026	0.00609089	0.00865126	0.0	0.0	0.0
112.500	0.00140020	0.00577084	0.00929135	0.0	0.0	0.0
135.000	0.00230034	0.00897131	0.00641093	0.0	0.0	0.0
157.500	0.00138020	0.00545079	0.00192028	0.0	0.0	0.0
180.000	0.00287042	0.00737107	0.00321047	0.0	0.0	0.0
202.500	0.00117017	0.00224033	0.00160023	0.0	0.0	0.0
225.000	0.00172025	0.00545079	0.00353052	0.0	0.0	0.0
247.500	0.00096014	0.00417061	0.00256037	0.0	0.0	0.0
270.000	0.00166024	0.00449065	0.00256037	0.0	0.0	0.0
292.500	0.00143021	0.00096014	0.00288042	0.0	0.0	0.0
315.000	0.00119017	0.00256037	0.00128019	0.0	0.0	0.0
337.500	0.00081012	0.00192028	0.00064009	0.0	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3 - JUNE

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)
0.0	0.00096014	0.00128019	0.00096014	0.0	0.0	0.0
22.500	0.00096014	0.00128019	0.00064009	0.0	0.0	0.0
45.000	0.00091013	0.00096014	0.00064009	0.00096014	0.0	0.0
67.500	0.00069010	0.00192028	0.00545079	0.00449065	0.0	0.0
90.000	0.00042006	0.00256037	0.01442210	0.00865126	0.0	0.0
112.500	0.00133019	0.00353052	0.00673098	0.01090159	0.00032005	0.0
135.000	0.00128019	0.00321047	0.00929135	0.00417061	0.0	0.0
157.500	0.00187027	0.00224033	0.00449065	0.00128019	0.0	0.0
180.000	0.00304044	0.00705103	0.00673098	0.0	0.0	0.0
202.500	0.00138020	0.00385056	0.00160023	0.00032005	0.0	0.0
225.000	0.00133019	0.00353052	0.00769112	0.00128019	0.0	0.0
247.500	0.00155023	0.00256037	0.00833121	0.00288042	0.00032005	0.0
270.000	0.00112016	0.00449065	0.00609089	0.00481070	0.00032005	0.0
292.500	0.00059009	0.00128019	0.00385056	0.00032005	0.00032005	0.00032005
315.000	0.00117017	0.00256037	0.00128019	0.0	0.0	0.0
337.500	0.00064009	0.00160023	0.00096014	0.0	0.0	0.0

SEASON 3 - JUNE

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)
0.0	0.00044006	0.00224033	0.00449065	0.00096014	0.0	0.0
22.500	0.00009001	0.00192028	0.00288042	0.00160023	0.00032005	0.0
45.000	0.00042006	0.00192028	0.00321047	0.00545079	0.0	0.0
67.500	0.00010001	0.00224033	0.00545079	0.01346196	0.00032005	0.0
90.000	0.00011002	0.00256037	0.00865126	0.02019294	0.00160023	0.0
112.500	0.00006001	0.00128019	0.00321047	0.00833121	0.00192028	0.00064009
135.000	0.00051007	0.00385056	0.00673098	0.00929135	0.00064009	0.0
157.500	0.00013002	0.00288042	0.00256037	0.00321047	0.00096014	0.0
180.000	0.00034005	0.00769112	0.00962140	0.00385056	0.00096014	0.0
202.500	0.00054008	0.00449065	0.00833121	0.00224033	0.00064009	0.0
225.000	0.00090013	0.00513075	0.00865126	0.00449065	0.00192028	0.0
247.500	0.00118017	0.00385056	0.01314192	0.00897131	0.00128019	0.0
270.000	0.00116017	0.00353052	0.01410206	0.01442210	0.00128019	0.00032005
292.500	0.00055008	0.00481070	0.00609089	0.00353052	0.00096014	0.0
315.000	0.00109016	0.00192028	0.00417061	0.00128019	0.00032005	0.0
337.500	0.00041006	0.00160023	0.00481070	0.00064009	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3 - JUNE

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)
0.0	0.01717250	0.00865126	0.00096014	0.0	0.0	0.0
22.500	0.00523076	0.00353052	0.0	0.0	0.0	0.0
45.000	0.00240035	0.00417061	0.00224033	0.0	0.0	0.0
67.500	0.00818119	0.00801117	0.00096014	0.0	0.0	0.0
90.000	0.00477069	0.00705103	0.00417061	0.0	0.0	0.0
112.500	0.00359052	0.00385056	0.00192028	0.0	0.0	0.0
135.000	0.00456066	0.00769112	0.00032005	0.0	0.0	0.0
157.500	0.00474069	0.00577084	0.00064009	0.0	0.0	0.0
180.000	0.01403204	0.01442210	0.00064009	0.0	0.0	0.0
202.500	0.01514221	0.01506219	0.00096014	0.0	0.0	0.0
225.000	0.01748255	0.02147313	0.00609089	0.0	0.0	0.0
247.500	0.01768258	0.02083304	0.00865126	0.0	0.0	0.0
270.000	0.01955285	0.02115308	0.00513075	0.0	0.0	0.0
292.500	0.01551226	0.01250182	0.00321047	0.0	0.0	0.0
315.000	0.01364199	0.00737107	0.00288042	0.0	0.0	0.0
337.500	0.00716104	0.00641093	0.00192028	0.0	0.0	0.0

- 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	0.0	0.0	0.0	0.0	0.0	0.0
STABILITY CATEGORY 2	0.0	0.0	0.0	0.0	0.0	0.0
STABILITY CATEGORY 3	0.0	0.0	0.0	0.0	0.0	0.0
STABILITY CATEGORY 4	0.0	0.0	0.0	0.0	0.0	0.0
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

- 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	VOLUME	35.00	120.00	3.80	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.30000E+05 2.30000E+05 2.30000E+05
X		2	VOLUME	35.00	120.00	3.80	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 7.80000E+04 7.80000E+04 7.80000E+04
X		3	VOLUME	52.00	63.00	6.00	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.40 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 1.40 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 5.20000E+04 5.20000E+04 5.20000E+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	VOLUME	35.00	120.00	3.80	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 3.26000E+05 3.26000E+05 3.26000E+05
X		5	VOLUME	35.00	120.00	3.80	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 3.26000E+05 3.26000E+05 3.26000E+05
X		6	VOLUME	52.00	63.00	4.00	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.10 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.60 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 MASS FRACTION 0.2000 0.2000 0.2000 0.2000 0.2000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 4.54000E+03 4.54000E+03 4.54000E+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		7	VOLUME	35.00	120.00	3.80	0.0		STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 3.18000E+04 3.18000E+04 3.18000E+04
X		8	VOLUME	115.00	120.00	3.80	0.0		STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 3.18000E+04 3.18000E+04 3.18000E+04

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED **

SEASON 1 – APL

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	0.011159	0.004624	0.000512
350.000	0.009540	0.003534	0.000357
340.000	0.009106	0.003564	0.000252
330.000	0.010428	0.003804	0.000278
320.000	0.009522	0.004289	0.000347
310.000	0.009577	0.003816	0.000346
300.000	0.008262	0.003939	0.000326
290.000	0.008098	0.003574	0.000338
280.000	0.007697	0.004036	0.000365
270.000	0.006240	0.003186	0.000372
260.000	0.006093	0.002950	0.000339
250.000	0.004598	0.002450	0.000322
240.000	0.004056	0.002109	0.000272
230.000	0.003669	0.002023	0.000245
220.000	0.002537	0.001355	0.000190
210.000	0.002199	0.001113	0.000141
200.000	0.001900	0.000954	0.000106
190.000	0.001690	0.000910	0.000126
180.000	0.002054	0.001107	0.000151
170.000	0.002096	0.001062	0.000137
160.000	0.001975	0.001008	0.000120
150.000	0.002486	0.001292	0.000147
140.000	0.002896	0.001487	0.000202
130.000	0.003829	0.002113	0.000280
120.000	0.005473	0.002669	0.000328
110.000	0.006188	0.003077	0.000427
100.000	0.009001	0.004376	0.000476
90.000	0.010552	0.004917	0.000538
80.000	0.014298	0.007080	0.000658
70.000	0.016554	0.006938	0.000773
60.000	0.019844	0.008785	0.000794
50.000	0.020712	0.007759	0.000721
40.000	0.020911	0.008399	0.000602
30.000	0.016241	0.005730	0.000489
20.000	0.014665	0.005420	0.000412
10.000	0.012002	0.004573	0.000464

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED (CONT.) **

SEASON 2 - MAY

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	0.011394	0.004547	0.000503
350.000	0.010797	0.003839	0.000376
340.000	0.011635	0.004435	0.000312
330.000	0.013615	0.004948	0.000381
320.000	0.012227	0.005495	0.000488
310.000	0.011438	0.004719	0.000478
300.000	0.009066	0.004437	0.000442
290.000	0.007936	0.003634	0.000409
280.000	0.006865	0.003667	0.000394
270.000	0.005208	0.002667	0.000354
260.000	0.004737	0.002342	0.000292
250.000	0.003265	0.001768	0.000241
240.000	0.002724	0.001423	0.000187
230.000	0.002356	0.001288	0.000154
220.000	0.001655	0.000885	0.000121
210.000	0.001680	0.000822	0.000102
200.000	0.001792	0.000912	0.000129
190.000	0.001901	0.001022	0.000245
180.000	0.002516	0.001352	0.000372
170.000	0.002662	0.001356	0.000316
160.000	0.002530	0.001287	0.000238
150.000	0.002946	0.001509	0.000207
140.000	0.003069	0.001541	0.000222
130.000	0.003731	0.002017	0.000249
120.000	0.004945	0.002357	0.000252
110.000	0.005273	0.002583	0.000303
100.000	0.007462	0.003609	0.000433
90.000	0.008798	0.004045	0.000595
80.000	0.011937	0.005832	0.000685
70.000	0.013743	0.005679	0.000707
60.000	0.016264	0.007070	0.000699
50.000	0.016865	0.006205	0.000665
40.000	0.017540	0.006988	0.000591
30.000	0.014859	0.005263	0.000487
20.000	0.014412	0.005386	0.000420
10.000	0.012152	0.004470	0.000458

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED (CONT.) **

SEASON 3 - JUNE

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	0.011562	0.004489	0.000597
350.000	0.009587	0.003401	0.000413
340.000	0.008686	0.003282	0.000284
330.000	0.009835	0.003454	0.000342
320.000	0.009143	0.003934	0.000446
310.000	0.009770	0.003650	0.000440
300.000	0.009089	0.004114	0.000407
290.000	0.009238	0.004029	0.000419
280.000	0.008791	0.004650	0.000438
270.000	0.006846	0.003550	0.000441
260.000	0.005898	0.002975	0.000413
250.000	0.003787	0.002071	0.000388
240.000	0.002923	0.001542	0.000262
230.000	0.002338	0.001270	0.000166
220.000	0.001546	0.000812	0.000109
210.000	0.001542	0.000766	0.000093
200.000	0.001539	0.000784	0.000113
190.000	0.001481	0.000788	0.000208
180.000	0.001818	0.000963	0.000310
170.000	0.001904	0.000961	0.000261
160.000	0.001868	0.000955	0.000195
150.000	0.002231	0.001138	0.000181
140.000	0.002258	0.001096	0.000217
130.000	0.002666	0.001412	0.000279
120.000	0.003638	0.001744	0.000348
110.000	0.004164	0.002090	0.000469
100.000	0.006749	0.003399	0.000565
90.000	0.008894	0.004225	0.000674
80.000	0.012739	0.006314	0.000700
70.000	0.014563	0.006029	0.000653
60.000	0.016489	0.007125	0.000682
50.000	0.016209	0.005844	0.000815
40.000	0.016165	0.006222	0.000806
30.000	0.013254	0.004510	0.000579
20.000	0.013273	0.004841	0.000433
10.000	0.012172	0.004378	0.000519

- ISCLT INPUT DATA -

NUMBER OF SOURCES = 8
NUMBER OF X AXIS GRID SYSTEM POINTS = 3
NUMBER OF Y AXIS GRID SYSTEM POINTS = 36
NUMBER OF SPECIAL POINTS = 0
NUMBER OF SEASONS = 3
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+01
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) = 0.0
DECAY COEFFICIENT =0.0
PROGRAM OPTION SWITCHES = 2, 2, 1, 0, 0, 3, 1, 2, 3, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0,
ALL SOURCES ARE USED TO FORM SOURCE COMBINATION 1
RANGE X AXIS GRID SYSTEM POINTS (METERS)= 500.00, 700.00, 2000.00,
AZIMUTH BEARING Y AXIS GRID SYSTEM POINTS (DEGREES)= 10.00, 20.00, 30.00, 40.00, 50.00, 60.00,
70.00, 80.00, 90.00, 100.00, 110.00, 120.00, 130.00, 140.00, 150.00, 160.00,
170.00, 180.00, 190.00, 200.00, 210.00, 220.00, 230.00, 240.00, 250.00, 260.00,
270.00, 280.00, 290.00, 300.00, 310.00, 320.00, 330.00, 340.00, 350.00, 360.00,

- 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	298.0000	298.0000	298.0000	298.0000	298.0000	
SEASON 2	298.0000	298.0000	298.0000	298.0000	298.0000	
SEASON 3	298.0000	298.0000	298.0000	298.0000	298.0000	

- ISCLT INPUT DATA (CONT.) -

- 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	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 2	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 3	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 4	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 5	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05

SEASON 2

	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+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 2	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 3	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 4	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 5	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05

SEASON 3

	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+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 2	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 3	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 4	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 5	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1 - JUL

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)
0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.500	0.0	0.0	0.0	0.0	0.0	0.0
45.000	0.00018001	0.00031002	0.0	0.0	0.0	0.0
67.500	0.0	0.0	0.0	0.0	0.0	0.0
90.000	0.00018001	0.00031002	0.0	0.0	0.0	0.0
112.500	0.0	0.0	0.0	0.0	0.0	0.0
135.000	0.00089007	0.00155012	0.0	0.0	0.0	0.0
157.500	0.00018001	0.00031002	0.0	0.0	0.0	0.0
180.000	0.00125010	0.00217017	0.0	0.0	0.0	0.0
202.500	0.00071005	0.00124009	0.0	0.0	0.0	0.0
225.000	0.00054004	0.00093007	0.0	0.0	0.0	0.0
247.500	0.00161012	0.00279021	0.0	0.0	0.0	0.0
270.000	0.00089007	0.00155012	0.0	0.0	0.0	0.0
292.500	0.0	0.0	0.0	0.0	0.0	0.0
315.000	0.00018001	0.00031002	0.0	0.0	0.0	0.0
337.500	0.00116009	0.00031002	0.0	0.0	0.0	0.0

SEASON 1 - JUL

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)
0.0	0.00192015	0.00093007	0.00062005	0.0	0.0	0.0
22.500	0.00080006	0.00062005	0.0	0.0	0.0	0.0
45.000	0.00134010	0.00186014	0.00062005	0.0	0.0	0.0
67.500	0.00086007	0.00341026	0.00372028	0.0	0.0	0.0
90.000	0.00167013	0.00652049	0.00590045	0.0	0.0	0.0
112.500	0.00246019	0.00465035	0.00900069	0.0	0.0	0.0
135.000	0.00302023	0.01086083	0.00993076	0.0	0.0	0.0
157.500	0.00466035	0.00745057	0.00248019	0.0	0.0	0.0
180.000	0.00493037	0.00931071	0.00341026	0.0	0.0	0.0
202.500	0.00345026	0.00652049	0.00341026	0.0	0.0	0.0
225.000	0.00353027	0.00465035	0.00434033	0.0	0.0	0.0
247.500	0.00126010	0.00372028	0.00310024	0.0	0.0	0.0
270.000	0.00163012	0.00621047	0.00403031	0.0	0.0	0.0
292.500	0.00143011	0.00248019	0.00062005	0.0	0.0	0.0
315.000	0.00192015	0.00093007	0.00155012	0.0	0.0	0.0
337.500	0.00018001	0.00124009	0.00031002	0.0	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1 - JUL

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)
0.0	0.00044003	0.00155012	0.0	0.0	0.0	0.0
22.500	0.00128010	0.00031002	0.0	0.0	0.0	0.0
45.000	0.00164012	0.00155012	0.00062005	0.00186014	0.00031002	0.0
67.500	0.00115009	0.00124009	0.00248019	0.00465035	0.00031002	0.0
90.000	0.00075006	0.00124009	0.00869066	0.00527040	0.0	0.0
112.500	0.00199015	0.00279021	0.00621047	0.00434033	0.0	0.00031002
135.000	0.00185014	0.00372028	0.01210092	0.00558043	0.0	0.0
157.500	0.00177013	0.00341026	0.00714054	0.00031002	0.0	0.0
180.000	0.00539041	0.00776059	0.00403031	0.00031002	0.0	0.0
202.500	0.00252019	0.00465035	0.00341026	0.00093007	0.0	0.0
225.000	0.00150011	0.00527040	0.00745057	0.00124009	0.0	0.0
247.500	0.00190014	0.00527040	0.00652049	0.00062005	0.0	0.0
270.000	0.00159012	0.00279021	0.00621047	0.0	0.0	0.0
292.500	0.00093007	0.00186014	0.00279021	0.0	0.0	0.0
315.000	0.00018001	0.00062005	0.00031002	0.00031002	0.0	0.0
337.500	0.00089007	0.00031002	0.00062005	0.0	0.0	0.0

SEASON 1 - JUL

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)
0.0	0.00096007	0.00683052	0.00341026	0.00031002	0.0	0.0
22.500	0.00069005	0.00093007	0.00217017	0.00062005	0.0	0.0
45.000	0.00042003	0.00217017	0.00590045	0.00310024	0.0	0.0
67.500	0.00047004	0.00310024	0.00527040	0.00745057	0.00031002	0.0
90.000	0.00045003	0.00279021	0.00776059	0.00962073	0.00031002	0.0
112.500	0.00016001	0.00341026	0.00403031	0.00465035	0.0	0.00031002
135.000	0.00061005	0.00621047	0.00683052	0.00372028	0.0	0.00031002
157.500	0.00055004	0.00496038	0.00962073	0.00093007	0.0	0.0
180.000	0.00163012	0.00714054	0.01024078	0.00279021	0.0	0.0
202.500	0.00109008	0.00962073	0.00776059	0.00093007	0.0	0.0
225.000	0.00114009	0.00372028	0.01210092	0.00217017	0.0	0.0
247.500	0.00050004	0.00372028	0.00931071	0.00248019	0.00031002	0.0
270.000	0.00150011	0.00434033	0.01179090	0.00527040	0.00031002	0.0
292.500	0.00045003	0.00279021	0.00341026	0.00093007	0.0	0.0
315.000	0.00047004	0.00310024	0.00403031	0.00093007	0.0	0.0
337.500	0.00102008	0.00093007	0.00248019	0.00062005	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1 - JUL

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)
0.0	0.01749133	0.01024078	0.00062005	0.0	0.0	0.0
22.500	0.00565043	0.00403031	0.00093007	0.0	0.0	0.0
45.000	0.00700053	0.00621047	0.00062005	0.0	0.0	0.0
67.500	0.00511039	0.00590045	0.00031002	0.0	0.0	0.0
90.000	0.00436033	0.00621047	0.0	0.0	0.0	0.0
112.500	0.00350027	0.00310024	0.00062005	0.0	0.0	0.0
135.000	0.00951072	0.00590045	0.00124009	0.0	0.0	0.0
157.500	0.00915070	0.00714054	0.00062005	0.0	0.0	0.0
180.000	0.02139163	0.01955149	0.00186014	0.0	0.0	0.0
202.500	0.02044156	0.02358180	0.00279021	0.0	0.0	0.0
225.000	0.02984228	0.02606199	0.00403031	0.0	0.0	0.0
247.500	0.02142163	0.02699206	0.00931071	0.0	0.0	0.0
270.000	0.01937148	0.01893144	0.00558043	0.0	0.0	0.0
292.500	0.01586121	0.01055080	0.00031002	0.0	0.0	0.0
315.000	0.00796061	0.00745057	0.00217017	0.0	0.0	0.0
337.500	0.00767059	0.00465035	0.00031002	0.0	0.0	0.0

SEASON 2 - AUG

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)
0.0	0.00105011	0.00031003	0.0	0.0	0.0	0.0
22.500	0.00074008	0.00062007	0.0	0.0	0.0	0.0
45.000	0.00074008	0.00062007	0.0	0.0	0.0	0.0
67.500	0.00111012	0.00093010	0.0	0.0	0.0	0.0
90.000	0.00037004	0.00031003	0.0	0.0	0.0	0.0
112.500	0.00222023	0.00186020	0.0	0.0	0.0	0.0
135.000	0.0	0.0	0.0	0.0	0.0	0.0
157.500	0.0	0.0	0.0	0.0	0.0	0.0
180.000	0.00216023	0.00124013	0.0	0.0	0.0	0.0
202.500	0.00037004	0.00031003	0.0	0.0	0.0	0.0
225.000	0.00037004	0.00031003	0.0	0.0	0.0	0.0
247.500	0.00037004	0.00031003	0.0	0.0	0.0	0.0
270.000	0.0	0.0	0.0	0.0	0.0	0.0
292.500	0.00037004	0.00031003	0.0	0.0	0.0	0.0
315.000	0.00037004	0.00031003	0.0	0.0	0.0	0.0
337.500	0.0	0.0	0.0	0.0	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 2 - AUG

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)
0.0	0.00332035	0.00217023	0.00062007	0.0	0.0	0.0
22.500	0.00081009	0.00248026	0.00031003	0.0	0.0	0.0
45.000	0.00242026	0.00124013	0.00124013	0.0	0.0	0.0
67.500	0.00379040	0.00683072	0.00341036	0.0	0.0	0.0
90.000	0.00460048	0.00931098	0.00962102	0.0	0.0	0.0
112.500	0.00381040	0.00900095	0.00807085	0.0	0.0	0.0
135.000	0.00581061	0.00993105	0.00931098	0.0	0.0	0.0
157.500	0.00360038	0.00372039	0.00124013	0.0	0.0	0.0
180.000	0.00596063	0.00465049	0.00062007	0.0	0.0	0.0
202.500	0.00433046	0.00372039	0.00155016	0.0	0.0	0.0
225.000	0.00458048	0.00310033	0.00124013	0.0	0.0	0.0
247.500	0.00127013	0.00093010	0.00062007	0.0	0.0	0.0
270.000	0.00228024	0.00248026	0.00155016	0.0	0.0	0.0
292.500	0.00011001	0.00062007	0.0	0.0	0.0	0.0
315.000	0.00310033	0.00093010	0.0	0.0	0.0	0.0
337.500	0.00079008	0.00031003	0.00031003	0.0	0.0	0.0

SEASON 2 - AUG

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)
0.0	0.00010001	0.00093010	0.0	0.0	0.0	0.0
22.500	0.00041004	0.00062007	0.00031003	0.00031003	0.0	0.0
45.000	0.00098010	0.00279030	0.00434046	0.00031003	0.0	0.0
67.500	0.00048005	0.00465049	0.00714075	0.00496052	0.0	0.0
90.000	0.00070007	0.00341036	0.01520161	0.00683072	0.0	0.0
112.500	0.00045005	0.00434046	0.00962102	0.00465049	0.0	0.0
135.000	0.00151016	0.00465049	0.00838089	0.00434046	0.0	0.0
157.500	0.00120013	0.00496052	0.00341036	0.00124013	0.0	0.0
180.000	0.00268028	0.00931098	0.00465049	0.0	0.0	0.0
202.500	0.00070007	0.00341036	0.00310033	0.00031003	0.0	0.0
225.000	0.00101011	0.00310033	0.00590062	0.0	0.0	0.0
247.500	0.00067007	0.00310033	0.00186020	0.0	0.0	0.0
270.000	0.00019002	0.00186020	0.00124013	0.0	0.0	0.0
292.500	0.00047005	0.00124013	0.0	0.0	0.0	0.0
315.000	0.00060006	0.00248026	0.00062007	0.0	0.0	0.0
337.500	0.00057006	0.00217023	0.00124013	0.0	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 2 - AUG

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)
0.0	0.00080008	0.00434046	0.00590062	0.00093010	0.0	0.0
22.500	0.00054006	0.00186020	0.00217023	0.00124013	0.00031003	0.0
45.000	0.00016002	0.00155016	0.00993105	0.00341036	0.00031003	0.00031003
67.500	0.00080008	0.00434046	0.00652069	0.00590062	0.00062007	0.0
90.000	0.00039004	0.00372039	0.01303138	0.01055111	0.0	0.0
112.500	0.00033003	0.00310033	0.00621065	0.00186020	0.0	0.00031003
135.000	0.00104011	0.00341036	0.00652069	0.00714075	0.00031003	0.0
157.500	0.00016002	0.00155016	0.00527056	0.00186020	0.0	0.00031003
180.000	0.00171018	0.00652069	0.01551164	0.00217023	0.0	0.0
202.500	0.00280030	0.00714075	0.01148121	0.00186020	0.0	0.0
225.000	0.00215023	0.00745079	0.01272134	0.00590062	0.00062007	0.0
247.500	0.00062007	0.00590062	0.00745079	0.00248026	0.0	0.0
270.000	0.00101011	0.00310033	0.00590062	0.00186020	0.00062007	0.0
292.500	0.00036004	0.00341036	0.00310033	0.0	0.0	0.0
315.000	0.00117012	0.00465049	0.00372039	0.00062007	0.0	0.0
337.500	0.00054006	0.00186020	0.00155016	0.00062007	0.0	0.00031003

SEASON 2 - AUG

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)
0.0	0.02158228	0.01303138	0.00031003	0.0	0.0	0.0
22.500	0.01243132	0.00714075	0.00031003	0.0	0.0	0.0
45.000	0.01157122	0.00900095	0.00062007	0.0	0.0	0.0
67.500	0.01049111	0.00807085	0.00093010	0.0	0.0	0.0
90.000	0.00722076	0.00683072	0.00062007	0.0	0.0	0.0
112.500	0.00480051	0.00372039	0.00093010	0.0	0.0	0.0
135.000	0.00822087	0.00683072	0.00062007	0.0	0.0	0.0
157.500	0.00827087	0.00527056	0.0	0.0	0.0	0.0
180.000	0.03387358	0.02482263	0.00062007	0.0	0.0	0.0
202.500	0.01645174	0.01365144	0.00155016	0.0	0.0	0.0
225.000	0.02323246	0.01489158	0.00155016	0.0	0.0	0.0
247.500	0.01711181	0.01148121	0.00155016	0.0	0.0	0.0
270.000	0.02526267	0.01738184	0.00217023	0.0	0.0	0.0
292.500	0.01752185	0.00807085	0.00155016	0.0	0.0	0.0
315.000	0.01381146	0.00776082	0.00062007	0.0	0.0	0.0
337.500	0.01575166	0.00683072	0.00062007	0.0	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3 - SEP

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)
0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.500	0.0	0.0	0.0	0.0	0.0	0.0
45.000	0.00061006	0.00032003	0.0	0.0	0.0	0.0
67.500	0.0	0.0	0.0	0.0	0.0	0.0
90.000	0.00061006	0.00032003	0.0	0.0	0.0	0.0
112.500	0.00061006	0.00032003	0.0	0.0	0.0	0.0
135.000	0.00061006	0.00032003	0.0	0.0	0.0	0.0
157.500	0.0	0.0	0.0	0.0	0.0	0.0
180.000	0.0	0.0	0.0	0.0	0.0	0.0
202.500	0.00122012	0.00064006	0.0	0.0	0.0	0.0
225.000	0.00154015	0.00032003	0.0	0.0	0.0	0.0
247.500	0.0	0.0	0.0	0.0	0.0	0.0
270.000	0.00061006	0.00032003	0.0	0.0	0.0	0.0
292.500	0.0	0.0	0.0	0.0	0.0	0.0
315.000	0.0	0.0	0.0	0.0	0.0	0.0
337.500	0.00154015	0.00032003	0.0	0.0	0.0	0.0

SEASON 3 - SEP

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)
0.0	0.00170016	0.00224021	0.00032003	0.0	0.0	0.0
22.500	0.00262025	0.00096009	0.00064006	0.0	0.0	0.0
45.000	0.00332032	0.00385037	0.00032003	0.0	0.0	0.0
67.500	0.00336032	0.01026098	0.00353034	0.0	0.0	0.0
90.000	0.00468044	0.00929088	0.00994094	0.0	0.0	0.0
112.500	0.00198019	0.00769073	0.00545052	0.0	0.0	0.0
135.000	0.00538051	0.00609058	0.00513049	0.0	0.0	0.0
157.500	0.00275026	0.00513049	0.00096009	0.0	0.0	0.0
180.000	0.00317030	0.00256024	0.00032003	0.0	0.0	0.0
202.500	0.00123012	0.00128012	0.0	0.0	0.0	0.0
225.000	0.00087008	0.00128012	0.00032003	0.0	0.0	0.0
247.500	0.00091009	0.00160015	0.00096009	0.0	0.0	0.0
270.000	0.00126012	0.00160015	0.00096009	0.0	0.0	0.0
292.500	0.00091009	0.00160015	0.00032003	0.0	0.0	0.0
315.000	0.00083008	0.00096009	0.00032003	0.0	0.0	0.0
337.500	0.00126012	0.00160015	0.00032003	0.0	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3 - SEP

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)
0.0	0.00141013	0.00256024	0.00128012	0.0	0.0	0.0
22.500	0.00145014	0.00288027	0.00160015	0.0	0.0	0.0
45.000	0.00166016	0.00449042	0.00609058	0.00192018	0.0	0.0
67.500	0.00066006	0.00513049	0.01506143	0.00321031	0.0	0.0
90.000	0.00069007	0.00256024	0.01859177	0.00737070	0.0	0.0
112.500	0.00117011	0.00353034	0.01378131	0.00192018	0.0	0.0
135.000	0.00166016	0.00449042	0.00641061	0.00224021	0.0	0.0
157.500	0.00073007	0.00288027	0.00224021	0.00064006	0.0	0.0
180.000	0.00387037	0.00481046	0.00192018	0.0	0.0	0.0
202.500	0.00016002	0.00128012	0.00096009	0.0	0.0	0.0
225.000	0.00089008	0.00128012	0.00064006	0.0	0.0	0.0
247.500	0.00033003	0.00256024	0.00353034	0.0	0.0	0.0
270.000	0.00101010	0.00224021	0.00128012	0.00064006	0.0	0.0
292.500	0.00093009	0.00160015	0.00064006	0.00032003	0.0	0.0
315.000	0.00016002	0.00128012	0.00032003	0.0	0.0	0.0
337.500	0.00053005	0.00128012	0.00032003	0.0	0.0	0.0

SEASON 3 - SEP

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)
0.0	0.00211020	0.00481046	0.01571150	0.00609058	0.0	0.0
22.500	0.00028003	0.00353034	0.00737070	0.00897085	0.0	0.0
45.000	0.00102010	0.00417040	0.01250119	0.01538146	0.00096009	0.0
67.500	0.00030003	0.00385037	0.01699162	0.02308220	0.00032003	0.0
90.000	0.00078007	0.00545052	0.01731165	0.02596247	0.0	0.0
112.500	0.00097009	0.00353034	0.00737070	0.00705067	0.0	0.0
135.000	0.00060006	0.00321031	0.00577055	0.00256024	0.0	0.0
157.500	0.00052005	0.00224021	0.00096009	0.00128012	0.0	0.0
180.000	0.00033003	0.00417040	0.00449042	0.00096009	0.0	0.0
202.500	0.00057005	0.00288027	0.00224021	0.0	0.0	0.0
225.000	0.00015001	0.00192018	0.00288027	0.00096009	0.0	0.0
247.500	0.00047004	0.00160015	0.00417040	0.00128012	0.0	0.0
270.000	0.00013001	0.00160015	0.00513049	0.00321031	0.0	0.0
292.500	0.00020002	0.00256024	0.00321031	0.00096009	0.0	0.0
315.000	0.00018002	0.00224021	0.00096009	0.00064006	0.00064006	0.0
337.500	0.00100010	0.00385037	0.00224021	0.0	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3 - SEP

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)
0.0	0.02732261	0.01987189	0.00737070	0.0	0.0	0.0
22.500	0.01253119	0.00705067	0.00385037	0.0	0.0	0.0
45.000	0.01101105	0.01058101	0.00192018	0.0	0.0	0.0
67.500	0.01309125	0.01603153	0.00321031	0.0	0.0	0.0
90.000	0.01115106	0.00994094	0.00096009	0.0	0.0	0.0
112.500	0.00769073	0.00737070	0.00096009	0.0	0.0	0.0
135.000	0.01098105	0.00609058	0.0	0.0	0.0	0.0
157.500	0.00748071	0.00256024	0.0	0.0	0.0	0.0
180.000	0.01644157	0.01218116	0.00224021	0.0	0.0	0.0
202.500	0.00811077	0.00545052	0.00224021	0.0	0.0	0.0
225.000	0.01834175	0.01731165	0.00256024	0.0	0.0	0.0
247.500	0.01429136	0.01282122	0.00224021	0.0	0.0	0.0
270.000	0.02218211	0.01346128	0.00288027	0.0	0.0	0.0
292.500	0.01554148	0.00705067	0.00128012	0.0	0.0	0.0
315.000	0.02027193	0.01186113	0.00160015	0.0	0.0	0.0
337.500	0.01854176	0.01058101	0.00128012	0.0	0.0	0.0

- 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	0.0	0.0	0.0	0.0	0.0	0.0
STABILITY CATEGORY 2	0.0	0.0	0.0	0.0	0.0	0.0
STABILITY CATEGORY 3	0.0	0.0	0.0	0.0	0.0	0.0
STABILITY CATEGORY 4	0.0	0.0	0.0	0.0	0.0	0.0
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

- 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 -
%		1	VOLUME	35.00	120.00	3.80	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.30000E+05 2.30000E+05 2.30000E+05
%		2	VOLUME	35.00	120.00	3.80	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) SEASON 1 SEASON 2 SEASON 3 SEASON 4 7.80000E+04 7.80000E+04 7.80000E+04
%		3	VOLUME	52.00	63.00	6.00	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.40 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 1.40 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) SEASON 1 SEASON 2 SEASON 3 SEASON 4 5.20000E+04 5.20000E+04 5.20000E+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	VOLUME	35.00	120.00	3.80	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 3.26000E+05 3.26000E+05 3.26000E+05
X		5	VOLUME	35.00	120.00	3.80	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 3.26000E+05 3.26000E+05 3.26000E+05
X		6	VOLUME	52.00	63.00	4.00	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.10 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.60 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 MASS FRACTION 0.2000 0.2000 0.2000 0.2000 0.2000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 4.54000E+03 4.54000E+03 4.54000E+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		7	VOLUME	35.00	120.00	3.80	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	0.0004	0.0025	0.0086	0.0197	0.0412	0.0877	0.1729
MASS FRACTION	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000
REFLECTION COEFFICIENT	1.0000	0.9000	0.7800	0.7200	0.6500	0.5300	0.3400

	8	9	10
FALL VELOCITY (MPS)	0.3519	0.6940	2.9856
MASS FRACTION	0.1000	0.1000	0.1000
REFLECTION COEFFICIENT	0.0	0.0	0.0

- SOURCE STRENGTHS (GRAMS) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
3.18000E+04	3.18000E+04	3.18000E+04	

X		8	VOLUME	115.00	120.00	3.80	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	0.0004	0.0025	0.0086	0.0197	0.0412	0.0877	0.1729
MASS FRACTION	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000
REFLECTION COEFFICIENT	1.0000	0.9000	0.7800	0.7200	0.6500	0.5300	0.3400

	8	9	10
FALL VELOCITY (MPS)	0.3519	0.6940	2.9856
MASS FRACTION	0.1000	0.1000	0.1000
REFLECTION COEFFICIENT	0.0	0.0	0.0

- SOURCE STRENGTHS (GRAMS) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
3.18000E+04	3.18000E+04	3.18000E+04	

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED **

SEASON 1 - JULY

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	0.013741	0.005166	0.000822
350.000	0.011604	0.004112	0.000562
340.000	0.010449	0.003990	0.000371
330.000	0.010469	0.003822	0.000455
320.000	0.008455	0.003751	0.000600
310.000	0.007611	0.003047	0.000467
300.000	0.006129	0.002881	0.000288
290.000	0.005906	0.002584	0.000245
280.000	0.005585	0.002900	0.000296
270.000	0.004545	0.002289	0.000312
260.000	0.004291	0.002076	0.000258
250.000	0.003097	0.001651	0.000218
240.000	0.002639	0.001364	0.000200
230.000	0.002282	0.001253	0.000202
220.000	0.001562	0.000835	0.000159
210.000	0.001466	0.000723	0.000108
200.000	0.001424	0.000721	0.000081
190.000	0.001464	0.000795	0.000112
180.000	0.001871	0.001024	0.000147
170.000	0.001870	0.000943	0.000183
160.000	0.001587	0.000775	0.000221
150.000	0.001613	0.000770	0.000225
140.000	0.001573	0.000741	0.000201
130.000	0.001911	0.001030	0.000190
120.000	0.002638	0.001272	0.000172
110.000	0.002974	0.001490	0.000191
100.000	0.004774	0.002395	0.000377
90.000	0.006310	0.002977	0.000600
80.000	0.009483	0.004650	0.000788
70.000	0.011253	0.004603	0.000922
60.000	0.013774	0.005873	0.000922
50.000	0.015097	0.005517	0.000765
40.000	0.017064	0.006835	0.000658
30.000	0.016017	0.005586	0.000653
20.000	0.016846	0.006094	0.000682
10.000	0.014874	0.005206	0.000755

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED (CONT.) **

SEASON 2 - AUG

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	0.013068	0.005219	0.000844
350.000	0.010321	0.003826	0.000517
340.000	0.009225	0.003496	0.000250
330.000	0.009742	0.003532	0.000245
320.000	0.008423	0.003719	0.000300
310.000	0.008140	0.003023	0.000456
300.000	0.007396	0.003131	0.000639
290.000	0.007792	0.003228	0.000647
280.000	0.007759	0.003980	0.000531
270.000	0.006249	0.003154	0.000469
260.000	0.005737	0.002762	0.000488
250.000	0.004084	0.002144	0.000524
240.000	0.003553	0.001806	0.000438
230.000	0.003160	0.001721	0.000382
220.000	0.002224	0.001175	0.000327
210.000	0.002071	0.001022	0.000291
200.000	0.001931	0.000963	0.000273
190.000	0.001822	0.000967	0.000295
180.000	0.002250	0.001198	0.000327
170.000	0.002305	0.001156	0.000248
160.000	0.002113	0.001075	0.000163
150.000	0.002326	0.001169	0.000140
140.000	0.002181	0.001031	0.000185
130.000	0.002355	0.001227	0.000228
120.000	0.002768	0.001262	0.000216
110.000	0.002699	0.001292	0.000239
100.000	0.003685	0.001798	0.000239
90.000	0.004456	0.002106	0.000254
80.000	0.006178	0.003108	0.000290
70.000	0.006995	0.002900	0.000323
60.000	0.008703	0.003875	0.000381
50.000	0.010513	0.004060	0.000445
40.000	0.013174	0.005519	0.000483
30.000	0.013283	0.004790	0.000450
20.000	0.015171	0.005606	0.000492
10.000	0.014172	0.005253	0.000687

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED (CONT.) **

SEASON 3

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	0.006731	0.002756	0.000232
350.000	0.006131	0.002196	0.000173
340.000	0.006067	0.002221	0.000142
330.000	0.007382	0.002450	0.000213
320.000	0.007472	0.003090	0.000314
310.000	0.009253	0.003171	0.000365
300.000	0.009853	0.004248	0.000393
290.000	0.011222	0.004630	0.000500
280.000	0.011992	0.006017	0.000607
270.000	0.010503	0.005240	0.000675
260.000	0.010586	0.005072	0.000611
250.000	0.008031	0.004302	0.000575
240.000	0.006900	0.003565	0.000509
230.000	0.006148	0.003334	0.000484
220.000	0.004433	0.002345	0.000395
210.000	0.004365	0.002176	0.000305
200.000	0.004313	0.002207	0.000258
190.000	0.004169	0.002248	0.000311
180.000	0.004875	0.002643	0.000370
170.000	0.004541	0.002255	0.000364
160.000	0.003642	0.001781	0.000363
150.000	0.003237	0.001491	0.000302
140.000	0.002563	0.001123	0.000223
130.000	0.002539	0.001329	0.000159
120.000	0.002990	0.001377	0.000143
110.000	0.002899	0.001400	0.000161
100.000	0.003828	0.001840	0.000223
90.000	0.004359	0.001961	0.000310
80.000	0.005559	0.002712	0.000306
70.000	0.006088	0.002498	0.000246
60.000	0.006928	0.003030	0.000259
50.000	0.006884	0.002491	0.000358
40.000	0.006677	0.002632	0.000404
30.000	0.005748	0.001876	0.000367
20.000	0.006318	0.002241	0.000341
10.000	0.006561	0.002389	0.000279

- ISCLT INPUT DATA -

NUMBER OF SOURCES = 8
NUMBER OF X AXIS GRID SYSTEM POINTS = 3
NUMBER OF Y AXIS GRID SYSTEM POINTS = 36
NUMBER OF SPECIAL POINTS = 0
NUMBER OF SEASONS = 3
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+01
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) = 0.0
DECAY COEFFICIENT =0.0
PROGRAM OPTION SWITCHES = 2, 2, 1, 0, 0, 3, 1, 2, 3, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0,
ALL SOURCES ARE USED TO FORM SOURCE COMBINATION 1
RANGE X AXIS GRID SYSTEM POINTS (METERS)= 500.00, 700.00, 2000.00,
AZIMUTH BEARING Y AXIS GRID SYSTEM POINTS (DEGREES)= 10.00, 20.00, 30.00, 40.00, 50.00, 60.00,
70.00, 80.00, 90.00, 100.00, 110.00, 120.00, 130.00, 140.00, 150.00, 160.00,
170.00, 180.00, 190.00, 200.00, 210.00, 220.00, 230.00, 240.00, 250.00, 260.00,
270.00, 280.00, 290.00, 300.00, 310.00, 320.00, 330.00, 340.00, 350.00, 360.00,

- 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	298.0000	298.0000	298.0000	298.0000	298.0000	
SEASON 2	298.0000	298.0000	298.0000	298.0000	298.0000	
SEASON 3	298.0000	298.0000	298.0000	298.0000	298.0000	

- ISCLT INPUT DATA (CONT.) -

- MIXING LAYER HEIGHT (METERS) -

SEASON 1 - OCT

	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+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 2	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 3	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 4	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 5	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05

SEASON 2 - NOV

	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+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 2	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 3	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 4	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 5	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05

SEASON 3 - DEC

	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+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 2	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 3	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 4	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04	0.100000E+04
STABILITY CATEGORY 5	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05	0.100000E+05

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1 - OCT

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)
0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.500	0.0	0.0	0.0	0.0	0.0	0.0
45.000	0.0	0.0	0.0	0.0	0.0	0.0
67.500	0.0	0.0	0.0	0.0	0.0	0.0
90.000	0.0	0.0	0.0	0.0	0.0	0.0
112.500	0.0	0.0	0.0	0.0	0.0	0.0
135.000	0.0	0.0	0.0	0.0	0.0	0.0
157.500	0.0	0.0	0.0	0.0	0.0	0.0
180.000	0.00621140	0.0	0.0	0.0	0.0	0.0
202.500	0.0	0.0	0.0	0.0	0.0	0.0
225.000	0.0	0.0	0.0	0.0	0.0	0.0
247.500	0.0	0.0	0.0	0.0	0.0	0.0
270.000	0.0	0.0	0.0	0.0	0.0	0.0
292.500	0.0	0.0	0.0	0.0	0.0	0.0
315.000	0.0	0.0	0.0	0.0	0.0	0.0
337.500	0.0	0.0	0.0	0.0	0.0	0.0

SEASON 1 - OCT

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)
0.0	0.00400090	0.00279063	0.00031007	0.0	0.0	0.0
22.500	0.00173039	0.00186042	0.00093021	0.0	0.0	0.0
45.000	0.00302068	0.00496112	0.00217049	0.0	0.0	0.0
67.500	0.00489110	0.00869196	0.00124028	0.0	0.0	0.0
90.000	0.00427096	0.00652147	0.00124028	0.0	0.0	0.0
112.500	0.00289065	0.00310070	0.00124028	0.0	0.0	0.0
135.000	0.00280063	0.00279063	0.00093021	0.0	0.0	0.0
157.500	0.00266060	0.00093021	0.00031007	0.0	0.0	0.0
180.000	0.00217049	0.00062014	0.00031007	0.0	0.0	0.0
202.500	0.00027006	0.00093021	0.0	0.0	0.0	0.0
225.000	0.00142032	0.00217049	0.00093021	0.0	0.0	0.0
247.500	0.00155035	0.00124028	0.00031007	0.0	0.0	0.0
270.000	0.00155035	0.00124028	0.00031007	0.0	0.0	0.0
292.500	0.00320072	0.00279063	0.00093021	0.0	0.0	0.0
315.000	0.00204046	0.00155035	0.00093021	0.0	0.0	0.0
337.500	0.00155035	0.00124028	0.0	0.0	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1 - OCT

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)
0.0	0.00043010	0.00465105	0.00465105	0.0	0.0	0.0
22.500	0.00007002	0.00310070	0.00465105	0.00031007	0.0	0.0
45.000	0.00009002	0.00403091	0.00900203	0.00062014	0.0	0.0
67.500	0.00043010	0.00465105	0.01427322	0.00217049	0.0	0.0
90.000	0.00004001	0.00186042	0.01024231	0.00062014	0.0	0.0
112.500	0.00003001	0.00124028	0.00621140	0.00093021	0.0	0.0
135.000	0.00006001	0.00279063	0.00279063	0.00031007	0.0	0.0
157.500	0.00008002	0.00341077	0.00124028	0.0	0.0	0.0
180.000	0.00004001	0.00155035	0.00062014	0.0	0.0	0.0
202.500	0.00001000	0.00062014	0.00031007	0.0	0.0	0.0
225.000	0.00005001	0.00217049	0.00031007	0.0	0.0	0.0
247.500	0.00008002	0.00341077	0.00186042	0.00031007	0.0	0.0
270.000	0.00039009	0.00310070	0.00496112	0.0	0.0	0.0
292.500	0.00001000	0.00062014	0.00186042	0.0	0.0	0.0
315.000	0.00003001	0.00124028	0.00248056	0.00062014	0.0	0.0
337.500	0.00001000	0.00062014	0.00186042	0.0	0.0	0.0

SEASON 1 - OCT

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)
0.0	0.00404091	0.00838189	0.01706386	0.01210273	0.00031007	0.0
22.500	0.00218049	0.00403091	0.01893428	0.02886652	0.00403091	0.00031007
45.000	0.00066015	0.00372084	0.01831413	0.05648276	0.01210273	0.00155035
67.500	0.00103023	0.00372084	0.01551351	0.02668603	0.00186042	0.0
90.000	0.00061014	0.00341077	0.00590133	0.01272287	0.00062014	0.0
112.500	0.00028006	0.00155035	0.00248056	0.00527119	0.00062014	0.0
135.000	0.00033007	0.00186042	0.00496112	0.00279063	0.0	0.0
157.500	0.00017004	0.00093021	0.00062014	0.00093021	0.0	0.0
180.000	0.00022005	0.00124028	0.00558126	0.00186042	0.0	0.0
202.500	0.00059013	0.00124028	0.00403091	0.00310070	0.0	0.0
225.000	0.00039009	0.00217049	0.00310070	0.00155035	0.0	0.0
247.500	0.00139031	0.00372084	0.00248056	0.00217049	0.0	0.0
270.000	0.00075017	0.00217049	0.00248056	0.00248056	0.00062014	0.0
292.500	0.00101023	0.00155035	0.00124028	0.00279063	0.00093021	0.0
315.000	0.00159036	0.00279063	0.00496112	0.00155035	0.00031007	0.0
337.500	0.00092021	0.00310070	0.00403091	0.00124028	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1 - OCT

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)
0.0	0.03118705	0.03909883	0.01706386	0.0	0.0	0.0
22.500	0.00808182	0.00993224	0.00683154	0.0	0.0	0.0
45.000	0.00878198	0.01055238	0.00465105	0.0	0.0	0.0
67.500	0.00777175	0.01024231	0.00310070	0.0	0.0	0.0
90.000	0.00475107	0.00403091	0.00155035	0.0	0.0	0.0
112.500	0.00196044	0.00155035	0.0	0.0	0.0	0.0
135.000	0.00279063	0.00248056	0.00062014	0.0	0.0	0.0
157.500	0.00292066	0.00279063	0.00031007	0.0	0.0	0.0
180.000	0.01056238	0.00745168	0.00124028	0.0	0.0	0.0
202.500	0.00286065	0.00372084	0.00062014	0.0	0.0	0.0
225.000	0.01007227	0.00838189	0.00155035	0.0	0.0	0.0
247.500	0.01125254	0.01334301	0.00217049	0.0	0.0	0.0
270.000	0.02257510	0.01520343	0.00341077	0.0	0.0	0.0
292.500	0.02368535	0.01365308	0.00496112	0.0	0.0	0.0
315.000	0.02613590	0.01955442	0.00496112	0.0	0.0	0.0
337.500	0.01391314	0.01551351	0.00496112	0.0	0.0	0.0

SEASON 2 - NOV

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)
0.0	0.00016001	0.0	0.0	0.0	0.0	0.0
22.500	0.00016001	0.0	0.0	0.0	0.0	0.0
45.000	0.00016001	0.0	0.0	0.0	0.0	0.0
67.500	0.00016001	0.0	0.0	0.0	0.0	0.0
90.000	0.00016001	0.0	0.0	0.0	0.0	0.0
112.500	0.00016001	0.0	0.0	0.0	0.0	0.0
135.000	0.00016001	0.0	0.0	0.0	0.0	0.0
157.500	0.00016001	0.0	0.0	0.0	0.0	0.0
180.000	0.00016001	0.0	0.0	0.0	0.0	0.0
202.500	0.00016001	0.0	0.0	0.0	0.0	0.0
225.000	0.00016001	0.0	0.0	0.0	0.0	0.0
247.500	0.00016001	0.0	0.0	0.0	0.0	0.0
270.000	0.00016001	0.0	0.0	0.0	0.0	0.0
292.500	0.00016001	0.0	0.0	0.0	0.0	0.0
315.000	0.00016001	0.0	0.0	0.0	0.0	0.0
337.500	0.00016001	0.0	0.0	0.0	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 2 - NOV

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)
0.0	0.00322021	0.00128008	0.00096006	0.0	0.0	0.0
22.500	0.00100007	0.00064004	0.0	0.0	0.0	0.0
45.000	0.00367024	0.00288019	0.00064004	0.0	0.0	0.0
67.500	0.00312021	0.00385025	0.00160011	0.0	0.0	0.0
90.000	0.00230015	0.00385025	0.00160011	0.0	0.0	0.0
112.500	0.00167011	0.00160011	0.00096006	0.0	0.0	0.0
135.000	0.00244016	0.00288019	0.00096006	0.0	0.0	0.0
157.500	0.00232015	0.00096006	0.0	0.0	0.0	0.0
180.000	0.00103007	0.00224015	0.00064004	0.0	0.0	0.0
202.500	0.00100007	0.00064004	0.0	0.0	0.0	0.0
225.000	0.00232015	0.00096006	0.00064004	0.0	0.0	0.0
247.500	0.00159010	0.00128008	0.00064004	0.0	0.0	0.0
270.000	0.00135009	0.00192013	0.00032002	0.0	0.0	0.0
292.500	0.00094006	0.00192013	0.00096006	0.0	0.0	0.0
315.000	0.00176012	0.00192013	0.00096006	0.0	0.0	0.0
337.500	0.00167011	0.00160011	0.0	0.0	0.0	0.0

SEASON 2 - NOV

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)
0.0	0.00173011	0.00545036	0.00321021	0.00032002	0.0	0.0
22.500	0.00248016	0.00545036	0.00385025	0.0	0.0	0.0
45.000	0.00078005	0.00224015	0.00577038	0.00160011	0.0	0.0
67.500	0.00118008	0.00449029	0.00641042	0.00064004	0.0	0.0
90.000	0.00023002	0.00128008	0.00929061	0.00032002	0.0	0.0
112.500	0.00066004	0.00160011	0.00417027	0.0	0.0	0.0
135.000	0.00173011	0.00545036	0.00449029	0.00032002	0.0	0.0
157.500	0.00023002	0.00128008	0.00160011	0.0	0.0	0.0
180.000	0.00139009	0.00353023	0.00321021	0.0	0.0	0.0
202.500	0.00066004	0.00160011	0.00032002	0.0	0.0	0.0
225.000	0.00101007	0.00353023	0.00160011	0.00032002	0.0	0.0
247.500	0.00127008	0.00288019	0.00353023	0.0	0.0	0.0
270.000	0.00040003	0.00224015	0.00385025	0.00032002	0.0	0.0
292.500	0.00046003	0.00256017	0.00353023	0.00032002	0.0	0.0
315.000	0.00046003	0.00256017	0.00256017	0.00032002	0.0	0.0
337.500	0.00072005	0.00192013	0.00160011	0.0	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 2 - NOV

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)
0.0	0.00451029	0.00737048	0.01731114	0.00833055	0.0	0.0
22.500	0.00108007	0.00288019	0.01186078	0.01186078	0.00128008	0.0
45.000	0.00232015	0.00481031	0.01218080	0.02051135	0.00481031	0.00032002
67.500	0.00106007	0.00449029	0.00833055	0.01154076	0.00128008	0.0
90.000	0.00291019	0.00224015	0.00865057	0.00673044	0.00032002	0.0
112.500	0.00100007	0.00256017	0.00288019	0.00417027	0.0	0.0
135.000	0.00053003	0.00224015	0.00609040	0.00449029	0.00032002	0.00032002
157.500	0.00125008	0.00192013	0.00321021	0.00288019	0.0	0.0
180.000	0.00202013	0.00353023	0.01250082	0.00865057	0.0	0.0
202.500	0.00125008	0.00192013	0.00513034	0.00417027	0.0	0.0
225.000	0.00115008	0.00321021	0.00705046	0.00609040	0.00032002	0.0
247.500	0.00053003	0.00224015	0.00897059	0.00673044	0.00032002	0.0
270.000	0.00115008	0.00321021	0.01026068	0.01026068	0.00032002	0.0
292.500	0.00108007	0.00288019	0.00641042	0.01250082	0.00096006	0.0
315.000	0.00234015	0.00321021	0.00705046	0.01667110	0.00032002	0.0
337.500	0.00178012	0.00417027	0.00897059	0.00641042	0.00032002	0.0

SEASON 2 - NOV

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)
0.0	0.03526232	0.03462227	0.01378091	0.0	0.0	0.0
22.500	0.00808053	0.00673044	0.00353023	0.0	0.0	0.0
45.000	0.00295019	0.00353023	0.00449029	0.0	0.0	0.0
67.500	0.00263017	0.00385025	0.00256017	0.0	0.0	0.0
90.000	0.00342022	0.00353023	0.00032002	0.0	0.0	0.0
112.500	0.00320021	0.00096006	0.00032002	0.0	0.0	0.0
135.000	0.00630041	0.00481031	0.00096006	0.0	0.0	0.0
157.500	0.00221015	0.00288019	0.00224015	0.0	0.0	0.0
180.000	0.00758050	0.01186078	0.00288019	0.0	0.0	0.0
202.500	0.00939061	0.01282084	0.00224015	0.0	0.0	0.0
225.000	0.00850056	0.00769050	0.00256017	0.0	0.0	0.0
247.500	0.01377090	0.01122074	0.00417027	0.0	0.0	0.0
270.000	0.01619106	0.01667110	0.00513034	0.0	0.0	0.0
292.500	0.02359155	0.01667110	0.00353023	0.0	0.0	0.0
315.000	0.01978130	0.01955128	0.00865057	0.0	0.0	0.0
337.500	0.02306152	0.01859122	0.00962063	0.0	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3 - DEC

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)
0.0	0.00008000	0.0	0.0	0.0	0.0	0.0
22.500	0.00008000	0.0	0.0	0.0	0.0	0.0
45.000	0.00008000	0.0	0.0	0.0	0.0	0.0
67.500	0.00008000	0.0	0.0	0.0	0.0	0.0
90.000	0.00008000	0.0	0.0	0.0	0.0	0.0
112.500	0.00008000	0.0	0.0	0.0	0.0	0.0
135.000	0.00008000	0.0	0.0	0.0	0.0	0.0
157.500	0.00008000	0.0	0.0	0.0	0.0	0.0
180.000	0.00008000	0.0	0.0	0.0	0.0	0.0
202.500	0.00008000	0.0	0.0	0.0	0.0	0.0
225.000	0.00008000	0.0	0.0	0.0	0.0	0.0
247.500	0.00008000	0.0	0.0	0.0	0.0	0.0
270.000	0.00008000	0.0	0.0	0.0	0.0	0.0
292.500	0.00008000	0.0	0.0	0.0	0.0	0.0
315.000	0.00008000	0.0	0.0	0.0	0.0	0.0
337.500	0.00008000	0.0	0.0	0.0	0.0	0.0

SEASON 3 - DEC

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)
0.0	0.00107005	0.00031001	0.0	0.0	0.0	0.0
22.500	0.0	0.0	0.0	0.0	0.0	0.0
45.000	0.00229010	0.0	0.00093004	0.0	0.0	0.0
67.500	0.00061003	0.00031001	0.00062003	0.0	0.0	0.0
90.000	0.00229010	0.0	0.00093004	0.0	0.0	0.0
112.500	0.00275012	0.0	0.00062003	0.0	0.0	0.0
135.000	0.00184008	0.0	0.00031001	0.0	0.0	0.0
157.500	0.00153007	0.00031001	0.0	0.0	0.0	0.0
180.000	0.00320014	0.00093004	0.00031001	0.0	0.0	0.0
202.500	0.00122005	0.00062003	0.00031001	0.0	0.0	0.0
225.000	0.00107005	0.00031001	0.0	0.0	0.0	0.0
247.500	0.00197009	0.00124006	0.00031001	0.0	0.0	0.0
270.000	0.00242011	0.00217010	0.00031001	0.0	0.0	0.0
292.500	0.00030001	0.00062003	0.00062003	0.0	0.0	0.0
315.000	0.00107005	0.00031001	0.0	0.0	0.0	0.0
337.500	0.00059003	0.00124006	0.00031001	0.0	0.0	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3 - DEC

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)
0.0	0.00120005	0.00248011	0.00124006	0.0	0.0	0.0
22.500	0.00083004	0.00248011	0.00124006	0.0	0.0	0.0
45.000	0.00089004	0.00279013	0.00279013	0.0	0.0	0.0
67.500	0.00203009	0.00497022	0.00279013	0.0	0.0	0.0
90.000	0.00149007	0.00403018	0.00341015	0.0	0.0	0.0
112.500	0.00046002	0.00248011	0.00279013	0.0	0.0	0.0
135.000	0.00198009	0.00869039	0.00341015	0.00031001	0.0	0.0
157.500	0.00170008	0.00124006	0.00217010	0.0	0.0	0.0
180.000	0.00098004	0.00528023	0.00310014	0.0	0.0	0.0
202.500	0.00035002	0.00186008	0.00155007	0.0	0.0	0.0
225.000	0.00052002	0.00279013	0.00310014	0.0	0.0	0.0
247.500	0.00162007	0.00279013	0.00310014	0.0	0.0	0.0
270.000	0.00166007	0.00497022	0.00559025	0.0	0.0	0.0
292.500	0.00114005	0.00217010	0.00279013	0.00031001	0.0	0.0
315.000	0.00063003	0.00341015	0.00186008	0.0	0.0	0.0
337.500	0.00052002	0.00279013	0.00031001	0.0	0.0	0.0

SEASON 3 - DEC

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)
0.0	0.00623028	0.00776035	0.01490067	0.00621027	0.0	0.00031001
22.500	0.00190009	0.00528023	0.00869039	0.01459065	0.00248011	0.0
45.000	0.00125006	0.00341015	0.00900040	0.02079093	0.00310014	0.00031001
67.500	0.00417019	0.00838037	0.00745033	0.00683030	0.00093004	0.0
90.000	0.00379017	0.00590026	0.00372017	0.00124006	0.0	0.0
112.500	0.00257012	0.00497022	0.00403018	0.00341015	0.0	0.0
135.000	0.00180008	0.00466021	0.01024046	0.00776035	0.0	0.0
157.500	0.00128006	0.00590026	0.00962043	0.00279013	0.00124006	0.0
180.000	0.00353016	0.01117050	0.02142096	0.01552069	0.00031001	0.0
202.500	0.00164007	0.00590026	0.01335059	0.00714032	0.00031001	0.0
225.000	0.00348016	0.00621027	0.00931042	0.00776035	0.00031001	0.0
247.500	0.00226010	0.00993044	0.00807036	0.00745033	0.00248011	0.0
270.000	0.00344015	0.01055047	0.01428064	0.01055047	0.00341015	0.00031001
292.500	0.00211009	0.00435019	0.00776035	0.01583071	0.00652029	0.0
315.000	0.00250011	0.00683030	0.01273057	0.01335059	0.00248011	0.0
337.500	0.00369017	0.00528023	0.01055047	0.00652029	0.00031001	0.0

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3 - DEC

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)
0.0	0.01439064	0.01179053	0.00310014	0.0	0.0	0.0
22.500	0.00620028	0.00621027	0.00279013	0.0	0.0	0.0
45.000	0.00531023	0.00341015	0.00155007	0.0	0.0	0.0
67.500	0.00801036	0.00807036	0.00093004	0.0	0.0	0.0
90.000	0.00515023	0.00403018	0.00062003	0.0	0.0	0.0
112.500	0.00227010	0.00186008	0.00093004	0.0	0.0	0.0
135.000	0.00695031	0.00683030	0.00062003	0.0	0.0	0.0
157.500	0.00740033	0.00776035	0.00217010	0.0	0.0	0.0
180.000	0.01534069	0.02142096	0.00341015	0.0	0.0	0.0
202.500	0.00603027	0.00683030	0.00310014	0.0	0.0	0.0
225.000	0.00894040	0.00714032	0.00279013	0.0	0.0	0.0
247.500	0.01533069	0.00993044	0.00403018	0.0	0.0	0.0
270.000	0.01774079	0.01304058	0.00652029	0.0	0.0	0.0
292.500	0.01915086	0.01117050	0.00435019	0.0	0.0	0.0
315.000	0.01547069	0.01117050	0.01055047	0.0	0.0	0.0
337.500	0.00801036	0.00807036	0.00776035	0.0	0.0	0.0

- 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	0.0	0.0	0.0	0.0	0.0	0.0
STABILITY CATEGORY 2	0.0	0.0	0.0	0.0	0.0	0.0
STABILITY CATEGORY 3	0.0	0.0	0.0	0.0	0.0	0.0
STABILITY CATEGORY 4	0.0	0.0	0.0	0.0	0.0	0.0
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

- SOURCE INPUT DATA -

C A P D	T A 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	VOLUME	35.00	120.00	3.80	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.30000E+05 2.30000E+05 2.30000E+05
X		2	VOLUME	35.00	120.00	3.80	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 7.80000E+04 7.80000E+04 7.80000E+04
X		3	VOLUME	52.00	63.00	6.00	0.0	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.40 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 1.40 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 5.20000E+04 5.20000E+04 5.20000E+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	VOLUME	35.00	120.00	3.80	0.0		STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 3.26000E+05 3.26000E+05 3.26000E+05
X		5	VOLUME	35.00	120.00	3.80	0.0		STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729 MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400 8 9 10 FALL VELOCITY (MPS) 0.3519 0.6940 2.9856 MASS FRACTION 0.1000 0.1000 0.1000 REFLECTION COEFFICIENT 0.0 0.0 0.0 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 3.26000E+05 3.26000E+05 3.26000E+05
X		6	VOLUME	52.00	63.00	4.00	0.0		STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.10 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.60 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 MASS FRACTION 0.2000 0.2000 0.2000 0.2000 0.2000 REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 4.54000E+03 4.54000E+03 4.54000E+03

- SOURCE INPUT DATA (CONT.) -

C A X	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 -
		7	VOLUME	35.00	120.00	3.80	0.0		STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70
									STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50
									- PARTICULATE CATEGORIES -
									1 2 3 4 5 6 7
									FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729
									MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000
									REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400
									8 9 10
									FALL VELOCITY (MPS) 0.3519 0.6940 2.9856
									MASS FRACTION 0.1000 0.1000 0.1000
									REFLECTION COEFFICIENT 0.0 0.0 0.0
									- SOURCE STRENGTHS (GRAMS) -
									SEASON 1 SEASON 2 SEASON 3 SEASON 4
									3.18000E+04 3.18000E+04 3.18000E+04
		8	VOLUME	115.00	120.00	3.80	0.0		STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70
									STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50
									- PARTICULATE CATEGORIES -
									1 2 3 4 5 6 7
									FALL VELOCITY (MPS) 0.0004 0.0025 0.0086 0.0197 0.0412 0.0877 0.1729
									MASS FRACTION 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000
									REFLECTION COEFFICIENT 1.0000 0.9000 0.7800 0.7200 0.6500 0.5300 0.3400
									8 9 10
									FALL VELOCITY (MPS) 0.3519 0.6940 2.9856
									MASS FRACTION 0.1000 0.1000 0.1000
									REFLECTION COEFFICIENT 0.0 0.0 0.0
									- SOURCE STRENGTHS (GRAMS) -
									SEASON 1 SEASON 2 SEASON 3 SEASON 4
									3.18000E+04 3.18000E+04 3.18000E+04

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED **

SEASON 1 - OCT

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	0.004020	0.001210	0.000771
350.000	0.003593	0.001130	0.000418
340.000	0.003393	0.001320	0.000111
330.000	0.003822	0.001354	0.000097
320.000	0.003686	0.001597	0.000122
310.000	0.004363	0.001549	0.000132
300.000	0.004516	0.001981	0.000135
290.000	0.005586	0.002130	0.000180
280.000	0.006999	0.003212	0.000230
270.000	0.007403	0.003479	0.000327
260.000	0.010269	0.004355	0.000419
250.000	0.010359	0.005206	0.000572
240.000	0.011103	0.005529	0.000660
230.000	0.012137	0.006587	0.000760
220.000	0.009982	0.005348	0.000727
210.000	0.009636	0.004890	0.000620
200.000	0.008983	0.004595	0.000541
190.000	0.007952	0.004262	0.000581
180.000	0.008617	0.004619	0.000628
170.000	0.007601	0.003705	0.000466
160.000	0.005924	0.002918	0.000309
150.000	0.005259	0.002464	0.000218
140.000	0.004268	0.001907	0.000251
130.000	0.004377	0.002323	0.000280
120.000	0.005182	0.002402	0.000246
110.000	0.004937	0.002353	0.000256
100.000	0.005802	0.002683	0.000239
90.000	0.005816	0.002520	0.000254
80.000	0.006551	0.003143	0.000243
70.000	0.006663	0.002628	0.000225
60.000	0.006622	0.002879	0.000194
50.000	0.006112	0.002207	0.000174
40.000	0.005691	0.002282	0.000143
30.000	0.004784	0.001646	0.000127
20.000	0.004791	0.001739	0.000196
10.000	0.004265	0.001283	0.000510

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED (CONT.) **

SEASON 2 - NOV

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

	500.000	700.000	2000.000
Y AXIS (AZIMUTH BEARING, DEGREES)		- DEPOSITION -	
360.000	0.008881	0.003778	0.000351
350.000	0.006689	0.002609	0.000247
340.000	0.005409	0.002155	0.000177
330.000	0.005501	0.002110	0.000179
320.000	0.004558	0.002161	0.000215
310.000	0.004235	0.001688	0.000188
300.000	0.003728	0.001698	0.000154
290.000	0.004167	0.001689	0.000165
280.000	0.004735	0.002296	0.000201
270.000	0.004475	0.002172	0.000245
260.000	0.005512	0.002408	0.000264
250.000	0.005201	0.002624	0.000313
240.000	0.005483	0.002717	0.000342
230.000	0.006018	0.003236	0.000383
220.000	0.005057	0.002693	0.000377
210.000	0.005360	0.002640	0.000341
200.000	0.005681	0.002919	0.000359
190.000	0.005842	0.003160	0.000456
180.000	0.007259	0.003938	0.000569
170.000	0.007311	0.003724	0.000502
160.000	0.006599	0.003367	0.000419
150.000	0.007022	0.003500	0.000382
140.000	0.006490	0.003090	0.000416
130.000	0.006933	0.003651	0.000448
120.000	0.008186	0.003748	0.000407
110.000	0.007722	0.003675	0.000423
100.000	0.009094	0.004165	0.000389
90.000	0.008841	0.003806	0.000396
80.000	0.009742	0.004592	0.000373
70.000	0.009711	0.003805	0.000348
60.000	0.009803	0.004248	0.000309
50.000	0.009335	0.003369	0.000290
40.000	0.009257	0.003762	0.000264
30.000	0.008227	0.002932	0.000250
20.000	0.009421	0.003623	0.000266
10.000	0.009446	0.003695	0.000313

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED (CONT.) **

SEASON 3 - DEC

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	0.015047	0.006502	0.000594
350.000	0.011636	0.004726	0.000434
340.000	0.008657	0.003682	0.000316
330.000	0.007678	0.003142	0.000276
320.000	0.005824	0.002873	0.000295
310.000	0.004661	0.002080	0.000236
300.000	0.003339	0.001696	0.000178
290.000	0.003254	0.001345	0.000146
280.000	0.003542	0.001708	0.000150
270.000	0.003452	0.001664	0.000176
260.000	0.004514	0.001989	0.000215
250.000	0.004360	0.002236	0.000276
240.000	0.004551	0.002260	0.000290
230.000	0.005020	0.002688	0.000311
220.000	0.004288	0.002277	0.000313
210.000	0.004417	0.002240	0.000299
200.000	0.004427	0.002293	0.000292
190.000	0.004018	0.002151	0.000302
180.000	0.004563	0.002413	0.000325
170.000	0.004481	0.002229	0.000299
160.000	0.004228	0.002185	0.000284
150.000	0.005193	0.002682	0.000315
140.000	0.005434	0.002745	0.000376
130.000	0.006464	0.003488	0.000446
120.000	0.008187	0.003855	0.000433
110.000	0.008199	0.004002	0.000473
100.000	0.010402	0.004885	0.000469
90.000	0.010762	0.004786	0.000500
80.000	0.012474	0.005933	0.000471
70.000	0.012399	0.004862	0.000422
60.000	0.012231	0.005217	0.000363
50.000	0.011128	0.004039	0.000340
40.000	0.011254	0.004615	0.000318
30.000	0.010879	0.003879	0.000318
20.000	0.014240	0.005477	0.000383
10.000	0.015482	0.006062	0.000495

ENGINEERING REPORT IN SUPPORT OF AN APPLICATION FOR A FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION AIR POLLUTION SOURCE CONSTRUCTION PERMIT FOR A PRILLED SULFUR STORAGE & HANDLING FACILITY

OCCIDENTAL CHEMICAL AGRICULATURAL PRODUCTS, INC.
SWIFT CREEK CHEMICAL COMPLEX
HAMILTON COUNTY, FLORIDA

VOLUME II
APPENDICES

APRIL 1986

SHOLTES & KOOGLER
Environmental Consultants
1213 NW 6TH ST ■ GAINESVILLE, FL 32601 ■ 904-377-5822

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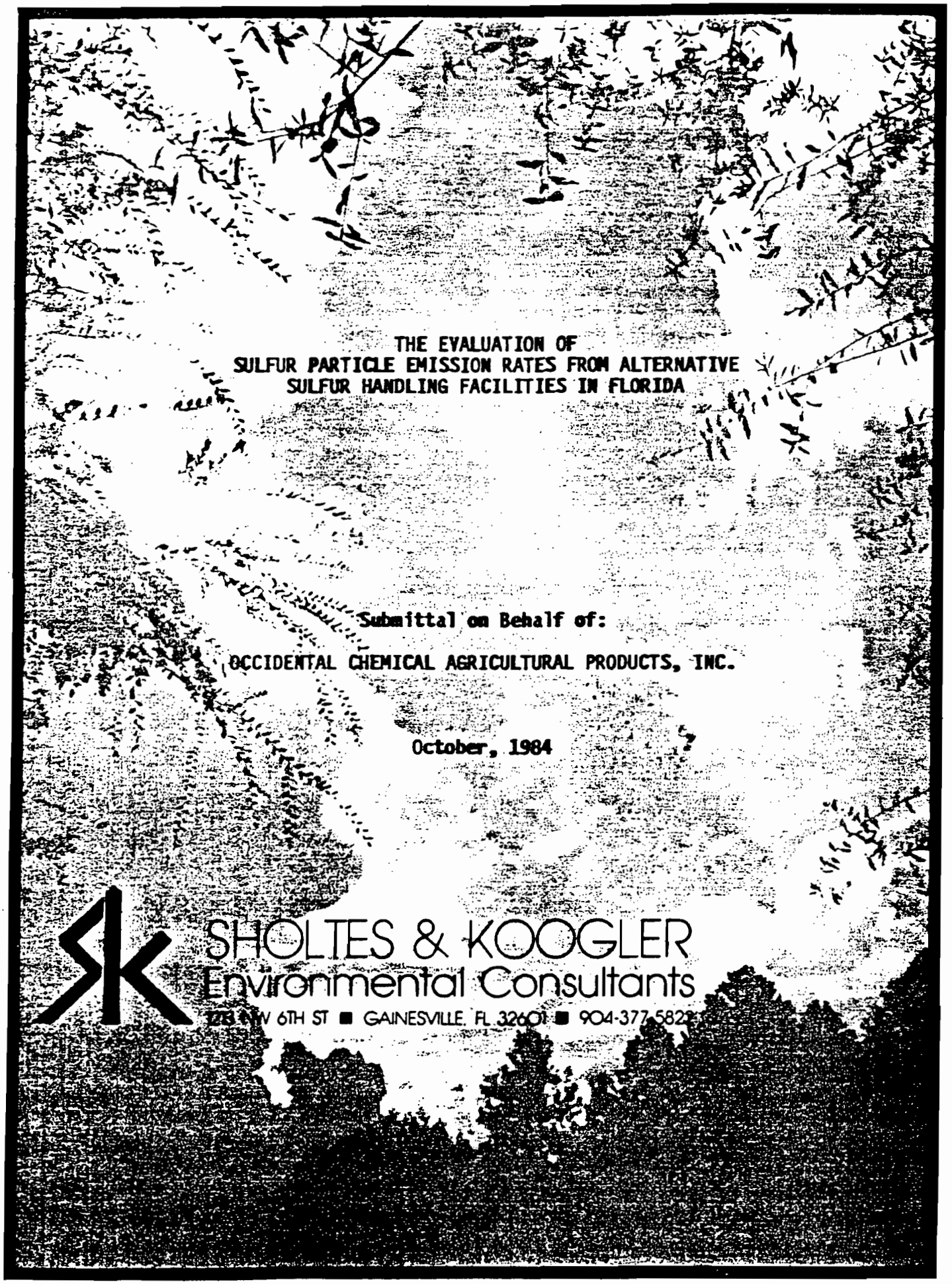
SHOLTES & KOOGLER

APPENDIX A

SILT CONTENT OF SOLID SULFUR FORMS



THE EVALUATION OF SULFUR PARTICLE EMISSION RATES FROM ALTERNATIVE SULFUR HANDLING FACILITIES IN FLORIDA

Submittal on Behalf of:

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC.

October, 1984

SHOLTES & KOOGLER
Environmental Consultants
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THE EVALUATION OF SULFUR PARTICLE EMISSION RATES FROM ALTERNATIVE SULFUR HANDLING FACILITIES IN FLORIDA

1.0 INTRODUCTION

1.1 Overview

In this report, the emission rates of sulfur particles from hypothetical sulfur handling facilities have been calculated to provide a basis for evaluating the impact of alternative solid and molten sulfur handling facilities on airborne total suspended particulate matter levels (particles less than 30 umA diameter) in the State of Florida. In all cases, it has been assumed that one million short tons (tons) of sulfur will be received at the hypothetical facilities and consumed in the State of Florida. Sulfur particle emission rates have been calculated for activities beginning with the entry of the sulfur into Florida and ending with the input of sulfur into a receiving pit or a melter at the user facility. Emissions from sulfur handling activities outside the State of Florida will not affect air quality within the state and were not reviewed in this report. It was further assumed that emissions from molten sulfur receiving pits and solid sulfur melters at the user facilities, and from subsequent activities, will be similar for all scenarios; hence emissions from these sources were not included in the comparative emission inventories.

In order to calculate fugitive particulate emissions from solid sulfur handling activities when sulfur is received and handled in Florida, certain physical properties of the sulfur had to be established. These physical properties are the moisture content of the sulfur and the silt content of the sulfur; that is, the fraction of particles, determined by dry sieving, that are less than 74 micrometers in diameter[1]. The moisture content of the solid sulfur as received in Florida was estimated to be 1.6 percent. This moisture fraction was based upon a 1.85 percent moisture content for sulfur shipped from Pacific Coast Terminals and Vancouver Wharves in Vancouver Canada during the calendar year 1981[2] and the fact that moisture contents of solid sulfur shipments from these facilities have been reduced since 1981 by the replacement of water sprays with a foam spray system for dust suppression[3]. The foam spray systems effectively supress dust with the addition of less moisture than water sprays.

The silt content of the solid sulfur received in Florida will be dependent upon the type of formed sulfur received. Based on present shipping practices of Canadian sulfur exporters, it has been assumed that the "solid" sulfur received in Florida will be a mixture of 50 percent slate and 50 percent air formed prills. This assumption is based on personal communications with the management of Pacific Coast Terminals[3] and the fact that less than 5 percent of the present sulfur forming capacity in Canada is for wet formed prills[4]. The mixture of

slate and air formed prills will also provide a conservative high estimate of sulfur particle emissions from solid sulfur handling facilities.

To establish the silt content of a mixture of 50 percent slate and 50 percent air formed prilled sulfur, information on particle size distributions of various types of formed sulfur were compiled from the Florida Department of Environmental Regulation (FDER) Elemental Sulfur Rulemaking Investigation Record (FDER docket No. 84-14R). These data are summarized in Table 1 and in Figure 1. These data show that air formed prilled sulfur will have a silt content of 0.75 percent, as received, and that slate sulfur will have a silt content of approximately 3.0 percent, as received. Based upon these data, it was reasonably estimated that the silt content of the solid sulfur received in Florida will be 2.0 percent (Also see Appendix A).

The size of all sulfur particles resulting from the condensation of sulfur vapor from molten sulfur was estimated to be less than 30 umA diameter since condensation is a forming mechanism that results in small particle sizes. The silt content of solid sulfur from vatted sulfur storage facilities is based upon sieve analyses performed by the Midwest Research Institute (MRI) as summarized in Table 2.

1.2 Summary

The sulfur handling scenarios that were evaluated and the estimated emission rates of sulfur particles (less than 30 umA diameter) from each are:

Scenario I - Solid Sulfur Received at Seaport Facility

The transport of one million tons of solid sulfur into Florida by ship; the storage of 150,000 tons of solid sulfur at the port terminal in open storage; recovery from open storage by front-end loader; and truck transport to a user site for melting and use. The estimated annual emission rate of sulfur particles from this scenario was calculated to be 11.01 tons per year.

Scenario II - Solid Sulfur Received by Rail at a User Facility

The transport of one million tons of solid sulfur into Florida by rail with direct delivery to a user site; open storage for inventory of 150,000 tons of solid sulfur at the user site; the remelt of solid sulfur, as received by rail, under normal operating conditions; and the remelt of solid sulfur from inventory during interruptions in solid sulfur

shipments. The estimated annual emission rate of sulfur particles from this scenario was calculated to be 2.64 tons per year.

Scenario III - Molten Sulfur Received at Seaport Facility

The transport of one million tons of molten sulfur into Florida by ship; port terminal storage of 100,000 tons of molten sulfur and truck shipment to a user site for use. The estimated annual emission rate of sulfur particles from this scenario was calculated to be 14.14 tons per year.

Scenario IV - Molten Sulfur Received by Rail at a User Facility with Vatting and Mechanical Reclamation

The transport of one million tons of molten sulfur into Florida by rail with direct delivery to a user site; the vatting of 150,000 tons per year of molten sulfur for inventory followed by mechanical reclamation and on-site melting; and the immediate use of 850,000 tons per year of the molten sulfur, as received by rail shipment. The estimated annual emission rate of sulfur particles from this scenario was calculated to be 4.64 tons per year.

The calculations of sulfur particle emission rates from the four hypothetical facilities were made using fugitive particulate emission factor equations adopted and published by the U.S. Environmental Protection Agency (EPA)[1] and emission factor data for molten sulfur storage tanks published in the FDER Draft Sulfur Report[5]. The calculations are presented in the following Sections of this report along with facility design criteria and emission limiting practices assigned to each facility to reduce environmental impacts. It should be recognized that the design criteria and emission limiting practices, which represent current good design practices for new solid bulk material handling facilities, can be enforceable permit conditions; e.g. the use of foam sprays, wind-walls, controlled vehicle speeds, etc.

TABLE 1

FINES (<50 MESH) CONTENT OF VARIOUS FORMS OF SOLID SULFUR AFTER LEVEL II FRIABILITY TEST (1) (2)

Type Of Material	Product	Fines Content (<50 mesh by %)		Estimated Field	
		Stress Level II	Field Measurement	Fines Content (%) (3)	Silt Content (%) (5)
Air Prills	Polish	1.1	2.9	2.9	0.7
Air Granules	Pec	1.7	3.7	3.7	0.9
Wet Prills	Litwin	4.1		6.1	1.7
	Cambrian	4.7	6.4	6.4	1.8
	PVC (4)	5.6 - 5.9		7.8	2.2
	Chemsource	6.2		8.2	2.4
	Hydroprills	5.3		7.3	2.1
	Sulpel	5.3	6.5	6.5	1.9
Wet Agglomerates	Liquid Terminals	6.0 - 10.3	---	8.2	2.4
	Popcorn	12.7		14.7	3.0
Slate	Slate	10.2	9.0 - 9.6 (6)	9.3	5.0

(1) Data from FDER elemental sulfur rulemaking investigation record (FDER docket No. 84-14R).

(2) Level II friability test defined by Raymont in the paper Evaluation of Formed Sulfur Product For Transportation and Handling: Detailed Performance Testing, as a test "to reproduce more closely the degradation which commonly occurs in live transportation and handling systems".

(3) In the SUDIC paper Sulfur Forms and Forming Processes, June 1977, the observed fines content in the field can be best estimated by: stress Level II fines (%) + 2%.

(4) Proposed by Agrico Chemical Company.

(5) Silt = particle, passing 200 mesh sieve by dry sieving; data estimated from Figure 1.

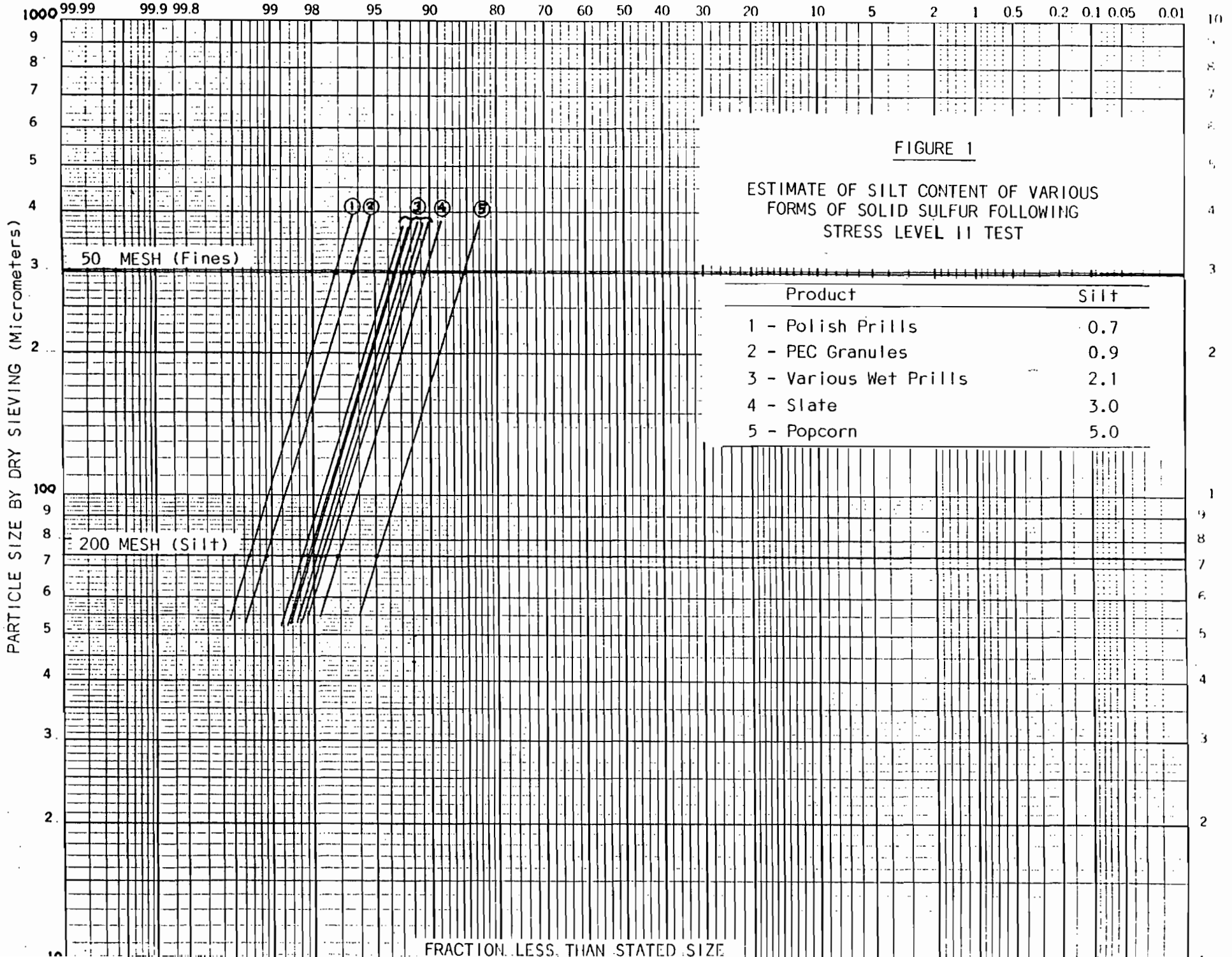
(6) Slate as received in Australia from document entitled Summary of Sulfur Forms in FDER elemental sulfur rulemaking investigation record (FDER docket No. 84-14R).

TABLE 2

RESULTS OF MRI LABORATORY ANALYSIS OF SOLID SULFUR SAMPLES

Sample No.	Date Obtained	Sampling Site	Solid Sulfur Form	Sampling Location	Moisture (%)	Silt (%)
1B	2/83	Texas Gulf Sulfur Beaumont, Texas	Mechanically reclaimed sulfur	Loose pile		6.3 (Split #1) 6.6 (Split #2) 6.2 (Split #3)
2A	2/83	↓	↓	Ramp to melter		10.0 (Split #1) 9.0 (Split #2) 10.5 (Split #3)
AK-1	4/17/84	California Sulfur, Wilmington, California	Water-formed prill	Loose pile after 5 transfers	2.7	0.44
AK-2	4/18/84	↓	↓	Loose pile after 9 transfers	2.2	1.0
AK-3	4/18/84	↓	↓	Loose pile after 12 transfers	1.7	2.5
AK-4	4/18/84	↓	↓	Loose pile after 15 transfers	1.4	2.1
AK-5	4/19/84	↓	↓	Loose pile after 16 transfers	1.7	1.9
AK-6	4/19/84	↓	↓	Loose pile after 17 transfers	1.1	2.3
AK-7	4/20/84	↓	↓	Spillage from paved travel area		5.2
AK-8	4/20/84	↓	↓			7.0
AK-9	4/20/84	↓	↓	Residual spillage from paved travel area, after sweeping		4.8
PC-1	5/30/84	Pacific Coast Terminals, Port Moody, British Columbia	Air-prilled sulfur	Conveyor from rail car dumper to storage pile	1.68 (Split #1) 1.71 (Split #2)	0.19
CE-1	5/31/84	Canterra Energy (Ram River Gas Plant), Rocky Mount House, Alberta	Mechanically reclaimed sulfur	East end of main block - traveled area	3.33 (Split #1) 3.23 (Split #2)	9.1
CE-2	5/31/84	↓	↓	↓	8.22 (Split #1) 10.21 (Split #2)	11.9
CE-3	5/31/84	↓	↓	East end of main block - material removed by backhoe within previous 30 days	5.88 (Split #1) 5.15 (Split #2)	4.9
JK		Shell Plant (Phinzr Creek) Alberta, Canada	Air-prilled sulfur		0.07	0.012
B-3		Gulf Plant (Strachan) Alberta, Canada	↓		0.12	0.023
B-4		↓	↓		0.10	0.027

K•E PROBABILITY X 2 LOG CYCLES
KEUFFEL & ESSER CO MADE IN U.S.A.
46 8040



APPENDIX A

Characteristics of Ship Off-Loaded Solid Sulfur Received at a Foreign Port

CHARACTERISTICS OF SHIP OFF-LOADED SOLID SULFUR RECEIVED AT A FOREIGN PORT

On October 4, 1984, Occidental received a sample of solid sulfur, consisting of a mixture of air formed prills and slate, that had been shipped by Cansulex from Vancouver, British Columbia, Canada to Antwerp, Belgium. The sample was collected by Linda Bogareres of Interore, under arrangements made by Occidental. The sample was sent by Lufthansa air freight to Sholtes & Koogler, Environmental Consultants (SKEC) in Gainesville, Florida. The sample was collected after the sulfur was off-loaded from the ship and placed in a 20,000 tonne storage pile. The sample was collected at points mid-way up the pile after the sulfur at the pile surface had been scraped away.

The sample, as received, was sealed in a single heavy plastic bag. The sample weight was approximately 10 kilograms. A visual inspection of the sample indicated it consisted of approximately 50 percent slate sulfur and 50 percent air formed prilled sulfur.

The sample was opened, mixed and quartered to produce two samples of approximately 285 grams each for moisture determination. These samples were placed in aluminum lined pans and dried at 176°F for 12 hours by SKEC. The moisture content of the sample averaged 1.42 percent. The data are presented in the Table below.

Moisture Analysis of Mixed Air Formed Prill Slate Sulfur

Sample	Tare	Sample Weights (grams) Initial	Final	Dry Sulfur	Moisture Loss (grams)	(%)
1	240.0	529.0	525.0	285.0	4.0	1.40
2	342.6	633.0	628.9	286.3	4.1	1.43
Avg.						1.42

The two dried solid sulfur samples were combined and sealed in a plastic bag and delivered to the laboratory of CH2M Hill in Gainesville, Florida for selve analysis. The results of the analyses are presented in the attached data sheet and are shown graphically in Figure A-1. Figure A-1 is a modification of Figure 1, appearing in the accompanying report.

The measured silt content (the fraction of sample passing a 200 mesh selve during dry selving) of the sample was 0.50 percent. This is after (1) production in Alberta, Canada; (2) storage at the production facility; (3) recovery from storage and railcar loading at the production facility; (4) a 700-800 mile rail journey to Vancouver; (5) railcar off-loading at Vancouver and placement into storage; (6) recovery from storage and loading to ship in Vancouver; (7) a 12,000 mile ocean voyage to Antwerp, Belgium; (8) ship off-loading; (9)

placement in storage; (10) sample collection and air transport from Europe to the United States and (11) handling in the United States Customs Office.

When the average selve data for the slate and air formed prill mixture are plotted in Figure 1 with the sulfur size distribution data compiled from the FDER elemental rulemaking record (FDER Rulemaking Docket No. 84-14R), it6 will be noted that the size distribution of the slate/prill mixture follows the reported sulfur size distributions between 840 micrometers and 105 micrometers and then tails off indicating a silt content that is lower than that which would be predicted by the reported size distributions.

If the size distribution of the slate/prill mixture is extrapolated along the straight line (log-normal) distribution measured between 840 micrometers and 105 micrometers; the same straight line (log-normal) size distribution reported for the several other forms of solid sulfur, a silt content of 1.7 percent is projected. The extrapolated silt content of 1.7 percent is still less than the 2.0 percent silt content estimated for the mixture of slate and air formed prilled sulfur handled in Scenarios I and II. This is the case even though the 1.7 percent silt content is a conservatively high estimate of the silt content of a slate and air formed prill mixture of sulfur that

has undergone more severe handling during actual solid sulfur transport activities than the slate and air formed prill mixture considered for Scenarios I and II.

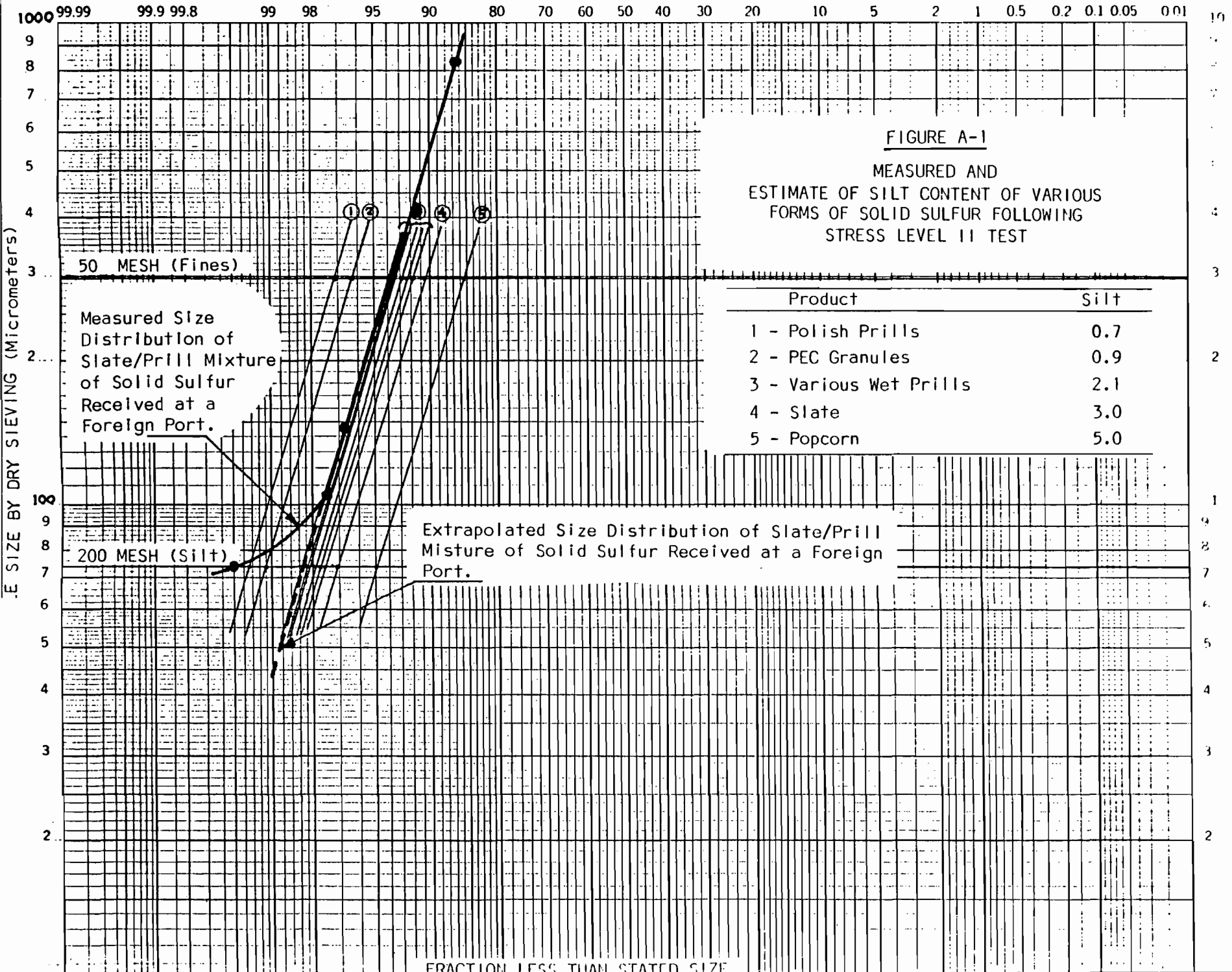


FIGURE A-1

MEASURED AND
ESTIMATE OF SILT CONTENT OF VARIOUS
FORMS OF SOLID SULFUR FOLLOWING
STRESS LEVEL II TEST

Product	Silt
1 - Polish Prills	0.7
2 - PEC Granules	0.9
3 - Various Wet Prills	2.1
4 - Slate	3.0
5 - Popcorn	5.0

CHEMFILL

PROJECT NUMBER

SIEVE ANALYSIS

ASTM D422 C136

PROJECT DESCRIPTION: Fill/Site 1 -

MATERIALS LABORATORY:

SAMPLE LOCATION: SAMPLE NO.

TYPE OF SAMPLE:

GROSS WET MASS TOTAL SAMPLE TARE MASS PAN NO. NET WET MASS TOTAL SAMPLE

GROSS DRY MASS TOTAL SAMPLE 643.0g TARE MASS 332.2g PAN NO. NET DRY MASS TOTAL SAMPLE, A 310.8g

COARSE FRACTION: NET WET MASS MOISTURE, % NET DRY MASS

STANDARD SIEVE DESIGNATION	GROSS MASS	TARE MASS	NET MASS RETAINED		PERCENT RETAINED		ACCUMULATIVE PERCENT PASSING	SPECIFICATIONS
			INDIVIDUAL	ACCUMULATIVE	INDIVIDUAL	ACCUMULATIVE		
4	507.7g	520.6g	77.1	77.1	24.8	24.8	75.2	
20 (840um)	642.2g	448.2g	194.0	271.1	62.4	87.2	12.8	
40 (420um)	492.1g	479.3g	13.8	284.9	4.4	91.6	8.4	
100 (149um)	373.9g	355.5g	18.4	303.3	5.9	97.5	2.5	
140 (105um)	344.2g	342.1g	2.1	305.4	0.7	98.2	1.8	
200 (74um)	460.9g	456.1g	4.8	310.2	1.5	99.7	0.3	
PAN	407.0g	496.8g	0.2	310.4				

FINE FRACTION: NET WET MASS MOISTURE, % NET DRY MASS, C

DRY MASS SPLIT PORTION PRIOR TO WASH, D

DRY MASS FINE FRACTION AFTER WASH

CONVERSION FACTOR, F $\frac{C}{D}$

STANDARD SIEVE DESIGNATION	INDIVIDUAL GROSS MASS	TARE MASS	NET MASS RETAINED			PERCENT RETAINED		ACCUMULATIVE PERCENT PASSING	SPECIFICATIONS
			INDIVIDUAL, E (AS RECORDED)	(F)	INDIVIDUAL (TOTAL BASIS)	INDIVIDUAL	ACCUMULATIVE		

MOISTURE CONTENT DATA	UNITS		
CAN NO			
GROSS WET MASS			
GROSS DRY MASS			
MOISTURE MASS			
TARE MASS			
DRY SOIL MASS			
MOISTURE CONTENT	%		

REMARKS:

NOTES:
1. SHOW UNITS OF MEASUREMENT.

TESTED BY:	DATE:	COMPUTED BY:	DATE:	CHECKED BY:	DATE:

CHEM HILL

PROJECT NUMBER

SIEVE ANALYSIS

ASTM D422 C117

PROJECT DESCRIPTION: P.111 / Site 2 -

MATERIALS LABORATORY:

SAMPLE LOCATION: SAMPLE NO.

TYPE OF SAMPLE:

GROSS WET MASS TOTAL SAMPLE TARE MASS PAN NO. NET WET MASS TOTAL SAMPLE

GROSS DRY MASS TOTAL SAMPLE 591.6g. TARE MASS 332.3g PAN NO. NET DRY MASS TOTAL SAMPLE, A 259.4g

COARSE FRACTION: NET WET MASS MOISTURE, % NET DRY MASS

STANDARD SIEVE DESIGNATION	GROSS MASS	TARE MASS	NET MASS RETAINED		PERCENT RETAINED		ACCUMULATIVE PERCENT PASSING	SPECIFICATIONS
			INDIVIDUAL	ACCUMULATIVE	INDIVIDUAL	ACCUMULATIVE		
4	576.7g.	520.6g.	56.1	56.1	21.6	21.6	78.4	
20	614.9g.	448.2g.	166.7	222.8	64.3	85.9	14.1	
40	492.3g.	479.3g.	13.0	235.8	5.0	90.9	9.1	
100	369.3g.	355.5g.	13.8	249.6	5.3	96.2	3.8	
140	343.8g.	342.1g.	1.7	251.3	0.7	96.9	3.1	
200	462.4g.	456.1g.	6.3	257.6	2.4	99.3	0.7	
PAN	407.3g.	406.8g.	0.5	258.1				

FINE FRACTION: NET WET MASS MOISTURE, % NET DRY MASS, C

DRY MASS SPLIT PORTION PRIOR TO WASH, D

DRY MASS FINE FRACTION AFTER WASH

CONVERSION FACTOR, F $\frac{C}{D}$

STANDARD SIEVE DESIGNATION	INDIVIDUAL GROSS MASS	TARE MASS	NET MASS RETAINED			PERCENT RETAINED		ACCUMULATIVE PERCENT PASSING	SPECIFICATIONS
			INDIVIDUAL, E (AS RECORDED)	(F)	INDIVIDUAL (TOTAL BASIS)	INDIVIDUAL	ACCUMULATIVE		

MOISTURE CONTENT DATA	UNITS		
CAN NO			
GROSS WET MASS			
GROSS DRY MASS			
MOISTURE MASS			
TARE MASS			
DRY SOIL MASS			
MOISTURE CONTENT	%		

REMARKS:

NOTES:
1. SHOW UNITS OF MEASUREMENT.

TESTED BY:	DATE:	COMPUTED BY:	DATE:	CHECKED BY:	DATE:

LAB FORM D422A - 2/78

APPENDIX B

BACKGROUND TOTAL SUSPENDED
PARTICULATE MATTER LEVELS AT
THE SWIFT CREEK CHEMICAL COMPLEX

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC.
REPLY TO REQUEST FOR ADDITIONAL INFORMATION BY FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION DATED AUGUST 20, 1985 APPLICATION TO MODIFY PERMIT NO. AC24-61435

OCTOBER 28, 1985

SHOLTES & KOOGLER,
ENVIRONMENTAL CONSULTANTS
1213 NW 6TH STREET
GAINESVILLE, FLORIDA 32601
(904) 377-5822

SHOLTES & KOOGLER

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FDER Request 17

The most recent data, 1984, from the particulate monitoring site 1660-015 indicates a high second-high 24-hour average concentration of 107 micrograms per cubic meter and an annual geometric mean of 38 micrograms per cubic meter. The background values used in the modeling analysis were 90 micrograms per cubic meter, 24-hour average and 33 micrograms per cubic meter, annual average. Since no other existing sources were included in the modeling, these background values were presumably accounting for those sources. This cannot be done because the monitor is probably not measuring the maximum impact from the existing sources. All existing and proposed sources should be included in the modeling. The most recent year of monitoring data should then be used as background to be added to the model results. If need be, the monitoring data may be screened to delete data which includes the impact of the facility.

Response

The Swift Creek Chemical Complex produces sulfuric acid, phosphoric acid and superphosphoric acid. The sulfuric acid is produced by burning sulfur which is delivered molten to the facility or, as

proposed, by burning sulfur which has been mechanically reclaimed from the sulfur vats and melted. As discussed above, sulfur reclamation will not occur when molten sulfur is being delivered and unloaded from tank cars.

The phosphoric acid is produced by reacting the sulfuric acid with wet phosphate rock and the superphosphoric acid is produced by evaporating the phosphoric acid using steam from the sulfuric acid plants.

The only sources of particulate matter at Swift Creek Chemical Complex that may operate at the same time that sulfur is being reclaimed, are two small bag collectors associated with the superphosphoric acid plants (FDER Permit A024-34852). These sources are active only a few hours per week when the silos are being filled with lime or filter media. The emission rate from these baghouses, combined, is less than 0.5 pounds per hour and, as stated, the time of emissions is limited to a few hours per week. Wet rock is supplied from the Swift Creek Mine Beneficiation Plant to the Swift Creek Chemical Complex phosphoric acid plants thus eliminating the necessity of drying phosphate rock and eliminating the rock dryer as a source of particulate matter.

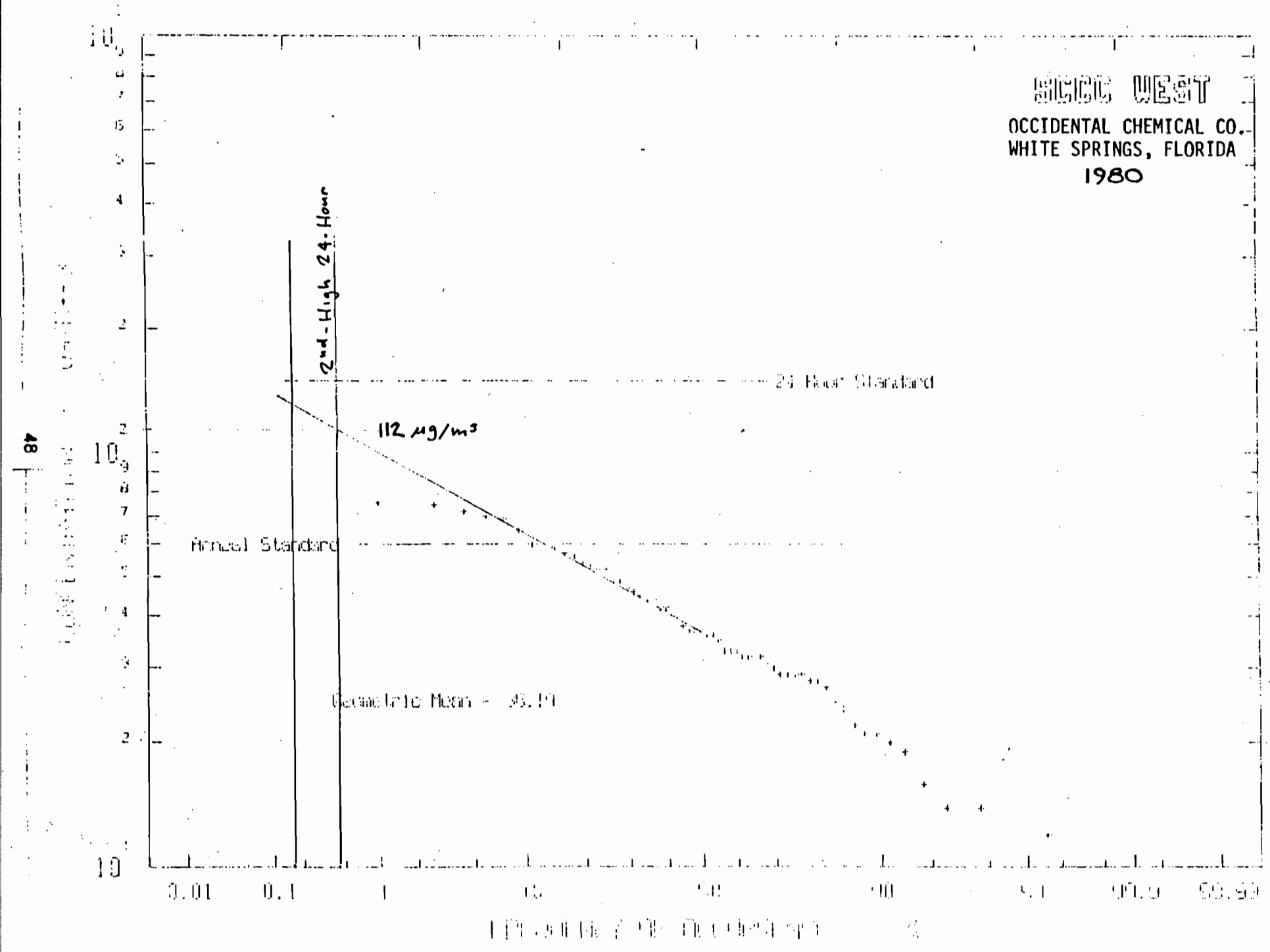
Since there are no sources of particulate matter at the Swift Creek Chemical Complex that are of significance, the total suspended particulate matter levels measured at monitoring sites near the Swift Creek Chemical Complex represent the best estimate of background total suspended particulate matter levels in the vicinity of the Swift Creek Chemical Complex.

Total suspended particulate matter data collected at the monitoring site shown in Figure 4-1 of Occidental's July 12, 1985 report to the Department have been reviewed for the period January 1980 through August 1984. Monitoring was discontinued in August 1984 because of logging operations in the area and has only recently been reactivated. These data have been summarized graphically and are presented in attached Figures 17-1 through 17-5.

The figures represent the annual frequency distributions of the total suspended particulate matter levels and include an extrapolation of the second-highest 24-hour concentration expected at the monitoring site each year assuming that monitoring occurred 365 days per year. Based upon these data and the associated extrapolations, the highest second-high 24-hour total suspended particulate matter level expected in the vicinity of the Swift Creek Chemical Complex is 112 micrograms per cubic meter (from the 1980 monitoring data). The maximum annual

geometric mean total suspended particulate matter level at the monitoring site is 36 micrograms per cubic meter; also measured in 1980. If these background concentrations are added to the revised sulfur particle impacts reported in response to FDER Request 15 (Table 15-1) the maximum 24-hour total suspended particulate matter level expected at the nearest Occidental property line (0.7 kilometers from the sulfur storage area) will be 127 micrograms per cubic meter. The maximum 24-hour total suspended particulate matter level at U.S. Highway 41, the point at which the general public normally has the closest access to the Swift Creek Chemical Complex, will be 115 micrograms per cubic meter. These total suspended particulate matter levels compare with the 24-hour Florida Ambient Air Quality Standard for particulate matter of 150 micrograms per cubic meter, not to be exceeded more than once per year.

The maximum annual total suspended particulate matter level at the nearest Occidental property line and at U.S. Highway 41 will be 36 micrograms per cubic meter; or no significant increase over background.



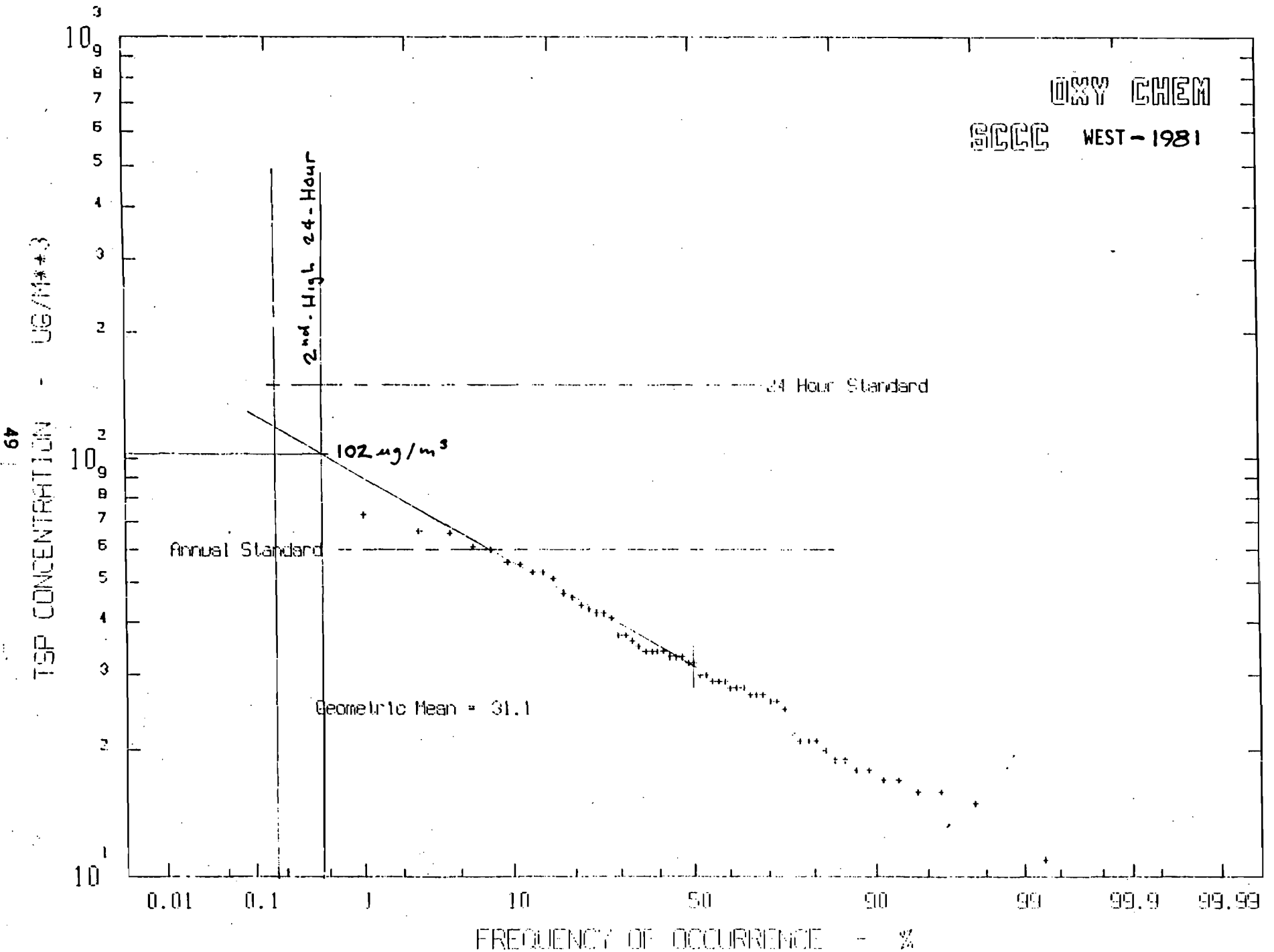
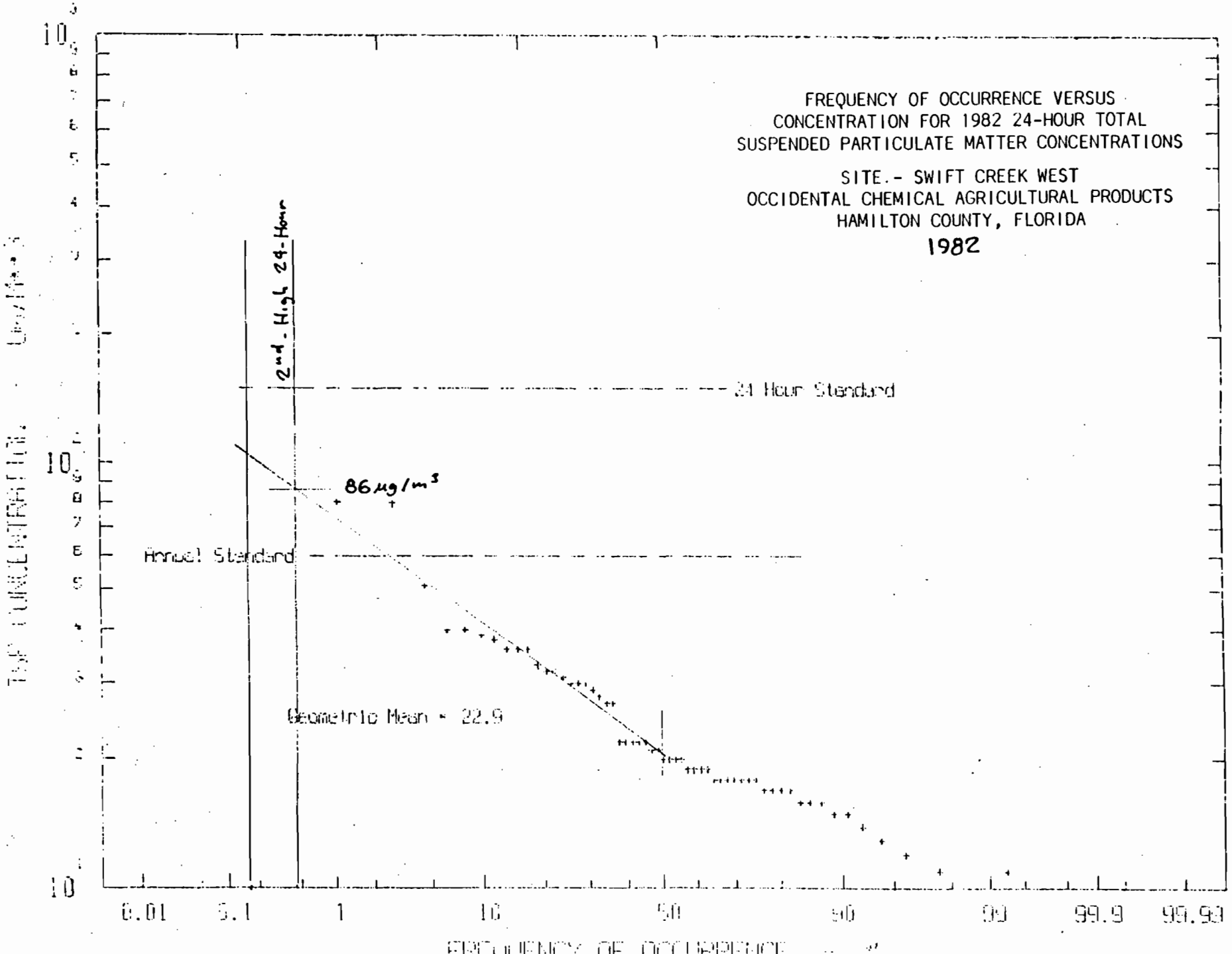
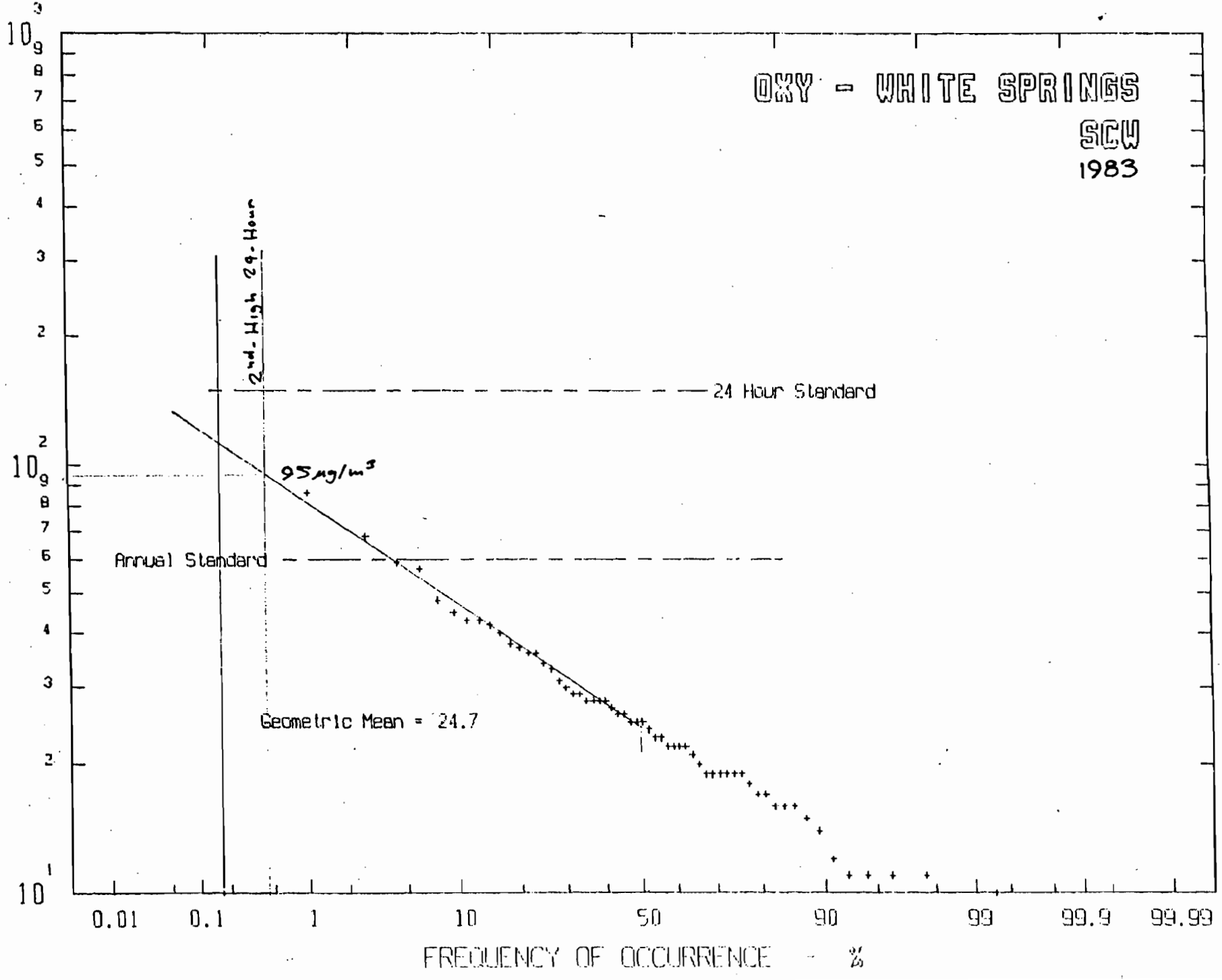
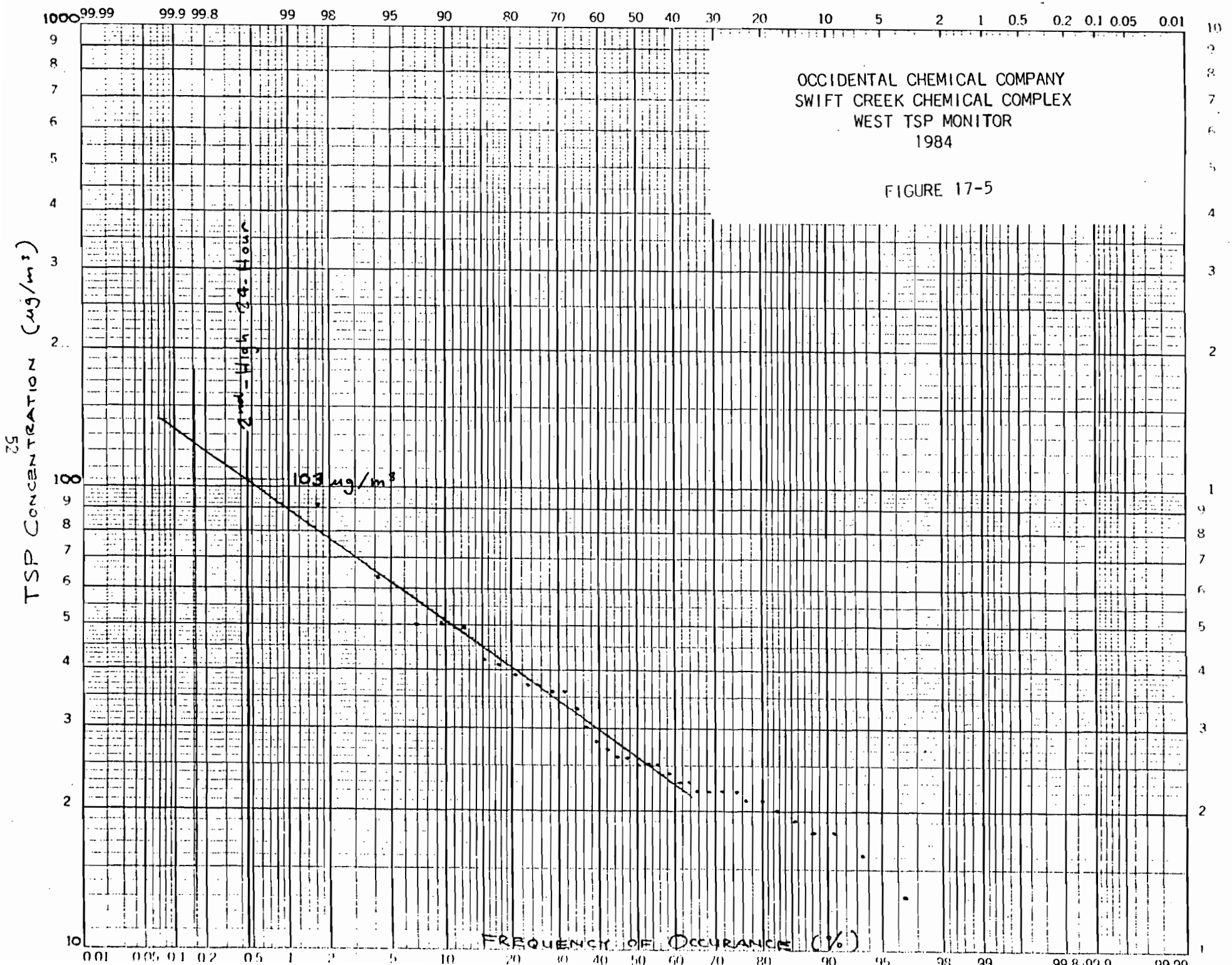


FIGURE 17-2







APPENDIX C

AIR QUALITY MODELING TO EVALUATE THE 24-HOUR IMPACT OF SUSPENDED PARTICULATE MATTER EMISSIONS FROM SOLID SULFUR FACILITIES

OXY76

J6524A

*A	START	JOB	6524	OXY76	1	001	001	NER	OXY	SULFUR	80001046.015	4.04.51	AM	01APR86	PRINTER6	NER1	START	A*
*A	START	JOB	6524	OXY76	1	001	001	NER	OXY	SULFUR	80001046.015	4.04.51	AM	01APR86	PRINTER6	NER1	START	A*
*A	START	JOB	6524	OXY76	1	001	001	NER	OXY	SULFUR	80001046.015	4.04.51	AM	01APR86	PRINTER6	NER1	START	A*
*A	START	JOB	6524	OXY76	1	001	001	NER	OXY	SULFUR	80001046.015	4.04.51	AM	01APR86	PRINTER6	NER1	START	A*
*A	START	JOB	6524	OXY76	1	001	001	NER	OXY	SULFUR	80001046.015	4.04.51	AM	01APR86	PRINTER6	NER1	START	A*
*A	START	JOB	6524	OXY76	1	001	001	NER	OXY	SULFUR	80001046.015	4.04.51	AM	01APR86	PRINTER6	NER1	START	A*
*A	START	JOB	6524	OXY76	1	001	001	NER	OXY	SULFUR	80001046.015	4.04.51	AM	01APR86	PRINTER6	NER1	START	A*
*A	START	JOB	6524	OXY76	1	001	001	NER	OXY	SULFUR	80001046.015	4.04.51	AM	01APR86	PRINTER6	NER1	START	A*
*A	START	JOB	6524	OXY76	1	001	001	NER	OXY	SULFUR	80001046.015	4.04.51	AM	01APR86	PRINTER6	NER1	START	A*
*A	START	JOB	6524	OXY76	1	001	001	NER	OXY	SULFUR	80001046.015	4.04.51	AM	01APR86	PRINTER6	NER1	START	A*
*A	START	JOB	6524	OXY76	1	001	001	NER	OXY	SULFUR	80001046.015	4.04.51	AM	01APR86	PRINTER6	NER1	START	A*
*A	START	JOB	6524	OXY76	1	001	001	NER	OXY	SULFUR	80001046.015	4.04.51	AM	01APR86	PRINTER6	NER1	START	A*
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*A	START	JOB	6524	OXY76	1	001	001	NER	OXY	SULFUR	80001046.015	4.04.51	AM	01APR86	PRINTER6	NER1	START	A*
*A	START	JOB	6524	OXY76	1	001	001	NER	OXY	SULFUR	80001046.015	4.04.51	AM	01APR86	PRINTER6	NER1	START	A*

N.E.R.D.C. NEWS: 3/28/86 9:43:08

-THE GOULD PLOTTER WILL BE UNAVAILABLE UNTIL FURTHER NOTICE DUE TO MECHANICAL FAILURE. CALL DAVE POKORNEY AT 904/392-4601, SUNCOM 622-4601 FOR MORE INFORMATION.
-SAS VERSION 5 BUGS HAVE BEEN FIXED. SEE MEMOS 86072.1, 86073.1, AND 86078.2 FOR MORE INFORMATION.
-THE I & R USERS COMMITTEE IS ACCEPTING APPLICATIONS FOR MEMBERSHIP UNTIL APRIL 18. SEE MEMO 86064.1 FOR MORE INFORMATION. (DEL)

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) = 1
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) = 1
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) = 0
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) = 0
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
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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
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NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)	NGROUP = 3
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)	IPERD = 0
NUMBER OF X (RANGE) GRID VALUES	NXPNTS = 3
NUMBER OF Y (THETA) GRID VALUES	NYPNTS = 36
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 = 10.00 METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA	IMET = 9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION	DECAY =0.000000E+00
SURFACE STATION NO.	ISS = 93845
YEAR OF SURFACE DATA	ISY = 76
UPPER AIR STATION NO.	IUS = 13861
YEAR OF UPPER AIR DATA	IUY = 76
LOGICAL UNIT OF CALCULATION 'SAVE' TAPE	ITAP = 3
ALLOCATED DATA STORAGE	LIMIT = 43500 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MIMIT = 5739 WORDS

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976 ***

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

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1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

*** NUMBER OF SOURCE NUMBERS REQUIRED TO DEFINE SOURCE GROUPS ***
(NSOGRP)

6, 4, 2,

*** SOURCE NUMBERS DEFINING SOURCE GROUPS ***
(IDSOR)

1, -8, 11, -14, 21, -24, 6, -8, 11, -24, 6, -24,

*** 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

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976 ***

*** 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

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

500.0, 700.0, 2000.0,

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

(DEGREES)

10.0,	20.0,	30.0,	40.0,	50.0,	60.0,	70.0,	80.0,	90.0,	100.0,
110.0,	120.0,	130.0,	140.0,	150.0,	160.0,	170.0,	180.0,	190.0,	200.0,
210.0,	220.0,	230.0,	240.0,	250.0,	260.0,	270.0,	280.0,	290.0,	300.0,
310.0,	320.0,	330.0,	340.0,	350.0,	360.0,				

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976 ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	1	0	5	0.19000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
2	1	0	5	0.63000E-01	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
3	1	0	5	0.11000E-01	52.0	63.0	0.0	6.00	1.40	1.40	0.00	0.00	0.00	0.00
4	1	0	5	0.30200E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
5	1	0	5	0.33000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
6	1	0	5	0.10000E-02	52.0	63.0	0.0	4.00	3.60	1.10	0.00	0.00	0.00	0.00
7	1	0	5	0.38400E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
8	1	0	5	0.38400E+00	115.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
9	2	0	5	0.93400E-04	25.0	0.0	0.0	5.00	0.00	32.00	0.00	0.00	0.00	0.00
10	2	0	5	0.29800E-03	25.0	82.0	0.0	6.00	0.00	39.50	0.00	0.00	0.00	0.00
11	1	0	5	0.50000E-02	381.0	69.0	0.0	12.20	300.00	20.20	1.22	0.00	0.00	0.00
12	1	0	5	0.80000E-02	396.0	58.0	0.0	4.60	4.30	10.60	0.00	0.00	0.00	0.00
13	0	0	5	0.15000E-01	465.0	108.0	0.0	15.20	300.00	1.00	1.00	0.00	0.00	0.00
14	0	0	5	0.17600E+00	442.0	99.0	0.0	6.10	300.00	1.00	1.00	0.00	0.00	0.00
15	1	0	5	0.15900E+00	366.0	152.0	0.0	3.00	2.80	7.10	0.00	0.00	0.00	0.00
16	0	0	5	0.90000E-02	381.0	146.0	0.0	2.40	300.00	1.00	1.00	0.00	0.00	0.00
17	0	0	5	0.10000E-02	381.0	146.0	0.0	1.20	300.00	1.00	1.00	0.00	0.00	0.00
18	0	0	5	0.10000E-02	366.0	142.0	0.0	1.20	300.00	1.00	1.00	0.00	0.00	0.00
19	0	0	5	0.10000E-02	308.0	53.0	0.0	6.10	300.00	1.00	1.00	0.00	0.00	0.00
20	1	0	5	0.10000E-02	52.0	63.0	0.0	3.00	4.30	2.10	0.00	0.00	0.00	0.00
21	1	0	5	0.29500E+00	320.0	180.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00
22	1	0	5	0.29600E+00	381.0	131.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00
23	1	0	5	0.29600E+00	439.0	66.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00
24	1	0	5	0.29600E+00	497.0	30.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 1 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 2 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 3 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 4 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 5 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 6 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 7 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 8 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 9 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** DXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 10 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 11 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 12 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 13 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 14 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 15 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 16 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 17 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 18 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 19 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 20 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 21 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 22 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 23 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 24 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE NO. = 1											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 2											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 4											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 9											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 10											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY WITH STABILITY AND WIND SPEED *

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
SOURCE NO. = 7						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 8						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 21						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 22						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 23						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY WITH STABILITY AND WIND SPEED *

SOURCE NO. = 24 STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01

*** OXY DRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976 ***

* SOURCE-RECEPTOR COMBINATIONS LESS THAN 100 METERS OR THREE BUILDING HEIGHTS IN DISTANCE. NO AVERAGE CONCENTRATION IS CALCULATED *

SOURCE NUMBER	- - RECEPTOR LOCATION - - X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)	DISTANCE BETWEEN (METERS)
12	500.0	80.0	77.83
12	500.0	90.0	96.29
13	500.0	70.0	63.20
13	500.0	80.0	34.63
14	500.0	70.0	77.21
14	500.0	80.0	51.85
15	500.0	70.0	90.31
16	500.0	70.0	92.30
17	500.0	70.0	92.30
21	500.0	60.0	94.88
22	500.0	60.0	91.82
22	500.0	70.0	59.38
22	500.0	80.0	81.79
23	500.0	70.0	71.39
23	500.0	80.0	19.27
23	500.0	90.0	51.82
24	500.0	80.0	18.95
24	500.0	90.0	-7.91
24	500.0	100.0	78.86

ISCST POST PROCESSOR VERSION 16-AUG-85

OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976

ISW(26) = 0 CALMS WILL BE CONSIDERED.

CONTRIBUTION LEVEL IS: 0.2000E-08 MICROGRAMS/CUBIC METER

NOTES:

THE NUMBER OF HOURS USED TO CALCULATE THE CONCENTRATIONS ARE SHOWN WITH THE DAY AND PERIOD, E.G., 1.23456 (103, 1,23)

ISC CALMS
PROCESSOR

HIGH
24-HR
SGROUP# 1

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1, -8, 11, -14, 21, *
-24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 44.25310 AND OCCURRED AT (500.0, 50.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	29.65080 (270, 1,24)	16.65773 (270, 1,24)	2.94501 (136, 1,24)
350.0	22.07124 (61, 1,18)	15.15111 (48, 1,22)	2.91991 (48, 1,22)
340.0	25.88985 (100, 1,23)	14.55467 (64, 1,23)	2.85414 (64, 1,23)
330.0	23.88045 (198, 1,22)	15.59380 (241, 1,18)	3.05797 (128, 1,22)
320.0	25.47856 (165, 1,18)	12.31691 (138, 1,22)	3.66612 (188, 1,22)
310.0	20.23683 (111, 1,22)	13.85467 (107, 1,23)	2.14709 (165, 1,20)
300.0	23.34285 (175, 1,23)	11.84681 (165, 1,20)	2.91544 (111, 1,23)
290.0	19.43378 (217, 1,24)	14.66971 (175, 1,23)	2.85797 (280, 1,22)
280.0	16.11382 (217, 1,24)	11.66212 (217, 1,24)	3.32776 (279, 1,24)
270.0	20.79962 (143, 1,23)	15.47460 (279, 1,24)	2.73599 (176, 1,21)
260.0	20.02615 (143, 1,23)	14.59360 (143, 1,23)	3.96405 (237, 1,24)
250.0	21.14334 (345, 1,24)	13.72733 (345, 1,24)	2.98011 (143, 1,23)
240.0	24.39668 (230, 1,22)	16.79432 (19, 1,24)	4.82172 (19, 1,24)
230.0	22.85458 (19, 1,24)	16.92087 (19, 1,24)	4.44222 (292, 1,24)
220.0	20.40697 (286, 1,21)	14.70081 (99, 1,21)	4.06637 (302, 1,24)
210.0	18.80939 (340, 1,24)	13.97579 (286, 1,21)	3.63911 (286, 1,21)
200.0	17.96808 (233, 1,24)	11.87482 (233, 1,24)	3.81802 (233, 1,24)
190.0	22.67683 (285, 1,23)	12.30527 (285, 1,23)	2.70129 (337, 1,24)
180.0	14.63735 (335, 1,24)	9.77370 (335, 1,24)	3.04797 (335, 1,24)
170.0	18.99728 (335, 1,24)	13.27006 (335, 1,24)	4.25576 (313, 1,19)
160.0	25.79662 (313, 1,19)	18.36917 (313, 1,19)	6.96002 (313, 1,19)
150.0	20.56383 (313, 1,19)	12.35191 (9, 1,20)	4.17189 (9, 1,20)
140.0	18.89313 (283, 1,24)	14.28423 (4, 1,24)	5.14285 (283, 1,24)
130.0	27.61365 (295, 1,24)	19.64268 (9, 1,20)	3.85856 (17, 1,24)
120.0	24.16995 (335, 1,24)	17.40233 (9, 1,20)	5.29880 (17, 1,24)
110.0	32.99638 (313, 1,19)	24.31290 (17, 1,24)	4.27686 (364, 1,24)
100.0	32.31779 (295, 1,19)	37.67151 (17, 1,24)	5.57740 (21, 1,20)
90.0	38.30142 (283, 1,24)	28.75482 (21, 1,20)	4.61586 (29, 1,24)
80.0	27.89685 (29, 1,24)	26.17696 (212, 1,24)	3.23975 (198, 1,24)
70.0	19.08067 (194, 1,24)	42.87395 (194, 1,24)	3.59523 (195, 1,24)
60.0	38.24249 (273, 1,18)	35.08289 (272, 1,22)	3.90182 (65, 1,23)
50.0	44.25310 (95, 1,23)	22.47127 (116, 1,22)	4.82796 (116, 1,22)
40.0	33.48685 (49, 1,23)	19.70078 (49, 1,23)	6.40906 (315, 1,21)
30.0	35.07716 (35, 1,18)	20.00049 (34, 1,23)	4.61001 (333, 1,24)
20.0	26.46747 (355, 1,24)	15.37884 (24, 1,22)	3.58758 (355, 1,24)
10.0	32.19379 (184, 1,22)	20.07713 (184, 1,22)	4.21666 (184, 1,22)

TSC CALMS
PROCESSOR

2ND HIGH
24-HR
SGROUP# 1

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1, -8, 11, -14, 21, -24, *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 42.04228 AND OCCURRED AT (500.0, 50.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	21.43762 (136, 1,24)	12.31674 (171, 1,18)	2.80710 (204, 1,22)
350.0	21.92738 (135, 1,24)	13.14357 (365, 1,18)	2.69548 (365, 1,18)
340.0	24.27059 (178, 1,18)	13.55971 (55, 1,23)	2.61928 (164, 1,18)
330.0	22.41010 (106, 1,24)	13.44369 (178, 1,18)	3.02126 (178, 1,18)
320.0	19.13411 (138, 1,22)	11.57585 (165, 1,18)	2.47358 (79, 1,24)
310.0	16.65031 (165, 1,19)	11.75933 (176, 1,21)	2.14322 (188, 1,23)
300.0	20.96057 (165, 1,20)	11.00423 (253, 1,18)	2.52574 (106, 1,24)
290.0	19.11215 (279, 1,24)	10.57704 (217, 1,24)	2.76386 (84, 1,24)
280.0	15.02145 (279, 1,24)	9.98438 (97, 1,24)	2.34967 (217, 1,24)
270.0	20.65123 (237, 1,24)	12.03021 (166, 1,23)	2.45025 (56, 1,24)
260.0	18.96162 (345, 1,24)	13.99268 (166, 1,23)	3.17174 (143, 1,23)
250.0	21.03964 (19, 1,24)	11.77934 (292, 1,24)	2.85764 (251, 1,22)
240.0	23.35191 (19, 1,24)	15.48080 (230, 1,22)	3.94591 (292, 1,24)
230.0	21.32138 (292, 1,24)	14.79167 (292, 1,24)	4.40376 (349, 1,24)
220.0	18.98979 (99, 1,21)	13.18945 (98, 1,24)	4.05119 (98, 1,24)
210.0	17.23666 (286, 1,21)	12.99928 (340, 1,24)	2.98804 (340, 1,24)
200.0	13.43830 (336, 1,24)	9.54512 (99, 1,21)	2.91023 (340, 1,24)
190.0	16.43706 (337, 1,24)	11.94645 (286, 1,21)	2.50897 (291, 1,24)
180.0	13.55511 (285, 1,23)	8.26745 (258, 1,24)	2.82990 (4, 1,24)
170.0	15.91427 (4, 1,24)	11.96674 (313, 1,19)	3.98617 (335, 1,24)
160.0	15.14162 (258, 1,24)	9.18215 (258, 1,24)	3.24085 (9, 1,24)
150.0	16.86810 (28, 1,24)	11.37058 (38, 1,20)	3.72206 (54, 1,21)
140.0	17.84138 (54, 1,21)	13.44412 (283, 1,24)	4.56348 (295, 1,24)
130.0	20.68001 (9, 1,20)	17.49727 (300, 1,20)	3.74375 (295, 1,24)
120.0	22.45148 (4, 1,24)	17.36032 (283, 1,24)	3.93380 (53, 1,24)
110.0	29.99356 (335, 1,24)	24.16264 (283, 1,24)	3.86648 (343, 1,24)
100.0	32.18054 (28, 1,24)	29.54333 (343, 1,24)	3.20098 (29, 1,24)
90.0	34.93524 (123, 1,21)	26.18031 (29, 1,24)	4.21577 (254, 1,24)
80.0	21.41870 (21, 1,20)	26.07175 (37, 1,24)	3.18236 (194, 1,24)
70.0	17.66156 (212, 1,24)	29.51059 (208, 1,20)	3.31046 (193, 1,22)
60.0	37.57407 (270, 1,21)	30.02689 (186, 1,22)	3.33360 (323, 1,21)
50.0	42.04228 (62, 1,18)	20.55421 (333, 1,24)	4.75044 (315, 1,21)
40.0	31.34070 (116, 1,22)	17.35677 (116, 1,22)	4.19308 (116, 1,22)
30.0	34.17542 (271, 1,22)	19.85591 (136, 1,24)	3.82331 (272, 1,22)
20.0	25.35602 (333, 1,24)	15.07376 (355, 1,24)	3.44919 (24, 1,23)
10.0	30.43176 (215, 1,20)	19.59753 (215, 1,20)	3.73566 (215, 1,20)

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 6, -8, 11, -24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 91.04819 AND OCCURRED AT (500.0, 60.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	17.95258 (198, 1,22)	20.35722 (178, 1,18)	3.61279 (48, 1,22)
350.0	17.00645 (165, 1,18)	13.39836 (188, 1,22)	1.94924 (162, 1,24)
340.0	13.57126 (176, 1,23)	9.26083 (165, 1,18)	2.64396 (128, 1,22)
330.0	11.82148 (111, 1,23)	8.74963 (241, 1,18)	2.02257 (270, 1,24)
320.0	10.81648 (165, 1,19)	8.44715 (111, 1,23)	1.68339 (165, 1,19)
310.0	12.24747 (175, 1,24)	7.67833 (236, 1,24)	1.96749 (176, 1,24)
300.0	9.06205 (165, 1,23)	11.27014 (175, 1,24)	1.74732 (106, 1,24)
290.0	9.79061 (279, 1,24)	6.90559 (279, 1,24)	2.23654 (175, 1,24)
280.0	7.23200 (256, 1,24)	4.96048 (217, 1,24)	2.38282 (279, 1,24)
270.0	12.09155 (279, 1,24)	7.85102 (279, 1,24)	1.66233 (176, 1,21)
260.0	10.82536 (341, 1,24)	7.94544 (237, 1,24)	2.16580 (279, 1,24)
250.0	10.58991 (166, 1,23)	7.68493 (166, 1,23)	2.13427 (143, 1,23)
240.0	15.84121 (292, 1,24)	11.20992 (292, 1,24)	3.35837 (292, 1,24)
230.0	16.98906 (292, 1,24)	12.22481 (292, 1,24)	3.77572 (292, 1,24)
220.0	12.57438 (302, 1,24)	10.65059 (302, 1,24)	3.40286 (302, 1,24)
210.0	12.85106 (302, 1,24)	10.44415 (302, 1,24)	3.24778 (98, 1,24)
200.0	12.38305 (302, 1,24)	8.60623 (98, 1,24)	2.72538 (340, 1,24)
190.0	11.46566 (286, 1,21)	10.53912 (286, 1,21)	2.10724 (233, 1,24)
180.0	13.60680 (286, 1,21)	7.77868 (82, 1,23)	2.10272 (285, 1,23)
170.0	11.94885 (285, 1,21)	8.15915 (233, 1,24)	3.12866 (335, 1,24)
160.0	15.00599 (313, 1,19)	11.19740 (313, 1,19)	5.57801 (313, 1,19)
150.0	13.35380 (233, 1,24)	11.30930 (335, 1,24)	3.51123 (9, 1,22)
140.0	15.12645 (285, 1,23)	15.93149 (335, 1,24)	3.73553 (283, 1,24)
130.0	23.11032 (335, 1,24)	20.79344 (313, 1,19)	5.64384 (295, 1,24)
120.0	31.92471 (335, 1,24)	20.20526 (9, 1,20)	4.43302 (17, 1,24)
110.0	46.23877 (313, 1,19)	30.75914 (283, 1,24)	4.23859 (73, 1,23)
100.0	41.38649 (9, 1,20)	41.62563 (17, 1,24)	5.56093 (21, 1,20)
90.0	58.15283 (283, 1,24)	30.04768 (29, 1,24)	3.24651 (29, 1,24)
80.0	60.54092 (73, 1,23)	27.22702 (37, 1,24)	2.89720 (194, 1,24)
70.0	12.55608 (136, 1,24)	36.90872 (194, 1,24)	3.40472 (195, 1,24)
60.0	91.04819 (315, 1,21)	44.83641 (272, 1,22)	4.04071 (323, 1,21)
50.0	59.04713 (215, 1,20)	27.78201 (315, 1,21)	4.38862 (49, 1,24)
40.0	46.28146 (48, 1,22)	20.76147 (184, 1,21)	3.92774 (272, 1,22)
30.0	26.92242 (64, 1,22)	19.20128 (136, 1,24)	3.75573 (333, 1,24)
20.0	39.89359 (178, 1,18)	14.08572 (48, 1,22)	4.39878 (215, 1,20)
10.0	28.22577 (270, 1,24)	14.97303 (64, 1,22)	2.65192 (137, 1,24)

ISC CALMS
PROCESSOR

2ND HIGH
24-HR
SGROUP# 2

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 6, -8, 11, -24, *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 84.37234 AND OCCURRED AT (500.0, 60.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	17.45315 (178, 1,18)	11.84536 (162, 1,23)	2.97652 (365, 1,18)
350.0	13.83256 (188, 1,22)	10.21070 (79, 1,24)	1.74330 (115, 1,19)
340.0	11.08228 (107, 1,24)	8.26050 (135, 1,24)	1.97749 (106, 1,24)
330.0	10.40604 (177, 1,21)	7.79330 (176, 1,24)	1.83641 (188, 1,23)
320.0	10.58839 (84, 1,24)	6.45251 (177, 1,21)	1.53922 (188, 1,22)
310.0	8.27739 (84, 1,24)	7.45364 (165, 1,20)	1.81537 (107, 1,24)
300.0	8.53967 (175, 1,23)	5.44921 (224, 1,21)	1.54487 (46, 1,24)
290.0	7.40781 (238, 1,24)	4.41436 (238, 1,24)	1.80442 (297, 1,22)
280.0	6.83523 (279, 1,24)	4.32920 (256, 1,24)	1.33018 (148, 1,24)
270.0	8.95702 (166, 1,23)	6.26930 (166, 1,23)	1.47935 (56, 1,24)
260.0	10.17032 (143, 1,23)	7.43345 (341, 1,24)	1.88418 (237, 1,24)
250.0	9.62227 (341, 1,24)	7.03643 (341, 1,24)	2.00149 (306, 1,21)
240.0	10.09718 (232, 1,24)	7.24307 (19, 1,24)	2.23188 (232, 1,24)
230.0	11.70223 (232, 1,24)	8.00401 (232, 1,24)	2.85577 (318, 1,23)
220.0	12.48227 (292, 1,24)	9.50356 (292, 1,24)	2.85832 (232, 1,24)
210.0	11.59774 (231, 1,24)	8.21360 (232, 1,24)	2.69049 (99, 1,23)
200.0	11.37407 (231, 1,24)	8.58154 (232, 1,24)	2.65486 (233, 1,24)
190.0	11.27005 (231, 1,24)	8.88328 (340, 1,24)	1.98297 (311, 1,20)
180.0	11.28611 (340, 1,24)	7.75059 (233, 1,24)	1.98331 (291, 1,24)
170.0	10.35940 (233, 1,24)	6.73940 (298, 1,22)	2.88861 (4, 1,24)
160.0	12.98131 (233, 1,24)	10.98859 (285, 1,23)	3.39320 (335, 1,24)
150.0	12.55632 (313, 1,19)	10.32103 (4, 1,24)	2.77433 (54, 1,21)
140.0	13.74187 (291, 1,24)	14.77468 (4, 1,24)	2.98774 (327, 1,24)
130.0	21.97374 (4, 1,24)	14.87903 (9, 1,20)	3.64684 (294, 1,24)
120.0	25.70345 (313, 1,19)	17.37363 (8, 1,24)	4.26868 (73, 1,23)
110.0	33.46973 (9, 1,20)	26.33354 (295, 1,22)	3.92137 (364, 1,24)
100.0	38.38022 (283, 1,24)	32.04875 (343, 1,24)	3.22159 (28, 1,24)
90.0	57.49640 (295, 1,19)	28.55919 (21, 1,20)	3.19165 (254, 1,24)
80.0	44.53596 (79, 1,23)	23.42778 (198, 1,24)	2.80292 (198, 1,24)
70.0	11.03218 (168, 1,22)	32.18172 (186, 1,22)	2.58950 (193, 1,23)
60.0	84.37234 (272, 1,22)	38.54742 (186, 1,22)	3.37233 (352, 1,24)
50.0	48.84708 (184, 1,21)	26.93309 (333, 1,24)	3.74593 (47, 1,24)
40.0	34.25854 (136, 1,24)	20.17056 (137, 1,24)	3.62637 (315, 1,21)
30.0	25.18449 (106, 1,23)	15.49094 (270, 1,24)	2.66492 (211, 1,24)
20.0	21.36405 (84, 1,22)	13.57020 (136, 1,24)	3.78392 (184, 1,23)
10.0	20.41481 (188, 1,22)	11.56998 (55, 1,18)	2.57827 (204, 1,22)

ISC CALMS
PROCESSOR

HIGH
24-HR
SGROUP# 3

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 6, -24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 91.47075 AND OCCURRED AT (500.0, 50.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	20.21275 (270, 1,24)	20.85121 (178, 1,18)	3.61279 (48, 1,22)
350.0	17.00645 (165, 1,18)	13.39836 (188, 1,22)	1.94924 (152, 1,24)
340.0	13.65939 (176, 1,23)	9.26692 (165, 1,18)	2.64513 (128, 1,22)
330.0	12.12227 (111, 1,23)	9.09089 (241, 1,18)	2.02261 (270, 1,24)
320.0	12.04435 (84, 1,24)	8.62397 (111, 1,23)	1.68741 (165, 1,19)
310.0	12.97226 (175, 1,24)	7.93938 (165, 1,20)	1.98016 (176, 1,24)
300.0	9.97600 (165, 1,23)	11.51480 (175, 1,24)	1.75390 (106, 1,24)
290.0	10.85175 (217, 1,24)	7.25409 (279, 1,24)	2.25496 (175, 1,24)
280.0	8.33696 (256, 1,24)	5.70387 (217, 1,24)	2.42398 (279, 1,24)
270.0	12.37479 (279, 1,24)	8.04921 (279, 1,24)	1.66236 (176, 1,21)
260.0	14.30347 (143, 1,23)	10.21100 (143, 1,23)	2.24346 (143, 1,23)
250.0	11.49110 (166, 1,23)	8.25379 (166, 1,23)	2.41896 (143, 1,23)
240.0	18.45105 (292, 1,24)	12.65510 (292, 1,24)	3.53475 (292, 1,24)
230.0	18.28235 (292, 1,24)	13.17375 (292, 1,24)	4.04040 (292, 1,24)
220.0	13.79874 (302, 1,24)	11.41082 (302, 1,24)	3.56285 (302, 1,24)
210.0	12.96848 (302, 1,24)	10.51563 (302, 1,24)	3.27241 (98, 1,24)
200.0	12.38332 (302, 1,24)	8.88323 (99, 1,21)	3.11081 (233, 1,24)
190.0	11.65564 (286, 1,21)	10.64024 (286, 1,21)	2.12369 (233, 1,24)
180.0	13.82638 (286, 1,21)	8.27466 (82, 1,23)	2.20684 (337, 1,24)
170.0	11.94905 (286, 1,21)	8.15915 (233, 1,24)	3.25230 (335, 1,24)
160.0	15.62486 (313, 1,19)	11.37702 (313, 1,19)	5.58148 (313, 1,19)
150.0	13.35380 (233, 1,24)	11.30931 (335, 1,24)	3.54675 (9, 1,22)
140.0	15.12645 (285, 1,23)	15.93149 (335, 1,24)	3.85829 (283, 1,24)
130.0	23.11032 (335, 1,24)	20.80226 (313, 1,19)	5.68106 (295, 1,24)
120.0	31.92471 (335, 1,24)	20.21651 (9, 1,20)	4.75027 (17, 1,24)
110.0	46.86047 (313, 1,19)	31.06671 (283, 1,24)	4.39913 (73, 1,23)
100.0	41.38649 (9, 1,20)	41.62862 (17, 1,24)	5.81632 (21, 1,20)
90.0	58.15614 (283, 1,24)	30.98880 (29, 1,24)	3.31110 (29, 1,24)
80.0	60.54182 (73, 1,23)	27.41794 (37, 1,24)	2.97385 (194, 1,24)
70.0	14.29740 (168, 1,22)	37.60788 (194, 1,24)	3.40472 (195, 1,24)
60.0	91.47075 (315, 1,21)	45.35535 (272, 1,22)	4.04071 (323, 1,21)
50.0	63.56227 (215, 1,20)	28.21338 (315, 1,21)	4.61420 (49, 1,24)
40.0	48.39874 (48, 1,22)	21.02182 (137, 1,24)	3.99385 (272, 1,22)
30.0	26.98695 (64, 1,22)	19.71541 (136, 1,24)	4.01164 (333, 1,24)
20.0	40.82913 (178, 1,18)	14.56440 (48, 1,22)	4.39878 (215, 1,20)
10.0	28.29794 (270, 1,24)	16.18199 (64, 1,22)	2.69891 (137, 1,24)

ISC CALMS
PROCESSOR

2ND HIGH
24-HR
SGROUP# 3

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1976 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 5, -24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 85.66415 AND OCCURRED AT (500.0, 60.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	18.28473 (178, 1,18)	12.01796 (270, 1,24)	3.03717 (365, 1,18)
350.0	14.40673 (223, 1,22)	11.29075 (270, 1,24)	1.80144 (115, 1,19)
340.0	11.26751 (107, 1,24)	9.03514 (135, 1,24)	2.10434 (106, 1,24)
330.0	11.34255 (177, 1,21)	7.84138 (176, 1,24)	1.83641 (188, 1,23)
320.0	11.37992 (165, 1,19)	6.91333 (106, 1,24)	1.55594 (135, 1,24)
310.0	9.27406 (84, 1,24)	7.67833 (236, 1,24)	1.86002 (107, 1,24)
300.0	9.06240 (175, 1,23)	5.52267 (224, 1,21)	1.54497 (46, 1,24)
290.0	10.34061 (279, 1,24)	5.88400 (217, 1,24)	1.87671 (297, 1,22)
280.0	7.26245 (279, 1,24)	5.40955 (256, 1,24)	1.55330 (217, 1,24)
270.0	11.92149 (143, 1,23)	6.31781 (166, 1,23)	1.50382 (56, 1,24)
260.0	12.67368 (341, 1,24)	8.86803 (341, 1,24)	2.18141 (279, 1,24)
250.0	11.11717 (341, 1,24)	7.89073 (341, 1,24)	2.17055 (306, 1,21)
240.0	11.16228 (232, 1,24)	8.03574 (19, 1,24)	2.40448 (232, 1,24)
230.0	12.17651 (232, 1,24)	9.00499 (232, 1,24)	3.16420 (349, 1,24)
220.0	12.60943 (292, 1,24)	9.56499 (292, 1,24)	2.86024 (232, 1,24)
210.0	11.09444 (231, 1,24)	8.55881 (232, 1,24)	2.69705 (99, 1,23)
200.0	12.11005 (233, 1,24)	8.83593 (232, 1,24)	2.77534 (340, 1,24)
190.0	11.57473 (99, 1,21)	9.11907 (340, 1,24)	2.01477 (311, 1,20)
180.0	11.71929 (99, 1,21)	7.75082 (233, 1,24)	2.10823 (291, 1,24)
170.0	11.23866 (99, 1,21)	6.83176 (337, 1,24)	2.95791 (4, 1,24)
160.0	12.98131 (233, 1,24)	10.98859 (285, 1,23)	3.39364 (335, 1,24)
150.0	12.56036 (313, 1,19)	10.76440 (4, 1,24)	2.83587 (54, 1,21)
140.0	13.74187 (291, 1,24)	15.52970 (4, 1,24)	2.99779 (327, 1,24)
130.0	23.05846 (4, 1,24)	15.45660 (9, 1,20)	3.82555 (294, 1,24)
120.0	25.88330 (313, 1,19)	17.75255 (8, 1,24)	4.26875 (73, 1,23)
110.0	33.47028 (9, 1,20)	26.84412 (295, 1,22)	4.03687 (364, 1,24)
100.0	38.55115 (283, 1,24)	32.11243 (343, 1,24)	3.24423 (28, 1,24)
90.0	57.49641 (295, 1,19)	29.44965 (21, 1,20)	3.19155 (254, 1,24)
80.0	44.53596 (70, 1,23)	24.76950 (212, 1,24)	2.82277 (198, 1,24)
70.0	12.55608 (136, 1,24)	32.67696 (186, 1,22)	2.58971 (193, 1,23)
60.0	85.66415 (35, 1,18)	39.25551 (186, 1,22)	3.37233 (352, 1,24)
50.0	49.69719 (184, 1,21)	26.93359 (333, 1,24)	3.75090 (47, 1,24)
40.0	34.27361 (136, 1,24)	20.85474 (184, 1,21)	3.68134 (315, 1,21)
30.0	25.13484 (106, 1,23)	15.49094 (270, 1,24)	2.73902 (211, 1,24)
20.0	23.14917 (64, 1,22)	13.70116 (136, 1,24)	3.78392 (184, 1,23)
10.0	22.73001 (64, 1,22)	12.11630 (26, 1,24)	2.57827 (204, 1,22)

OXY75

J6523A

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*A START JOB 6523 OXY75     1        001 001 NER      OXY SULFUR         80001046.015  2.31.07 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6523 OXY75     1        001 001 NER      OXY SULFUR         80001046.015  2.31.07 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6523 OXY75     1        001 001 NER      OXY SULFUR         80001046.015  2.31.07 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6523 OXY75     1        001 001 NER      OXY SULFUR         80001046.015  2.31.07 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6523 OXY75     1        001 001 NER      OXY SULFUR         80001046.015  2.31.07 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6523 OXY75     1        001 001 NER      OXY SULFUR         80001046.015  2.31.07 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6523 OXY75     1        001 001 NER      OXY SULFUR         80001046.015  2.31.07 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6523 OXY75     1        001 001 NER      OXY SULFUR         80001046.015  2.31.07 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6523 OXY75     1        001 001 NER      OXY SULFUR         80001046.015  2.31.07 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6523 OXY75     1        001 001 NER      OXY SULFUR         80001046.015  2.31.07 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6523 OXY75     1        001 001 NER      OXY SULFUR         80001046.015  2.31.07 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6523 OXY75     1        001 001 NER      OXY SULFUR         80001046.015  2.31.07 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6523 OXY75     1        001 001 NER      OXY SULFUR         80001046.015  2.31.07 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6523 OXY75     1        001 001 NER      OXY SULFUR         80001046.015  2.31.07 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6523 OXY75     1        001 001 NER      OXY SULFUR         80001046.015  2.31.07 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6523 OXY75     1        001 001 NER      OXY SULFUR         80001046.015  2.31.07 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6523 OXY75     1        001 001 NER      OXY SULFUR         80001046.015  2.31.07 AM 01APR86 PRINTER6 NER1 START A*
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N.E.R.D.C. NEWS: 3/28/86 9:43:08

-THE GOULD PLOTTER WILL BE UNAVAILABLE UNTIL FURTHER NOTICE DUE TO MECHANICAL FAILURE. CALL DAVE POKORNEY AT 904/392-4601, SUNCOM 622-4601 FOR MORE INFORMATION.
-SAS VERSION 5 BUGS HAVE BEEN FIXED. SEE MEMOS 86072.1, 86073.1, AND 86078.2 FOR MORE INFORMATION.
-THE I & R USERS COMMITTEE IS ACCEPTING APPLICATIONS FOR MEMBERSHIP UNTIL APRIL 19. SEE MEMO 86064.1 FOR MORE INFORMATION. (DEL)

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1975 ***

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) = 1
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) = 1
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) = 0
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) = 0
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 = 24
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)	NGROUP = 3
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)	IPERD = 0
NUMBER OF X (RANGE) GRID VALUES	NXPNTS = 3
NUMBER OF Y (THETA) GRID VALUES	NYPNTS = 36
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 = 10.00 METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA	IMET = 9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION	DECAY =0.000000E+00
SURFACE STATION NO.	ISS = 93845
YEAR OF SURFACE DATA	ISY = 75
UPPER AIR STATION NO.	IUS = 13861
YEAR OF UPPER AIR DATA	IUY = 75
LOGICAL UNIT OF CALCULATION 'SAVE' TAPE	ITAP = 3
ALLOCATED DATA STORAGE	LIMIT = 43500 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MIMIT = 5739 WORDS

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*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT    1975 ***

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

1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 0

*** NUMBER OF SOURCE NUMBERS REQUIRED TO DEFINE SOURCE GROUPS ***
(NSOGRP)

6,   4,   2,

*** SOURCE NUMBERS DEFINING SOURCE GROUPS ***
(IDSOR)

1,    -8,    11,   -14,    21,   -24,     6,    -8,    11,   -24,     6,   -24,

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

1.54,   3.09,   5.14,   8.23,  10.80,

*** WIND PROFILE EXPONENTS ***
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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

*** UXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1975 ***

*** 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

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

500.0, 700.0, 2000.0,

*** RADIAL ANGLES OF POLAR GRID SYSTEM ***
(DEGREES)

10.0,	20.0,	30.0,	40.0,	50.0,	60.0,	70.0,	80.0,	90.0,	100.0,
110.0,	120.0,	130.0,	140.0,	150.0,	160.0,	170.0,	180.0,	190.0,	200.0,
210.0,	220.0,	230.0,	240.0,	250.0,	260.0,	270.0,	280.0,	290.0,	300.0,
310.0,	320.0,	330.0,	340.0,	350.0,	360.0,				

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1975 ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	1	0	5	0.19000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
2	1	0	5	0.03000E-01	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
3	1	0	5	0.11000E-01	52.0	63.0	0.0	6.00	1.40	1.40	0.00	0.00	0.00	0.00
4	1	0	5	0.30200E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
5	1	0	5	0.33000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
6	1	0	5	0.10000E-02	52.0	63.0	0.0	4.00	3.60	1.10	0.00	0.00	0.00	0.00
7	1	0	5	0.38400E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
8	1	0	5	0.38400E+00	115.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
9	2	0	5	0.93400E-04	25.0	0.0	0.0	5.00	0.00	32.00	0.00	0.00	0.00	0.00
10	2	0	5	0.29800E-03	25.0	82.0	0.0	6.00	0.00	30.50	0.00	0.00	0.00	0.00
11	0	0	5	0.50000E-02	381.0	69.0	0.0	12.20	300.00	20.20	1.22	0.00	0.00	0.00
12	1	0	5	0.80000E-02	396.0	58.0	0.0	4.60	4.30	10.60	0.00	0.00	0.00	0.00
13	0	0	5	0.15000E-01	465.0	108.0	0.0	15.20	300.00	1.00	1.00	0.00	0.00	0.00
14	0	0	5	0.17600E+00	442.0	99.0	0.0	6.10	300.00	1.00	1.00	0.00	0.00	0.00
15	1	0	5	0.15900E+00	366.0	152.0	0.0	3.00	2.80	7.10	0.00	0.00	0.00	0.00
16	0	0	5	0.90000E-02	381.0	146.0	0.0	2.40	300.00	1.00	1.00	0.00	0.00	0.00
17	0	0	5	0.10000E-02	381.0	146.0	0.0	1.20	300.00	1.00	1.00	0.00	0.00	0.00
18	0	0	5	0.10000E-02	366.0	142.0	0.0	1.20	300.00	1.00	1.00	0.00	0.00	0.00
19	0	0	5	0.10000E-02	308.0	63.0	0.0	6.10	300.00	1.00	1.00	0.00	0.00	0.00
20	1	0	5	0.10000E-02	52.0	63.0	0.0	3.00	4.30	2.10	0.00	0.00	0.00	0.00
21	1	0	5	0.29600E+00	320.0	180.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00
22	1	0	5	0.29600E+00	381.0	131.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00
23	1	0	5	0.29600E+00	439.0	86.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00
24	1	0	5	0.29600E+00	497.0	30.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1975 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 1 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 2 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 3 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1975 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 4 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 5 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 6 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1975 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 7 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 8 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 9 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1975 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 10 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 11 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 12 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 13 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 14 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 15 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 16 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 17 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 18 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 19 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 20 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 21 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 22 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 23 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 24 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1975 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE NO. = 1											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 2											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 4											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 9											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 10											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1975 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY WITH STABILITY AND WIND SPEED *

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
SOURCE NO. = 7						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 8						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 21						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 22						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 23						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1975 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY WITH STABILITY AND WIND SPEED *

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
SOURCE NO. = 24						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1975 ***

* SOURCE-RECEPTOR COMBINATIONS LESS THAN 100 METERS OR THREE BUILDING HEIGHTS IN DISTANCE. NO AVERAGE CONCENTRATION IS CALCULATED *

SOURCE NUMBER	- - RECEPTOR LOCATION - - X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)	DISTANCE BETWEEN (METERS)
12	500.0	80.0	77.83
12	500.0	90.0	96.29
13	500.0	70.0	63.20
13	500.0	90.0	34.63
14	500.0	70.0	77.21
14	500.0	80.0	51.85
15	500.0	70.0	90.31
16	500.0	70.0	92.30
17	500.0	70.0	92.30
21	500.0	60.0	94.88
22	500.0	60.0	91.82
22	500.0	70.0	59.38
22	500.0	80.0	81.79
23	500.0	70.0	71.39
23	500.0	80.0	19.27
23	500.0	90.0	51.82
24	500.0	80.0	18.95
24	500.0	90.0	-7.91
24	500.0	100.0	78.86

ISCST POST PROCESSOR VERSION 16-AUG-85

OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1975

ISW(26) = 0 CALMS WILL BE CONSIDERED.

CONTRIBUTION LEVEL IS: 0.2000E-08 MICROGRAMS/CUBIC METER

NOTES:

THE NUMBER OF HOURS USED TO CALCULATE THE CONCENTRATIONS ARE SHOWN WITH THE DAY AND PERIOD, E.G., 1.23456 (103, 1.23)

ISC CALMS
PROCESSOR

HIGH
24-HR
SGROUP# 1

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1975 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1, -8, 11, -14, 21, *
-24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 54.76233 AND OCCURRED AT (700.0, 100.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	29.40039 (227, 1,20)	16.29730 (238, 1,21)	3.83158 (71, 1,24)
350.0	25.21942 (314, 1,23)	16.35644 (226, 1,22)	3.46409 (71, 1,24)
340.0	35.42291 (281, 1,22)	17.71817 (291, 1,22)	2.08610 (216, 1,24)
330.0	22.08400 (42, 1,18)	15.05225 (123, 1,24)	3.02941 (281, 1,22)
320.0	24.96275 (113, 1,24)	16.30197 (113, 1,24)	2.11065 (313, 1,24)
310.0	23.23459 (286, 1,24)	12.39213 (113, 1,24)	2.76838 (287, 1,18)
300.0	24.40906 (195, 1,20)	13.73215 (195, 1,20)	3.33470 (286, 1,24)
290.0	28.87823 (195, 1,20)	17.28836 (149, 1,24)	3.38836 (195, 1,22)
280.0	30.62238 (307, 1,24)	21.82596 (310, 1,24)	3.80710 (149, 1,24)
270.0	19.39873 (347, 1,21)	12.90099 (279, 1,24)	4.27199 (307, 1,24)
260.0	22.99347 (3, 1,24)	13.21371 (304, 1,24)	3.11292 (347, 1,24)
250.0	18.88026 (264, 1,21)	12.96963 (264, 1,22)	4.49186 (3, 1,24)
240.0	19.05786 (277, 1,24)	13.94850 (241, 1,24)	3.33178 (263, 1,20)
230.0	19.75824 (177, 1,24)	13.50375 (277, 1,24)	4.23007 (277, 1,24)
220.0	17.30969 (257, 1,24)	12.30692 (258, 1,24)	3.72931 (258, 1,24)
210.0	21.30743 (338, 1,24)	15.44259 (338, 1,24)	4.10678 (338, 1,24)
200.0	17.17278 (284, 1,20)	11.39680 (284, 1,20)	3.16906 (284, 1,20)
190.0	22.30402 (297, 1,24)	14.94838 (320, 1,18)	3.87815 (297, 1,24)
180.0	36.38504 (51, 1,22)	24.57922 (51, 1,22)	6.25668 (51, 1,22)
170.0	26.48587 (51, 1,22)	13.09709 (352, 1,24)	5.10257 (352, 1,24)
160.0	24.81889 (336, 1,18)	15.72776 (352, 1,24)	6.41432 (352, 1,24)
150.0	21.17670 (352, 1,24)	16.36810 (352, 1,24)	5.07818 (67, 1,24)
140.0	24.14908 (38, 1,22)	19.07137 (352, 1,24)	4.02801 (38, 1,22)
130.0	21.55753 (14, 1,19)	23.80026 (352, 1,24)	5.46127 (317, 1,24)
120.0	32.38109 (51, 1,22)	20.79593 (352, 1,24)	7.94126 (13, 1,24)
110.0	49.39963 (352, 1,24)	25.56519 (13, 1,24)	4.40236 (13, 1,24)
100.0	50.68390 (352, 1,24)	54.76233 (13, 1,24)	3.38476 (73, 1,24)
90.0	38.74742 (116, 1,23)	34.34918 (138, 1,24)	3.97058 (95, 1,24)
80.0	20.47929 (124, 1,22)	41.49825 (55, 1,24)	5.40060 (55, 1,24)
70.0	39.75069 (55, 1,24)	33.43059 (163, 1,24)	3.60368 (32, 1,18)
60.0	34.83389 (243, 1,19)	25.64630 (109, 1,24)	4.07492 (107, 1,20)
50.0	40.87131 (107, 1,20)	25.03735 (107, 1,20)	4.24977 (49, 1,24)
40.0	41.40811 (160, 1,19)	29.09744 (143, 1,23)	4.20708 (109, 1,24)
30.0	37.25949 (216, 1,24)	28.05980 (71, 1,24)	4.45287 (217, 1,22)
20.0	34.28850 (217, 1,22)	16.87604 (215, 1,23)	4.17482 (54, 1,24)
10.0	38.82188 (311, 1,23)	19.89064 (281, 1,21)	3.79839 (10, 1,24)

ISC CALMS
PROCESSOR

2ND HIGH
24-HR
SGROUP# 1

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1975 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1, -8, 11, -14, 21, -24, *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 38.26321 AND OCCURRED AT (500.0, 60.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	26.72466 (238, 1,21)	15.17385 (243, 1,18)	3.11809 (137, 1,24)
350.0	23.85327 (226, 1,22)	12.87304 (71, 1,24)	2.48734 (261, 1,24)
340.0	19.97055 (314, 1,23)	14.18663 (250, 1,19)	2.04523 (209, 1,24)
330.0	19.96637 (226, 1,22)	13.34811 (226, 1,22)	1.86242 (114, 1,21)
320.0	24.53493 (287, 1,18)	11.87129 (313, 1,24)	2.10727 (113, 1,24)
310.0	19.27525 (288, 1,18)	10.20671 (286, 1,24)	2.61826 (314, 1,23)
300.0	23.96135 (314, 1,23)	12.81175 (348, 1,24)	2.11496 (113, 1,24)
290.0	23.20926 (149, 1,24)	13.18284 (195, 1,20)	2.93838 (314, 1,23)
280.0	24.33044 (310, 1,24)	21.40518 (307, 1,24)	3.73275 (195, 1,21)
270.0	16.44550 (304, 1,24)	12.19993 (347, 1,22)	3.90987 (86, 1,24)
260.0	22.02051 (304, 1,24)	11.95214 (34, 1,24)	2.30064 (304, 1,24)
250.0	17.55745 (263, 1,20)	12.59912 (304, 1,24)	3.83520 (304, 1,24)
240.0	18.41533 (241, 1,24)	11.90814 (276, 1,24)	2.97076 (276, 1,24)
230.0	19.28909 (277, 1,24)	13.17441 (177, 1,24)	2.82192 (276, 1,24)
220.0	17.06783 (258, 1,24)	12.13989 (257, 1,24)	3.56060 (257, 1,24)
210.0	16.84984 (271, 1,23)	11.24666 (271, 1,23)	2.89673 (257, 1,24)
200.0	16.14941 (337, 1,18)	10.33484 (337, 1,18)	2.47273 (68, 1,24)
190.0	21.35201 (320, 1,18)	14.10760 (297, 1,24)	3.73566 (320, 1,18)
180.0	19.54373 (62, 1,24)	12.94666 (44, 1,19)	4.13548 (62, 1,24)
170.0	19.51871 (352, 1,24)	12.83967 (275, 1,24)	3.26526 (51, 1,22)
160.0	24.07523 (352, 1,24)	15.56580 (336, 1,18)	3.71320 (95, 1,24)
150.0	18.58501 (356, 1,24)	11.65397 (356, 1,24)	4.03193 (352, 1,24)
140.0	19.68439 (269, 1,23)	15.08449 (38, 1,22)	3.51573 (67, 1,24)
130.0	19.19864 (318, 1,24)	14.60612 (355, 1,24)	4.84832 (318, 1,24)
120.0	28.94159 (352, 1,24)	19.18097 (13, 1,24)	4.50314 (78, 1,24)
110.0	35.91994 (13, 1,24)	24.36761 (61, 1,24)	3.65189 (79, 1,23)
100.0	32.82155 (84, 1,24)	32.58171 (139, 1,22)	3.26511 (1, 1,24)
90.0	36.03757 (317, 1,24)	30.11983 (73, 1,24)	3.83426 (291, 1,24)
80.0	18.36745 (55, 1,24)	31.82010 (179, 1,18)	3.30805 (56, 1,24)
70.0	24.96768 (365, 1,24)	32.08826 (107, 1,20)	3.08523 (230, 1,24)
60.0	38.26321 (136, 1,24)	23.81778 (219, 1,24)	3.58848 (191, 1,24)
50.0	36.25752 (83, 1,23)	24.31693 (202, 1,20)	4.23482 (66, 1,24)
40.0	35.94844 (83, 1,23)	24.39702 (54, 1,24)	3.86572 (217, 1,22)
30.0	34.46919 (217, 1,22)	20.93875 (98, 1,24)	4.44287 (71, 1,24)
20.0	27.33977 (152, 1,23)	16.03607 (245, 1,19)	3.44028 (245, 1,19)
10.0	30.48206 (151, 1,18)	18.49129 (216, 1,24)	3.71653 (54, 1,24)

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1975 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 6, -8, 11, -24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 80.22884 AND OCCURRED AT (500.0, 60.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	16.94135 (113, 1,24)	14.04946 (281, 1,21)	4.04736 (71, 1,24)
350.0	19.14281 (314, 1,23)	8.33031 (311, 1,23)	2.20108 (77, 1,24)
340.0	13.71114 (260, 1,24)	9.96764 (113, 1,24)	2.63051 (281, 1,22)
330.0	16.82602 (286, 1,24)	8.26342 (287, 1,18)	2.45399 (123, 1,24)
320.0	14.25227 (113, 1,24)	10.49285 (286, 1,24)	2.31675 (113, 1,24)
310.0	14.23931 (314, 1,23)	8.38796 (113, 1,24)	1.98801 (260, 1,24)
300.0	12.81093 (149, 1,24)	10.73435 (314, 1,23)	2.19175 (288, 1,23)
290.0	10.70549 (307, 1,24)	8.09640 (195, 1,20)	2.82304 (314, 1,23)
280.0	12.77782 (86, 1,24)	9.36012 (310, 1,24)	2.52428 (195, 1,21)
270.0	9.92008 (304, 1,24)	7.73550 (307, 1,24)	3.02831 (86, 1,24)
260.0	13.58358 (304, 1,24)	8.77747 (304, 1,24)	2.05959 (347, 1,24)
250.0	11.08904 (304, 1,24)	8.54073 (304, 1,24)	2.89997 (304, 1,24)
240.0	10.62424 (264, 1,22)	7.54116 (264, 1,22)	1.91339 (303, 1,24)
230.0	9.34302 (257, 1,24)	7.44815 (263, 1,20)	2.75511 (277, 1,24)
220.0	11.48698 (263, 1,20)	8.52890 (257, 1,24)	2.80939 (258, 1,24)
210.0	10.53188 (257, 1,24)	8.38036 (258, 1,24)	2.31729 (68, 1,24)
200.0	10.95315 (257, 1,24)	8.08111 (258, 1,24)	3.77784 (338, 1,24)
190.0	11.31560 (258, 1,24)	6.90911 (271, 1,23)	2.08441 (284, 1,20)
180.0	10.86465 (338, 1,24)	9.27181 (338, 1,24)	3.35447 (297, 1,24)
170.0	11.35730 (271, 1,21)	7.82310 (352, 1,24)	4.69415 (51, 1,22)
160.0	13.25801 (352, 1,24)	12.01746 (297, 1,24)	5.45581 (352, 1,24)
150.0	17.21393 (297, 1,24)	18.86684 (51, 1,22)	4.75949 (67, 1,24)
140.0	20.89485 (297, 1,24)	21.43518 (352, 1,24)	4.01682 (38, 1,22)
130.0	38.25850 (51, 1,22)	26.82999 (352, 1,24)	4.26446 (317, 1,24)
120.0	36.53453 (51, 1,22)	22.81912 (352, 1,24)	6.89620 (13, 1,24)
110.0	57.65495 (352, 1,24)	27.81714 (317, 1,24)	5.12718 (79, 1,23)
100.0	55.59549 (352, 1,24)	59.94815 (13, 1,24)	2.99969 (73, 1,24)
90.0	56.46526 (317, 1,24)	44.72505 (138, 1,24)	3.16360 (95, 1,24)
80.0	63.20601 (79, 1,23)	39.54135 (55, 1,24)	4.54191 (55, 1,24)
70.0	25.59273 (55, 1,24)	37.72211 (163, 1,24)	3.16889 (33, 1,18)
60.0	80.22884 (217, 1,22)	31.59018 (218, 1,24)	4.28955 (107, 1,20)
50.0	64.36418 (143, 1,23)	30.43793 (203, 1,18)	4.54807 (49, 1,24)
40.0	43.60861 (83, 1,23)	28.03745 (54, 1,24)	4.12356 (71, 1,24)
30.0	37.32349 (281, 1,22)	22.41348 (71, 1,24)	3.46245 (245, 1,19)
20.0	37.82825 (281, 1,21)	18.41988 (71, 1,24)	4.09849 (64, 1,24)
10.0	25.71991 (10, 1,24)	19.20059 (281, 1,21)	3.49933 (10, 1,24)

ISC CALMS
PROCESSOR

2ND HIGH
24-HR
SGROUP# 2

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1975 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 6, -8, 11, -24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 76.43045 AND OCCURRED AT (500.0, 60.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	13.30485 (262, 1,18)	13.78027 (114, 1,21)	2.78021 (261, 1,24)
350.0	18.04463 (287, 1,18)	8.14929 (140, 1,24)	1.84426 (71, 1,24)
340.0	11.02554 (238, 1,21)	8.39195 (187, 1,23)	1.64959 (227, 1,20)
330.0	11.64390 (113, 1,24)	7.30221 (260, 1,24)	1.96489 (142, 1,18)
320.0	13.16225 (251, 1,22)	7.66072 (113, 1,24)	1.79010 (187, 1,23)
310.0	9.18475 (195, 1,20)	7.88317 (348, 1,24)	1.65123 (113, 1,24)
300.0	9.32335 (77, 1,24)	6.34993 (77, 1,24)	2.11494 (251, 1,22)
290.0	10.48058 (195, 1,20)	7.88709 (149, 1,24)	1.82059 (77, 1,24)
280.0	12.50241 (307, 1,24)	8.85684 (307, 1,24)	2.03156 (149, 1,24)
270.0	8.84911 (307, 1,24)	7.52301 (358, 1,24)	2.49836 (307, 1,24)
260.0	9.24891 (34, 1,24)	6.72974 (34, 1,24)	1.67465 (304, 1,24)
250.0	9.26867 (3, 1,24)	7.10803 (3, 1,24)	2.34239 (3, 1,24)
240.0	8.81555 (3, 1,24)	6.69281 (304, 1,24)	1.91082 (264, 1,22)
230.0	8.76643 (276, 1,24)	6.84234 (276, 1,24)	2.43655 (241, 1,24)
220.0	11.27004 (257, 1,24)	8.12368 (277, 1,24)	2.61715 (257, 1,24)
210.0	10.28784 (277, 1,24)	7.85226 (257, 1,24)	2.23035 (257, 1,24)
200.0	10.71431 (259, 1,24)	7.99872 (257, 1,24)	2.20512 (271, 1,24)
190.0	10.28243 (257, 1,24)	6.66948 (338, 1,24)	1.98763 (353, 1,23)
180.0	10.44319 (271, 1,21)	6.86759 (271, 1,22)	3.03751 (320, 1,23)
170.0	10.30628 (352, 1,24)	7.03002 (297, 1,24)	4.18804 (352, 1,24)
160.0	12.00157 (297, 1,24)	9.38630 (320, 1,18)	2.41969 (336, 1,18)
150.0	14.69904 (320, 1,18)	13.61335 (62, 1,24)	3.99557 (352, 1,24)
140.0	19.08447 (51, 1,22)	18.84669 (51, 1,22)	3.83122 (269, 1,23)
130.0	21.69965 (352, 1,24)	18.29033 (336, 1,18)	3.59813 (61, 1,24)
120.0	35.86111 (352, 1,24)	20.52399 (67, 1,24)	4.96233 (78, 1,24)
110.0	36.12927 (275, 1,24)	23.88301 (61, 1,24)	4.96907 (13, 1,24)
100.0	55.30606 (33, 1,22)	35.69757 (78, 1,24)	2.64417 (1, 1,24)
90.0	48.39247 (61, 1,24)	33.33710 (139, 1,22)	2.89347 (55, 1,24)
80.0	56.25957 (291, 1,21)	31.23846 (124, 1,22)	2.92950 (157, 1,24)
70.0	16.52475 (365, 1,24)	29.42848 (115, 1,24)	2.89409 (344, 1,23)
60.0	76.43045 (216, 1,24)	28.34213 (70, 1,23)	3.49247 (163, 1,24)
50.0	61.89532 (54, 1,24)	25.04520 (25, 1,24)	4.37735 (109, 1,24)
40.0	40.11996 (71, 1,24)	27.37462 (143, 1,23)	3.64077 (217, 1,22)
30.0	27.29669 (71, 1,24)	17.70322 (88, 1,24)	3.29879 (72, 1,24)
20.0	25.27760 (217, 1,22)	12.85100 (72, 1,24)	2.97737 (331, 1,24)
10.0	25.41989 (123, 1,24)	15.65114 (10, 1,24)	3.22958 (136, 1,24)

ISC CALMS
PROCESSOR

HIGH
24-HR
SGROUP# 3

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1975 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 6, -24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 30.27455 AND OCCURRED AT (500.0, 50.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	17.01346 (113, 1,24)	14.51564 (281, 1,21)	4.04736 (71, 1,24)
350.0	23.47955 (314, 1,23)	8.84367 (123, 1,24)	2.20108 (77, 1,24)
340.0	14.22899 (260, 1,24)	10.15483 (113, 1,24)	2.63132 (281, 1,22)
330.0	17.77487 (286, 1,24)	8.26342 (287, 1,18)	2.45403 (123, 1,24)
320.0	15.73546 (113, 1,24)	10.95977 (286, 1,24)	2.35545 (113, 1,24)
310.0	15.10801 (314, 1,23)	9.46575 (113, 1,24)	1.98809 (260, 1,24)
300.0	13.15871 (149, 1,24)	11.08227 (314, 1,23)	2.20674 (288, 1,23)
290.0	12.02650 (195, 1,20)	9.65643 (195, 1,20)	2.84082 (314, 1,23)
280.0	12.98353 (307, 1,24)	9.69538 (310, 1,24)	2.59288 (195, 1,21)
270.0	11.38132 (304, 1,24)	8.45260 (358, 1,24)	3.02832 (86, 1,24)
260.0	15.00557 (304, 1,24)	9.61253 (304, 1,24)	2.15477 (347, 1,24)
250.0	11.81198 (304, 1,24)	9.07832 (304, 1,24)	3.01795 (304, 1,24)
240.0	11.59329 (264, 1,22)	8.41601 (264, 1,22)	2.18236 (264, 1,22)
230.0	11.42744 (277, 1,24)	9.60021 (277, 1,24)	3.18285 (277, 1,24)
220.0	14.19390 (263, 1,20)	8.85500 (257, 1,24)	3.00290 (258, 1,24)
210.0	10.66047 (257, 1,24)	8.50749 (258, 1,24)	2.32772 (68, 1,24)
200.0	11.88341 (257, 1,24)	8.58539 (257, 1,24)	3.77940 (338, 1,24)
190.0	11.31560 (258, 1,24)	9.17949 (271, 1,23)	2.08441 (284, 1,20)
180.0	10.86465 (338, 1,24)	9.27181 (338, 1,24)	3.35834 (297, 1,24)
170.0	11.35782 (271, 1,21)	8.47363 (352, 1,24)	4.83760 (51, 1,22)
160.0	15.56177 (352, 1,24)	12.14914 (297, 1,24)	5.70437 (352, 1,24)
150.0	17.26659 (297, 1,24)	18.87172 (51, 1,22)	4.79001 (67, 1,24)
140.0	20.89583 (297, 1,24)	21.53046 (352, 1,24)	4.30413 (38, 1,22)
130.0	38.25850 (51, 1,22)	26.83005 (352, 1,24)	4.27668 (317, 1,24)
120.0	36.53453 (51, 1,22)	22.81912 (352, 1,24)	7.06694 (13, 1,24)
110.0	57.65495 (352, 1,24)	28.20560 (317, 1,24)	5.15578 (79, 1,23)
100.0	55.59549 (352, 1,24)	60.00359 (13, 1,24)	3.14981 (73, 1,24)
90.0	57.25891 (317, 1,24)	46.01408 (138, 1,24)	3.16361 (95, 1,24)
80.0	63.39545 (79, 1,23)	40.80023 (55, 1,24)	4.85106 (55, 1,24)
70.0	29.12282 (55, 1,24)	37.74438 (163, 1,24)	3.25198 (33, 1,18)
60.0	80.27455 (217, 1,22)	31.60248 (218, 1,24)	4.33471 (107, 1,20)
50.0	65.17957 (143, 1,23)	30.43793 (203, 1,18)	4.72494 (49, 1,24)
40.0	45.88454 (83, 1,23)	28.32458 (54, 1,24)	4.13943 (71, 1,24)
30.0	37.32350 (281, 1,22)	25.53384 (71, 1,24)	3.54274 (71, 1,24)
20.0	38.55992 (281, 1,21)	18.70680 (71, 1,24)	4.19818 (54, 1,24)
10.0	28.21921 (10, 1,24)	20.55014 (281, 1,21)	3.63290 (10, 1,24)

ISC CALMS
PROCESSOR

2ND HIGH
24-HR
SGROUP# 3

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1975 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 6, -24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 76.43625 AND OCCURRED AT (500.0, 60.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	16.56876 (149, 1,22)	14.06759 (114, 1,21)	2.89030 (261, 1,24)
350.0	13.04703 (237, 1,18)	8.33395 (311, 1,23)	1.84426 (71, 1,24)
340.0	12.99174 (238, 1,21)	8.39195 (187, 1,23)	1.64999 (227, 1,20)
330.0	13.68848 (238, 1,18)	7.57526 (260, 1,24)	1.96489 (142, 1,18)
320.0	15.53493 (251, 1,22)	8.25949 (113, 1,24)	1.79010 (187, 1,23)
310.0	10.71724 (195, 1,20)	8.04666 (251, 1,22)	1.76395 (113, 1,24)
300.0	10.16215 (77, 1,24)	6.77591 (77, 1,24)	2.15442 (251, 1,22)
290.0	11.84837 (310, 1,24)	7.90913 (149, 1,24)	1.90136 (77, 1,24)
280.0	12.79185 (86, 1,24)	9.10002 (307, 1,24)	2.03169 (149, 1,24)
270.0	9.88538 (2, 1,24)	7.96977 (307, 1,24)	2.53451 (307, 1,24)
260.0	11.62968 (34, 1,24)	7.80343 (34, 1,24)	1.83952 (304, 1,24)
250.0	10.27516 (34, 1,24)	7.51216 (34, 1,24)	2.34239 (3, 1,24)
240.0	10.51306 (276, 1,24)	7.07706 (276, 1,24)	1.95543 (276, 1,24)
230.0	11.08236 (276, 1,24)	8.33726 (276, 1,24)	2.45473 (241, 1,24)
220.0	11.72965 (257, 1,24)	8.77044 (277, 1,24)	2.70222 (257, 1,24)
210.0	10.62125 (241, 1,24)	7.91563 (257, 1,24)	2.23748 (257, 1,24)
200.0	10.71527 (258, 1,24)	8.08130 (258, 1,24)	2.29877 (271, 1,24)
190.0	10.42528 (257, 1,24)	6.66948 (338, 1,24)	2.00765 (353, 1,23)
180.0	10.59306 (271, 1,21)	6.90313 (271, 1,22)	3.04131 (320, 1,23)
170.0	11.26046 (352, 1,24)	7.16987 (297, 1,24)	4.39950 (352, 1,24)
160.0	12.27448 (297, 1,24)	10.46350 (352, 1,24)	2.41969 (336, 1,18)
150.0	14.69904 (320, 1,18)	14.53469 (352, 1,24)	4.10649 (352, 1,24)
140.0	19.08510 (51, 1,22)	18.84676 (51, 1,22)	3.83160 (269, 1,23)
130.0	21.70288 (352, 1,24)	18.29033 (336, 1,18)	3.74050 (61, 1,24)
120.0	35.86111 (352, 1,24)	21.19361 (67, 1,24)	5.21854 (78, 1,24)
110.0	36.12927 (275, 1,24)	24.46451 (61, 1,24)	5.02728 (13, 1,24)
100.0	55.47259 (38, 1,22)	36.43536 (78, 1,24)	2.86858 (1, 1,24)
90.0	48.39294 (51, 1,24)	33.35675 (139, 1,22)	3.10675 (55, 1,24)
80.0	50.94574 (291, 1,21)	31.38101 (124, 1,22)	2.92956 (157, 1,24)
70.0	18.23830 (365, 1,24)	29.81099 (115, 1,24)	2.95271 (32, 1,18)
60.0	76.43625 (216, 1,24)	28.99496 (70, 1,23)	3.50886 (163, 1,24)
50.0	61.89978 (54, 1,24)	26.16701 (202, 1,20)	4.40612 (109, 1,24)
40.0	40.28896 (71, 1,24)	27.65717 (143, 1,23)	3.82414 (217, 1,22)
30.0	32.90610 (71, 1,24)	19.25630 (88, 1,24)	3.46245 (245, 1,19)
20.0	25.34763 (217, 1,22)	14.11845 (72, 1,24)	3.03367 (331, 1,24)
10.0	27.57219 (123, 1,24)	16.83203 (10, 1,24)	3.26852 (136, 1,24)

OXY74

J6522A

```
*A START JOB 6522 OXY74     1      001 001 NER     OXY SULFUR          80001046.015  1.35.15 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6522 OXY74     1      001 001 NER     OXY SULFUR          80001046.015  1.35.15 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6522 OXY74     1      001 001 NER     OXY SULFUR          80001046.015  1.35.15 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6522 OXY74     1      001 001 NER     OXY SULFUR          80001046.015  1.35.15 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6522 OXY74     1      001 001 NER     OXY SULFUR          80001046.015  1.35.15 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6522 OXY74     1      001 001 NER     OXY SULFUR          80001046.015  1.35.15 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6522 OXY74     1      001 001 NER     OXY SULFUR          80001046.015  1.35.15 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6522 OXY74     1      001 001 NER     OXY SULFUR          80001046.015  1.35.15 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6522 OXY74     1      001 001 NER     OXY SULFUR          80001046.015  1.35.15 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6522 OXY74     1      001 001 NER     OXY SULFUR          80001046.015  1.35.15 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6522 OXY74     1      001 001 NER     OXY SULFUR          80001046.015  1.35.15 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6522 OXY74     1      001 001 NER     OXY SULFUR          80001046.015  1.35.15 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6522 OXY74     1      001 001 NER     OXY SULFUR          80001046.015  1.35.15 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6522 OXY74     1      001 001 NER     OXY SULFUR          80001046.015  1.35.15 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6522 OXY74     1      001 001 NER     OXY SULFUR          80001046.015  1.35.15 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6522 OXY74     1      001 001 NER     OXY SULFUR          80001046.015  1.35.15 AM 01APR86 PRINTER6 NER1 START A*
*A START JOB 6522 OXY74     1      001 001 NER     OXY SULFUR          80001046.015  1.35.15 AM 01APR86 PRINTER6 NER1 START A*
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N.E.R.O.C. NEWS: 3/28/86 9:43:08

-THE GOULD PLOTTER WILL BE UNAVAILABLE UNTIL FURTHER NOTICE DUE TO MECHANICAL FAILURE. CALL DAVE POKORNEY AT 904/392-4601, SUNCOM 622-4601 FOR MORE INFORMATION.
-SAS VERSION 5 BUGS HAVE BEEN FIXED. SEE MEMOS 86072.1, 86073.1, AND 86078.2 FOR MORE INFORMATION.
-THE I & R USERS COMMITTEE IS ACCEPTING APPLICATIONS FOR MEMBERSHIP UNTIL APRIL 18. SEE MEMO 86064.1 FOR MORE INFORMATION. (DEL)

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) = 1
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) = 1
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) = 0
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) = 0
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 = 24
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)	NGROUP = 3
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)	IPERD = 0
NUMBER OF X (RANGE) GRID VALUES	NXPNTS = 3
NUMBER OF Y (THETA) GRID VALUES	NYPNTS = 36
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 = 10.00 METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA	IMET = 9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION	DECAY =0.000000E+00
SURFACE STATION NO.	ISS = 93845
YEAR OF SURFACE DATA	ISY = 74
UPPER AIR STATION NO.	IUS = 13861
YEAR OF UPPER AIR DATA	IUY = 74
LOGICAL UNIT OF CALCULATION 'SAVE' TAPE	ITAP = 3
ALLOCATED DATA STORAGE	LIMIT = 43500 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MIMIT = 5739 WORDS

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1974 ***

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

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 0
```

*** NUMBER OF SOURCE NUMBERS REQUIRED TO DEFINE SOURCE GROUPS ***
(NSOGRP)

6, 4, 2,

*** SOURCE NUMBERS DEFINING SOURCE GROUPS ***
(IDSOR)

1, -8, 11, -14, 21, -24, 6, -8, 11, -24, 6, -24,

*** 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

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1974 ***

*** 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

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

500.0, 700.0, 2000.0,

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

(DEGREES)

10.0,	20.0,	30.0,	40.0,	50.0,	60.0,	70.0,	80.0,	90.0,	100.0,
110.0,	120.0,	130.0,	140.0,	150.0,	160.0,	170.0,	180.0,	190.0,	200.0,
210.0,	220.0,	230.0,	240.0,	250.0,	260.0,	270.0,	280.0,	290.0,	300.0,
310.0,	320.0,	330.0,	340.0,	350.0,	360.0,				

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1974 ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	1	0	5	0.19000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
2	1	0	5	0.63000E-01	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
3	1	0	5	0.11000E-01	52.0	63.0	0.0	6.00	1.40	1.40	0.00	0.00	0.00	0.00
4	1	0	5	0.30200E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
5	1	0	5	0.33000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
6	1	0	5	0.10000E-02	52.0	63.0	0.0	4.00	3.60	1.10	0.00	0.00	0.00	0.00
7	1	0	5	0.38400E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
8	1	0	5	0.38400E+00	115.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
9	2	0	5	0.93400E-04	25.0	0.0	0.0	5.00	0.00	32.00	0.00	0.00	0.00	0.00
10	2	0	5	0.29800E-03	25.0	82.0	0.0	6.00	0.00	30.50	0.00	0.00	0.00	0.00
11	0	0	5	0.50000E-02	381.0	69.0	0.0	12.20	300.00	20.20	1.22	0.00	0.00	0.00
12	1	0	5	0.80000E-02	396.0	58.0	0.0	4.60	4.30	10.60	0.00	0.00	0.00	0.00
13	0	0	5	0.15000E-01	465.0	108.0	0.0	15.20	300.00	1.00	1.00	0.00	0.00	0.00
14	0	0	5	0.17600E+00	442.0	99.0	0.0	6.10	300.00	1.00	1.00	0.00	0.00	0.00
15	1	0	5	0.15900E+00	366.0	152.0	0.0	3.00	2.80	7.10	0.00	0.00	0.00	0.00
16	0	0	5	0.90000E-02	381.0	146.0	0.0	2.40	300.00	1.00	1.00	0.00	0.00	0.00
17	0	0	5	0.10000E-02	381.0	146.0	0.0	1.20	300.00	1.00	1.00	0.00	0.00	0.00
18	0	0	5	0.10000E-02	366.0	142.0	0.0	1.20	300.00	1.00	1.00	0.00	0.00	0.00
19	0	0	5	0.10000E-02	308.0	63.0	0.0	6.10	300.00	1.00	1.00	0.00	0.00	0.00
20	1	0	5	0.10000E-02	52.0	63.0	0.0	3.00	4.30	2.10	0.00	0.00	0.00	0.00
21	1	0	5	0.29600E+00	320.0	180.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00
22	1	0	5	0.29600E+00	381.0	131.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00
23	1	0	5	0.29600E+00	439.0	66.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00
24	1	0	5	0.29600E+00	497.0	30.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1974 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 1 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 2 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 3 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1974 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 4 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 5 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 6 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1974 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 7 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 8 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 9 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1974 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 10 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 11 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 12 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 13 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 14 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 15 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 16 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 17 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 18 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 19 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 20 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 21 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1974 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 22 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 23 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 24 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1974 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE NO. = 1											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 2											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 4											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 9											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 10											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1974 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY WITH STABILITY AND WIND SPEED *

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
SOURCE NO. = 7						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 8						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 21						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 22						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 23						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1974 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY WITH STABILITY AND WIND SPEED *

SOURCE NO. = 24

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1974 ***

* SOURCE-RECEPTOR COMBINATIONS LESS THAN 100 METERS OR THREE BUILDING HEIGHTS IN DISTANCE. NO AVERAGE CONCENTRATION IS CALCULATED *

SOURCE NUMBER	- - RECEPTOR LOCATION - - X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)	DISTANCE BETWEEN (METERS)
12	500.0	80.0	77.83
12	500.0	90.0	96.29
13	500.0	70.0	63.20
13	500.0	80.0	34.63
14	500.0	70.0	77.21
14	500.0	80.0	51.85
15	500.0	70.0	90.31
16	500.0	70.0	92.30
17	500.0	70.0	92.30
21	500.0	60.0	94.88
22	500.0	60.0	91.82
22	500.0	70.0	59.38
22	500.0	80.0	81.79
23	500.0	70.0	71.39
23	500.0	80.0	19.27
23	500.0	90.0	51.82
24	500.0	80.0	18.95
24	500.0	90.0	-7.91
24	500.0	100.0	78.86

ISCST POST PROCESSOR VERSION 16-AUG-85

OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1974

ISW(26) = 0 CALMS WILL BE CONSIDERED.

CONTRIBUTION LEVEL IS: 0.2000E-08 MICROGRAMS/CUBIC METER

NOTES:

THE NUMBER OF HOURS USED TO CALCULATE THE CONCENTRATIONS ARE SHOWN WITH THE DAY AND PERIOD, E.G., 1.23456 (103, 1,23)

ISC CALMS
PROCESSOR

HIGH
24-HR
SGROUP# 1

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1974 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1, -8, 11, -14, 21, *
-24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 51.84784 AND OCCURRED AT (700.0, 90.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	25.37036 (353, 1,24)	19.16653 (353, 1,24)	4.59523 (353, 1,24)
350.0	19.48219 (131, 1,23)	10.23290 (103, 1,24)	2.25885 (131, 1,24)
340.0	27.34806 (356, 1,24)	14.91416 (243, 1,21)	2.92198 (116, 1,23)
330.0	22.99907 (134, 1,21)	20.09584 (134, 1,22)	3.57896 (356, 1,24)
320.0	23.12166 (101, 1,24)	16.83781 (52, 1,23)	2.34975 (52, 1,23)
310.0	21.69583 (111, 1,24)	14.88249 (237, 1,20)	2.87407 (52, 1,23)
300.0	17.41724 (217, 1,18)	14.56063 (101, 1,24)	2.88030 (52, 1,23)
290.0	39.17957 (302, 1,21)	17.57069 (302, 1,21)	2.56016 (101, 1,24)
280.0	21.02162 (348, 1,24)	18.42554 (302, 1,21)	4.75035 (302, 1,21)
270.0	15.62239 (19, 1,24)	10.77376 (19, 1,24)	3.16547 (348, 1,24)
260.0	22.99628 (303, 1,21)	11.71311 (269, 1,24)	2.45918 (194, 1,24)
250.0	18.71445 (321, 1,21)	15.34897 (321, 1,21)	3.75872 (303, 1,22)
240.0	19.50253 (267, 1,24)	12.96582 (267, 1,24)	3.56985 (276, 1,24)
230.0	29.91881 (276, 1,24)	19.40288 (276, 1,24)	4.07650 (277, 1,24)
220.0	25.03456 (313, 1,23)	18.98735 (313, 1,23)	6.01707 (313, 1,23)
210.0	15.61333 (264, 1,20)	10.21419 (264, 1,20)	3.72839 (313, 1,23)
200.0	22.84245 (319, 1,22)	15.08210 (319, 1,22)	3.34020 (319, 1,22)
190.0	16.23395 (311, 1,22)	12.36339 (311, 1,23)	2.88428 (280, 1,24)
180.0	18.62988 (57, 1,21)	13.09463 (57, 1,22)	3.46536 (280, 1,22)
170.0	20.22420 (281, 1,19)	14.04057 (280, 1,22)	3.99064 (57, 1,21)
160.0	16.03780 (280, 1,22)	13.58577 (280, 1,22)	2.73084 (329, 1,22)
150.0	17.79941 (35, 1,21)	11.97845 (35, 1,21)	3.54282 (35, 1,21)
140.0	19.75586 (338, 1,18)	15.85668 (343, 1,24)	3.73579 (76, 1,24)
130.0	21.92288 (280, 1,22)	20.03607 (35, 1,21)	4.86478 (56, 1,24)
120.0	22.73079 (35, 1,21)	18.83246 (35, 1,21)	4.92093 (39, 1,24)
110.0	26.59456 (57, 1,21)	31.82579 (76, 1,22)	4.92472 (336, 1,24)
100.0	38.99225 (35, 1,21)	33.54782 (39, 1,24)	5.62833 (335, 1,24)
90.0	46.25925 (56, 1,24)	51.84784 (336, 1,24)	4.16944 (336, 1,24)
80.0	29.55795 (336, 1,24)	37.22682 (174, 1,24)	4.71243 (342, 1,24)
70.0	31.46721 (342, 1,24)	33.39619 (197, 1,23)	4.51748 (90, 1,24)
60.0	38.25092 (346, 1,23)	27.92670 (162, 1,20)	3.97040 (197, 1,24)
50.0	45.84857 (103, 1,22)	26.09904 (78, 1,19)	4.26984 (123, 1,24)
40.0	39.15842 (83, 1,18)	23.95670 (353, 1,23)	4.29175 (91, 1,24)
30.0	33.12660 (309, 1,21)	20.47757 (308, 1,18)	4.37793 (78, 1,19)
20.0	33.12598 (78, 1,19)	18.81505 (78, 1,19)	4.27753 (94, 1,24)
10.0	36.70636 (1, 1,20)	21.79025 (1, 1,20)	4.38262 (1, 1,21)

ISC CALMS
PROCESSOR

2ND HIGH
24-HR
SGROUP# 1

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1974 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1, -8, 11, -14, 21, -24, *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 47.92384 AND OCCURRED AT (700.0, 90.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	24.28256 (52, 1,23)	14.05354 (134, 1,22)	2.64654 (346, 1,23)
350.0	19.47188 (245, 1,22)	10.21855 (131, 1,24)	1.87773 (52, 1,24)
340.0	20.79013 (137, 1,23)	12.62442 (238, 1,18)	2.44335 (356, 1,24)
330.0	21.11131 (52, 1,23)	11.82893 (242, 1,22)	2.78598 (134, 1,23)
320.0	21.72597 (52, 1,23)	13.33998 (101, 1,24)	2.11274 (5, 1,22)
310.0	21.08228 (101, 1,24)	14.46192 (111, 1,24)	2.34619 (112, 1,24)
300.0	17.22955 (214, 1,23)	10.66667 (140, 1,23)	2.70975 (101, 1,24)
290.0	27.52562 (217, 1,18)	15.91846 (217, 1,18)	2.22164 (304, 1,24)
280.0	20.21915 (217, 1,18)	13.39342 (217, 1,18)	3.32774 (58, 1,23)
270.0	14.91750 (269, 1,24)	10.06662 (72, 1,23)	2.10515 (141, 1,24)
260.0	17.74521 (73, 1,22)	10.68616 (303, 1,22)	2.30249 (160, 1,23)
250.0	17.97998 (303, 1,21)	11.09177 (303, 1,21)	3.41241 (73, 1,22)
240.0	19.24345 (277, 1,24)	12.31923 (312, 1,23)	3.18870 (267, 1,24)
230.0	23.19652 (333, 1,22)	15.89139 (333, 1,22)	3.66002 (267, 1,24)
220.0	19.77412 (268, 1,24)	13.90497 (268, 1,24)	3.94312 (84, 1,24)
210.0	14.22301 (357, 1,23)	10.15285 (357, 1,23)	3.15374 (268, 1,24)
200.0	12.52259 (279, 1,24)	10.78850 (276, 1,24)	1.97642 (247, 1,23)
190.0	14.05220 (280, 1,22)	9.57290 (280, 1,22)	2.63560 (319, 1,22)
180.0	15.70681 (273, 1,22)	11.74669 (273, 1,22)	3.27094 (57, 1,24)
170.0	18.79083 (280, 1,22)	13.31527 (281, 1,20)	3.21788 (311, 1,24)
160.0	15.44793 (311, 1,24)	9.34929 (292, 1,18)	2.61321 (310, 1,24)
150.0	16.82234 (280, 1,22)	11.62060 (280, 1,22)	2.18643 (56, 1,24)
140.0	17.66035 (343, 1,24)	12.46694 (57, 1,21)	3.67771 (56, 1,24)
130.0	21.31209 (76, 1,23)	18.92130 (56, 1,24)	4.12341 (76, 1,23)
120.0	22.51529 (57, 1,21)	14.35267 (56, 1,24)	3.50921 (325, 1,24)
110.0	24.97173 (337, 1,24)	29.69128 (56, 1,24)	4.64135 (355, 1,21)
100.0	36.10684 (56, 1,24)	30.22168 (99, 1,21)	5.58288 (336, 1,24)
90.0	36.14722 (347, 1,20)	47.92384 (335, 1,24)	3.59929 (364, 1,24)
80.0	24.49541 (335, 1,24)	31.78171 (89, 1,24)	4.25514 (174, 1,24)
70.0	27.20181 (174, 1,24)	26.77945 (88, 1,24)	4.19961 (71, 1,24)
60.0	35.10760 (1, 1,20)	26.99779 (90, 1,24)	3.20680 (34, 1,24)
50.0	41.19943 (63, 1,18)	25.46179 (33, 1,24)	4.15254 (359, 1,24)
40.0	34.77837 (130, 1,18)	23.76071 (10, 1,21)	3.93975 (45, 1,24)
30.0	32.68034 (5, 1,18)	19.71834 (26, 1,18)	3.89908 (309, 1,21)
20.0	30.58624 (94, 1,24)	17.31735 (33, 1,24)	3.46795 (33, 1,24)
10.0	33.32397 (208, 1,24)	18.25543 (229, 1,23)	4.24331 (353, 1,24)

ISC CALMS
PROCESSOR

HIGH
24-HR
SGROUP# 2

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1974 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 6, -8, 11, -24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 98.12384 AND OCCURRED AT (500.0, 80.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0		700.0		2000.0	
360.0	19.80259	(52, 1,23)	19.92996	(134, 1,23)	2.21783	(52, 1,24)
350.0	15.38935	(52, 1,23)	8.86108	(213, 1,22)	2.55070	(116, 1,22)
340.0	15.04908	(237, 1,20)	8.94835	(187, 1,23)	2.99270	(356, 1,24)
330.0	14.71296	(101, 1,24)	10.21823	(177, 1,24)	2.67055	(242, 1,22)
320.0	19.31168	(101, 1,24)	9.42305	(101, 1,24)	2.02582	(187, 1,23)
310.0	10.47075	(101, 1,24)	12.59502	(101, 1,24)	2.15884	(111, 1,24)
300.0	10.59632	(302, 1,21)	5.68963	(302, 1,21)	2.35937	(101, 1,24)
290.0	15.12450	(302, 1,21)	10.06525	(302, 1,21)	1.36456	(302, 1,21)
280.0	8.72313	(348, 1,24)	7.07599	(302, 1,21)	3.03022	(302, 1,21)
270.0	8.23388	(72, 1,23)	5.86263	(72, 1,23)	1.87477	(348, 1,24)
260.0	8.38738	(269, 1,24)	5.61718	(269, 1,24)	1.52122	(194, 1,24)
250.0	9.56760	(73, 1,22)	7.38442	(73, 1,22)	2.41309	(73, 1,22)
240.0	10.65605	(267, 1,24)	7.46096	(267, 1,24)	3.04972	(321, 1,21)
230.0	12.57783	(276, 1,24)	9.73744	(276, 1,24)	2.98073	(267, 1,24)
220.0	11.96955	(84, 1,24)	9.15093	(84, 1,24)	3.25937	(84, 1,24)
210.0	11.92277	(266, 1,24)	9.31998	(276, 1,24)	3.59615	(313, 1,23)
200.0	13.51550	(313, 1,23)	12.70771	(313, 1,23)	2.56887	(357, 1,23)
190.0	15.66271	(313, 1,23)	8.32217	(268, 1,24)	3.32655	(319, 1,22)
180.0	12.61873	(268, 1,24)	7.40156	(176, 1,24)	2.79774	(280, 1,22)
170.0	9.81024	(176, 1,24)	13.49694	(319, 1,22)	4.41676	(57, 1,21)
160.0	15.34607	(319, 1,22)	9.75822	(280, 1,22)	2.98777	(281, 1,22)
150.0	15.12080	(319, 1,22)	12.17657	(57, 1,21)	2.93088	(35, 1,22)
140.0	16.63187	(280, 1,22)	14.48405	(57, 1,21)	2.78099	(56, 1,24)
130.0	22.91748	(280, 1,22)	15.72944	(56, 1,24)	4.91118	(56, 1,24)
120.0	26.40952	(57, 1,21)	22.89392	(35, 1,21)	3.91417	(39, 1,24)
110.0	30.76234	(280, 1,22)	33.67221	(56, 1,24)	4.22678	(337, 1,24)
100.0	51.67850	(35, 1,21)	35.47562	(39, 1,24)	5.86241	(336, 1,24)
90.0	61.90805	(56, 1,24)	58.07184	(336, 1,24)	3.82570	(336, 1,24)
80.0	88.12384	(355, 1,21)	35.69049	(174, 1,24)	3.66854	(342, 1,24)
70.0	13.68362	(132, 1,24)	34.76009	(197, 1,23)	4.19164	(71, 1,24)
60.0	83.81502	(308, 1,18)	31.61880	(271, 1,24)	4.48428	(197, 1,24)
50.0	56.49097	(208, 1,24)	27.87268	(33, 1,24)	4.16264	(91, 1,24)
40.0	31.25938	(103, 1,24)	27.89780	(10, 1,21)	3.24425	(80, 1,24)
30.0	26.75244	(137, 1,21)	25.65828	(353, 1,23)	3.93103	(33, 1,24)
20.0	30.82341	(134, 1,22)	15.19213	(103, 1,24)	3.87339	(94, 1,24)
10.0	23.58098	(242, 1,22)	14.73816	(243, 1,22)	5.48179	(353, 1,24)

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1974 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 6, -24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 88.12384 AND OCCURRED AT (500.0, 80.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	22.22269 (52, 1,23)	20.27228 (134, 1,23)	2.27395 (52, 1,24)
350.0	17.18797 (52, 1,23)	9.60914 (213, 1,22)	2.58755 (116, 1,22)
340.0	15.11006 (237, 1,20)	8.94835 (187, 1,23)	2.99723 (356, 1,24)
330.0	15.62523 (101, 1,24)	10.21823 (177, 1,24)	2.67066 (242, 1,22)
320.0	21.38239 (101, 1,24)	10.69240 (101, 1,24)	2.02582 (187, 1,23)
310.0	12.00173 (101, 1,24)	13.20518 (101, 1,24)	2.25766 (237, 1,20)
300.0	10.71817 (302, 1,21)	5.76056 (302, 1,21)	2.50328 (101, 1,24)
290.0	15.53206 (302, 1,21)	10.19038 (302, 1,21)	1.36822 (302, 1,21)
280.0	10.03120 (348, 1,24)	7.43087 (302, 1,21)	3.07302 (302, 1,21)
270.0	9.47578 (72, 1,23)	6.30988 (72, 1,23)	2.05148 (348, 1,24)
260.0	11.78582 (73, 1,22)	6.71300 (269, 1,24)	1.55965 (194, 1,24)
250.0	11.55466 (73, 1,22)	8.82041 (73, 1,22)	2.83996 (73, 1,22)
240.0	13.33755 (303, 1,21)	8.29866 (267, 1,24)	3.04972 (321, 1,21)
230.0	15.06072 (84, 1,24)	10.80782 (276, 1,24)	3.12098 (267, 1,24)
220.0	13.27430 (84, 1,24)	10.07431 (84, 1,24)	3.50892 (84, 1,24)
210.0	11.98419 (266, 1,24)	9.32043 (276, 1,24)	3.60527 (313, 1,23)
200.0	13.51312 (313, 1,23)	12.70856 (313, 1,23)	2.56887 (357, 1,23)
190.0	15.66271 (313, 1,23)	8.61457 (268, 1,24)	3.36760 (319, 1,22)
180.0	12.70346 (258, 1,24)	7.62587 (280, 1,22)	2.96304 (280, 1,22)
170.0	10.61443 (319, 1,22)	13.95111 (319, 1,22)	4.51797 (57, 1,21)
160.0	15.53088 (319, 1,22)	9.76897 (280, 1,22)	2.98862 (281, 1,22)
150.0	15.12543 (319, 1,22)	12.28967 (57, 1,21)	2.93429 (35, 1,22)
140.0	16.63187 (280, 1,22)	14.48591 (57, 1,21)	2.85015 (56, 1,24)
130.0	22.91748 (280, 1,22)	16.36201 (56, 1,24)	5.00293 (56, 1,24)
120.0	26.40952 (57, 1,21)	22.89438 (35, 1,21)	4.25769 (39, 1,24)
110.0	30.76234 (280, 1,22)	34.16623 (56, 1,24)	4.24891 (337, 1,24)
100.0	51.67856 (35, 1,21)	35.82848 (39, 1,24)	5.87071 (336, 1,24)
90.0	81.91165 (56, 1,24)	58.07516 (336, 1,24)	3.82570 (336, 1,24)
80.0	88.12384 (355, 1,21)	36.33212 (174, 1,24)	3.91453 (342, 1,24)
70.0	15.61045 (88, 1,24)	35.00031 (197, 1,23)	4.43214 (71, 1,24)
60.0	83.81506 (308, 1,18)	32.24019 (271, 1,24)	4.51508 (197, 1,24)
50.0	56.58304 (208, 1,24)	28.01761 (33, 1,24)	4.23754 (91, 1,24)
40.0	32.32634 (103, 1,24)	27.90097 (10, 1,21)	3.24505 (80, 1,24)
30.0	26.75244 (137, 1,21)	26.76617 (353, 1,23)	4.10073 (33, 1,24)
20.0	30.82413 (134, 1,22)	16.30545 (103, 1,24)	3.99869 (94, 1,24)
10.0	24.77100 (242, 1,22)	14.94307 (243, 1,22)	5.74308 (353, 1,24)

ISC CALMS
PROCESSOR

2ND HIGH
24-HR
SGROUP# 3

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1974 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 6, -24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 75.90073 AND OCCURRED AT (500.0, 60.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	16.53273 (238, 1,18)	13.65751 (356, 1,24)	2.06849 (103, 1,24)
350.0	13.21289 (166, 1,21)	8.56546 (242, 1,22)	2.14319 (131, 1,24)
340.0	14.41321 (215, 1,24)	7.93458 (263, 1,24)	1.66485 (131, 1,24)
330.0	13.61357 (52, 1,23)	8.05371 (237, 1,20)	2.21812 (357, 1,21)
320.0	10.87590 (140, 1,23)	10.54724 (52, 1,23)	1.92678 (52, 1,23)
310.0	7.23597 (304, 1,24)	8.02905 (140, 1,23)	2.24978 (111, 1,24)
300.0	9.98555 (58, 1,22)	4.73781 (73, 1,24)	1.71088 (102, 1,24)
290.0	10.32926 (217, 1,18)	7.88879 (58, 1,23)	1.24176 (304, 1,24)
280.0	8.52027 (155, 1,24)	6.60742 (348, 1,24)	2.01736 (58, 1,23)
270.0	9.16147 (19, 1,24)	5.90654 (19, 1,24)	1.46654 (155, 1,24)
260.0	10.06587 (269, 1,24)	6.41872 (73, 1,22)	1.48599 (156, 1,24)
250.0	8.84108 (303, 1,22)	6.64838 (303, 1,22)	2.30836 (303, 1,22)
240.0	12.12073 (267, 1,24)	7.67127 (276, 1,24)	2.51201 (276, 1,24)
230.0	14.29860 (276, 1,24)	9.90779 (84, 1,24)	2.66730 (276, 1,24)
220.0	11.66892 (267, 1,24)	8.95199 (267, 1,24)	2.99905 (276, 1,24)
210.0	11.67449 (267, 1,24)	9.12174 (266, 1,24)	3.43580 (258, 1,24)
200.0	13.11411 (276, 1,24)	10.17664 (268, 1,24)	2.31117 (176, 1,24)
190.0	12.45575 (268, 1,24)	7.67323 (314, 1,22)	2.59944 (280, 1,24)
180.0	10.44958 (176, 1,24)	7.51136 (176, 1,24)	2.29762 (311, 1,24)
170.0	10.01751 (176, 1,24)	9.38942 (280, 1,22)	2.48000 (273, 1,22)
160.0	12.34797 (264, 1,20)	8.91247 (292, 1,21)	2.75879 (311, 1,24)
150.0	13.87934 (292, 1,18)	9.71607 (280, 1,22)	2.00850 (296, 1,19)
140.0	14.79258 (253, 1,22)	13.50931 (273, 1,22)	2.54540 (76, 1,24)
130.0	20.42493 (57, 1,21)	15.78228 (35, 1,21)	4.35155 (76, 1,24)
120.0	25.24251 (280, 1,22)	15.30713 (56, 1,24)	3.66789 (99, 1,21)
110.0	30.24477 (35, 1,21)	30.68219 (76, 1,23)	3.54854 (336, 1,24)
100.0	42.55269 (56, 1,24)	31.34760 (99, 1,21)	5.28062 (335, 1,24)
90.0	61.84479 (290, 1,18)	48.47527 (335, 1,24)	2.71700 (364, 1,24)
80.0	74.42319 (337, 1,24)	29.66054 (89, 1,24)	3.60036 (174, 1,24)
70.0	15.16074 (132, 1,24)	28.75421 (62, 1,18)	3.39543 (90, 1,24)
60.0	75.90073 (6, 1,18)	31.15823 (104, 1,22)	2.96435 (198, 1,22)
50.0	53.80238 (10, 1,21)	26.43553 (94, 1,24)	4.02438 (359, 1,24)
40.0	26.71692 (131, 1,24)	25.55795 (353, 1,23)	3.07854 (27, 1,19)
30.0	26.59973 (131, 1,24)	18.57730 (94, 1,24)	3.85785 (78, 1,21)
20.0	26.22171 (356, 1,24)	11.46452 (131, 1,24)	3.70119 (229, 1,23)
10.0	23.25903 (134, 1,23)	14.62592 (131, 1,24)	3.27173 (94, 1,24)

OXY73

J6520A

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*A START JOB 6520 OXY73    1     001 001 NER    OXY SULFUR    80001046,015 12.33.33 AM 01APR86 PRINTER6 NER1 START
*A START JOB 6520 OXY73    1     001 001 NER    OXY SULFUR    80001046,015 12.33.33 AM 01APR86 PRINTER6 NER1 START
*A START JOB 6520 OXY73    1     001 001 NER    OXY SULFUR    80001046,015 12.33.33 AM 01APR86 PRINTER6 NER1 START
*A START JOB 6520 OXY73    1     001 001 NER    OXY SULFUR    80001046,015 12.33.33 AM 01APR86 PRINTER6 NER1 START
*A START JOB 6520 OXY73    1     001 001 NER    OXY SULFUR    80001046,015 12.33.33 AM 01APR86 PRINTER6 NER1 START
*A START JOB 6520 OXY73    1     001 001 NER    OXY SULFUR    80001046,015 12.33.33 AM 01APR86 PRINTER6 NER1 START
*A START JOB 6520 OXY73    1     001 001 NER    OXY SULFUR    80001046,015 12.33.33 AM 01APR86 PRINTER6 NER1 START
*A START JOB 6520 OXY73    1     001 001 NER    OXY SULFUR    80001046,015 12.33.33 AM 01APR86 PRINTER6 NER1 START
*A START JOB 6520 OXY73    1     001 001 NER    OXY SULFUR    80001046,015 12.33.33 AM 01APR86 PRINTER6 NER1 START
*A START JOB 6520 OXY73    1     001 001 NER    OXY SULFUR    80001046,015 12.33.33 AM 01APR86 PRINTER6 NER1 START
*A START JOB 6520 OXY73    1     001 001 NER    OXY SULFUR    80001046,015 12.33.33 AM 01APR86 PRINTER6 NER1 START
*A START JOB 6520 OXY73    1     001 001 NER    OXY SULFUR    80001046,015 12.33.33 AM 01APR86 PRINTER6 NER1 START
*A START JOB 6520 OXY73    1     001 001 NER    OXY SULFUR    80001046,015 12.33.33 AM 01APR86 PRINTER6 NER1 START
*A START JOB 6520 OXY73    1     001 001 NER    OXY SULFUR    80001046,015 12.33.33 AM 01APR86 PRINTER6 NER1 START
*A START JOB 6520 OXY73    1     001 001 NER    OXY SULFUR    80001046,015 12.33.33 AM 01APR86 PRINTER6 NER1 START
*A START JOB 6520 OXY73    1     001 001 NER    OXY SULFUR    80001046,015 12.33.33 AM 01APR86 PRINTER6 NER1 START
*A START JOB 6520 OXY73    1     001 001 NER    OXY SULFUR    80001046,015 12.33.33 AM 01APR86 PRINTER6 NER1 START
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N.E.R.D.C. NEWS: 3/28/86 9:43:08

-THE GOULD PLOTTER WILL BE UNAVAILABLE UNTIL FURTHER NOTICE DUE TO MECHANICAL FAILURE. CALL DAVE POKORNEY AT 904/392-4601, SUNCOM 622-4601 FOR MORE INFORMATION.
-SAS VERSION 5 BUGS HAVE BEEN FIXED. SEE MEMOS 86072.1, 86073.1, AND 86078.2 FOR MORE INFORMATION.
-THE I & R USERS COMMITTEE IS ACCEPTING APPLICATIONS FOR MEMBERSHIP UNTIL APRIL 18. SEE MEMO 86064.1 FOR MORE INFORMATION. (DEL)

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973 ***

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)	= 1
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)	= 1
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)	= 0
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)	= 0
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	= 24
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)	NGROUP	= 3
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)	IPERD	= 0
NUMBER OF X (RANGE) GRID VALUES	NXPNTS	= 3
NUMBER OF Y (THETA) GRID VALUES	NYPNTS	= 36
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	= 10.00 METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA	IMET	= 9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION	DECAY	=0.000000E+00
SURFACE STATION NO.	ISS	= 93845
YEAR OF SURFACE DATA	ISY	= 73
UPPER AIR STATION NO.	IUS	= 13861
YEAR OF UPPER AIR DATA	IUY	= 73
LOGICAL UNIT OF CALCULATION 'SAVE' TAPE	ITAP	= 3
ALLOCATED DATA STORAGE	LIMIT	= 43500 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MIMIT	= 5739 WORDS

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973 ***

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

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1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 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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1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 0
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*** NUMBER OF SOURCE NUMBERS REQUIRED TO DEFINE SOURCE GROUPS ***
(NSOGRP)

6, 4, 2,

*** SOURCE NUMBERS DEFINING SOURCE GROUPS ***
(IDSOR)

1, -8, 11, -14, 21, -24, 6, -8, 11, -24, 6, -24,

*** 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

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973 ***

*** 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

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

500.0, 700.0, 2000.0,

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

(DEGREES)

10.0,	20.0,	30.0,	40.0,	50.0,	60.0,	70.0,	80.0,	90.0,	100.0,
110.0,	120.0,	130.0,	140.0,	150.0,	160.0,	170.0,	180.0,	190.0,	200.0,
210.0,	220.0,	230.0,	240.0,	250.0,	260.0,	270.0,	280.0,	290.0,	300.0,
310.0,	320.0,	330.0,	340.0,	350.0,	360.0,				

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973 ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	1	0	5	0.19000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
2	1	0	5	0.63000E-01	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
3	1	0	5	0.11000E-01	52.0	63.0	0.0	6.00	1.40	1.40	0.00	0.00	0.00	0.00
4	1	0	5	0.30200E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
5	1	0	5	0.33000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
6	1	0	5	0.10000E-02	52.0	63.0	0.0	4.00	3.60	1.10	0.00	0.00	0.00	0.00
7	1	0	5	0.38400E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
8	1	0	5	0.38400E+00	115.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
9	2	0	5	0.93400E-04	25.0	0.0	0.0	5.00	0.00	32.00	0.00	0.00	0.00	0.00
10	2	0	5	0.29800E-03	25.0	82.0	0.0	6.00	0.00	30.50	0.00	0.00	0.00	0.00
11	0	0	5	0.50000E-02	381.0	69.0	0.0	12.20	300.00	20.20	1.22	0.00	0.00	0.00
12	1	0	5	0.80000E-02	396.0	58.0	0.0	4.60	4.30	10.60	0.00	0.00	0.00	0.00
13	0	0	5	0.15000E-01	465.0	108.0	0.0	15.20	300.00	1.00	1.00	0.00	0.00	0.00
14	0	0	5	0.17600E+00	442.0	99.0	0.0	6.10	300.00	1.00	1.00	0.00	0.00	0.00
15	1	0	5	0.15900E+00	366.0	152.0	0.0	3.00	2.80	7.10	0.00	0.00	0.00	0.00
16	0	0	5	0.90000E-02	381.0	146.0	0.0	2.40	300.00	1.00	1.00	0.00	0.00	0.00
17	0	0	5	0.10000E-02	381.0	146.0	0.0	1.20	300.00	1.00	1.00	0.00	0.00	0.00
18	0	0	5	0.10000E-02	366.0	142.0	0.0	1.20	300.00	1.00	1.00	0.00	0.00	0.00
19	0	0	5	0.10000E-02	308.0	63.0	0.0	6.10	300.00	1.00	1.00	0.00	0.00	0.00
20	1	0	5	0.10000E-02	52.0	63.0	0.0	3.00	4.30	2.10	0.00	0.00	0.00	0.00
21	1	0	5	0.29600E+00	320.0	180.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00
22	1	0	5	0.29600E+00	381.0	131.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00
23	1	0	5	0.29600E+00	439.0	80.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00
24	1	0	5	0.29600E+00	497.0	30.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 1 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 2 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 3 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 4 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 5 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 6 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 7 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 8 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 9 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 10 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 11 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 12 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 13 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 14 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 15 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 16 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.73000,0.72000,0.65000,

*** SOURCE NUMBER = 17 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 18 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 19 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 20 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 21 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 22 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 23 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 24 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE NO. = 1											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 2											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 4											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 9											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 10											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY WITH STABILITY AND WIND SPEED *

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
SOURCE NO. = 7						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 8						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 21						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 22						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 23						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY WITH STABILITY AND WIND SPEED *

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
SOURCE NO. = 24						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973 ***

* SOURCE-RECEPTOR COMBINATIONS LESS THAN 100 METERS OR THREE BUILDING HEIGHTS IN DISTANCE. NO AVERAGE CONCENTRATION IS CALCULATED *

SOURCE NUMBER	- - RECEPTOR LOCATION - - X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)	DISTANCE BETWEEN (METERS)
12	500.0	80.0	77.83
12	500.0	90.0	96.29
13	500.0	70.0	63.20
13	500.0	80.0	34.63
14	500.0	70.0	77.21
14	500.0	80.0	51.85
15	500.0	70.0	90.31
16	500.0	70.0	92.30
17	500.0	70.0	92.30
21	500.0	60.0	94.88
22	500.0	60.0	91.82
22	500.0	70.0	59.33
22	500.0	80.0	81.79
23	500.0	70.0	71.39
23	500.0	80.0	19.27
23	500.0	90.0	51.82
24	500.0	80.0	18.95
24	500.0	90.0	-7.91
24	500.0	100.0	78.86

ISCST POST PROCESSOR VERSION 15-AUG-85

OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973

ISW(26) = 0 CALMS WILL BE CONSIDERED.

CONTRIBUTION LEVEL IS: 0.2000E-08 MICROGRAMS/CUBIC METER

NOTES:

THE NUMBER OF HOURS USED TO CALCULATE THE CONCENTRATIONS ARE SHOWN WITH THE DAY AND PERIOD, E.G., 1.23456 (103, 1.23)

ISC CALMS
PROCESSOR

HIGH
24-HR
SGROUP# 1

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1, -8, 11, -14, 21, -24, *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 56.69862 AND OCCURRED AT (500.0, 60.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	35.56013 (227, 1,22)	23.73489 (227, 1,22)	5.08406 (261, 1,21)
350.0	21.54524 (228, 1,21)	14.22820 (228, 1,21)	2.92366 (216, 1,18)
340.0	21.08783 (127, 1,24)	12.47204 (21, 1,24)	2.69227 (21, 1,24)
330.0	29.03456 (250, 1,22)	10.89050 (228, 1,21)	2.34376 (359, 1,22)
320.0	33.48578 (83, 1,24)	14.13763 (326, 1,20)	2.78195 (250, 1,24)
310.0	30.44356 (83, 1,23)	22.48853 (83, 1,24)	4.20401 (83, 1,24)
300.0	18.98932 (248, 1,24)	14.04885 (83, 1,23)	3.36884 (83, 1,24)
290.0	28.00905 (248, 1,24)	16.39449 (248, 1,24)	2.76075 (83, 1,23)
280.0	20.23833 (246, 1,24)	19.55472 (246, 1,24)	4.21887 (248, 1,24)
270.0	15.52151 (31, 1,24)	10.61695 (336, 1,24)	2.97510 (158, 1,23)
260.0	16.89943 (284, 1,24)	10.92409 (310, 1,24)	2.49520 (17, 1,24)
250.0	20.82574 (279, 1,20)	15.61180 (241, 1,23)	2.76383 (310, 1,24)
240.0	20.12573 (315, 1,24)	14.37843 (265, 1,23)	3.36382 (265, 1,23)
230.0	22.85008 (293, 1,24)	14.61415 (293, 1,24)	3.18625 (315, 1,24)
220.0	22.97198 (293, 1,24)	15.54603 (293, 1,24)	4.86683 (293, 1,24)
210.0	16.96269 (293, 1,24)	14.91170 (293, 1,24)	3.54936 (293, 1,24)
200.0	18.13245 (268, 1,22)	12.91000 (268, 1,22)	2.85109 (267, 1,23)
190.0	15.80104 (297, 1,19)	10.36199 (297, 1,19)	2.80054 (297, 1,19)
180.0	23.83305 (297, 1,19)	17.12129 (297, 1,19)	4.70898 (297, 1,19)
170.0	19.78391 (340, 1,20)	13.78505 (340, 1,21)	5.16354 (41, 1,24)
160.0	23.89023 (340, 1,19)	15.64318 (340, 1,19)	5.12350 (340, 1,19)
150.0	17.94498 (340, 1,19)	17.02628 (41, 1,24)	3.57203 (340, 1,19)
140.0	25.39996 (135, 1,24)	19.97299 (41, 1,24)	3.77303 (47, 1,24)
130.0	24.67743 (41, 1,24)	15.52139 (47, 1,24)	3.35133 (47, 1,24)
120.0	35.40131 (41, 1,24)	15.65219 (47, 1,24)	6.81886 (29, 1,24)
110.0	40.62801 (41, 1,24)	24.03633 (333, 1,24)	5.51330 (29, 1,24)
100.0	37.19751 (350, 1,24)	45.07846 (29, 1,24)	6.21450 (100, 1,24)
90.0	44.29892 (351, 1,23)	47.38174 (76, 1,24)	8.69314 (302, 1,24)
80.0	38.92798 (302, 1,24)	31.76138 (117, 1,24)	3.21284 (354, 1,24)
70.0	25.77150 (117, 1,24)	28.23965 (144, 1,24)	5.13188 (14, 1,19)
60.0	56.69862 (261, 1,21)	29.67638 (187, 1,22)	4.89696 (85, 1,24)
50.0	32.04018 (15, 1,24)	21.44748 (365, 1,24)	3.99380 (99, 1,24)
40.0	31.09824 (319, 1,18)	24.99611 (161, 1,23)	5.07701 (148, 1,24)
30.0	29.86218 (319, 1,18)	18.83743 (187, 1,22)	3.85514 (365, 1,24)
20.0	33.25667 (73, 1,22)	18.45061 (185, 1,20)	3.97924 (75, 1,23)
10.0	35.95792 (331, 1,22)	21.36664 (331, 1,22)	5.04832 (227, 1,22)

ISC CALMS
PROCESSOR

2ND HIGH
24-HR
SGROUP# 1

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1, -8, 11, -14, 21, -24, *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 53.00482 AND OCCURRED AT (500.0, 60.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	35.50595 (261, 1,21)	22.48160 (261, 1,21)	3.82223 (227, 1,22)
350.0	18.84445 (185, 1,20)	14.00401 (250, 1,23)	2.68106 (228, 1,21)
340.0	21.02182 (21, 1,24)	10.78517 (32, 1,24)	2.34398 (229, 1,19)
330.0	20.91206 (359, 1,22)	10.27555 (127, 1,24)	2.16897 (21, 1,24)
320.0	23.58395 (108, 1,24)	13.78731 (156, 1,22)	2.53544 (359, 1,22)
310.0	25.19318 (324, 1,24)	16.99176 (324, 1,24)	3.07944 (108, 1,24)
300.0	18.46925 (83, 1,23)	11.02899 (324, 1,24)	2.78613 (69, 1,23)
290.0	21.05251 (283, 1,24)	10.99367 (49, 1,24)	2.59532 (111, 1,24)
280.0	19.13922 (61, 1,24)	16.97052 (61, 1,24)	2.68044 (65, 1,24)
270.0	14.98627 (69, 1,24)	10.58965 (286, 1,24)	2.62961 (61, 1,24)
260.0	16.85349 (310, 1,24)	10.10662 (279, 1,19)	2.30011 (242, 1,23)
250.0	20.82104 (265, 1,22)	13.67840 (292, 1,24)	2.46578 (284, 1,24)
240.0	17.54214 (235, 1,24)	14.32287 (315, 1,24)	3.10123 (315, 1,24)
230.0	20.85828 (291, 1,24)	13.49356 (291, 1,24)	3.13280 (235, 1,24)
220.0	18.60599 (234, 1,24)	11.96754 (234, 1,24)	3.10130 (291, 1,24)
210.0	16.62967 (294, 1,24)	12.40012 (294, 1,24)	2.87900 (314, 1,24)
200.0	16.82578 (267, 1,23)	12.90894 (267, 1,23)	2.63232 (268, 1,23)
190.0	11.24364 (11, 1,24)	8.65381 (11, 1,24)	2.35174 (9, 1,24)
180.0	19.03577 (41, 1,24)	13.55061 (41, 1,24)	4.40661 (41, 1,24)
170.0	18.05751 (41, 1,24)	10.56755 (13, 1,18)	3.11197 (340, 1,23)
160.0	12.30024 (41, 1,24)	10.32803 (297, 1,19)	2.63035 (356, 1,23)
150.0	14.46362 (305, 1,18)	10.63511 (340, 1,19)	3.48812 (135, 1,24)
140.0	22.66437 (333, 1,24)	19.91949 (333, 1,24)	3.33316 (135, 1,24)
130.0	20.25916 (47, 1,24)	13.64961 (41, 1,24)	2.98065 (351, 1,24)
120.0	22.28384 (8, 1,24)	15.63808 (333, 1,24)	5.29987 (355, 1,24)
110.0	31.88306 (29, 1,24)	23.99937 (29, 1,24)	4.92731 (100, 1,24)
100.0	35.71877 (333, 1,24)	35.70387 (355, 1,24)	4.10859 (76, 1,24)
90.0	34.82909 (47, 1,24)	36.25856 (94, 1,24)	5.90337 (117, 1,24)
80.0	29.74208 (77, 1,23)	29.25363 (80, 1,24)	2.78179 (167, 1,24)
70.0	24.82927 (354, 1,24)	23.18106 (131, 1,21)	3.45376 (168, 1,24)
60.0	53.00482 (227, 1,21)	24.60596 (140, 1,24)	3.84735 (187, 1,22)
50.0	30.61235 (71, 1,23)	21.43765 (75, 1,23)	3.81830 (144, 1,24)
40.0	30.09589 (148, 1,24)	24.35242 (365, 1,24)	3.32718 (39, 1,23)
30.0	28.92784 (148, 1,24)	18.29321 (90, 1,24)	3.77797 (73, 1,23)
20.0	30.82846 (256, 1,22)	17.58046 (256, 1,22)	3.83651 (147, 1,24)
10.0	35.02058 (227, 1,22)	17.72659 (229, 1,18)	4.19004 (261, 1,23)

ISC CALMS
PROCESSOR

HIGH
24-HR
SGROUP# 2

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 6, -8, 11, -24, *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 80.63448 AND OCCURRED AT (500.0, 60.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0		700.0		2000.0	
360.0	15.90066	(156, 1,22)	10.97529	(228, 1,21)	2.43635	(228, 1,22)
350.0	16.55884	(326, 1,20)	13.97108	(250, 1,23)	2.22271	(338, 1,21)
340.0	17.18134	(83, 1,24)	11.09924	(326, 1,20)	2.38327	(21, 1,24)
330.0	12.21375	(83, 1,24)	12.51366	(83, 1,24)	1.95952	(359, 1,22)
320.0	17.27637	(83, 1,23)	8.89977	(83, 1,24)	2.20263	(326, 1,20)
310.0	16.32339	(83, 1,23)	11.89156	(83, 1,23)	3.20824	(83, 1,24)
300.0	12.95756	(83, 1,23)	8.81953	(83, 1,23)	2.56502	(83, 1,24)
290.0	10.64714	(246, 1,24)	9.17307	(248, 1,24)	2.01624	(83, 1,23)
280.0	9.51498	(158, 1,23)	8.74262	(246, 1,24)	2.48563	(248, 1,24)
270.0	8.36428	(87, 1,24)	5.77630	(87, 1,24)	1.98380	(158, 1,23)
260.0	8.28020	(279, 1,19)	5.68764	(279, 1,19)	1.66840	(17, 1,24)
250.0	8.39884	(310, 1,24)	6.42192	(310, 1,24)	1.75116	(105, 1,24)
240.0	8.41425	(241, 1,24)	6.84909	(241, 1,24)	2.80782	(292, 1,24)
230.0	9.62908	(265, 1,23)	8.05930	(265, 1,23)	2.40077	(315, 1,24)
220.0	10.83656	(315, 1,24)	8.19637	(315, 1,24)	3.00484	(293, 1,24)
210.0	9.88198	(235, 1,24)	8.51068	(293, 1,24)	2.82168	(314, 1,24)
200.0	13.78599	(293, 1,24)	9.58731	(293, 1,24)	2.06617	(293, 1,24)
190.0	13.63507	(293, 1,24)	9.15994	(293, 1,24)	2.43572	(268, 1,23)
180.0	13.97720	(293, 1,24)	7.33894	(294, 1,24)	2.94974	(41, 1,24)
170.0	11.98329	(8, 1,24)	9.82329	(268, 1,23)	4.90632	(41, 1,24)
160.0	12.10285	(268, 1,23)	9.68035	(297, 1,19)	3.32411	(340, 1,20)
150.0	15.09254	(297, 1,19)	17.24475	(41, 1,24)	3.37411	(340, 1,19)
140.0	22.33612	(297, 1,19)	20.03006	(41, 1,24)	4.47054	(135, 1,24)
130.0	27.63361	(41, 1,24)	19.07451	(340, 1,19)	3.17989	(47, 1,24)
120.0	40.48883	(41, 1,24)	16.70248	(333, 1,24)	5.02077	(29, 1,24)
110.0	44.22192	(41, 1,24)	28.53119	(47, 1,24)	5.81053	(29, 1,24)
100.0	48.67671	(333, 1,24)	47.94373	(29, 1,24)	5.12997	(100, 1,24)
90.0	52.48050	(47, 1,24)	45.57231	(76, 1,24)	7.62075	(302, 1,24)
80.0	56.07648	(355, 1,24)	37.80450	(302, 1,24)	3.11774	(354, 1,24)
70.0	21.71028	(354, 1,24)	30.81979	(144, 1,24)	5.32045	(14, 1,19)
60.0	80.63448	(187, 1,22)	36.91765	(187, 1,22)	3.98448	(85, 1,24)
50.0	70.96841	(74, 1,23)	30.30235	(187, 1,22)	3.25451	(72, 1,21)
40.0	40.23740	(216, 1,18)	28.93262	(330, 1,23)	4.31480	(187, 1,22)
30.0	23.88654	(113, 1,24)	29.37297	(261, 1,21)	3.76496	(365, 1,24)
20.0	24.75555	(228, 1,21)	14.47798	(228, 1,21)	3.55989	(75, 1,23)
10.0	20.29430	(359, 1,22)	10.31925	(216, 1,18)	4.57990	(261, 1,23)

ISC CALMS
PROCESSOR

2ND HIGH
24-HR
SGROUP# 2

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 6, -8, 11, -24, *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 73.35385 AND OCCURRED AT (500.0, 60.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0		700.0		2000.0	
360.0	14.13602	(250, 1,22)	8.89798	(21, 1,24)	2.14985	(62, 1,22)
350.0	15.24088	(21, 1,24)	11.00356	(359, 1,22)	1.93781	(360, 1,24)
340.0	16.34740	(324, 1,24)	10.01997	(21, 1,24)	2.34345	(229, 1,20)
330.0	11.35773	(245, 1,24)	9.33445	(324, 1,24)	1.73775	(194, 1,24)
320.0	11.03422	(245, 1,24)	8.41047	(245, 1,24)	1.78238	(108, 1,24)
310.0	11.26883	(111, 1,24)	7.37806	(245, 1,24)	2.38305	(324, 1,24)
300.0	11.13334	(248, 1,24)	7.31997	(111, 1,24)	2.21237	(105, 1,24)
290.0	10.19787	(283, 1,24)	8.22241	(65, 1,24)	1.92558	(111, 1,24)
280.0	8.62743	(110, 1,24)	8.15861	(61, 1,24)	2.17335	(65, 1,24)
270.0	6.91253	(336, 1,24)	5.44508	(286, 1,24)	1.66493	(244, 1,24)
260.0	7.75548	(310, 1,24)	5.23484	(87, 1,24)	1.50173	(242, 1,23)
250.0	7.67828	(279, 1,20)	5.09794	(295, 1,24)	1.67607	(310, 1,24)
240.0	8.13289	(284, 1,24)	6.64519	(294, 1,24)	2.49694	(241, 1,24)
230.0	9.52964	(241, 1,23)	6.60410	(315, 1,24)	2.39086	(265, 1,23)
220.0	10.29022	(265, 1,23)	7.07046	(235, 1,24)	1.99325	(104, 1,23)
210.0	8.42042	(315, 1,24)	7.16300	(294, 1,24)	2.75861	(293, 1,24)
200.0	10.69866	(291, 1,23)	7.79326	(291, 1,23)	1.73226	(40, 1,24)
190.0	10.34575	(314, 1,24)	8.00829	(234, 1,24)	2.39372	(267, 1,23)
180.0	11.17249	(234, 1,24)	6.74903	(41, 1,24)	2.36140	(52, 1,24)
170.0	10.73904	(41, 1,24)	8.09448	(8, 1,24)	3.79483	(297, 1,19)
160.0	10.42493	(9, 1,24)	8.06990	(41, 1,24)	3.21087	(25, 1,22)
150.0	14.45518	(267, 1,23)	14.25658	(297, 1,19)	2.57838	(356, 1,24)
140.0	18.90781	(41, 1,24)	15.94948	(340, 1,19)	2.98711	(47, 1,24)
130.0	23.85262	(297, 1,19)	14.55606	(41, 1,24)	2.66329	(53, 1,24)
120.0	25.59706	(340, 1,19)	16.24823	(47, 1,24)	3.55557	(355, 1,24)
110.0	37.74307	(340, 1,19)	26.91835	(333, 1,24)	4.31270	(355, 1,24)
100.0	42.84167	(47, 1,24)	34.84250	(355, 1,24)	3.43468	(76, 1,24)
90.0	45.53094	(135, 1,24)	39.07210	(355, 1,24)	5.26154	(117, 1,24)
80.0	54.70540	(29, 1,24)	31.01758	(77, 1,23)	2.38203	(167, 1,24)
70.0	19.65399	(76, 1,24)	25.30328	(186, 1,24)	3.31671	(168, 1,24)
60.0	73.35385	(223, 1,18)	35.11804	(140, 1,24)	3.67418	(15, 1,24)
50.0	62.24878	(331, 1,22)	25.89931	(148, 1,24)	3.06347	(140, 1,24)
40.0	39.95206	(228, 1,19)	26.26953	(261, 1,23)	4.27920	(148, 1,24)
30.0	23.28514	(228, 1,19)	20.52483	(227, 1,21)	3.65672	(73, 1,23)
20.0	20.42065	(21, 1,23)	11.82922	(185, 1,20)	3.25469	(147, 1,24)
10.0	19.21327	(250, 1,23)	10.08275	(21, 1,23)	3.68045	(215, 1,24)

ISC CALMS
PROCESSOR

HIGH
24-HR
SGROUP# 3

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 6, -24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 81.85773 AND OCCURRED AT (500.0, 60.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	17.75897 (156, 1,22)	10.97529 (228, 1,21)	2.43635 (228, 1,22)
350.0	16.60672 (108, 1,24)	14.04559 (250, 1,23)	2.28880 (338, 1,21)
340.0	17.18135 (83, 1,24)	11.09924 (326, 1,20)	2.47102 (229, 1,20)
330.0	12.23335 (83, 1,24)	12.51479 (83, 1,24)	2.41163 (359, 1,22)
320.0	18.44632 (83, 1,23)	9.12866 (83, 1,24)	2.20263 (326, 1,20)
310.0	18.44371 (83, 1,23)	12.79799 (83, 1,23)	3.32396 (83, 1,24)
300.0	14.98866 (83, 1,23)	10.33227 (83, 1,23)	2.77678 (83, 1,24)
290.0	11.14796 (246, 1,24)	9.19411 (248, 1,24)	2.19408 (83, 1,23)
280.0	9.94277 (110, 1,24)	8.92098 (246, 1,24)	2.48578 (248, 1,24)
270.0	9.24029 (87, 1,24)	8.27432 (87, 1,24)	1.99678 (158, 1,23)
260.0	10.45879 (279, 1,19)	7.03694 (279, 1,19)	1.72389 (17, 1,24)
250.0	9.25196 (310, 1,24)	7.01721 (310, 1,24)	1.76738 (310, 1,24)
240.0	9.44442 (241, 1,24)	7.52021 (241, 1,24)	2.85291 (292, 1,24)
230.0	10.23613 (265, 1,23)	8.45475 (265, 1,23)	2.47611 (315, 1,24)
220.0	11.33008 (315, 1,24)	8.54013 (315, 1,24)	3.14544 (293, 1,24)
210.0	9.95009 (235, 1,24)	8.53129 (293, 1,24)	2.92369 (314, 1,24)
200.0	13.78645 (293, 1,24)	9.58742 (293, 1,24)	2.06617 (293, 1,24)
190.0	13.63507 (293, 1,24)	9.15994 (293, 1,24)	2.43572 (268, 1,23)
180.0	13.97720 (293, 1,24)	8.54146 (41, 1,24)	3.33061 (41, 1,24)
170.0	12.73504 (8, 1,24)	9.82329 (268, 1,23)	4.92560 (41, 1,24)
160.0	13.12299 (57, 1,24)	10.52374 (297, 1,19)	3.45781 (340, 1,20)
150.0	15.29950 (297, 1,19)	17.63251 (41, 1,24)	3.42321 (340, 1,19)
140.0	22.33643 (297, 1,19)	20.40070 (41, 1,24)	4.49180 (135, 1,24)
130.0	27.69801 (41, 1,24)	19.14590 (340, 1,19)	3.22875 (47, 1,24)
120.0	40.48886 (41, 1,24)	16.80563 (333, 1,24)	5.23561 (29, 1,24)
110.0	44.22192 (41, 1,24)	28.67609 (47, 1,24)	5.96227 (29, 1,24)
100.0	48.79893 (333, 1,24)	48.66426 (29, 1,24)	5.14425 (100, 1,24)
90.0	52.48077 (47, 1,24)	46.46761 (76, 1,24)	7.62267 (302, 1,24)
80.0	56.08360 (355, 1,24)	37.80585 (302, 1,24)	3.11774 (354, 1,24)
70.0	21.71028 (354, 1,24)	30.81891 (144, 1,24)	5.33101 (14, 1,19)
60.0	81.85773 (187, 1,22)	37.57202 (187, 1,22)	4.14307 (85, 1,24)
50.0	72.10762 (74, 1,23)	30.76657 (187, 1,22)	3.35835 (72, 1,21)
40.0	42.25960 (228, 1,19)	29.01906 (330, 1,23)	4.61249 (148, 1,24)
30.0	25.17268 (113, 1,24)	29.44298 (261, 1,21)	3.91571 (73, 1,23)
20.0	24.75555 (228, 1,21)	14.47798 (228, 1,21)	3.77173 (75, 1,23)
10.0	20.62776 (359, 1,22)	11.17788 (331, 1,22)	4.63143 (261, 1,23)

ISC CALMS
PROCESSOR

2ND HIGH
24-HR
SGROUP# 3

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1973 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 6, -24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 73.35413 AND OCCURRED AT (500.0, 60.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0		700.0		2000.0	
360.0	14.95892	(359, 1,22)	9.64991	(128, 1,24)	2.38166	(62, 1,22)
350.0	16.55884	(326, 1,20)	11.04790	(359, 1,22)	1.98427	(216, 1,18)
340.0	17.02164	(324, 1,24)	10.08972	(21, 1,24)	2.38344	(21, 1,24)
330.0	11.41607	(245, 1,24)	9.90429	(324, 1,24)	1.76557	(194, 1,24)
320.0	11.68727	(245, 1,24)	8.58968	(245, 1,24)	1.79665	(108, 1,24)
310.0	12.26532	(111, 1,24)	8.20503	(245, 1,24)	2.42900	(324, 1,24)
300.0	11.71110	(111, 1,24)	7.53531	(111, 1,24)	2.21933	(105, 1,24)
290.0	10.68106	(283, 1,24)	8.22241	(65, 1,24)	1.99717	(111, 1,24)
280.0	9.79656	(158, 1,23)	8.15861	(61, 1,24)	2.17335	(65, 1,24)
270.0	7.87280	(279, 1,19)	5.67452	(286, 1,24)	1.74155	(110, 1,24)
260.0	8.68993	(310, 1,24)	5.92725	(87, 1,24)	1.50684	(242, 1,23)
250.0	8.69078	(279, 1,20)	5.67160	(295, 1,24)	1.75143	(105, 1,24)
240.0	8.57896	(280, 1,24)	6.82559	(284, 1,24)	2.61293	(241, 1,24)
230.0	9.72794	(241, 1,23)	7.15853	(315, 1,24)	2.46573	(265, 1,23)
220.0	10.45077	(265, 1,23)	7.12530	(235, 1,24)	2.23372	(314, 1,24)
210.0	9.19352	(294, 1,24)	7.78433	(294, 1,24)	2.76034	(293, 1,24)
200.0	10.79966	(291, 1,23)	7.83711	(291, 1,23)	1.86345	(40, 1,24)
190.0	10.34848	(314, 1,24)	8.02142	(234, 1,24)	2.39372	(267, 1,23)
180.0	11.52664	(41, 1,24)	7.46829	(9, 1,24)	2.41167	(52, 1,24)
170.0	11.89203	(41, 1,24)	8.51824	(8, 1,24)	3.86551	(297, 1,19)
160.0	12.10285	(268, 1,23)	8.35572	(41, 1,24)	3.21087	(25, 1,22)
150.0	14.45518	(267, 1,23)	14.28981	(297, 1,19)	2.57838	(356, 1,24)
140.0	19.71533	(41, 1,24)	16.30046	(340, 1,19)	3.03110	(47, 1,24)
130.0	23.85262	(297, 1,19)	14.56041	(41, 1,24)	2.73965	(53, 1,24)
120.0	25.60992	(340, 1,19)	16.64754	(47, 1,24)	3.72808	(355, 1,24)
110.0	37.74309	(340, 1,19)	26.91850	(333, 1,24)	4.47133	(355, 1,24)
100.0	42.89082	(47, 1,24)	35.71071	(355, 1,24)	3.65069	(76, 1,24)
90.0	45.62129	(135, 1,24)	39.22415	(355, 1,24)	5.43049	(117, 1,24)
80.0	54.70543	(29, 1,24)	31.70528	(77, 1,23)	2.46201	(167, 1,24)
70.0	20.73233	(76, 1,24)	25.59946	(186, 1,24)	3.37626	(168, 1,24)
60.0	73.35413	(223, 1,18)	36.22313	(140, 1,24)	3.82410	(15, 1,24)
50.0	62.24878	(331, 1,22)	26.01138	(148, 1,24)	3.29859	(144, 1,24)
40.0	40.35054	(216, 1,18)	26.53424	(365, 1,24)	4.31511	(187, 1,22)
30.0	23.30705	(228, 1,19)	21.07289	(227, 1,21)	3.91147	(365, 1,24)
20.0	20.42065	(21, 1,23)	12.35371	(304, 1,20)	3.53844	(147, 1,24)
10.0	19.83640	(250, 1,23)	10.86889	(360, 1,24)	3.69297	(215, 1,24)

[redacted]

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      000000000000     XX           XX   YY          YY  77777777777   222222222222
     00          00    XX         XX     YY        YY   77        77  22           22
    00          00     XX       XX       YY      YY             77              22
   00          00      XX     XX         YY    YY             77              22
  00          00       XXXX              YYYY               77            22
 00          00      XXXX                YY                77          22
00          00     XX    XX            YY                 77        22
00          00    XX     XX           YY                77       22
00          00   XX      XX          YY               77      22
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 JJJJJJJJJ    6666666666   555555555555       11        8888888888            AAAAAAAAAA
 JJJJJJJJJ   666666666666  555555555555      111       888888888888          AAAAAAAAAAAA
        JJ   66        66  55               1111       88        88          AA        AA
        JJ   66            55                 11       88        88          AA        AA
        JJ   66            55                 11        88      88           AA        AA
        JJ   66666666666   555555555          11         88888888            AAAAAAAAAAAA
        JJ   666666666666  5555555555         11         88888888            AAAAAAAAAAAA
        JJ   66        66          55         11        88      88           AA        AA
JJ      JJ   66        66           55        11       88        88          AA        AA
JJ      JJ   66        66           55        11       88        88          AA        AA
JJJJJJJJ     666666666666  555555555555   1111111111   888888888888          AA        AA
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*A START JOB 6518 OXY72   1   001 001 NER   OXY SULFUR   80001046,015 11.10.53 PM 31MAR86 PRINTER6 NER1 START A*
*A START JOB 6518 OXY72   1   001 001 NER   OXY SULFUR   80001046,015 11.10.53 PM 31MAR86 PRINTER6 NER1 START A*
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*A START JOB 6518 OXY72   1   001 001 NER   OXY SULFUR   80001046,015 11.10.53 PM 31MAR86 PRINTER6 NER1 START A*
*A START JOB 6518 OXY72   1   001 001 NER   OXY SULFUR   80001046,015 11.10.53 PM 31MAR86 PRINTER6 NER1 START A*
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N.E.R.D.C. NEWS: 3/28/86 9:43:08

-THE GOULD PLOTTER WILL BE UNAVAILABLE UNTIL FURTHER NOTICE DUE TO MECHANICAL FAILURE. CALL DAVE POKORNEY AT 904/392-4601, SUNCOM 622-4601 FOR MORE INFORMATION.

-SAS VERSION 5 BUGS HAVE BEEN FIXED. SEE MEMOS 86072.1, 86073.1, AND 86078.2 FOR MORE INFORMATION.

-THE I & R USERS COMMITTEE IS ACCEPTING APPLICATIONS FOR MEMBERSHIP UNTIL APRIL 18. SEE MEMO 86064.1 FOR MORE INFORMATION. (DEL)

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) = 1
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) = 1
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) = 0
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) = 0
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 = 24
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)	NGROUP = 3
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)	IPERD = 0
NUMBER OF X (RANGE) GRID VALUES	NXPNTS = 3
NUMBER OF Y (THETA) GRID VALUES	NYPNTS = 36
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 = 10.00 METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA	IMET = 9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION	DECAY =0.000000E+00
SURFACE STATION NO.	ISS = 93845
YEAR OF SURFACE DATA	ISY = 72
UPPER AIR STATION NO.	IUS = 13861
YEAR OF UPPER AIR DATA	IUY = 72
LOGICAL UNIT OF CALCULATION 'SAVE' TAPE	ITAP = 3
ALLOCATED DATA STORAGE	LIMIT = 43500 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MIMIT = 5739 WORDS

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1972 ***

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

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1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 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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*** NUMBER OF SOURCE NUMBERS REQUIRED TO DEFINE SOURCE GROUPS ***
(NSOGRP)

6, 4, 2,

*** SOURCE NUMBERS DEFINING SOURCE GROUPS ***
(IDSOR)

1, -8, 11, -14, 21, -24, 6, -8, 11, -24, 6, -24,

*** 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

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

500.0, 700.0, 2000.0,

*** RADIAL ANGLES OF POLAR GRID SYSTEM ***
(DEGREES)

10.0,	20.0,	30.0,	40.0,	50.0,	60.0,	70.0,	80.0,	90.0,	100.0,
110.0,	120.0,	130.0,	140.0,	150.0,	160.0,	170.0,	180.0,	190.0,	200.0,
210.0,	220.0,	230.0,	240.0,	250.0,	260.0,	270.0,	280.0,	290.0,	300.0,
310.0,	320.0,	330.0,	340.0,	350.0,	360.0,				

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1972 ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	1	0	5	0.19000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
2	1	0	5	0.63000E-01	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
3	1	0	5	0.11000E-01	52.0	63.0	0.0	6.00	1.40	1.40	0.00	0.00	0.00	0.00
4	1	0	5	0.30200E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
5	1	0	5	0.33000E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
6	1	0	5	0.10000E-02	52.0	83.0	0.0	4.00	3.60	1.10	0.00	0.00	0.00	0.00
7	1	0	5	0.38400E+00	35.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
8	1	0	5	0.38400E+00	115.0	120.0	0.0	3.80	3.50	17.70	0.00	0.00	0.00	0.00
9	2	0	5	0.93400E-04	25.0	0.0	0.0	5.00	0.00	32.00	0.00	0.00	0.00	0.00
10	2	0	5	0.29800E-03	25.0	82.0	0.0	6.00	0.00	30.50	0.00	0.00	0.00	0.00
11	0	0	5	0.50000E-02	381.0	69.0	0.0	12.20	300.00	20.20	1.22	0.00	0.00	0.00
12	1	0	5	0.80000E-02	396.0	58.0	0.0	4.60	4.30	10.60	0.00	0.00	0.00	0.00
13	0	0	5	0.15000E-01	465.0	108.0	0.0	15.20	300.00	1.00	1.00	0.00	0.00	0.00
14	0	0	5	0.17600E+00	442.0	99.0	0.0	6.10	300.00	1.00	1.00	0.00	0.00	0.00
15	1	0	5	0.15900E+00	366.0	152.0	0.0	3.00	2.80	7.10	0.00	0.00	0.00	0.00
16	0	0	5	0.90000E-02	381.0	146.0	0.0	2.40	300.00	1.00	1.00	0.00	0.00	0.00
17	0	0	5	0.10000E-02	381.0	146.0	0.0	1.20	300.00	1.00	1.00	0.00	0.00	0.00
18	0	0	5	0.10000E-02	366.0	142.0	0.0	1.20	300.00	1.00	1.00	0.00	0.00	0.00
19	0	0	5	0.10000E-02	308.0	63.0	0.0	6.10	300.00	1.00	1.00	0.00	0.00	0.00
20	1	0	5	0.10000E-02	52.0	63.0	0.0	3.00	4.30	2.10	0.00	0.00	0.00	0.00
21	1	0	5	0.29600E+00	320.0	180.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00
22	1	0	5	0.29600E+00	381.0	131.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00
23	1	0	5	0.29600E+00	439.0	66.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00
24	1	0	5	0.29600E+00	497.0	30.0	0.0	6.10	5.70	17.70	0.00	0.00	0.00	0.00

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1972 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 1 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 2 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 3 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1972 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 4 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 5 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 6 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 7 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 8 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 9 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 10 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 11 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 12 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1972 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 13 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 14 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 15 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 16 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 17 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 18 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 19 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 20 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 21 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1972 ***

*** SOURCE PARTICULATE DATA ***

*** SOURCE NUMBER = 22 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 23 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** SOURCE NUMBER = 24 ***

MASS FRACTION =
0.20000,0.20000,0.20000,0.20000,0.20000,

SETTLING VELOCITY(METERS/SEC) =
0.0004, 0.0025, 0.0086, 0.0197, 0.0412,

SURFACE REFLECTION COEFFICIENT =
1.00000,0.90000,0.78000,0.72000,0.65000,

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1972 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE NO. = 1											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 2											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 4											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 9											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE NO. = 10											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1972 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY WITH STABILITY AND WIND SPEED *

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
SOURCE NO. = 7						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 8						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 21						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 22						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
SOURCE NO. = 23						
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1972 ***

* SOURCE EMISSION RATE SCALARS WHICH VARY WITH STABILITY AND WIND SPEED *

SOURCE NO. = 24

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
B	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
C	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
D	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
E	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01
F	.00000E+00	.00000E+00	.00000E+00	.10000E+01	.10000E+01	.10000E+01

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1972 ***

* SOURCE-RECEPTOR COMBINATIONS LESS THAN 100 METERS OR THREE BUILDING HEIGHTS IN DISTANCE. NO AVERAGE CONCENTRATION IS CALCULATED *

SOURCE NUMBER	- - RECEPTOR LOCATION - - X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)	DISTANCE BETWEEN (METERS)
12	500.0	80.0	77.83
12	500.0	90.0	96.29
13	500.0	70.0	63.20
13	500.0	80.0	34.63
14	500.0	70.0	77.21
14	500.0	80.0	51.85
15	500.0	70.0	90.31
16	500.0	70.0	92.30
17	500.0	70.0	92.30
21	500.0	60.0	94.88
22	500.0	60.0	91.82
22	500.0	70.0	59.38
22	500.0	80.0	81.79
23	500.0	70.0	71.39
23	500.0	80.0	19.27
23	500.0	90.0	51.82
24	500.0	80.0	18.95
24	500.0	90.0	-7.91
24	500.0	100.0	78.86

ISCST POST PROCESSOR VERSION 16-AUG-85

OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1972

ISW(26) = 0 CALMS WILL BE CONSIDERED.

CONTRIBUTION LEVEL IS: 0.2000E-08 MICROGRAMS/CUBIC METER

NOTES:

THE NUMBER OF HOURS USED TO CALCULATE THE CONCENTRATIONS ARE SHOWN WITH THE DAY AND PERIOD, E.G., 1.23456 (103, 1.23)

ISC CALMS
PROCESSOR

HIGH
24-HR
SGROUP# 1

*** UXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1972 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1, -8, 11, -14, 21, -24, *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 54.95825 AND OCCURRED AT (500.0, 30.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	39.27408 (240, 1,19)	18.23494 (240, 1,19)	4.49466 (240, 1,19)
350.0	23.20003 (240, 1,19)	17.76627 (240, 1,19)	4.23601 (332, 1,21)
340.0	28.40169 (333, 1,22)	12.99223 (267, 1,18)	3.06039 (242, 1,23)
330.0	31.22908 (272, 1,18)	18.48251 (272, 1,18)	3.63032 (333, 1,23)
320.0	22.74739 (213, 1,22)	14.58357 (333, 1,22)	3.44040 (333, 1,22)
310.0	22.27858 (133, 1,24)	11.93796 (133, 1,24)	2.92108 (213, 1,22)
300.0	23.36104 (127, 1,23)	14.10660 (127, 1,23)	3.59454 (347, 1,24)
290.0	22.27029 (127, 1,23)	15.81735 (165, 1,24)	3.10960 (127, 1,23)
280.0	28.34937 (169, 1,24)	20.41016 (169, 1,24)	3.46805 (168, 1,23)
270.0	20.74800 (163, 1,24)	13.61229 (163, 1,24)	4.65919 (169, 1,24)
260.0	27.29553 (132, 1,24)	17.43127 (132, 1,24)	3.15459 (163, 1,24)
250.0	29.87532 (311, 1,24)	19.30511 (311, 1,24)	4.90182 (132, 1,24)
240.0	21.08688 (311, 1,24)	16.82077 (311, 1,24)	5.83713 (311, 1,24)
230.0	18.80634 (294, 1,24)	13.14753 (41, 1,24)	3.60806 (41, 1,24)
220.0	20.75320 (17, 1,24)	12.11277 (234, 1,22)	3.43398 (41, 1,24)
210.0	18.10748 (147, 1,24)	14.16835 (147, 1,24)	3.75083 (17, 1,24)
200.0	18.53284 (41, 1,24)	12.30258 (41, 1,24)	3.14662 (147, 1,24)
190.0	19.29712 (69, 1,20)	14.73481 (69, 1,20)	4.77101 (69, 1,20)
180.0	19.68135 (148, 1,24)	13.60178 (69, 1,20)	5.42790 (69, 1,20)
170.0	25.33704 (116, 1,23)	15.12030 (116, 1,23)	4.40689 (15, 1,23)
160.0	20.78938 (351, 1,24)	14.01541 (351, 1,24)	4.72896 (351, 1,24)
150.0	23.73596 (309, 1,24)	14.71494 (69, 1,20)	4.46499 (313, 1,24)
140.0	19.51212 (313, 1,22)	16.85033 (351, 1,24)	4.70691 (313, 1,22)
130.0	23.55559 (69, 1,20)	23.78766 (351, 1,24)	5.47934 (35, 1,24)
120.0	32.09200 (15, 1,23)	25.26387 (35, 1,24)	5.10043 (51, 1,23)
110.0	41.63087 (15, 1,23)	24.66431 (51, 1,20)	7.78631 (50, 1,24)
100.0	43.12755 (351, 1,24)	40.56775 (51, 1,22)	5.37905 (83, 1,23)
90.0	30.15912 (35, 1,24)	42.75966 (173, 1,24)	5.83948 (363, 1,18)
80.0	33.62624 (363, 1,18)	34.79393 (363, 1,18)	3.62936 (260, 1,23)
70.0	25.85515 (331, 1,24)	28.71782 (181, 1,24)	3.51877 (172, 1,24)
60.0	44.68530 (240, 1,19)	54.77515 (292, 1,19)	4.34986 (98, 1,24)
50.0	40.14047 (341, 1,23)	28.99744 (88, 1,22)	4.52521 (105, 1,24)
40.0	34.32864 (105, 1,24)	24.02570 (273, 1,19)	6.00546 (292, 1,19)
30.0	54.95825 (292, 1,19)	30.86880 (292, 1,19)	4.68353 (292, 1,19)
20.0	36.85445 (13, 1,24)	18.62924 (13, 1,24)	5.64264 (13, 1,24)
10.0	33.63916 (12, 1,22)	18.62352 (48, 1,24)	3.87482 (12, 1,23)

ISC CALMS
PROCESSOR

2ND HIGH
24-HR
SGROUP# 1

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1972 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1, -8, 11, -14, 21, *
-24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 40.83284 AND OCCURRED AT (700.0, 60.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	28.37721 (230, 1,23)	14.89509 (230, 1,23)	3.00542 (61, 1,24)
350.0	22.35068 (349, 1,21)	14.87906 (212, 1,24)	3.87473 (240, 1,19)
340.0	23.71764 (20, 1,18)	12.79847 (349, 1,21)	2.99840 (20, 1,18)
330.0	25.57269 (333, 1,22)	12.82519 (271, 1,18)	3.07658 (20, 1,18)
320.0	19.68401 (236, 1,24)	14.36139 (213, 1,22)	2.71227 (266, 1,21)
310.0	21.94673 (347, 1,24)	11.88389 (236, 1,24)	2.76746 (160, 1,20)
300.0	22.38187 (165, 1,24)	13.20523 (270, 1,23)	2.89420 (133, 1,24)
290.0	21.91705 (225, 1,21)	14.98973 (168, 1,23)	2.70543 (133, 1,24)
280.0	21.60736 (163, 1,24)	17.37863 (225, 1,21)	3.31126 (164, 1,24)
270.0	18.69531 (132, 1,24)	12.67238 (127, 1,23)	2.83011 (163, 1,24)
260.0	21.46811 (276, 1,24)	14.84559 (276, 1,24)	3.07821 (276, 1,24)
250.0	21.68787 (132, 1,24)	15.18859 (132, 1,24)	3.80507 (311, 1,24)
240.0	18.00110 (329, 1,24)	12.44602 (132, 1,24)	3.76888 (121, 1,24)
230.0	18.49249 (41, 1,24)	12.48306 (294, 1,24)	3.36246 (284, 1,23)
220.0	17.59180 (285, 1,24)	12.01013 (17, 1,24)	3.29892 (294, 1,24)
210.0	16.58778 (251, 1,20)	11.53754 (41, 1,24)	3.56853 (147, 1,24)
200.0	15.71682 (286, 1,19)	11.02627 (286, 1,19)	2.83250 (286, 1,21)
190.0	15.06717 (139, 1,24)	10.95101 (148, 1,24)	2.45985 (279, 1,22)
180.0	19.56281 (69, 1,20)	13.35898 (148, 1,24)	3.14716 (148, 1,24)
170.0	18.40128 (148, 1,24)	11.46614 (15, 1,23)	3.72658 (351, 1,24)
160.0	19.44612 (85, 1,24)	11.12116 (65, 1,24)	3.50237 (15, 1,23)
150.0	22.88287 (194, 1,19)	14.59000 (309, 1,24)	2.85548 (351, 1,24)
140.0	17.10980 (69, 1,20)	16.73509 (15, 1,23)	2.77145 (35, 1,24)
130.0	22.18468 (280, 1,23)	18.05928 (313, 1,22)	5.36249 (327, 1,24)
120.0	31.51051 (327, 1,24)	22.50375 (313, 1,22)	4.77162 (327, 1,24)
110.0	39.32622 (351, 1,24)	19.83698 (125, 1,21)	5.80810 (51, 1,23)
100.0	37.86995 (313, 1,22)	38.16696 (50, 1,24)	4.63294 (173, 1,24)
90.0	29.97810 (313, 1,22)	37.11412 (174, 1,23)	3.76528 (331, 1,24)
80.0	23.68298 (173, 1,24)	28.71608 (173, 1,24)	3.50192 (83, 1,24)
70.0	25.69885 (363, 1,18)	25.66049 (187, 1,24)	2.90565 (173, 1,24)
60.0	31.01563 (172, 1,24)	40.83284 (105, 1,24)	4.23850 (182, 1,24)
50.0	35.62761 (240, 1,19)	24.49950 (13, 1,24)	3.97480 (221, 1,24)
40.0	32.51416 (242, 1,21)	19.89215 (105, 1,24)	5.89083 (105, 1,24)
30.0	34.63864 (105, 1,24)	20.96356 (240, 1,19)	4.28545 (13, 1,24)
20.0	32.53033 (129, 1,24)	16.88092 (4, 1,24)	4.25151 (4, 1,24)
10.0	33.16524 (48, 1,24)	17.49875 (214, 1,18)	3.67879 (214, 1,18)

ISC CALMS
PROCESSOR

HIGH
24-HR
SGROUP# 2

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1972 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 6, -8, 11, -24, *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 128.83124 AND OCCURRED AT (500.0, 60.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	23.36412 (333, 1,20)	12.27603 (333, 1,21)	4.59391 (332, 1,21)
350.0	19.84770 (213, 1,22)	13.23269 (266, 1,18)	3.35077 (242, 1,23)
340.0	12.17362 (189, 1,24)	11.34727 (213, 1,22)	3.33760 (333, 1,24)
330.0	14.27063 (347, 1,24)	8.84832 (189, 1,24)	2.29220 (61, 1,21)
320.0	13.56598 (119, 1,24)	10.37919 (347, 1,24)	2.47389 (213, 1,22)
310.0	15.56749 (127, 1,23)	8.45467 (119, 1,24)	1.70300 (134, 1,24)
300.0	18.78806 (127, 1,23)	11.87122 (127, 1,23)	2.27279 (167, 1,24)
290.0	16.32553 (127, 1,23)	11.68522 (127, 1,23)	2.71634 (127, 1,23)
280.0	18.75320 (169, 1,24)	15.04860 (169, 1,24)	2.65133 (127, 1,23)
270.0	14.73966 (163, 1,24)	9.87218 (163, 1,24)	3.69115 (169, 1,24)
260.0	17.19278 (132, 1,24)	11.17923 (132, 1,24)	2.59928 (163, 1,24)
250.0	19.70300 (311, 1,24)	13.43054 (311, 1,24)	4.17936 (132, 1,24)
240.0	16.91614 (311, 1,24)	13.62158 (311, 1,24)	4.76080 (311, 1,24)
230.0	13.94260 (311, 1,24)	10.02179 (311, 1,24)	2.82272 (41, 1,24)
220.0	13.01200 (41, 1,24)	10.04041 (41, 1,24)	3.34054 (41, 1,24)
210.0	12.99629 (41, 1,24)	10.16878 (147, 1,24)	3.37562 (17, 1,24)
200.0	13.20449 (41, 1,24)	8.60719 (17, 1,24)	3.18045 (147, 1,24)
190.0	10.97471 (69, 1,20)	9.20722 (147, 1,24)	2.92284 (69, 1,20)
180.0	15.26277 (69, 1,20)	11.45835 (69, 1,20)	6.01256 (69, 1,20)
170.0	14.74354 (148, 1,24)	9.69020 (69, 1,20)	4.11604 (15, 1,23)
160.0	14.17761 (148, 1,24)	13.71300 (69, 1,20)	4.36451 (351, 1,24)
150.0	18.31750 (69, 1,20)	16.00861 (69, 1,20)	3.62104 (313, 1,24)
140.0	21.06798 (69, 1,20)	19.27342 (116, 1,23)	3.02173 (313, 1,24)
130.0	26.42194 (116, 1,23)	24.91869 (351, 1,24)	4.02512 (35, 1,24)
120.0	35.56870 (15, 1,23)	26.25133 (309, 1,24)	5.60479 (327, 1,24)
110.0	45.60303 (351, 1,24)	23.43045 (313, 1,22)	7.82171 (50, 1,24)
100.0	51.31238 (351, 1,24)	43.01993 (51, 1,22)	5.12478 (83, 1,23)
90.0	60.58511 (35, 1,24)	42.03462 (173, 1,24)	3.11447 (363, 1,18)
80.0	60.56735 (282, 1,18)	30.22943 (331, 1,24)	3.27498 (260, 1,23)
70.0	17.00635 (331, 1,24)	30.95584 (181, 1,24)	3.17314 (172, 1,24)
60.0	128.83124 (292, 1,19)	55.38042 (292, 1,19)	3.67963 (98, 1,24)
50.0	53.98721 (240, 1,19)	36.01643 (88, 1,22)	4.45109 (105, 1,24)
40.0	54.90401 (332, 1,21)	28.25105 (214, 1,18)	6.10389 (292, 1,19)
30.0	23.79610 (267, 1,18)	22.79987 (240, 1,19)	4.34605 (13, 1,24)
20.0	27.04321 (333, 1,21)	14.45091 (212, 1,24)	4.59289 (13, 1,24)
10.0	24.91904 (61, 1,21)	14.10868 (267, 1,18)	2.55378 (27, 1,22)

ISC CALMS
PROCESSOR

2ND HIGH
24-HR
SGROUP# 2

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1972 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 6, -8, 11, -24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 76.03603 AND OCCURRED AT (500.0, 60.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0		700.0		2000.0	
360.0	13.79482	(301, 1,24)	9.31853	(20, 1,18)	3.80477	(240, 1,19)
350.0	17.68958	(246, 1,18)	10.53276	(333, 1,23)	1.85662	(212, 1,24)
340.0	11.69044	(236, 1,24)	10.42851	(161, 1,21)	2.26684	(20, 1,18)
330.0	11.67566	(133, 1,24)	7.97120	(271, 1,18)	2.18397	(271, 1,24)
320.0	11.86271	(133, 1,24)	7.77733	(133, 1,24)	2.40309	(161, 1,21)
310.0	12.49900	(133, 1,24)	8.22377	(133, 1,24)	1.66595	(189, 1,24)
300.0	14.82673	(165, 1,24)	8.13233	(165, 1,24)	1.98991	(133, 1,24)
290.0	15.46143	(169, 1,24)	9.35281	(164, 1,24)	1.80810	(133, 1,24)
280.0	13.54549	(163, 1,24)	8.64008	(127, 1,23)	2.54002	(164, 1,24)
270.0	11.34159	(170, 1,24)	7.26620	(127, 1,23)	2.07949	(163, 1,24)
260.0	13.86497	(276, 1,24)	9.68865	(276, 1,24)	2.24053	(132, 1,24)
250.0	18.15926	(132, 1,24)	13.19364	(132, 1,24)	3.13908	(311, 1,24)
240.0	14.79919	(132, 1,24)	10.45011	(132, 1,24)	2.75597	(100, 1,24)
230.0	13.44641	(41, 1,24)	9.70193	(41, 1,24)	2.39737	(294, 1,24)
220.0	12.60036	(294, 1,24)	9.11617	(294, 1,24)	2.57566	(294, 1,24)
210.0	12.48846	(147, 1,24)	9.86659	(41, 1,24)	2.81711	(285, 1,24)
200.0	12.55440	(147, 1,24)	8.55172	(147, 1,24)	2.04954	(17, 1,24)
190.0	10.67522	(147, 1,24)	9.03878	(236, 1,19)	2.03695	(279, 1,22)
180.0	13.34107	(148, 1,24)	9.28625	(148, 1,24)	2.39548	(148, 1,24)
170.0	13.51080	(69, 1,20)	9.29542	(148, 1,24)	2.85354	(116, 1,23)
160.0	12.41185	(69, 1,20)	10.27067	(194, 1,19)	3.43700	(65, 1,24)
150.0	17.42441	(279, 1,21)	13.53327	(15, 1,23)	2.55472	(351, 1,24)
140.0	17.50456	(148, 1,24)	17.77968	(15, 1,23)	2.10817	(351, 1,24)
130.0	25.82092	(69, 1,20)	18.07480	(65, 1,24)	3.04744	(327, 1,24)
120.0	30.63564	(351, 1,24)	20.16882	(313, 1,22)	3.98190	(51, 1,23)
110.0	45.34290	(15, 1,23)	21.25375	(35, 1,24)	5.79258	(51, 1,23)
100.0	48.98944	(313, 1,22)	39.17725	(327, 1,24)	4.42233	(173, 1,24)
90.0	51.38000	(327, 1,24)	41.42728	(50, 1,24)	3.05692	(331, 1,24)
80.0	57.59229	(336, 1,18)	29.52400	(173, 1,24)	2.97071	(83, 1,24)
70.0	13.89892	(44, 1,24)	28.42458	(259, 1,24)	2.80715	(173, 1,24)
60.0	76.03603	(208, 1,21)	44.72276	(105, 1,24)	3.66852	(182, 1,24)
50.0	52.98354	(346, 1,19)	30.40311	(56, 1,21)	3.99284	(182, 1,24)
40.0	50.99931	(240, 1,19)	24.80495	(13, 1,24)	5.91087	(105, 1,24)
30.0	23.02554	(242, 1,23)	16.07332	(212, 1,24)	3.67075	(4, 1,24)
20.0	20.35156	(20, 1,18)	13.67574	(240, 1,19)	3.36992	(214, 1,18)
10.0	23.06161	(272, 1,21)	12.05599	(61, 1,21)	2.45560	(61, 1,24)

ISC CALMS
PROCESSOR

HIGH
24-HR
SGROUP# 3

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1972 ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 6, -24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 130.49091 AND OCCURRED AT (500.0, 60.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	25.72699 (333, 1,20)	13.79861 (333, 1,21)	4.59391 (332, 1,21)
350.0	19.97163 (213, 1,22)	13.23269 (266, 1,18)	3.35077 (242, 1,23)
340.0	12.34995 (134, 1,24)	11.60602 (213, 1,22)	3.45767 (333, 1,24)
330.0	14.27068 (347, 1,24)	8.84832 (189, 1,24)	2.29220 (61, 1,21)
320.0	14.92866 (119, 1,24)	10.37938 (347, 1,24)	2.49198 (213, 1,22)
310.0	16.78972 (127, 1,23)	9.41109 (119, 1,24)	1.78110 (134, 1,24)
300.0	19.24020 (127, 1,23)	12.17924 (127, 1,23)	2.30197 (167, 1,24)
290.0	16.85988 (127, 1,23)	11.93281 (127, 1,23)	2.74969 (127, 1,23)
280.0	19.69705 (169, 1,24)	15.55124 (169, 1,24)	2.70001 (127, 1,23)
270.0	16.13867 (163, 1,24)	10.84655 (163, 1,24)	3.77340 (169, 1,24)
260.0	18.49200 (132, 1,24)	12.03144 (132, 1,24)	2.70017 (163, 1,24)
250.0	21.58945 (311, 1,24)	14.30769 (311, 1,24)	4.27758 (132, 1,24)
240.0	17.73912 (311, 1,24)	14.28760 (311, 1,24)	4.98642 (311, 1,24)
230.0	14.91112 (311, 1,24)	10.62741 (311, 1,24)	2.89501 (41, 1,24)
220.0	14.44951 (294, 1,24)	10.25524 (294, 1,24)	3.34093 (41, 1,24)
210.0	13.63095 (41, 1,24)	10.81461 (147, 1,24)	3.50103 (17, 1,24)
200.0	14.58695 (41, 1,24)	9.22892 (41, 1,24)	3.21476 (147, 1,24)
190.0	11.19242 (17, 1,24)	9.50947 (286, 1,19)	2.92430 (69, 1,20)
180.0	15.49225 (148, 1,24)	11.45845 (69, 1,20)	6.01256 (69, 1,20)
170.0	15.69475 (148, 1,24)	9.74129 (148, 1,24)	4.21147 (15, 1,23)
160.0	14.23862 (148, 1,24)	13.71300 (69, 1,20)	4.41435 (351, 1,24)
150.0	18.31750 (69, 1,20)	16.00861 (69, 1,20)	3.74962 (313, 1,24)
140.0	21.06798 (69, 1,20)	19.27342 (116, 1,23)	3.14904 (313, 1,24)
130.0	26.42194 (116, 1,23)	24.91869 (351, 1,24)	4.08241 (35, 1,24)
120.0	35.56870 (15, 1,23)	26.25174 (309, 1,24)	5.73238 (327, 1,24)
110.0	45.60303 (351, 1,24)	23.43060 (313, 1,22)	7.90479 (50, 1,24)
100.0	51.31238 (351, 1,24)	43.09305 (51, 1,22)	5.20206 (83, 1,23)
90.0	60.58511 (35, 1,24)	42.27707 (173, 1,24)	3.23413 (363, 1,18)
80.0	61.18864 (282, 1,18)	31.08003 (331, 1,24)	3.27549 (260, 1,23)
70.0	19.85060 (331, 1,24)	32.18231 (181, 1,24)	3.36400 (172, 1,24)
60.0	130.49091 (292, 1,19)	56.07857 (292, 1,19)	3.88090 (98, 1,24)
50.0	54.04825 (240, 1,19)	36.02039 (88, 1,22)	4.60464 (105, 1,24)
40.0	57.40404 (332, 1,21)	29.61174 (214, 1,18)	6.50961 (292, 1,19)
30.0	23.79610 (267, 1,18)	23.05688 (240, 1,19)	4.37509 (13, 1,24)
20.0	27.08159 (333, 1,21)	14.86150 (212, 1,24)	4.99638 (13, 1,24)
10.0	27.49847 (61, 1,21)	14.10868 (267, 1,13)	2.55385 (27, 1,22)

ISC CALMS
PROCESSOR

2ND HIGH
24-HR
SGROUP# 3

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1972 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 6, -24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 77.89311 AND OCCURRED AT (500.0, 60.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0	700.0	2000.0
360.0	14.96745 (324, 1,24)	9.31883 (20, 1,18)	4.33623 (240, 1,19)
350.0	17.68958 (246, 1,18)	10.74829 (333, 1,23)	1.88792 (212, 1,24)
340.0	12.17362 (189, 1,24)	10.58887 (161, 1,21)	2.33432 (20, 1,18)
330.0	13.69953 (133, 1,24)	8.32251 (271, 1,18)	2.21152 (271, 1,24)
320.0	12.58204 (133, 1,24)	8.59820 (133, 1,24)	2.41857 (161, 1,21)
310.0	13.29622 (133, 1,24)	8.56752 (127, 1,23)	1.66595 (189, 1,24)
300.0	15.06611 (165, 1,24)	8.45939 (133, 1,24)	2.07497 (133, 1,24)
290.0	15.79450 (169, 1,24)	10.22223 (164, 1,24)	2.04282 (133, 1,24)
280.0	15.43352 (163, 1,24)	9.53783 (127, 1,23)	2.63523 (164, 1,24)
270.0	12.40529 (170, 1,24)	8.24490 (127, 1,23)	2.23966 (163, 1,24)
260.0	16.66779 (276, 1,24)	11.58392 (276, 1,24)	2.47398 (276, 1,24)
250.0	19.36967 (132, 1,24)	13.85360 (132, 1,24)	3.20162 (311, 1,24)
240.0	15.84914 (132, 1,24)	11.16036 (132, 1,24)	2.75659 (100, 1,24)
230.0	13.92526 (294, 1,24)	9.91518 (41, 1,24)	2.41692 (294, 1,24)
220.0	13.08731 (17, 1,24)	10.04294 (41, 1,24)	2.79932 (294, 1,24)
210.0	13.57089 (147, 1,24)	10.20828 (41, 1,24)	2.37346 (147, 1,24)
200.0	12.92823 (147, 1,24)	8.95043 (17, 1,24)	2.10565 (17, 1,24)
190.0	11.18740 (148, 1,24)	9.27687 (147, 1,24)	2.03729 (279, 1,22)
180.0	15.26333 (69, 1,20)	10.54484 (148, 1,24)	2.61906 (148, 1,24)
170.0	13.51080 (69, 1,20)	9.69020 (69, 1,20)	2.93203 (116, 1,23)
160.0	12.41185 (69, 1,20)	11.16933 (194, 1,19)	3.50674 (65, 1,24)
150.0	17.74644 (279, 1,21)	13.82159 (15, 1,23)	2.55477 (351, 1,24)
140.0	17.50456 (148, 1,24)	17.78159 (15, 1,23)	2.15071 (362, 1,23)
130.0	25.82082 (69, 1,20)	18.11195 (65, 1,24)	3.09769 (327, 1,24)
120.0	30.63564 (351, 1,24)	20.19585 (313, 1,22)	4.06003 (51, 1,23)
110.0	45.34290 (15, 1,23)	21.25377 (35, 1,24)	5.84600 (51, 1,23)
100.0	48.98944 (313, 1,22)	39.17911 (327, 1,24)	4.44143 (173, 1,24)
90.0	51.38000 (327, 1,24)	41.46416 (50, 1,24)	3.22126 (331, 1,24)
80.0	57.59229 (336, 1,18)	29.93188 (173, 1,24)	3.01412 (83, 1,24)
70.0	14.37226 (44, 1,24)	28.51868 (259, 1,24)	2.80748 (173, 1,24)
60.0	77.89311 (208, 1,21)	45.40132 (105, 1,24)	3.82798 (182, 1,24)
50.0	52.98856 (346, 1,19)	30.86635 (56, 1,21)	4.03006 (182, 1,24)
40.0	51.37753 (240, 1,19)	24.80496 (13, 1,24)	6.07015 (105, 1,24)
30.0	23.48651 (242, 1,23)	16.15302 (212, 1,24)	3.70531 (4, 1,24)
20.0	22.82098 (13, 1,24)	13.75082 (240, 1,19)	3.42882 (4, 1,24)
10.0	23.08804 (298, 1,20)	13.11211 (61, 1,21)	2.54901 (61, 1,24)

ISC CALMS
PROCESSOR

2ND HIGH
24-HR
SGROUP# 2

*** OXY PRILL & VAT STG. - 24-HOUR SUSPENDED P.M. IMPACT 1974 ***

* SECOND HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 6, -8, 11, -24,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 74.41611 AND OCCURRED AT (500.0, 80.0) *

DIRECTION (DEGREES)	RANGE (METERS) 500.0		700.0		2000.0	
360.0	15.66911	(238, 1,18)	13.65738	(356, 1,24)	1.83932	(103, 1,24)
350.0	11.23884	(166, 1,21)	8.13380	(242, 1,22)	2.08215	(131, 1,24)
340.0	13.82974	(215, 1,24)	7.93458	(263, 1,24)	1.58580	(131, 1,24)
330.0	11.35345	(52, 1,23)	7.91748	(237, 1,20)	1.99894	(357, 1,21)
320.0	10.03990	(140, 1,23)	9.17602	(52, 1,23)	1.81181	(101, 1,24)
310.0	6.73492	(302, 1,21)	7.44779	(140, 1,23)	2.10046	(237, 1,20)
300.0	9.59388	(165, 1,24)	4.73781	(73, 1,24)	1.71088	(102, 1,24)
290.0	7.79062	(72, 1,23)	7.01188	(58, 1,23)	1.20719	(159, 1,23)
280.0	7.06922	(294, 1,24)	6.24093	(348, 1,24)	1.88414	(58, 1,23)
270.0	7.08762	(294, 1,24)	4.70236	(294, 1,24)	1.31286	(155, 1,24)
260.0	8.01028	(295, 1,24)	5.26128	(295, 1,24)	1.48586	(156, 1,24)
250.0	7.99613	(269, 1,24)	6.01312	(269, 1,24)	2.21831	(303, 1,22)
240.0	10.50518	(303, 1,21)	6.63863	(276, 1,24)	2.33824	(267, 1,24)
230.0	12.10068	(84, 1,24)	8.97156	(267, 1,24)	2.46472	(276, 1,24)
220.0	11.27130	(267, 1,24)	8.71145	(267, 1,24)	2.95013	(276, 1,24)
210.0	10.85207	(267, 1,24)	9.09133	(266, 1,24)	3.34644	(268, 1,24)
200.0	13.11411	(276, 1,24)	9.38901	(276, 1,24)	2.28774	(176, 1,24)
190.0	11.88426	(268, 1,24)	7.67323	(314, 1,22)	2.40446	(280, 1,24)
180.0	10.39960	(313, 1,23)	8.90238	(264, 1,20)	2.29631	(311, 1,24)
170.0	9.72457	(319, 1,22)	8.83430	(280, 1,22)	2.47840	(273, 1,22)
160.0	12.24504	(264, 1,20)	8.34738	(292, 1,21)	2.75879	(311, 1,24)
150.0	13.77686	(280, 1,22)	9.71607	(280, 1,22)	2.00830	(296, 1,19)
140.0	14.79201	(253, 1,22)	13.50931	(273, 1,22)	2.26653	(35, 1,21)
130.0	20.42488	(57, 1,21)	15.58970	(35, 1,21)	4.34201	(76, 1,24)
120.0	25.24251	(280, 1,22)	15.07645	(56, 1,24)	3.57256	(99, 1,21)
110.0	30.24477	(35, 1,21)	30.42244	(76, 1,23)	3.46612	(69, 1,22)
100.0	41.84427	(56, 1,24)	31.22505	(99, 1,21)	5.13401	(335, 1,24)
90.0	61.41405	(290, 1,18)	48.14687	(335, 1,24)	2.07051	(40, 1,23)
80.0	74.41611	(337, 1,24)	29.05106	(89, 1,24)	3.45053	(174, 1,24)
70.0	13.57958	(88, 1,24)	28.65555	(62, 1,18)	3.38642	(90, 1,24)
60.0	72.77834	(6, 1,18)	31.15799	(104, 1,22)	2.96278	(198, 1,22)
50.0	53.80238	(10, 1,21)	26.43553	(94, 1,24)	3.76986	(359, 1,24)
40.0	26.71092	(131, 1,24)	25.15782	(1, 1,20)	3.04615	(162, 1,20)
30.0	26.59973	(131, 1,24)	17.47815	(94, 1,24)	3.83633	(78, 1,21)
20.0	25.17160	(356, 1,24)	11.46452	(131, 1,24)	3.70119	(229, 1,23)
10.0	22.34956	(134, 1,23)	14.59906	(131, 1,24)	3.19455	(94, 1,24)

APPENDIX D

AIR QUALITY MODELING TO EVALUATE THE ANNUAL IMPACT OF SUSPENDED PARTICULATE MATTER EMISSIONS FROM SOLID SULFUR FACILITIES

- ISCLT INPUT DATA -

NUMBER OF SOURCES = 23
NUMBER OF X AXIS GRID SYSTEM POINTS = 3
NUMBER OF Y AXIS GRID SYSTEM POINTS = 36
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 = .10000000E+07
ACCELERATION OF GRAVITY (METERS/SEC**2) = 9.800
HEIGHT OF MEASUREMENT OF WIND SPEED (METERS) = 10.000
ENTRAINMENT PARAMETER FOR UNSTABLE CONDITIONS = .600
ENTRAINMENT PARAMETER FOR STABLE CONDITIONS = .600
CORRECTION ANGLE FOR GRID SYSTEM VERSUS DIRECTION DATA NORTH (DEGREES) = .000
DECAY COEFFICIENT = .00000000E+00
PROGRAM OPTION SWITCHES = 1, 2, 1, 0, 0, 3, 2, 2, 3, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0,
ALL SOURCES ARE USED TO FORM SOURCE COMBINATION 1
RANGE X AXIS GRID SYSTEM POINTS (METERS)= 500.00, 700.00, 2000.00,
AZIMUTH BEARING Y AXIS GRID SYSTEM POINTS (DEGREES)= 10.00, 20.00, 30.00, 40.00, 50.00, 60.00,
70.00, 80.00, 90.00, 100.00, 110.00, 120.00, 130.00, 140.00, 150.00, 160.00,
170.00, 180.00, 190.00, 200.00, 210.00, 220.00, 230.00, 240.00, 250.00, 260.00,
270.00, 280.00, 290.00, 300.00, 310.00, 320.00, 330.00, 340.00, 350.00, 360.00,

- 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	298.0000	298.0000	298.0000	298.0000	298.0000	

- 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	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 2	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 3	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 4	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 5	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1

STABILITY CATEGORY 1

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00054300	.00066100	.00000000	.00000000	.00000000	.00000000
22.500	.00040000	.00070700	.00000000	.00000000	.00000000	.00000000
45.000	.00039700	.00054700	.00000000	.00000000	.00000000	.00000000
67.500	.00032500	.00045600	.00000000	.00000000	.00000000	.00000000
90.000	.00054900	.00075300	.00000000	.00000000	.00000000	.00000000
112.500	.00054000	.00050200	.00000000	.00000000	.00000000	.00000000
135.000	.00066000	.00093500	.00000000	.00000000	.00000000	.00000000
157.500	.00025400	.00036500	.00000000	.00000000	.00000000	.00000000
180.000	.00047500	.00073000	.00000000	.00000000	.00000000	.00000000
202.500	.00031900	.00036500	.00000000	.00000000	.00000000	.00000000
225.000	.00042200	.00068400	.00000000	.00000000	.00000000	.00000000
247.500	.00049400	.00077500	.00000000	.00000000	.00000000	.00000000
270.000	.00064700	.00098100	.00000000	.00000000	.00000000	.00000000
292.500	.00038000	.00066100	.00000000	.00000000	.00000000	.00000000
315.000	.00030900	.00057000	.00000000	.00000000	.00000000	.00000000
337.500	.00031200	.00050200	.00000000	.00000000	.00000000	.00000000

SEASON 1

STABILITY CATEGORY 2

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00151500	.00446999	.00218899	.00000000	.00000000	.00000000
22.500	.00108400	.00282799	.00118600	.00000000	.00000000	.00000000
45.000	.00096800	.00273699	.00161899	.00000000	.00000000	.00000000
67.500	.00145600	.00346699	.00184699	.00000000	.00000000	.00000000
90.000	.00143200	.00424199	.00173299	.00000000	.00000000	.00000000
112.500	.00091500	.00291899	.00127700	.00000000	.00000000	.00000000
135.000	.00114200	.00287399	.00125400	.00000000	.00000000	.00000000
157.500	.00091700	.00216699	.00100300	.00000000	.00000000	.00000000
180.000	.00119400	.00344399	.00132300	.00000000	.00000000	.00000000
202.500	.00078700	.00216699	.00116300	.00000000	.00000000	.00000000
225.000	.00084300	.00257699	.00136800	.00000000	.00000000	.00000000
247.500	.00086300	.00253099	.00200699	.00000000	.00000000	.00000000
270.000	.00116900	.00383099	.00259999	.00000000	.00000000	.00000000
292.500	.00083900	.00330699	.00191599	.00000000	.00000000	.00000000
315.000	.00086900	.00257699	.00139100	.00000000	.00000000	.00000000
337.500	.00079200	.00239499	.00111700	.00000000	.00000000	.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 (.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)
.000	.00050400	.00364899	.00654498	.00043300	.00000000	.00000000
22.500	.00050000	.00278199	.00494898	.00031900	.00000000	.00000000
45.000	.00045100	.00305599	.00586098	.00047900	.00000000	.00000000
67.500	.00043600	.00344399	.00668198	.00059300	.00000000	.00000000
90.000	.00058900	.00430999	.00652298	.00054700	.00000000	.00000000
112.500	.00068100	.00285099	.00387699	.00041100	.00000000	.00000000
135.000	.00035900	.00314699	.00303299	.00013700	.00000000	.00000000
157.500	.00027500	.00221199	.00271399	.00013700	.00000000	.00000000
180.000	.00085500	.00339799	.00581598	.00057000	.00004600	.00000000
202.500	.00033900	.00209799	.00346699	.00047900	.00000000	.00000000
225.000	.00043800	.00237199	.00549598	.00084400	.00002300	.00000000
247.500	.00033700	.00262299	.00556498	.00086700	.00002300	.00000000
270.000	.00050000	.00387699	.00581598	.00061600	.00002300	.00000000
292.500	.00042000	.00271399	.00506298	.00041100	.00002300	.00000000
315.000	.00035100	.00278199	.00494898	.00041100	.00000000	.00000000
337.500	.00033100	.00228099	.00405899	.00054700	.00000000	.00000000

SEASON 1

STABILITY CATEGORY 4

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00143000	.00522298	.01117497	.00586098	.00016000	.00000000
22.500	.00104900	.00440199	.00832397	.00269099	.00002300	.00000000
45.000	.00111000	.00595198	.01297696	.00476599	.00004600	.00000000
67.500	.00183799	.00793698	.01208696	.00421899	.00004600	.00000000
90.000	.00203999	.00916797	.01340996	.00408199	.00011400	.00000000
112.500	.00155000	.00620298	.00722998	.00228099	.00009100	.00000000
135.000	.00152900	.00456099	.00501698	.00095800	.00002300	.00000000
157.500	.00077400	.00403699	.00497198	.00182399	.00016000	.00000000
180.000	.00207099	.00816497	.01587295	.00944197	.00104900	.00009100
202.500	.00110300	.00526798	.01172196	.00912197	.00057000	.00000000
225.000	.00125200	.00606598	.01165396	.00944197	.00107200	.00009100
247.500	.00096900	.00458399	.00763998	.00462999	.00016000	.00002300
270.000	.00085800	.00451599	.00620298	.00492598	.00041100	.00002300
292.500	.00089400	.00376299	.00421899	.00526798	.00022800	.00006800
315.000	.00101500	.00328399	.00526798	.00469799	.00011400	.00002300
337.500	.00058700	.00271399	.00499498	.00332999	.00013700	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1

STABILITY CATEGORY 5

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.01277196	.01290796	.00549598	.00000000	.00000000	.00000000
22.500	.01041397	.00966997	.00296499	.00000000	.00000000	.00000000
45.000	.01194396	.01486995	.00348899	.00000000	.00000000	.00000000
67.500	.01302896	.01516595	.00246299	.00000000	.00000000	.00000000
90.000	.01399196	.01703595	.00487999	.00000000	.00000000	.00000000
112.500	.00969197	.01131197	.00269099	.00000000	.00000000	.00000000
135.000	.00985497	.00923597	.00091200	.00000000	.00000000	.00000000
157.500	.00873897	.00773098	.00043300	.00000000	.00000000	.00000000
180.000	.01429796	.01400296	.00225799	.00000000	.00000000	.00000000
202.500	.01117997	.01297696	.00346699	.00000000	.00000000	.00000000
225.000	.01603495	.01771995	.00535898	.00000000	.00000000	.00000000
247.500	.01100997	.01151696	.00298799	.00000000	.00000000	.00000000
270.000	.01116097	.01210996	.00177899	.00000000	.00000000	.00000000
292.500	.00900797	.01033097	.00230299	.00000000	.00000000	.00000000
315.000	.00792198	.00798197	.00266799	.00000000	.00000000	.00000000
337.500	.00697298	.00818697	.00328399	.00000000	.00000000	.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	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 2	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 3	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 4	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 5	.200000E-01	.200000E-01	.200000E-01	.200000E-01	.200000E-01	.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	.100000E+00	.100000E+00	.100000E+00	.100000E+00	.100000E+00	.100000E+00
STABILITY CATEGORY 2	.150000E+00	.150000E+00	.150000E+00	.150000E+00	.150000E+00	.150000E+00
STABILITY CATEGORY 3	.200000E+00	.200000E+00	.200000E+00	.200000E+00	.200000E+00	.200000E+00
STABILITY CATEGORY 4	.250000E+00	.250000E+00	.250000E+00	.250000E+00	.250000E+00	.250000E+00
STABILITY CATEGORY 5	.300000E+00	.300000E+00	.300000E+00	.300000E+00	.300000E+00	.300000E+00

- 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	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 MASS FRACTION .2000 .2000 .2000 .2000 .2000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.10000E-02
X		2	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 MASS FRACTION .2000 .2000 .2000 .2000 .2000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 7.00000E-03
X		3	VOLUME	52.00	63.00	6.00	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.40 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 1.40 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 MASS FRACTION .2000 .2000 .2000 .2000 .2000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 5.00000E-03
X		4	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 MASS FRACTION .2000 .2000 .2000 .2000 .2000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 - SOURCE STRENGTHS (GRAMS PER SEC) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.90000E-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		5	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 MASS FRACTION .2000 .2000 .2000 .2000 .2000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 - SOURCE STRENGTHS (GRAMS PER SEC) SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.90000E-02
X		6	VOLUME	52.00	63.00	4.00	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.10 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.60 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 MASS FRACTION .2000 .2000 .2000 .2000 .2000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 - SOURCE STRENGTHS (GRAMS PER SEC) SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.00000E-03
X		7	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 MASS FRACTION .2000 .2000 .2000 .2000 .2000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 - SOURCE STRENGTHS (GRAMS PER SEC) SEASON 1 SEASON 2 SEASON 3 SEASON 4 4.00000E-03
X		9	AREA	25.00	.00	5.00	.00	WIDTH OF AREA (M)= 32.00 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 MASS FRACTION .2000 .2000 .2000 .2000 .2000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 - SOURCE STRENGTHS (GRAMS PER SEC PER SQUARE METER) SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.43000E-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		10	AREA	25.00	82.00	6.00	.00	WIDTH OF AREA (M)= 30.50

- PARTICULATE CATEGORIES -

	1	2	3	4	5
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412
MASS FRACTION	.2000	.2000	.2000	.2000	.2000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500

- SOURCE STRENGTHS (GRAMS PER SEC PER SQUARE METER) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
3.94000E-05			

X		11	STACK	381.00	69.00	12.20	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 20.20, STACK DIAMETER (M)= 1.220, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412
MASS FRACTION	.2000	.2000	.2000	.2000	.2000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
2.00000E-04			

X		12	VOLUME	396.00	58.00	4.60	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 10.60 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 4.30

- PARTICULATE CATEGORIES -

	1	2	3	4	5
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412
MASS FRACTION	.2000	.2000	.2000	.2000	.2000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
5.00000E-04			

WARNING - DISTANCE BETWEEN SOURCE 12 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 12 AND POINT X,Y= 500.00, 90.00 IS LESS THAN PERMITTED

X		13	STACK	465.00	108.00	15.20	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412
MASS FRACTION	.2000	.2000	.2000	.2000	.2000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
9.00000E-04			

WARNING - DISTANCE BETWEEN SOURCE 13 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 13 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED

- 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	442.00	99.00	6.10	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412
MASS FRACTION	.2000	.2000	.2000	.2000	.2000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.01000E-02			

WARNING - DISTANCE BETWEEN SOURCE 14 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 14 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED

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	VOLUME	366.00	152.00	3.00	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 7.10 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 2.80

- PARTICULATE CATEGORIES -

	1	2	3	4	5
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412
MASS FRACTION	.2000	.2000	.2000	.2000	.2000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
7.58000E-02			

WARNING - DISTANCE BETWEEN SOURCE 15 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

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		16	STACK	381.00	146.00	2.40	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412
MASS FRACTION	.2000	.2000	.2000	.2000	.2000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
4.10000E-03			

WARNING - DISTANCE BETWEEN SOURCE 16 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

- 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	381.00	146.00	1.20	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412
MASS FRACTION	.2000	.2000	.2000	.2000	.2000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.00000E-04			

WARNING - DISTANCE BETWEEN SOURCE 17 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

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	366.00	142.00	1.20	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412
MASS FRACTION	.2000	.2000	.2000	.2000	.2000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
3.00000E-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		19	STACK	308.00	63.00	6.10	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412
MASS FRACTION	.2000	.2000	.2000	.2000	.2000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
3.00000E-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		20	VOLUME	52.00	63.00	3.00	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 2.10 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 4.30

- PARTICULATE CATEGORIES -

	1	2	3	4	5
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412
MASS FRACTION	.2000	.2000	.2000	.2000	.2000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
7.00000E-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		21	VOLUME	320.00	180.00	6.10	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70
								STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 5.70

- PARTICULATE CATEGORIES -

	1	2	3	4	5
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412
MASS FRACTION	.2000	.2000	.2000	.2000	.2000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.01000E-02			

WARNING - DISTANCE BETWEEN SOURCE 21 AND POINT X,Y= 500.00, 60.00 IS LESS THAN PERMITTED

X		22	VOLUME	381.00	131.00	6.10	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70
								STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 5.70

- PARTICULATE CATEGORIES -

	1	2	3	4	5
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412
MASS FRACTION	.2000	.2000	.2000	.2000	.2000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.01000E-02			

WARNING - DISTANCE BETWEEN SOURCE 22 AND POINT X,Y= 500.00, 60.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 22 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 22 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED

X		23	VOLUME	439.00	66.00	6.10	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70
								STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 5.70

- PARTICULATE CATEGORIES -

	1	2	3	4	5
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412
MASS FRACTION	.2000	.2000	.2000	.2000	.2000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.01000E-02			

WARNING - DISTANCE BETWEEN SOURCE 23 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 23 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 23 AND POINT X,Y= 500.00, 90.00 IS LESS THAN PERMITTED

- 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		24	VOLUME	497.00	30.00	6.10	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70
								STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 5.70

- PARTICULATE CATEGORIES -

	1	2	3	4	5
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412
MASS FRACTION	.2000	.2000	.2000	.2000	.2000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500

- SOURCE STRENGTHS (GRAMS PER SEC) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.01000E-02			

WARNING - DISTANCE BETWEEN SOURCE 24 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 24 AND POINT X,Y= 500.00, 90.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 24 AND POINT X,Y= 500.00, 100.00 IS LESS THAN PERMITTED

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

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

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
		- CONCENTRATION -	
360.000	1.949398	1.036497	.182686
350.000	1.546140	.851898	.136903
340.000	1.297444	.731371	.116335
330.000	1.261657	.670332	.110447
320.000	1.206975	.680951	.115862
310.000	1.244054	.678666	.117441
300.000	1.242831	.744793	.122313
290.000	1.319729	.745100	.138829
280.000	1.352590	.856281	.155849
270.000	1.209021	.765258	.166997
260.000	1.208765	.748309	.159064
250.000	1.081376	.701635	.156304
240.000	1.019382	.647462	.144604
230.000	1.031406	.667340	.140704
220.000	.902157	.586432	.133522
210.000	.922449	.583991	.123691
200.000	.929003	.589846	.119012
190.000	.912693	.587469	.127079
180.000	1.006838	.651621	.143460
170.000	1.027716	.638848	.141192
160.000	.994416	.650263	.120956
150.000	1.109878	.724815	.103420
140.000	1.214600	.720115	.101498
130.000	1.459657	.778317	.111956
120.000	1.714439	.837371	.121557
110.000	2.090635	.975837	.135576
100.000	2.465409	1.309845	.150013
90.000	3.044440	1.756692	.167252
80.000	4.386580	2.254736	.175670
70.000	1.717748	2.407514	.179332
60.000	8.227659	2.674185	.207661
50.000	5.841220	2.232199	.239600
40.000	3.860540	2.083654	.225281
30.000	2.939366	1.704659	.201047
20.000	2.409934	1.372266	.198552
10.000	2.146759	1.139716	.204664

US 41

********** END OF ISCLT PROGRAM, 23 SOURCES PROCESSED **********

? Error: Operation error in file USER
Error Code 1260, Status 0003
Line 1672 In MODEL Of C:MODEL.FOR
PC = 07FA: 0004; SS = 4617, FP = 4173, SP = 1A7C

APPENDIX E

AIR QUALITY MODELING TO EVALUATE SULFUR DEPOSITION RATES RESULTING FROM THE OPERATION OF SOLID SULFUR FACILITIES

- ISCLT INPUT DATA -

NUMBER OF SOURCES = 24
NUMBER OF X AXIS GRID SYSTEM POINTS = 3
NUMBER OF Y AXIS GRID SYSTEM POINTS = 36
NUMBER OF SPECIAL POINTS = 0
NUMBER OF SEASONS = 3
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 = .10000000E+01
ACCELERATION OF GRAVITY (METERS/SEC**2) = 9.800
HEIGHT OF MEASUREMENT OF WIND SPEED (METERS) = 10.000
ENTRAINMENT PARAMETER FOR UNSTABLE CONDITIONS = .600
ENTRAINMENT PARAMETER FOR STABLE CONDITIONS = .600
CORRECTION ANGLE FOR GRID SYSTEM VERSUS DIRECTION DATA NORTH (DEGREES) = .000
DECAY COEFFICIENT = .00000000E+00
PROGRAM OPTION SWITCHES = 2, 2, 1, 0, 0, 3, 1, 2, 3, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0,
ALL SOURCES ARE USED TO FORM SOURCE COMBINATION 1

RANGE X AXIS GRID SYSTEM POINTS (METERS)= 500.00, 700.00, 2000.00,

AZIMUTH BEARING Y AXIS GRID SYSTEM POINTS (DEGREES)= 10.00, 20.00, 30.00, 40.00, 50.00, 60.00,
70.00, 80.00, 90.00, 100.00, 110.00, 120.00, 130.00, 140.00, 150.00, 160.00,
170.00, 180.00, 190.00, 200.00, 210.00, 220.00, 230.00, 240.00, 250.00, 260.00,
270.00, 280.00, 290.00, 300.00, 310.00, 320.00, 330.00, 340.00, 350.00, 360.00,

- 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	298.0000	298.0000	298.0000	298.0000	298.0000	
SEASON 2	298.0000	298.0000	298.0000	298.0000	298.0000	
SEASON 3	298.0000	298.0000	298.0000	298.0000	298.0000	

- ISCLT INPUT DATA (CONT.) -

- 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	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 2	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 3	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 4	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 5	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05

SEASON 2

	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	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 2	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 3	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 4	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 5	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05

SEASON 3

	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	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 2	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 3	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 4	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 5	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1

STABILITY CATEGORY 1

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00002000	.00000000	.00000000	.00000000	.00000000	.00000000
22.500	.00002000	.00000000	.00000000	.00000000	.00000000	.00000000
45.000	.00002000	.00000000	.00000000	.00000000	.00000000	.00000000
67.500	.00002000	.00000000	.00000000	.00000000	.00000000	.00000000
90.000	.00002000	.00000000	.00000000	.00000000	.00000000	.00000000
112.500	.00002000	.00000000	.00000000	.00000000	.00000000	.00000000
135.000	.00002000	.00000000	.00000000	.00000000	.00000000	.00000000
157.500	.00002000	.00000000	.00000000	.00000000	.00000000	.00000000
180.000	.00002000	.00000000	.00000000	.00000000	.00000000	.00000000
202.500	.00002000	.00000000	.00000000	.00000000	.00000000	.00000000
225.000	.00002000	.00000000	.00000000	.00000000	.00000000	.00000000
247.500	.00002000	.00000000	.00000000	.00000000	.00000000	.00000000
270.000	.00002000	.00000000	.00000000	.00000000	.00000000	.00000000
292.500	.00002000	.00000000	.00000000	.00000000	.00000000	.00000000
315.000	.00002000	.00000000	.00000000	.00000000	.00000000	.00000000
337.500	.00002000	.00000000	.00000000	.00000000	.00000000	.00000000

SEASON 1

STABILITY CATEGORY 2

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00135012	.00062006	.00000000	.00000000	.00000000	.00000000
22.500	.00008001	.00031003	.00000000	.00000000	.00000000	.00000000
45.000	.00039004	.00000000	.00062006	.00000000	.00000000	.00000000
67.500	.00056005	.00062006	.00186017	.00000000	.00000000	.00000000
90.000	.00135012	.00062006	.00093008	.00000000	.00000000	.00000000
112.500	.00120011	.00155014	.00062006	.00000000	.00000000	.00000000
135.000	.00269024	.00124011	.00124011	.00000000	.00000000	.00000000
157.500	.00126011	.00031003	.00031003	.00000000	.00000000	.00000000
180.000	.00056005	.00062006	.00000000	.00000000	.00000000	.00000000
202.500	.00238021	.00155014	.00000000	.00000000	.00000000	.00000000
225.000	.00168015	.00186017	.00186017	.00000000	.00000000	.00000000
247.500	.00364033	.00186017	.00062006	.00000000	.00000000	.00000000
270.000	.00255023	.00217020	.00062006	.00000000	.00000000	.00000000
292.500	.00182016	.00093008	.00062006	.00000000	.00000000	.00000000
315.000	.00143013	.00093008	.00000000	.00000000	.00000000	.00000000
337.500	.00033003	.00124011	.00031003	.00000000	.00000000	.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 (.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)
.000	.00021002	.00248022	.00124011	.00000000	.00000000	.00000000
22.500	.00047004	.00155014	.00093008	.00000000	.00000000	.00000000
45.000	.00057005	.00279025	.00155014	.00000000	.00000000	.00000000
67.500	.00041004	.00496045	.00620056	.00000000	.00000000	.00000000
90.000	.00013001	.00155014	.00589053	.00000000	.00000000	.00000000
112.500	.00085008	.00217020	.00403036	.00000000	.00000000	.00000000
135.000	.00088008	.00248022	.00217020	.00031003	.00000000	.00000000
157.500	.00065006	.00372033	.00062006	.00000000	.00000000	.00000000
180.000	.00018002	.00217020	.00124011	.00000000	.00000000	.00000000
202.500	.00085008	.00217020	.00465042	.00000000	.00000000	.00000000
225.000	.00059005	.00310028	.00279025	.00031003	.00000000	.00000000
247.500	.00057005	.00279025	.00496045	.00062006	.00000000	.00000000
270.000	.00052005	.00217020	.00651059	.00031003	.00000000	.00000000
292.500	.00010001	.00124011	.00372033	.00093008	.00000000	.00000000
315.000	.00054005	.00248022	.00496045	.00000000	.00000000	.00000000
337.500	.00054005	.00248022	.00155014	.00000000	.00000000	.00000000

SEASON 1

STABILITY CATEGORY 4

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00517046	.01582142	.03257293	.01179106	.00000000	.00000000
22.500	.00341031	.01024092	.01737156	.01086098	.00124011	.00000000
45.000	.00220020	.01179106	.02419217	.01892170	.00372033	.00000000
67.500	.00283025	.01117100	.01117100	.00713064	.00000000	.00000000
90.000	.00442040	.00993089	.00682061	.00310028	.00000000	.00000000
112.500	.00117011	.00372033	.00403036	.00031003	.00000000	.00000000
135.000	.00141013	.00279025	.00341031	.00403036	.00031003	.00000000
157.500	.00300027	.00434039	.00248022	.00279025	.00031003	.00000000
180.000	.00293026	.00651059	.01148103	.00962086	.00000000	.00000000
202.500	.00152014	.00372033	.01458131	.00993089	.00062006	.00000000
225.000	.00118011	.00651059	.01241112	.01179106	.00217020	.00000000
247.500	.00192017	.00682061	.01241112	.01055095	.00093008	.00000000
270.000	.00243022	.00806072	.00900081	.01520137	.00248022	.00000000
292.500	.00378034	.00496045	.00496045	.00993089	.00341031	.00000000
315.000	.00204018	.00775070	.01303117	.00713064	.00434039	.00093008
337.500	.00215019	.00589053	.01055095	.00651059	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1

STABILITY CATEGORY 5

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.01182106	.01365123	.00403036	.00000000	.00000000	.00000000
22.500	.00499045	.00465042	.00124011	.00000000	.00000000	.00000000
45.000	.00346031	.00310028	.00155014	.00000000	.00000000	.00000000
67.500	.00492044	.00434039	.00186017	.00000000	.00000000	.00000000
90.000	.00376034	.00434039	.00093008	.00000000	.00000000	.00000000
112.500	.00200018	.00186017	.00000000	.00000000	.00000000	.00000000
135.000	.00484043	.00558050	.00000000	.00000000	.00000000	.00000000
157.500	.00468042	.00651059	.00124011	.00000000	.00000000	.00000000
180.000	.01040094	.02047184	.00558050	.00000000	.00000000	.00000000
202.500	.00449040	.01365123	.00465042	.00000000	.00000000	.00000000
225.000	.00826074	.01644148	.00527047	.00000000	.00000000	.00000000
247.500	.00928083	.01272114	.00651059	.00000000	.00000000	.00000000
270.000	.01442130	.01954176	.00744067	.00000000	.00000000	.00000000
292.500	.01214109	.01024092	.00558050	.00000000	.00000000	.00000000
315.000	.01174106	.01334120	.00651059	.00000000	.00000000	.00000000
337.500	.00575052	.00775070	.00682061	.00000000	.00000000	.00000000

SEASON 2

STABILITY CATEGORY 1

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
22.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
45.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
67.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
90.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
112.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
135.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
157.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
180.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
202.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
225.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
247.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
270.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
292.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
315.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
337.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 2

STABILITY CATEGORY 2

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00133005	.00172007	.00034001	.00000000	.00000000	.00000000
22.500	.00046002	.00069003	.00000000	.00000000	.00000000	.00000000
45.000	.00046002	.00069003	.00034001	.00000000	.00000000	.00000000
67.500	.00148006	.00309012	.00137005	.00000000	.00000000	.00000000
90.000	.00148006	.00309012	.00034001	.00000000	.00000000	.00000000
112.500	.00095004	.00172007	.00069003	.00000000	.00000000	.00000000
135.000	.00126005	.00103004	.00172007	.00000000	.00000000	.00000000
157.500	.00084003	.00069003	.00000000	.00000000	.00000000	.00000000
180.000	.00133005	.00172007	.00069003	.00000000	.00000000	.00000000
202.500	.00126005	.00103004	.00069003	.00000000	.00000000	.00000000
225.000	.00125005	.00446018	.00000000	.00000000	.00000000	.00000000
247.500	.00164006	.00103004	.00103004	.00000000	.00000000	.00000000
270.000	.00171007	.00172007	.00069003	.00000000	.00000000	.00000000
292.500	.00091004	.00137005	.00069003	.00000000	.00000000	.00000000
315.000	.00110004	.00309012	.00000000	.00000000	.00000000	.00000000
337.500	.00008000	.00069003	.00034001	.00000000	.00000000	.00000000

SEASON 2

STABILITY CATEGORY 3

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00088003	.00206008	.00103004	.00000000	.00000000	.00000000
22.500	.00046002	.00137005	.00137005	.00034001	.00000000	.00000000
45.000	.00012000	.00172007	.00275011	.00034001	.00000000	.00000000
67.500	.00051002	.00206008	.00309012	.00034001	.00000000	.00000000
90.000	.00012000	.00172007	.00721029	.00103004	.00000000	.00000000
112.500	.00019001	.00275011	.00652026	.00103004	.00000000	.00000000
135.000	.00056002	.00275011	.00309012	.00034001	.00000000	.00000000
157.500	.00019001	.00275011	.00412016	.00000000	.00000000	.00000000
180.000	.00088003	.00206008	.00309012	.00034001	.00000000	.00000000
202.500	.00046002	.00137005	.00240010	.00034001	.00000000	.00000000
225.000	.00017001	.00240010	.00481019	.00034001	.00000000	.00000000
247.500	.00019001	.00275011	.00515020	.00000000	.00000000	.00000000
270.000	.00022001	.00309012	.00652026	.00172007	.00000000	.00000000
292.500	.00038002	.00549022	.00378015	.00000000	.00000000	.00000000
315.000	.00010000	.00137005	.00549022	.00069003	.00000000	.00000000
337.500	.00007000	.00103004	.00412016	.00000000	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 2

STABILITY CATEGORY 4

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00161006	.00824033	.01545061	.00927037	.00103004	.00000000
22.500	.00084003	.00446018	.01717068	.01957078	.00137005	.00000000
45.000	.00119005	.00412016	.01477059	.01751069	.00137005	.00103004
67.500	.00254010	.00618024	.00687027	.00618024	.00000000	.00000000
90.000	.00088003	.00481019	.00378015	.00343014	.00000000	.00000000
112.500	.00097004	.00206008	.00275011	.00378015	.00000000	.00000000
135.000	.00126005	.00481019	.00343014	.00618024	.00069003	.00034001
157.500	.00070003	.00309012	.00515020	.00652026	.00000000	.00000000
180.000	.00126005	.00481019	.01889075	.02026080	.00034001	.00000000
202.500	.00074003	.00343014	.00927037	.01202048	.00069003	.00000000
225.000	.00091004	.00515020	.01408056	.01168046	.00069003	.00000000
247.500	.00140006	.00618024	.00927037	.01408056	.00206008	.00137005
270.000	.00091004	.00515020	.00755030	.02301091	.00859034	.00378015
292.500	.00104004	.00275011	.01030041	.02747109	.00721029	.00275011
315.000	.00094004	.00172007	.00652026	.02850113	.00343014	.00000000
337.500	.00032001	.00309012	.00584023	.01202048	.00137005	.00000000

SEASON 2

STABILITY CATEGORY 5

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00802032	.01648065	.00927037	.00000000	.00000000	.00000000
22.500	.00349014	.00275011	.00103004	.00000000	.00000000	.00000000
45.000	.00599024	.00515020	.00206008	.00000000	.00000000	.00000000
67.500	.00654026	.00549022	.00137005	.00000000	.00000000	.00000000
90.000	.00226009	.00309012	.00103004	.00000000	.00000000	.00000000
112.500	.00164006	.00103004	.00034001	.00000000	.00000000	.00000000
135.000	.00582023	.00309012	.00069003	.00000000	.00000000	.00000000
157.500	.00482019	.00721029	.00172007	.00000000	.00000000	.00000000
180.000	.00660026	.00721029	.00515020	.00000000	.00000000	.00000000
202.500	.00694027	.00687027	.00309012	.00000000	.00000000	.00000000
225.000	.00772031	.01099044	.00378015	.00000000	.00000000	.00000000
247.500	.01224048	.01271050	.00446018	.00000000	.00000000	.00000000
270.000	.01871074	.01648065	.00962038	.00000000	.00000000	.00000000
292.500	.01567062	.01374054	.00996039	.00000000	.00000000	.00000000
315.000	.01121044	.01374054	.01065042	.00000000	.00000000	.00000000
337.500	.00732029	.00962038	.00893035	.00000000	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3

STABILITY CATEGORY 1

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00010001	.00000000	.00000000	.00000000	.00000000	.00000000
22.500	.00010001	.00000000	.00000000	.00000000	.00000000	.00000000
45.000	.00010001	.00000000	.00000000	.00000000	.00000000	.00000000
67.500	.00010001	.00000000	.00000000	.00000000	.00000000	.00000000
90.000	.00010001	.00000000	.00000000	.00000000	.00000000	.00000000
112.500	.00010001	.00000000	.00000000	.00000000	.00000000	.00000000
135.000	.00010001	.00000000	.00000000	.00000000	.00000000	.00000000
157.500	.00010001	.00000000	.00000000	.00000000	.00000000	.00000000
180.000	.00010001	.00000000	.00000000	.00000000	.00000000	.00000000
202.500	.00010001	.00000000	.00000000	.00000000	.00000000	.00000000
225.000	.00010001	.00000000	.00000000	.00000000	.00000000	.00000000
247.500	.00010001	.00000000	.00000000	.00000000	.00000000	.00000000
270.000	.00010001	.00000000	.00000000	.00000000	.00000000	.00000000
292.500	.00010001	.00000000	.00000000	.00000000	.00000000	.00000000
315.000	.00010001	.00000000	.00000000	.00000000	.00000000	.00000000
337.500	.00010001	.00000000	.00000000	.00000000	.00000000	.00000000

SEASON 3

STABILITY CATEGORY 2

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00005001	.00062008	.00031004	.00000000	.00000000	.00000000
22.500	.00106014	.00062008	.00031004	.00000000	.00000000	.00000000
45.000	.00042005	.00093012	.00031004	.00000000	.00000000	.00000000
67.500	.00066009	.00372048	.00093012	.00000000	.00000000	.00000000
90.000	.00170022	.00403052	.00062008	.00000000	.00000000	.00000000
112.500	.00313041	.00496064	.00217028	.00000000	.00000000	.00000000
135.000	.00110014	.00496064	.00155020	.00000000	.00000000	.00000000
157.500	.00120016	.00217028	.00124016	.00000000	.00000000	.00000000
180.000	.00213028	.00124016	.00000000	.00000000	.00000000	.00000000
202.500	.00039005	.00062008	.00062008	.00000000	.00000000	.00000000
225.000	.00086011	.00217028	.00124016	.00000000	.00000000	.00000000
247.500	.00112015	.00124016	.00155020	.00000000	.00000000	.00000000
270.000	.00094012	.00310040	.00124016	.00000000	.00000000	.00000000
292.500	.00109014	.00093012	.00124016	.00000000	.00000000	.00000000
315.000	.00081011	.00155020	.00000000	.00000000	.00000000	.00000000
337.500	.00039005	.00062008	.00000000	.00000000	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3

STABILITY CATEGORY 3

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00007001	.00093012	.00062008	.00000000	.00000000	.00000000
22.500	.00040005	.00093012	.00000000	.00000000	.00000000	.00000000
45.000	.00000000	.00000000	.00217028	.00000000	.00000000	.00000000
67.500	.00018002	.00248032	.00496064	.00186024	.00000000	.00000000
90.000	.00087011	.00279036	.00744097	.00186024	.00000000	.00000000
112.500	.00082011	.00217028	.01117145	.00093012	.00000000	.00000000
135.000	.00155020	.00310040	.00900117	.00000000	.00000000	.00000000
157.500	.00051007	.00248032	.00465060	.00031004	.00000000	.00000000
180.000	.00075010	.00124016	.00372048	.00000000	.00000000	.00000000
202.500	.00009001	.00124016	.00217028	.00093012	.00000000	.00000000
225.000	.00007001	.00093012	.00651085	.00155020	.00000000	.00000000
247.500	.00020003	.00279036	.00837109	.00093012	.00031004	.00031004
270.000	.00020003	.00279036	.00620081	.00186024	.00031004	.00000000
292.500	.00009001	.00124016	.00589077	.00031004	.00000000	.00000000
315.000	.00007001	.00093012	.00527069	.00124016	.00000000	.00000000
337.500	.00002000	.00031004	.00155020	.00000000	.00000000	.00000000

SEASON 3

STABILITY CATEGORY 4

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00315041	.00434056	.00962125	.00186024	.00000000	.00000000
22.500	.00180023	.00248032	.00372048	.00465060	.00000000	.00031004
45.000	.00142018	.00465060	.00806105	.00868113	.00155020	.00000000
67.500	.00215028	.00713093	.00744097	.01365178	.00248032	.00000000
90.000	.00286037	.00713093	.00744097	.01024133	.00000000	.00031004
112.500	.00205027	.00651085	.00496064	.00713093	.00031004	.00000000
135.000	.00269035	.00837109	.00744097	.01489194	.00062008	.00000000
157.500	.00137018	.00434056	.00558073	.00620081	.00062008	.00000000
180.000	.00217028	.00962125	.01520198	.01489194	.00124016	.00000000
202.500	.00306040	.00372048	.01179153	.00993129	.00031004	.00031004
225.000	.00170022	.00651085	.01551202	.02574335	.00248032	.00031004
247.500	.00118015	.00310040	.01086141	.02481323	.00496064	.00062008
270.000	.00052007	.00341044	.00372048	.02326302	.00682089	.00434056
292.500	.00059008	.00155020	.00341044	.01520198	.00775101	.00217028
315.000	.00123016	.00341044	.00620081	.01427186	.00341044	.00031004
337.500	.00059008	.00155020	.00496064	.00589077	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3

STABILITY CATEGORY 5

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.01236161	.00993129	.00465060	.00000000	.00000000	.00000000
22.500	.00371048	.00279036	.00062008	.00000000	.00000000	.00000000
45.000	.00494064	.00341044	.00124016	.00000000	.00000000	.00000000
67.500	.00587076	.00434056	.00093012	.00000000	.00000000	.00000000
90.000	.00433056	.00310040	.00062008	.00000000	.00000000	.00000000
112.500	.00340044	.00217028	.00031004	.00000000	.00000000	.00000000
135.000	.00571074	.00589077	.00093012	.00000000	.00000000	.00000000
157.500	.00773101	.00434056	.00217028	.00000000	.00000000	.00000000
180.000	.01776231	.01613210	.00589077	.00000000	.00000000	.00000000
202.500	.00911118	.00993129	.00434056	.00000000	.00000000	.00000000
225.000	.01436187	.01117145	.00713093	.00000000	.00000000	.00000000
247.500	.01111144	.01210157	.01272165	.00000000	.00000000	.00000000
270.000	.01529199	.01303170	.00993129	.00000000	.00000000	.00000000
292.500	.01173153	.01148149	.00403052	.00000000	.00000000	.00000000
315.000	.00834109	.00744097	.00372048	.00000000	.00000000	.00000000
337.500	.01004131	.00900117	.00372048	.00000000	.00000000	.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	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 2	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 3	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 4	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 5	.200000E-01	.200000E-01	.200000E-01	.200000E-01	.200000E-01	.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	.100000E+00	.100000E+00	.100000E+00	.100000E+00	.100000E+00	.100000E+00
STABILITY CATEGORY 2	.150000E+00	.150000E+00	.150000E+00	.150000E+00	.150000E+00	.150000E+00
STABILITY CATEGORY 3	.200000E+00	.200000E+00	.200000E+00	.200000E+00	.200000E+00	.200000E+00
STABILITY CATEGORY 4	.250000E+00	.250000E+00	.250000E+00	.250000E+00	.250000E+00	.250000E+00
STABILITY CATEGORY 5	.300000E+00	.300000E+00	.300000E+00	.300000E+00	.300000E+00	.300000E+00

- 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	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729 MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400 8 9 10 FALL VELOCITY (MPS) .3519 .6940 2.9856 MASS FRACTION .1000 .1000 .1000 REFLECTION COEFFICIENT .0000 .0000 .0000 - SOURCE STRENGTHS (GRAMS) SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.14000E+05 1.14000E+05 1.14000E+05
X		2	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729 MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400 8 9 10 FALL VELOCITY (MPS) .3519 .6940 2.9856 MASS FRACTION .1000 .1000 .1000 REFLECTION COEFFICIENT .0000 .0000 .0000 - SOURCE STRENGTHS (GRAMS) SEASON 1 SEASON 2 SEASON 3 SEASON 4 3.80000E+04 3.80000E+04 3.80000E+04
X		3	VOLUME	52.00	63.00	6.00	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.40 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 1.40 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729 MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400 8 9 10 FALL VELOCITY (MPS) .3519 .6940 2.9856 MASS FRACTION .1000 .1000 .1000 REFLECTION COEFFICIENT .0000 .0000 .0000 - SOURCE STRENGTHS (GRAMS) SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.60000E+04 2.60000E+04 2.60000E+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	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729 MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400 8 9 10 FALL VELOCITY (MPS) .3519 .6940 2.9856 MASS FRACTION .1000 .1000 .1000 REFLECTION COEFFICIENT .0000 .0000 .0000 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.63000E+05 1.63000E+05 1.63000E+05
X		5	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729 MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400 8 9 10 FALL VELOCITY (MPS) .3519 .6940 2.9856 MASS FRACTION .1000 .1000 .1000 REFLECTION COEFFICIENT .0000 .0000 .0000 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.63000E+05 1.63000E+05 1.63000E+05
X		6	VOLUME	52.00	63.00	4.00	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.10 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.60 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 MASS FRACTION .2000 .2000 .2000 .2000 .2000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 5.00000E+03 5.00000E+03 5.00000E+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		7	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729 MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400 8 9 10 FALL VELOCITY (MPS) .3519 .6940 2.9856 MASS FRACTION .1000 .1000 .1000 REFLECTION COEFFICIENT .0000 .0000 .0000 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.40000E+04 2.40000E+04 2.40000E+04
X		8	VOLUME	115.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729 MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400 8 9 10 FALL VELOCITY (MPS) .3519 .6940 2.9856 MASS FRACTION .1000 .1000 .1000 REFLECTION COEFFICIENT .0000 .0000 .0000 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.40000E+04 2.40000E+04 2.40000E+04
X		9	AREA	25.00	.00	5.00	.00	WIDTH OF AREA (M)= 32.00 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 MASS FRACTION .2000 .2000 .2000 .2000 .2000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 - SOURCE STRENGTHS (GRAMS PER SQUARE METER) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 7.91000E+00 7.91000E+00 7.91000E+00
X		10	AREA	25.00	82.00	6.00	.00	WIDTH OF AREA (M)= 30.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 MASS FRACTION .2000 .2000 .2000 .2000 .2000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 - SOURCE STRENGTHS (GRAMS PER SQUARE METER) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.18000E+02 2.18000E+02 2.18000E+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		11	STACK	381.00	69.00	12.20	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 20.20, STACK DIAMETER (M)= 1.220, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0
X		12	VOLUME	396.00	58.00	4.60	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 10.60 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 4.30
X		13	STACK	465.00	108.00	15.20	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

WARNING - DISTANCE BETWEEN SOURCE 12 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 12 AND POINT X,Y= 500.00, 90.00 IS LESS THAN PERMITTED

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.27100E+03	1.27100E+03	1.27100E+03	

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
2.70100E+03	2.70100E+03	2.70100E+03	

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
4.92600E+03	4.92600E+03	4.92600E+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 -

WARNING - DISTANCE BETWEEN SOURCE 13 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 13 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED

X 14 STACK 442.00 99.00 6.10 .00 GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00,
STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF
ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
5.57740E+04	5.57740E+04	5.57740E+04	

WARNING - DISTANCE BETWEEN SOURCE 14 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 14 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED

X 15 VOLUME 366.00 152.00 3.00 .00 STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 7.10
STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 2.80

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
4.18543E+05	4.18543E+05	4.18543E+05	

WARNING - DISTANCE BETWEEN SOURCE 15 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

- 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		16	STACK	381.00	146.00	2.40	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
2.25640E+04	2.25640E+04	2.25640E+04	

WARNING - DISTANCE BETWEEN SOURCE 16 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

X		17	STACK	381.00	146.00	1.20	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
3.18000E+02	3.18000E+02	3.18000E+02	

WARNING - DISTANCE BETWEEN SOURCE 17 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

X		18	STACK	366.00	142.00	1.20	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- 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 -
								- SOURCE STRENGTHS (GRAMS) -
								SEASON 1 SEASON 2 SEASON 3 SEASON 4
								1.58900E+03 1.58900E+03 1.58900E+03
X		19	STACK	308.00	63.00	6.10	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0
								- PARTICULATE CATEGORIES -
								1 2 3 4 5 6 7
								FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729
								MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000
								REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400
								8 9 10
								FALL VELOCITY (MPS) .3519 .6940 2.9856
								MASS FRACTION .1000 .1000 .1000
								REFLECTION COEFFICIENT .0000 .0000 .0000
								- SOURCE STRENGTHS (GRAMS) -
								SEASON 1 SEASON 2 SEASON 3 SEASON 4
								1.58900E+03 1.58900E+03 1.58900E+03
X		20	VOLUME	52.00	63.00	3.00	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 2.10 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 4.30
								- PARTICULATE CATEGORIES -
								1 2 3 4 5 6 7
								FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729
								MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000
								REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400
								8 9 10
								FALL VELOCITY (MPS) .3519 .6940 2.9856
								MASS FRACTION .1000 .1000 .1000
								REFLECTION COEFFICIENT .0000 .0000 .0000
								- SOURCE STRENGTHS (GRAMS) -
								SEASON 1 SEASON 2 SEASON 3 SEASON 4
								3.97200E+03 3.97200E+03 3.97200E+03
X		21	VOLUME	320.00	180.00	6.10	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 5.70
								- PARTICULATE CATEGORIES -
								1 2 3 4 5 6 7
								FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729
								MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000
								REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400
								8 9 10
								FALL VELOCITY (MPS) .3519 .6940 2.9856
								MASS FRACTION .1000 .1000 .1000
								REFLECTION COEFFICIENT .0000 .0000 .0000
								- SOURCE STRENGTHS (GRAMS) -
								SEASON 1 SEASON 2 SEASON 3 SEASON 4
								5.59330E+04 5.59330E+04 5.59330E+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 -

WARNING - DISTANCE BETWEEN SOURCE 21 AND POINT X,Y= 500.00, 60.00 IS LESS THAN PERMITTED

X 22 VOLUME 381.00 131.00 6.10 .00 STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70

STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 5.70

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)-

SEASON 1	SEASON 2	SEASON 3	SEASON 4
5.59330E+04	5.59330E+04	5.59330E+04	

WARNING - DISTANCE BETWEEN SOURCE 22 AND POINT X,Y= 500.00, 60.00 IS LESS THAN PERMITTED

WARNING - DISTANCE BETWEEN SOURCE 22 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

WARNING - DISTANCE BETWEEN SOURCE 22 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED

X 23 VOLUME 439.00 66.00 6.10 .00 STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70

STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 5.70

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)-

SEASON 1	SEASON 2	SEASON 3	SEASON 4
5.59330E+04	5.59330E+04	5.59330E+04	

WARNING - DISTANCE BETWEEN SOURCE 23 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

WARNING - DISTANCE BETWEEN SOURCE 23 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED

WARNING - DISTANCE BETWEEN SOURCE 23 AND POINT X,Y= 500.00, 90.00 IS LESS THAN PERMITTED

- 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		24	VOLUME	497.00	30.00	6.10	.00		

STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70
STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 5.70

	- PARTICULATE CATEGORIES -						
	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
5.59330E+04	5.59330E+04	5.59330E+04	

WARNING - DISTANCE BETWEEN SOURCE 24 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 24 AND POINT X,Y= 500.00, 90.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 24 AND POINT X,Y= 500.00, 100.00 IS LESS THAN PERMITTED

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED **

SEASON 1 - JAN

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

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	.012498	.005463	.000559
350.000	.008608	.003938	.000374
340.000	.005971	.002761	.000268
330.000	.005051	.002238	.000230
320.000	.004108	.001933	.000212
310.000	.003769	.001646	.000177
300.000	.003657	.001711	.000151
290.000	.004141	.001874	.000180
280.000	.004834	.002371	.000229
270.000	.004804	.002488	.000285
260.000	.005509	.002720	.000318
250.000	.005728	.003037	.000370
240.000	.006136	.003311	.000428
230.000	.006870	.003826	.000494
220.000	.006341	.003667	.000526
210.000	.006577	.003701	.000482
200.000	.007034	.003838	.000465
190.000	.007506	.004008	.000541
180.000	.008669	.004658	.000670
170.000	.009123	.004799	.000691
160.000	.009167	.005118	.000587
150.000	.010733	.006134	.000511
140.000	.013275	.007042	.000561
130.000	.018250	.008152	.000684
120.000	.025175	.009478	.000712
110.000	.036736	.012964	.000705
100.000	.055620	.020478	.000791
90.000	.127976	.029005	.000969
80.000	.096519	.041946	.000986
70.000	.028260	.037986	.000910
60.000	.171079	.030565	.000872
50.000	.076442	.021778	.000876
40.000	.036762	.016882	.000805
30.000	.023615	.011790	.000743
20.000	.018602	.008552	.000705
10.000	.015396	.006615	.000678

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED (CONT.) **

SEASON 2 - FEB

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	.014009	.006162	.000625
350.000	.010211	.004641	.000441
340.000	.007261	.003385	.000334
330.000	.006129	.002743 ✓	.000283
320.000	.004809	.002334	.000254
310.000	.004163	.001917	.000211
300.000	.003573	.001776	.000178
290.000	.003591	.001676	.000173
280.000	.003824	.001899	.000187
270.000	.003719	.001909	.000212
260.000	.004250	.002085	.000238
250.000	.004452	.002342	.000279
240.000	.004828	.002579	.000329
230.000	.005574	.003060	.000385
220.000	.005358	.003057	.000431 ✓
210.000	.005759	.003239	.000431
200.000	.006258	.003455	.000445
190.000	.006545	.003573	.000493
180.000	.007499	.004122	.000556
170.000	.008145	.004304	.000569
160.000	.008549	.004655	.000535
150.000	.010450	.005701	.000548
140.000	.012879	.006707	.000666
130.000	.017472	.008400	.000859
120.000	.024761	.011285	.001016
110.000	.037306	.016819	.001175
100.000	.062502	.029204	.001265
90.000	.157001	.045990	.001336
80.000	.146140	.053859	.001197
70.000	.033622	.040226	.000992
60.000	.165007	.028609	.000850
50.000	.082661	.019500	.000793
40.000	.040742	.016488	.000682
30.000	.024602	.012192	.000616
20.000	.018493	.008760	.000651
10.000	.016033	.007020	.000712

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED (CONT.) **

SEASON 3 - MAR

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	.018384	.007735	.000724
350.000	.013686	.006153	.000513
340.000	.010894	.005006	.000432
330.000	.010396	.004556	.000455
320.000	.008827	.004285	.000475
310.000	.007719	.003563	.000411
300.000	.006413	.003237	.000347
290.000	.006140	.002945	.000329
280.000	.006147	.003163	.000341
270.000	.005602	.002956	.000360
260.000	.005705	.002979	.000373
250.000	.004999	.002816	.000394
240.000	.004464	.002511	.000348
230.000	.004090	.002305	.000306
220.000	.003267	.001864	.000258
210.000	.003098	.001673	.000216
200.000	.003067	.001622	.000195
190.000	.003259	.001692	.000233
180.000	.003845	.002015	.000304
170.000	.004251	.002214	.000341
160.000	.004463	.002489	.000337
150.000	.005601	.003238	.000356
140.000	.007053	.003964	.000434
130.000	.009899	.005076	.000559
120.000	.014438	.007034	.000666
110.000	.022022	.010714	.000780
100.000	.039203	.019365	.000944
90.000	.102279	.033405	.001140
80.000	.104920	.051115	.001249
70.000	.035719	.051248	.001280
60.000	.206737	.039837	.001254
50.000	.094763	.025118	.001206
40.000	.049509	.019907	.000968
30.000	.031689	.014293	.000768
20.000	.024120	.010115	.000753
10.000	.020814	.008412	.000818

********** END OF ISCLT PROGRAM, 24 SOURCES PROCESSED **********

? Error: Operation error in file USER
Error Code 1260, Status 0003
Line 1672 In MODEL Of C:MODEL.FOR
PC = 07FA: 0004; SS = 3472, FP = 2FCE, SP = 1A7C

- ISCLT INPUT DATA -

NUMBER OF SOURCES = 24
NUMBER OF X AXIS GRID SYSTEM POINTS = 3
NUMBER OF Y AXIS GRID SYSTEM POINTS = 36
NUMBER OF SPECIAL POINTS = 0
NUMBER OF SEASONS = 3
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 = .10000000E+01
ACCELERATION OF GRAVITY (METERS/SEC**2) = 9.800
HEIGHT OF MEASUREMENT OF WIND SPEED (METERS) = 10.000
ENTRAINMENT PARAMETER FOR UNSTABLE CONDITIONS = .600
ENTRAINMENT PARAMETER FOR STABLE CONDITIONS = .600
CORRECTION ANGLE FOR GRID SYSTEM VERSUS DIRECTION DATA NORTH (DEGREES) = .000
DECAY COEFFICIENT = .00000000E+00
PROGRAM OPTION SWITCHES = 2, 2, 1, 0, 0, 3, 1, 2, 3, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0,
ALL SOURCES ARE USED TO FORM SOURCE COMBINATION 1
RANGE X AXIS GRID SYSTEM POINTS (METERS)= 500.00, 700.00, 2000.00,
AZIMUTH BEARING Y AXIS GRID SYSTEM POINTS (DEGREES)= 10.00, 20.00, 30.00, 40.00, 50.00, 60.00,
70.00, 80.00, 90.00, 100.00, 110.00, 120.00, 130.00, 140.00, 150.00, 160.00,
170.00, 180.00, 190.00, 200.00, 210.00, 220.00, 230.00, 240.00, 250.00, 260.00,
270.00, 280.00, 290.00, 300.00, 310.00, 320.00, 330.00, 340.00, 350.00, 360.00,

- 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	298.0000	298.0000	298.0000	298.0000	298.0000	
SEASON 2	298.0000	298.0000	298.0000	298.0000	298.0000	
SEASON 3	298.0000	298.0000	298.0000	298.0000	298.0000	

- ISCLT INPUT DATA (CONT.) -

- 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	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 2	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 3	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 4	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 5	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05

SEASON 2

	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	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 2	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 3	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 4	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 5	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05

SEASON 3

	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	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 2	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 3	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 4	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 5	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1

STABILITY CATEGORY 1

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
22.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
45.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
67.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
90.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
112.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
135.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
157.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
180.000	.00032002	.00064004	.00000000	.00000000	.00000000	.00000000
202.500	.00016001	.00032002	.00000000	.00000000	.00000000	.00000000
225.000	.00016001	.00032002	.00000000	.00000000	.00000000	.00000000
247.500	.00048003	.00096006	.00000000	.00000000	.00000000	.00000000
270.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
292.500	.00016001	.00032002	.00000000	.00000000	.00000000	.00000000
315.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
337.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000

SEASON 1

STABILITY CATEGORY 2

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00084005	.00064004	.00000000	.00000000	.00000000	.00000000
22.500	.00005000	.00032002	.00000000	.00000000	.00000000	.00000000
45.000	.00192012	.00289017	.00096006	.00000000	.00000000	.00000000
67.500	.00243015	.00385023	.00096006	.00000000	.00000000	.00000000
90.000	.00127008	.00353021	.00481029	.00000000	.00000000	.00000000
112.500	.00174010	.00417025	.00513031	.00000000	.00000000	.00000000
135.000	.00290017	.00449027	.00289017	.00000000	.00000000	.00000000
157.500	.00056003	.00128008	.00064004	.00000000	.00000000	.00000000
180.000	.00052003	.00096006	.00096006	.00000000	.00000000	.00000000
202.500	.00019001	.00128008	.00096006	.00000000	.00000000	.00000000
225.000	.00137008	.00417025	.00385023	.00000000	.00000000	.00000000
247.500	.00192012	.00289017	.00353021	.00000000	.00000000	.00000000
270.000	.00083005	.00545033	.00096006	.00000000	.00000000	.00000000
292.500	.00113007	.00256015	.00256015	.00000000	.00000000	.00000000
315.000	.00192012	.00289017	.00160010	.00000000	.00000000	.00000000
337.500	.00125008	.00096006	.00096006	.00000000	.00000000	.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 (.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)
.000	.00004000	.00224013	.00096006	.00032002	.00000000	.00000000
22.500	.00004000	.00192012	.00032002	.00000000	.00000000	.00000000
45.000	.00005000	.00289017	.00096006	.00032002	.00000000	.00000000
67.500	.00006000	.00321019	.00449027	.00449027	.00000000	.00000000
90.000	.00105006	.00385023	.00898054	.00705042	.00000000	.00000000
112.500	.00005000	.00256015	.00994060	.00513031	.00000000	.00000000
135.000	.00042003	.00513031	.00769046	.00802048	.00032002	.00000000
157.500	.00007000	.00385023	.00385023	.00064004	.00000000	.00000000
180.000	.00107006	.00481029	.00353021	.00000000	.00032002	.00000000
202.500	.00005000	.00256015	.00256015	.00032002	.00000000	.00000000
225.000	.00040002	.00385023	.01058064	.00321019	.00192012	.00000000
247.500	.00040002	.00385023	.01058064	.00545033	.00128008	.00000000
270.000	.00005000	.00256015	.00769046	.00289017	.00064004	.00000000
292.500	.00002000	.00128008	.00385023	.00481029	.00032002	.00000000
315.000	.00005000	.00256015	.00256015	.00224013	.00000000	.00000000
337.500	.00067004	.00064004	.00096006	.00032002	.00000000	.00000000

SEASON 1

STABILITY CATEGORY 4

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00232014	.00353021	.00449027	.00128008	.00032002	.00000000
22.500	.00016001	.00224013	.00321019	.00385023	.00000000	.00000000
45.000	.00012001	.00160010	.00705042	.00994060	.00321019	.00064004
67.500	.00083005	.00192012	.00577035	.01122067	.00160010	.00000000
90.000	.00060004	.00353021	.00930056	.01603096	.00064004	.00000000
112.500	.00019001	.00256015	.00834050	.01347081	.00000000	.00000000
135.000	.00009001	.00128008	.00481029	.01539093	.00032002	.00000000
157.500	.00085005	.00224013	.00641039	.00417025	.00032002	.00000000
180.000	.00062004	.00385023	.01218073	.00962058	.00096006	.00000000
202.500	.00009001	.00128008	.00834050	.01026062	.00064004	.00000000
225.000	.00026002	.00353021	.01250075	.01828110	.00192012	.00000000
247.500	.00048003	.00192012	.01122067	.02244135	.00160010	.00000000
270.000	.00147009	.00128008	.00834050	.01379083	.00481029	.00064004
292.500	.00149009	.00160010	.00513031	.01347081	.00128008	.00064004
315.000	.00080005	.00160010	.00385023	.00802048	.00128008	.00064004
337.500	.00021001	.00289017	.00192012	.00192012	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1

STABILITY CATEGORY 5

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.01077065	.00930056	.00192012	.00000000	.00000000	.00000000
22.500	.00345021	.00385023	.00064004	.00000000	.00000000	.00000000
45.000	.00632038	.00417025	.00385023	.00000000	.00000000	.00000000
67.500	.01040062	.01058064	.00289017	.00000000	.00000000	.00000000
90.000	.00607036	.00898054	.00128008	.00000000	.00000000	.00000000
112.500	.00363022	.00321019	.00064004	.00000000	.00000000	.00000000
135.000	.00549033	.00545033	.00224013	.00000000	.00000000	.00000000
157.500	.00554033	.00449027	.00128008	.00000000	.00000000	.00000000
180.000	.01020061	.01443087	.00513031	.00000000	.00000000	.00000000
202.500	.00758046	.00930056	.00449027	.00000000	.00000000	.00000000
225.000	.01238074	.01635098	.00641039	.00000000	.00000000	.00000000
247.500	.01716103	.01795108	.00994060	.00000000	.00000000	.00000000
270.000	.02230134	.02148129	.01282077	.00000000	.00000000	.00000000
292.500	.00818049	.00641039	.00866052	.00000000	.00000000	.00000000
315.000	.01100066	.00769046	.00609037	.00000000	.00000000	.00000000
337.500	.00381023	.00577035	.00353021	.00000000	.00000000	.00000000

SEASON 2

STABILITY CATEGORY 1

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00032006	.00124024	.00000000	.00000000	.00000000	.00000000
22.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
45.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
67.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
90.000	.00008002	.00031006	.00000000	.00000000	.00000000	.00000000
112.500	.00008002	.00031006	.00000000	.00000000	.00000000	.00000000
135.000	.00008002	.00031006	.00000000	.00000000	.00000000	.00000000
157.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
180.000	.00055010	.00062012	.00000000	.00000000	.00000000	.00000000
202.500	.00008002	.00031006	.00000000	.00000000	.00000000	.00000000
225.000	.00055010	.00062012	.00000000	.00000000	.00000000	.00000000
247.500	.00032006	.00124024	.00000000	.00000000	.00000000	.00000000
270.000	.00094018	.00062012	.00000000	.00000000	.00000000	.00000000
292.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
315.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
337.500	.00008002	.00031006	.00000000	.00000000	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 2

STABILITY CATEGORY 2

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00078015	.00217041	.00186035	.00000000	.00000000	.00000000
22.500	.00066013	.00000000	.00000000	.00000000	.00000000	.00000000
45.000	.00071013	.00093018	.00093018	.00000000	.00000000	.00000000
67.500	.00111021	.00217041	.00093018	.00000000	.00000000	.00000000
90.000	.00091017	.00434082	.00651124	.00000000	.00000000	.00000000
112.500	.00273052	.00744141	.00900171	.00000000	.00000000	.00000000
135.000	.00353067	.00993189	.00993189	.00000000	.00000000	.00000000
157.500	.00111021	.00217041	.00186035	.00000000	.00000000	.00000000
180.000	.00306058	.00186035	.00155029	.00000000	.00000000	.00000000
202.500	.00051010	.00310059	.00248047	.00000000	.00000000	.00000000
225.000	.00156030	.00434082	.00341065	.00000000	.00000000	.00000000
247.500	.00253048	.00403077	.00558106	.00000000	.00000000	.00000000
270.000	.00116022	.00310059	.00434082	.00000000	.00000000	.00000000
292.500	.00142027	.00186035	.00341065	.00000000	.00000000	.00000000
315.000	.00049009	.00279053	.00186035	.00000000	.00000000	.00000000
337.500	.00100019	.00031006	.00062012	.00000000	.00000000	.00000000

SEASON 2

STABILITY CATEGORY 3

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00013002	.00217041	.00093018	.00093018	.00000000	.00000000
22.500	.00007001	.00124024	.00124024	.00000000	.00000000	.00000000
45.000	.00004001	.00062012	.00186035	.00062012	.00000000	.00000000
67.500	.00063012	.00496094	.00372071	.00310059	.00031006	.00000000
90.000	.00048009	.00248047	.00868165	.00868165	.00000000	.00000000
112.500	.00015003	.00248047	.01024194	.00900171	.00000000	.00000000
135.000	.00066013	.00558106	.00962183	.00775147	.00031006	.00000000
157.500	.00009002	.00155029	.00310059	.00062012	.00000000	.00000000
180.000	.00057011	.00403077	.00341065	.00000000	.00000000	.00000000
202.500	.00011002	.00186035	.00310059	.00062012	.00000000	.00000000
225.000	.00011002	.00186035	.00775147	.00341065	.00031006	.00000000
247.500	.00052010	.00310059	.00962183	.00248047	.00000000	.00000000
270.000	.00011002	.00186035	.00868165	.00279053	.00000000	.00000000
292.500	.00038007	.00093018	.00248047	.00341065	.00000000	.00000000
315.000	.00081015	.00248047	.00341065	.00062012	.00000000	.00000000
337.500	.00009002	.00155029	.00031006	.00031006	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 2

STABILITY CATEGORY 4

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00022004	.00465088	.00775147	.00403077	.00000000	.00000000
22.500	.00009002	.00186035	.00310059	.00186035	.00000000	.00031006
45.000	.00012002	.00248047	.00434082	.00527100	.00000000	.00000000
67.500	.00007001	.00155029	.00682129	.01024194	.00093018	.00000000
90.000	.00019004	.00403077	.00962183	.01210230	.00124024	.00000000
112.500	.00018003	.00372071	.01148218	.00993189	.00031006	.00000000
135.000	.00009002	.00186035	.01055200	.01303247	.00155029	.00000000
157.500	.00007001	.00155029	.00651124	.00837159	.00093018	.00000000
180.000	.00055010	.00465088	.00931177	.00806153	.00031006	.00000000
202.500	.00024005	.00496094	.00868165	.00620118	.00062012	.00000000
225.000	.00061012	.00589112	.01396265	.00744141	.00093018	.00000000
247.500	.00050009	.00372071	.01551295	.00651124	.00093018	.00000000
270.000	.00047009	.00310059	.01055200	.01210230	.00093018	.00031006
292.500	.00037007	.00093018	.00434082	.00837159	.00124024	.00000000
315.000	.00111021	.00279053	.00558106	.00341065	.00000000	.00000000
337.500	.00040008	.00155029	.00310059	.00155029	.00000000	.00000000

SEASON 2

STABILITY CATEGORY 5

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00849161	.00993189	.00341065	.00000000	.00000000	.00000000
22.500	.00212040	.00279053	.00217041	.00000000	.00000000	.00000000
45.000	.00516098	.00589112	.00124024	.00000000	.00000000	.00000000
67.500	.00322061	.00496094	.00031006	.00000000	.00000000	.00000000
90.000	.00190036	.00465088	.00062012	.00000000	.00000000	.00000000
112.500	.00331063	.00651124	.00186035	.00000000	.00000000	.00000000
135.000	.00959182	.01210230	.00124024	.00000000	.00000000	.00000000
157.500	.00524099	.00744141	.00372071	.00000000	.00000000	.00000000
180.000	.01051200	.01241236	.00589112	.00000000	.00000000	.00000000
202.500	.00924175	.01613306	.00372071	.00000000	.00000000	.00000000
225.000	.01389264	.02171412	.00403077	.00000000	.00000000	.00000000
247.500	.01480281	.02326442	.00806153	.00000000	.00000000	.00000000
270.000	.02292435	.01923365	.00620118	.00000000	.00000000	.00000000
292.500	.01167222	.00962183	.00620118	.00000000	.00000000	.00000000
315.000	.01021194	.01148218	.00682129	.00000000	.00000000	.00000000
337.500	.00886168	.01365259	.00248047	.00000000	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3

STABILITY CATEGORY 1

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00057008	.00096013	.00000000	.00000000	.00000000	.00000000
22.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
45.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
67.500	.00013002	.00064009	.00000000	.00000000	.00000000	.00000000
90.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
112.500	.00045006	.00032004	.00000000	.00000000	.00000000	.00000000
135.000	.00019003	.00096013	.00000000	.00000000	.00000000	.00000000
157.500	.00006001	.00032004	.00000000	.00000000	.00000000	.00000000
180.000	.00063009	.00128018	.00000000	.00000000	.00000000	.00000000
202.500	.00013002	.00064009	.00000000	.00000000	.00000000	.00000000
225.000	.00056008	.00288040	.00000000	.00000000	.00000000	.00000000
247.500	.00013002	.00064009	.00000000	.00000000	.00000000	.00000000
270.000	.00057008	.00096013	.00000000	.00000000	.00000000	.00000000
292.500	.00025004	.00128018	.00000000	.00000000	.00000000	.00000000
315.000	.00045006	.00032004	.00000000	.00000000	.00000000	.00000000
337.500	.00006001	.00032004	.00000000	.00000000	.00000000	.00000000

SEASON 3

STABILITY CATEGORY 2

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00290041	.00256036	.00000000	.00000000	.00000000	.00000000
22.500	.00081011	.00192027	.00032004	.00000000	.00000000	.00000000
45.000	.00047007	.00192027	.00064009	.00000000	.00000000	.00000000
67.500	.00055008	.00321045	.00481067	.00000000	.00000000	.00000000
90.000	.00177025	.00609085	.00865121	.00000000	.00000000	.00000000
112.500	.00140020	.00577081	.00929130	.00000000	.00000000	.00000000
135.000	.00230032	.00897126	.00641090	.00000000	.00000000	.00000000
157.500	.00138019	.00545076	.00192027	.00000000	.00000000	.00000000
180.000	.00287040	.00737103	.00321045	.00000000	.00000000	.00000000
202.500	.00117016	.00224031	.00160022	.00000000	.00000000	.00000000
225.000	.00172024	.00545076	.00353049	.00000000	.00000000	.00000000
247.500	.00096013	.00417058	.00256036	.00000000	.00000000	.00000000
270.000	.00166023	.00449063	.00256036	.00000000	.00000000	.00000000
292.500	.00143020	.00096013	.00288040	.00000000	.00000000	.00000000
315.000	.00119017	.00256036	.00128018	.00000000	.00000000	.00000000
337.500	.00081011	.00192027	.00064009	.00000000	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3

STABILITY CATEGORY 3

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00096013	.00128018	.00096013	.00000000	.00000000	.00000000
22.500	.00096013	.00128018	.00064009	.00000000	.00000000	.00000000
45.000	.00091013	.00096013	.00064009	.00096013	.00000000	.00000000
67.500	.00069010	.00192027	.00545076	.00449063	.00000000	.00000000
90.000	.00042006	.00256036	.01442202	.00865121	.00000000	.00000000
112.500	.00133019	.00353049	.00673094	.01090153	.00032004	.00000000
135.000	.00128018	.00321045	.00929130	.00417058	.00000000	.00000000
157.500	.00187026	.00224031	.00449063	.00128018	.00000000	.00000000
180.000	.00304043	.00705099	.00673094	.00000000	.00000000	.00000000
202.500	.00138019	.00385054	.00160022	.00032004	.00000000	.00000000
225.000	.00133019	.00353049	.00769108	.00128018	.00000000	.00000000
247.500	.00155022	.00256036	.00833117	.00288040	.00032004	.00000000
270.000	.00112016	.00449063	.00609085	.00481067	.00032004	.00000000
292.500	.00059008	.00128018	.00385054	.00032004	.00032004	.00032004
315.000	.00117016	.00256036	.00128018	.00000000	.00000000	.00000000
337.500	.00064009	.00160022	.00096013	.00000000	.00000000	.00000000

SEASON 3

STABILITY CATEGORY 4

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00044006	.00224031	.00449063	.00096013	.00000000	.00000000
22.500	.00009001	.00192027	.00288040	.00160022	.00032004	.00000000
45.000	.00042006	.00192027	.00321045	.00545076	.00000000	.00000000
67.500	.00010001	.00224031	.00545076	.01346189	.00032004	.00000000
90.000	.00011002	.00256036	.00865121	.02019283	.00160022	.00000000
112.500	.00006001	.00128018	.00321045	.00833117	.00192027	.00064009
135.000	.00051007	.00385054	.00673094	.00929130	.00064009	.00000000
157.500	.00013002	.00288040	.00256036	.00321045	.00096013	.00000000
180.000	.00034005	.00769108	.00962135	.00385054	.00096013	.00000000
202.500	.00054008	.00449063	.00833117	.00224031	.00064009	.00000000
225.000	.00090013	.00513072	.00865121	.00449063	.00192027	.00000000
247.500	.00118017	.00385054	.01314184	.00897126	.00128018	.00000000
270.000	.00116016	.00353049	.01410198	.01442202	.00128018	.00032004
292.500	.00055008	.00481067	.00609085	.00353049	.00096013	.00000000
315.000	.00109015	.00192027	.00417058	.00128018	.00032004	.00000000
337.500	.00041006	.00160022	.00481067	.00064009	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3

STABILITY CATEGORY 5

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.01717241	.00865121	.00096013	.00000000	.00000000	.00000000
22.500	.00523073	.00353049	.00000000	.00000000	.00000000	.00000000
45.000	.00240034	.00417058	.00224031	.00000000	.00000000	.00000000
67.500	.00818115	.00801112	.00096013	.00000000	.00000000	.00000000
90.000	.00477067	.00705099	.00417058	.00000000	.00000000	.00000000
112.500	.00359050	.00385054	.00192027	.00000000	.00000000	.00000000
135.000	.00456064	.00769108	.00032004	.00000000	.00000000	.00000000
157.500	.00474066	.00577081	.00064009	.00000000	.00000000	.00000000
180.000	.01403197	.01442202	.00064009	.00000000	.00000000	.00000000
202.500	.01514212	.01506211	.00096013	.00000000	.00000000	.00000000
225.000	.01748245	.02147301	.00609085	.00000000	.00000000	.00000000
247.500	.01768248	.02083292	.00865121	.00000000	.00000000	.00000000
270.000	.01955274	.02115296	.00513072	.00000000	.00000000	.00000000
292.500	.01551217	.01250175	.00321045	.00000000	.00000000	.00000000
315.000	.01364191	.00737103	.00288040	.00000000	.00000000	.00000000
337.500	.00716100	.00641090	.00192027	.00000000	.00000000	.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	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 2	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 3	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 4	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 5	.200000E-01	.200000E-01	.200000E-01	.200000E-01	.200000E-01	.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	.100000E+00	.100000E+00	.100000E+00	.100000E+00	.100000E+00	.100000E+00
STABILITY CATEGORY 2	.150000E+00	.150000E+00	.150000E+00	.150000E+00	.150000E+00	.150000E+00
STABILITY CATEGORY 3	.200000E+00	.200000E+00	.200000E+00	.200000E+00	.200000E+00	.200000E+00
STABILITY CATEGORY 4	.250000E+00	.250000E+00	.250000E+00	.250000E+00	.250000E+00	.250000E+00
STABILITY CATEGORY 5	.300000E+00	.300000E+00	.300000E+00	.300000E+00	.300000E+00	.300000E+00

- 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		16	STACK	381.00	146.00	2.40	.00		GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)-

SEASON 1	SEASON 2	SEASON 3	SEASON 4
2.25640E+04	2.25640E+04	2.25640E+04	

WARNING - DISTANCE BETWEEN SOURCE 16 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

X		17	STACK	381.00	146.00	1.20	.00		GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)-

SEASON 1	SEASON 2	SEASON 3	SEASON 4
3.18000E+02	3.18000E+02	3.18000E+02	

WARNING - DISTANCE BETWEEN SOURCE 17 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

X		18	STACK	366.00	142.00	1.20	.00		GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- 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 -

- SOURCE STRENGTHS (GRAMS)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.58900E+03	1.58900E+03	1.58900E+03	

X 19 STACK 308.00 63.00 6.10 .00

GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00,
STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF
ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.58900E+03	1.58900E+03	1.58900E+03	

X 20 VOLUME 52.00 63.00 3.00 .00

STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 2.10
STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 4.30

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
3.97200E+03	3.97200E+03	3.97200E+03	

X 21 VOLUME 320.00 180.00 6.10 .00

STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70
STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 5.70

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
5.59330E+04	5.59330E+04	5.59330E+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 -

WARNING - DISTANCE BETWEEN SOURCE 21 AND POINT X,Y= 500.00, 60.00 IS LESS THAN PERMITTED

X 22 VOLUME 381.00 131.00 6.10 .00 STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70

STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 5.70

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
5.59330E+04	5.59330E+04	5.59330E+04	

WARNING - DISTANCE BETWEEN SOURCE 22 AND POINT X,Y= 500.00, 60.00 IS LESS THAN PERMITTED

WARNING - DISTANCE BETWEEN SOURCE 22 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

WARNING - DISTANCE BETWEEN SOURCE 22 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED

X 23 VOLUME 439.00 66.00 6.10 .00 STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70

STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 5.70

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
5.59330E+04	5.59330E+04	5.59330E+04	

WARNING - DISTANCE BETWEEN SOURCE 23 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

WARNING - DISTANCE BETWEEN SOURCE 23 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED

WARNING - DISTANCE BETWEEN SOURCE 23 AND POINT X,Y= 500.00, 90.00 IS LESS THAN PERMITTED

- 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		24	VOLUME	497.00	30.00	6.10	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70
								STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 5.70

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
5.59330E+04	5.59330E+04	5.59330E+04	

WARNING - DISTANCE BETWEEN SOURCE 24 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 24 AND POINT X,Y= 500.00, 90.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 24 AND POINT X,Y= 500.00, 100.00 IS LESS THAN PERMITTED

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED **

SEASON 1 - APR

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	.015965	.006416	.000657
350.000	.012285	.005360	.000436
340.000	.010633	.004786	.000363
330.000	.010931	.004649	.000411
320.000	.010020	.004707	.000457
310.000	.009446	.004255	.000435
300.000	.008559	.004225	.000409
290.000	.008490	.004088	.000425
280.000	.008295	.004389	.000460
270.000	.007067	.003808	.000473
260.000	.006680	.003523	.000438
250.000	.005592	.003110	.000414
240.000	.005007	.002779	.000364
230.000	.004652	.002615	.000333
220.000	.003691	.002113	.000282
210.000	.003362	.001852	.000220
200.000	.003082	.001632	.000171
190.000	.003071	.001563	.000181
180.000	.003398	.001709	.000225
170.000	.003508	.001731	.000238
160.000	.003478	.001858	.000218
150.000	.004235	.002371	.000228
140.000	.005495	.002959	.000308
130.000	.007791	.003822	.000439
120.000	.011391	.005336	.000567
110.000	.017089	.008557	.000715
100.000	.030230	.016831	.000901
90.000	.081317	.030840	.001103
80.000	.097346	.051554	.001312
70.000	.035634	.052920	.001484
60.000	.189736	.039655	.001412
50.000	.081623	.023357	.001246
40.000	.043431	.017168	.000957
30.000	.028261	.011870	.000741
20.000	.021365	.008235	.000704
10.000	.017992	.006865	.000760

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED (CONT.) **

SEASON 2 - MAY

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	.017962	.007095	.000664
350.000	.014503	.006343	.000492
340.000	.013694	.006111	.000475
330.000	.014273	.006060	.000577
320.000	.012730	.006069 ✓	.000653
310.000	.011248	.005202	.000611
300.000	.009142	.004690	.000557
290.000	.008100	.004031	.000510
280.000	.007103	.003864	.000487
270.000	.005654	.003079	.000440
260.000	.005046	.002711	.000368
250.000	.003974	.002239	.000306
240.000	.003446	.001919	.000251 ✓
230.000	.003137	.001744	.000218
220.000	.002503	.001409	.000181
210.000	.002388	.001270	.000154
200.000	.002461	.001293	.000163
190.000	.002737	.001428	.000278
180.000	.003334	.001767	.000457
170.000	.003749	.001986	.000522
160.000	.003973	.002259	.000443
150.000	.004959	.002941	.000372
140.000	.006285	.003566	.000379
130.000	.008966	.004432	.000433
120.000	.012984	.005778	.000479
110.000	.019707	.008431	.000548
100.000	.033300	.014911	.000780
90.000	.084222	.026000	.001111
80.000	.082230	.044101	.001270
70.000	.032802	.044602	.001312
60.000	.177026	.034345	.001248
50.000	.080631	.021999	.001161
40.000	.043847	.016275	.000951
30.000	.031190	.011654	.000770
20.000	.024765	.008831	.000718
10.000	.020492	.007597	.000749

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED (CONT.) **

SEASON 3 - JUN

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	.015805	.006169	.000754
350.000	.012048	.005051	.000497
340.000	.010233	.004443	.000425
330.000	.010563	.004348	.000517
320.000	.009910	.004459	.000593
310.000	.009719	.004192	.000558
300.000	.009324	.004429	.000515
290.000	.009575	.004557	.000522
280.000	.009328	.005007	.000545
270.000	.007590	.004163	.000551
260.000	.006545	.003553	.000520
250.000	.004823	.002754	.000495
240.000	.003860	.002176	.000367
230.000	.003222	.001791	.000251
220.000	.002468	.001364	.000165
210.000	.002318	.001206	.000142
200.000	.002302	.001195	.000151
190.000	.002438	.001258	.000246
180.000	.002845	.001489	.000392
170.000	.003112	.001604	.000435
160.000	.003234	.001760	.000360
150.000	.003910	.002189	.000307
140.000	.004800	.002613	.000339
130.000	.006739	.003295	.000428
120.000	.010077	.004484	.000554
110.000	.015767	.006563	.000740
100.000	.027318	.012288	.000977
90.000	.068002	.025469	.001244
80.000	.077482	.046542	.001312
70.000	.033509	.044614	.001236
60.000	.170496	.032617	.001270
50.000	.080800	.020375	.001404
40.000	.041949	.015788	.001154
30.000	.026902	.011214	.000827
20.000	.020963	.008017	.000769
10.000	.017987	.006710	.000862

********** END OF ISCLT PROGRAM, 24 SOURCES PROCESSED **********

? Error: Operation error in file USER
Error Code 1260, Status 0003
Line 1672 In MODEL Of C:MODEL.FOR
PC = 07FA: 0004; SS = 3472, FP = 2FCE, SP = 1A7C

- ISCLT INPUT DATA -

NUMBER OF SOURCES = 24
NUMBER OF X AXIS GRID SYSTEM POINTS = 3
NUMBER OF Y AXIS GRID SYSTEM POINTS = 36
NUMBER OF SPECIAL POINTS = 0
NUMBER OF SEASONS = 3
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 = .10000000E+01
ACCELERATION OF GRAVITY (METERS/SEC**2) = 9.800
HEIGHT OF MEASUREMENT OF WIND SPEED (METERS) = 10.000
ENTRAINMENT PARAMETER FOR UNSTABLE CONDITIONS = .600
ENTRAINMENT PARAMETER FOR STABLE CONDITIONS = .600
CORRECTION ANGLE FOR GRID SYSTEM VERSUS DIRECTION DATA NORTH (DEGREES) = .000
DECAY COEFFICIENT = .00000000E+00
PROGRAM OPTION SWITCHES = 2, 2, 1, 0, 0, 3, 1, 2, 3, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0,
ALL SOURCES ARE USED TO FORM SOURCE COMBINATION 1

RANGE X AXIS GRID SYSTEM POINTS (METERS)= 500.00, 700.00, 2000.00,

AZIMUTH BEARING Y AXIS GRID SYSTEM POINTS (DEGREES)= 10.00, 20.00, 30.00, 40.00, 50.00, 60.00,
70.00, 80.00, 90.00, 100.00, 110.00, 120.00, 130.00, 140.00, 150.00, 160.00,
170.00, 180.00, 190.00, 200.00, 210.00, 220.00, 230.00, 240.00, 250.00, 260.00,
270.00, 280.00, 290.00, 300.00, 310.00, 320.00, 330.00, 340.00, 350.00, 360.00,

- 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	298.0000	298.0000	298.0000	298.0000	298.0000	
SEASON 2	298.0000	298.0000	298.0000	298.0000	298.0000	
SEASON 3	298.0000	298.0000	298.0000	298.0000	298.0000	

- ISCLT INPUT DATA (CONT.) -

- 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	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 2	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 3	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 4	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 5	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05

SEASON 2

	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	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 2	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 3	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 4	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 5	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05

SEASON 3

	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	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 2	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 3	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 4	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 5	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1

STABILITY CATEGORY 1

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
22.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
45.000	.00018001	.00031002	.00000000	.00000000	.00000000	.00000000
67.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
90.000	.00018001	.00031002	.00000000	.00000000	.00000000	.00000000
112.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
135.000	.00089006	.00155011	.00000000	.00000000	.00000000	.00000000
157.500	.00018001	.00031002	.00000000	.00000000	.00000000	.00000000
180.000	.00125009	.00217015	.00000000	.00000000	.00000000	.00000000
202.500	.00071005	.00124009	.00000000	.00000000	.00000000	.00000000
225.000	.00054004	.00093006	.00000000	.00000000	.00000000	.00000000
247.500	.00161011	.00279019	.00000000	.00000000	.00000000	.00000000
270.000	.00089006	.00155011	.00000000	.00000000	.00000000	.00000000
292.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
315.000	.00018001	.00031002	.00000000	.00000000	.00000000	.00000000
337.500	.00116008	.00031002	.00000000	.00000000	.00000000	.00000000

SEASON 1

STABILITY CATEGORY 2

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00192013	.00093006	.00062004	.00000000	.00000000	.00000000
22.500	.00080006	.00062004	.00000000	.00000000	.00000000	.00000000
45.000	.00134009	.00186013	.00062004	.00000000	.00000000	.00000000
67.500	.00086006	.00341024	.00372026	.00000000	.00000000	.00000000
90.000	.00167012	.00652045	.00590041	.00000000	.00000000	.00000000
112.500	.00246017	.00465032	.00900063	.00000000	.00000000	.00000000
135.000	.00302021	.01086076	.00993069	.00000000	.00000000	.00000000
157.500	.00466032	.00745052	.00248017	.00000000	.00000000	.00000000
180.000	.00493034	.00931065	.00341024	.00000000	.00000000	.00000000
202.500	.00345024	.00652045	.00341024	.00000000	.00000000	.00000000
225.000	.00353025	.00465032	.00434030	.00000000	.00000000	.00000000
247.500	.00126009	.00372026	.00310022	.00000000	.00000000	.00000000
270.000	.00163011	.00621043	.00403028	.00000000	.00000000	.00000000
292.500	.00143010	.00248017	.00062004	.00000000	.00000000	.00000000
315.000	.00192013	.00093006	.00155011	.00000000	.00000000	.00000000
337.500	.00018001	.00124009	.00031002	.00000000	.00000000	.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 (.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)
.000	.00044003	.00155011	.00000000	.00000000	.00000000	.00000000
22.500	.00128009	.00031002	.00000000	.00000000	.00000000	.00000000
45.000	.00164011	.00155011	.00062004	.00186013	.00031002	.00000000
67.500	.00115008	.00124009	.00248017	.00465032	.00031002	.00000000
90.000	.00075005	.00124009	.00869060	.00527037	.00000000	.00000000
112.500	.00199014	.00279019	.00621043	.00434030	.00000000	.00031002
135.000	.00185013	.00372026	.01210084	.00558039	.00000000	.00000000
157.500	.00177012	.00341024	.00714050	.00031002	.00000000	.00000000
180.000	.00539038	.00776054	.00403028	.00031002	.00000000	.00000000
202.500	.00252018	.00465032	.00341024	.00093006	.00000000	.00000000
225.000	.00150010	.00527037	.00745052	.00124009	.00000000	.00000000
247.500	.00190013	.00527037	.00652045	.00062004	.00000000	.00000000
270.000	.00159011	.00279019	.00621043	.00000000	.00000000	.00000000
292.500	.00093006	.00186013	.00279019	.00000000	.00000000	.00000000
315.000	.00018001	.00062004	.00031002	.00031002	.00000000	.00000000
337.500	.00088006	.00031002	.00062004	.00000000	.00000000	.00000000

SEASON 1

STABILITY CATEGORY 4

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00096007	.00683048	.00341024	.00031002	.00000000	.00000000
22.500	.00069005	.00093006	.00217015	.00062004	.00000000	.00000000
45.000	.00042003	.00217015	.00590041	.00310022	.00000000	.00000000
67.500	.00047003	.00310022	.00527037	.00745052	.00031002	.00000000
90.000	.00045003	.00279019	.00776054	.00962067	.00031002	.00000000
112.500	.00016001	.00341024	.00403028	.00465032	.00000000	.00031002
135.000	.00061004	.00621043	.00683048	.00372026	.00000000	.00031002
157.500	.00055004	.00496035	.00962067	.00093006	.00000000	.00000000
180.000	.00163011	.00714050	.01024071	.00279019	.00000000	.00000000
202.500	.00109008	.00962067	.00776054	.00093006	.00000000	.00000000
225.000	.00114008	.00372026	.01210084	.00217015	.00000000	.00000000
247.500	.00050003	.00372026	.00931065	.00248017	.00031002	.00000000
270.000	.00150010	.00434030	.01179082	.00527037	.00031002	.00000000
292.500	.00045003	.00279019	.00341024	.00093006	.00000000	.00000000
315.000	.00047003	.00310022	.00403028	.00093006	.00000000	.00000000
337.500	.00102007	.00093006	.00248017	.00062004	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1

STABILITY CATEGORY 5

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.01749122	.01024071	.00062004	.00000000	.00000000	.00000000
22.500	.00565039	.00403028	.00093006	.00000000	.00000000	.00000000
45.000	.00700049	.00621043	.00062004	.00000000	.00000000	.00000000
67.500	.00511036	.00590041	.00031002	.00000000	.00000000	.00000000
90.000	.00436030	.00621043	.00000000	.00000000	.00000000	.00000000
112.500	.00350024	.00310022	.00062004	.00000000	.00000000	.00000000
135.000	.00951066	.00590041	.00124009	.00000000	.00000000	.00000000
157.500	.00915064	.00714050	.00062004	.00000000	.00000000	.00000000
180.000	.02139149	.01955136	.00186013	.00000000	.00000000	.00000000
202.500	.02044142	.02358164	.00279019	.00000000	.00000000	.00000000
225.000	.02984208	.02606181	.00403028	.00000000	.00000000	.00000000
247.500	.02142149	.02699188	.00931065	.00000000	.00000000	.00000000
270.000	.01937135	.01893132	.00558039	.00000000	.00000000	.00000000
292.500	.01586111	.01055073	.00031002	.00000000	.00000000	.00000000
315.000	.00796055	.00745052	.00217015	.00000000	.00000000	.00000000
337.500	.00767053	.00465032	.00031002	.00000000	.00000000	.00000000

SEASON 2

STABILITY CATEGORY 1

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00105011	.00031003	.00000000	.00000000	.00000000	.00000000
22.500	.00074007	.00062006	.00000000	.00000000	.00000000	.00000000
45.000	.00074007	.00062006	.00000000	.00000000	.00000000	.00000000
67.500	.00111011	.00093009	.00000000	.00000000	.00000000	.00000000
90.000	.00037004	.00031003	.00000000	.00000000	.00000000	.00000000
112.500	.00222022	.00186019	.00000000	.00000000	.00000000	.00000000
135.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
157.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
180.000	.00216022	.00124012	.00000000	.00000000	.00000000	.00000000
202.500	.00037004	.00031003	.00000000	.00000000	.00000000	.00000000
225.000	.00037004	.00031003	.00000000	.00000000	.00000000	.00000000
247.500	.00037004	.00031003	.00000000	.00000000	.00000000	.00000000
270.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
292.500	.00037004	.00031003	.00000000	.00000000	.00000000	.00000000
315.000	.00037004	.00031003	.00000000	.00000000	.00000000	.00000000
337.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 2

STABILITY CATEGORY 2

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00332033	.00217022	.00062006	.00000000	.00000000	.00000000
22.500	.00081008	.00248025	.00031003	.00000000	.00000000	.00000000
45.000	.00242024	.00124012	.00124012	.00000000	.00000000	.00000000
67.500	.00379038	.00683068	.00341034	.00000000	.00000000	.00000000
90.000	.00460046	.00931093	.00962096	.00000000	.00000000	.00000000
112.500	.00381038	.00900090	.00807081	.00000000	.00000000	.00000000
135.000	.00581058	.00993099	.00931093	.00000000	.00000000	.00000000
157.500	.00360036	.00372037	.00124012	.00000000	.00000000	.00000000
180.000	.00596060	.00465047	.00062006	.00000000	.00000000	.00000000
202.500	.00433043	.00372037	.00155016	.00000000	.00000000	.00000000
225.000	.00458046	.00310031	.00124012	.00000000	.00000000	.00000000
247.500	.00127013	.00093009	.00062006	.00000000	.00000000	.00000000
270.000	.00228023	.00248025	.00155016	.00000000	.00000000	.00000000
292.500	.00011001	.00062006	.00000000	.00000000	.00000000	.00000000
315.000	.00310031	.00093009	.00000000	.00000000	.00000000	.00000000
337.500	.00079008	.00031003	.00031003	.00000000	.00000000	.00000000

SEASON 2

STABILITY CATEGORY 3

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00010001	.00093009	.00000000	.00000000	.00000000	.00000000
22.500	.00041004	.00062006	.00031003	.00031003	.00000000	.00000000
45.000	.00098010	.00279028	.00434043	.00031003	.00000000	.00000000
67.500	.00048005	.00465047	.00714071	.00496050	.00000000	.00000000
90.000	.00070007	.00341034	.01520152	.00683068	.00000000	.00000000
112.500	.00045005	.00434043	.00962096	.00465047	.00000000	.00000000
135.000	.00151015	.00465047	.00838084	.00434043	.00000000	.00000000
157.500	.00120012	.00496050	.00341034	.00124012	.00000000	.00000000
180.000	.00268027	.00931093	.00465047	.00000000	.00000000	.00000000
202.500	.00070007	.00341034	.00310031	.00031003	.00000000	.00000000
225.000	.00101010	.00310031	.00590059	.00000000	.00000000	.00000000
247.500	.00067007	.00310031	.00186019	.00000000	.00000000	.00000000
270.000	.00019002	.00186019	.00124012	.00000000	.00000000	.00000000
292.500	.00047005	.00124012	.00000000	.00000000	.00000000	.00000000
315.000	.00060006	.00248025	.00062006	.00000000	.00000000	.00000000
337.500	.00057006	.00217022	.00124012	.00000000	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 2

STABILITY CATEGORY 4

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00080008	.00434043	.00590059	.00093009	.00000000	.00000000
22.500	.00054005	.00186019	.00217022	.00124012	.00031003	.00000000
45.000	.00016002	.00155016	.00993099	.00341034	.00031003	.00031003
67.500	.00080008	.00434043	.00652065	.00590059	.00062006	.00000000
90.000	.00039004	.00372037	.01303130	.01055106	.00000000	.00000000
112.500	.00033003	.00310031	.00621062	.00186019	.00000000	.00031003
135.000	.00104010	.00341034	.00652065	.00714071	.00031003	.00000000
157.500	.00016002	.00155016	.00527053	.00186019	.00000000	.00031003
180.000	.00171017	.00652065	.01551155	.00217022	.00000000	.00000000
202.500	.00280028	.00714071	.01148115	.00186019	.00000000	.00000000
225.000	.00215022	.00745075	.01272127	.00590059	.00062006	.00000000
247.500	.00062006	.00590059	.00745075	.00248025	.00000000	.00000000
270.000	.00101010	.00310031	.00590059	.00186019	.00062006	.00000000
292.500	.00036004	.00341034	.00310031	.00000000	.00000000	.00000000
315.000	.00117012	.00465047	.00372037	.00062006	.00000000	.00000000
337.500	.00054005	.00186019	.00155016	.00062006	.00000000	.00031003

SEASON 2

STABILITY CATEGORY 5

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.02158216	.01303130	.00031003	.00000000	.00000000	.00000000
22.500	.01243124	.00714071	.00031003	.00000000	.00000000	.00000000
45.000	.01157116	.00900090	.00062006	.00000000	.00000000	.00000000
67.500	.01049105	.00807081	.00093009	.00000000	.00000000	.00000000
90.000	.00722072	.00683068	.00062006	.00000000	.00000000	.00000000
112.500	.00480048	.00372037	.00093009	.00000000	.00000000	.00000000
135.000	.00822082	.00683068	.00062006	.00000000	.00000000	.00000000
157.500	.00827083	.00527053	.00000000	.00000000	.00000000	.00000000
180.000	.03387339	.02482248	.00062006	.00000000	.00000000	.00000000
202.500	.01645165	.01365137	.00155016	.00000000	.00000000	.00000000
225.000	.02323233	.01489149	.00155016	.00000000	.00000000	.00000000
247.500	.01711171	.01148115	.00155016	.00000000	.00000000	.00000000
270.000	.02526253	.01738174	.00217022	.00000000	.00000000	.00000000
292.500	.01752175	.00807081	.00155016	.00000000	.00000000	.00000000
315.000	.01381138	.00776078	.00062006	.00000000	.00000000	.00000000
337.500	.01575158	.00683068	.00062006	.00000000	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3

STABILITY CATEGORY 1

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
22.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
45.000	.00061005	.00032003	.00000000	.00000000	.00000000	.00000000
67.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
90.000	.00061005	.00032003	.00000000	.00000000	.00000000	.00000000
112.500	.00061005	.00032003	.00000000	.00000000	.00000000	.00000000
135.000	.00061005	.00032003	.00000000	.00000000	.00000000	.00000000
157.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
180.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
202.500	.00122011	.00064006	.00000000	.00000000	.00000000	.00000000
225.000	.00154014	.00032003	.00000000	.00000000	.00000000	.00000000
247.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
270.000	.00061005	.00032003	.00000000	.00000000	.00000000	.00000000
292.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
315.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
337.500	.00154014	.00032003	.00000000	.00000000	.00000000	.00000000

SEASON 3

STABILITY CATEGORY 2

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00170015	.00224020	.00032003	.00000000	.00000000	.00000000
22.500	.00262024	.00096009	.00064006	.00000000	.00000000	.00000000
45.000	.00332030	.00385035	.00032003	.00000000	.00000000	.00000000
67.500	.00336030	.01026092	.00353032	.00000000	.00000000	.00000000
90.000	.00468042	.00929084	.00994090	.00000000	.00000000	.00000000
112.500	.00198018	.00769069	.00545049	.00000000	.00000000	.00000000
135.000	.00538048	.00609055	.00513046	.00000000	.00000000	.00000000
157.500	.00275025	.00513046	.00096009	.00000000	.00000000	.00000000
180.000	.00317029	.00256023	.00032003	.00000000	.00000000	.00000000
202.500	.00123011	.00128012	.00000000	.00000000	.00000000	.00000000
225.000	.00087008	.00128012	.00032003	.00000000	.00000000	.00000000
247.500	.00091008	.00160014	.00096009	.00000000	.00000000	.00000000
270.000	.00126011	.00160014	.00096009	.00000000	.00000000	.00000000
292.500	.00091008	.00160014	.00032003	.00000000	.00000000	.00000000
315.000	.00083007	.00096009	.00032003	.00000000	.00000000	.00000000
337.500	.00126011	.00160014	.00032003	.00000000	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3

STABILITY CATEGORY 3

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00141013	.00256023	.00128012	.00000000	.00000000	.00000000
22.500	.00145013	.00288026	.00160014	.00000000	.00000000	.00000000
45.000	.00166015	.00449040	.00609055	.00192017	.00000000	.00000000
67.500	.00066006	.00513046	.01506136	.00321029	.00000000	.00000000
90.000	.00069006	.00256023	.01859167	.00737066	.00000000	.00000000
112.500	.00117011	.00353032	.01378124	.00192017	.00000000	.00000000
135.000	.00166015	.00449040	.00641058	.00224020	.00000000	.00000000
157.500	.00073007	.00288026	.00224020	.00064006	.00000000	.00000000
180.000	.00387035	.00481043	.00192017	.00000000	.00000000	.00000000
202.500	.00016001	.00128012	.00096009	.00000000	.00000000	.00000000
225.000	.00089008	.00128012	.00064006	.00000000	.00000000	.00000000
247.500	.00033003	.00256023	.00353032	.00000000	.00000000	.00000000
270.000	.00101009	.00224020	.00128012	.00064006	.00000000	.00000000
292.500	.00093008	.00160014	.00064006	.00032003	.00000000	.00000000
315.000	.00016001	.00128012	.00032003	.00000000	.00000000	.00000000
337.500	.00053005	.00128012	.00032003	.00000000	.00000000	.00000000

SEASON 3

STABILITY CATEGORY 4

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00211019	.00481043	.01571141	.00609055	.00000000	.00000000
22.500	.00028003	.00353032	.00737066	.00897081	.00000000	.00000000
45.000	.00102009	.00417038	.01250113	.01538138	.00096009	.00000000
67.500	.00030003	.00385035	.01699153	.02308208	.00032003	.00000000
90.000	.00078007	.00545049	.01731156	.02596234	.00000000	.00000000
112.500	.00097009	.00353032	.00737066	.00705063	.00000000	.00000000
135.000	.00060005	.00321029	.00577052	.00256023	.00000000	.00000000
157.500	.00052005	.00224020	.00096009	.00128012	.00000000	.00000000
180.000	.00033003	.00417038	.00449040	.00096009	.00000000	.00000000
202.500	.00057005	.00288026	.00224020	.00000000	.00000000	.00000000
225.000	.00015001	.00192017	.00288026	.00096009	.00000000	.00000000
247.500	.00047004	.00160014	.00417038	.00128012	.00000000	.00000000
270.000	.00013001	.00160014	.00513046	.00321029	.00000000	.00000000
292.500	.00020002	.00256023	.00321029	.00096009	.00000000	.00000000
315.000	.00018002	.00224020	.00096009	.00064006	.00064006	.00000000
337.500	.00100009	.00385035	.00224020	.00000000	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3

STABILITY CATEGORY 5

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.02732246	.01987179	.00737066	.00000000	.00000000	.00000000
22.500	.01253113	.00705063	.00385035	.00000000	.00000000	.00000000
45.000	.01101099	.01058095	.00192017	.00000000	.00000000	.00000000
67.500	.01309118	.01603144	.00321029	.00000000	.00000000	.00000000
90.000	.01115100	.00994090	.00096009	.00000000	.00000000	.00000000
112.500	.00769069	.00737066	.00096009	.00000000	.00000000	.00000000
135.000	.01098099	.00609055	.00000000	.00000000	.00000000	.00000000
157.500	.00748067	.00256023	.00000000	.00000000	.00000000	.00000000
180.000	.01644148	.01218110	.00224020	.00000000	.00000000	.00000000
202.500	.00811073	.00545049	.00224020	.00000000	.00000000	.00000000
225.000	.01834165	.01731156	.00256023	.00000000	.00000000	.00000000
247.500	.01429129	.01282115	.00224020	.00000000	.00000000	.00000000
270.000	.02218200	.01346121	.00288026	.00000000	.00000000	.00000000
292.500	.01554140	.00705063	.00128012	.00000000	.00000000	.00000000
315.000	.02027182	.01186107	.00160014	.00000000	.00000000	.00000000
337.500	.01854167	.01058095	.00128012	.00000000	.00000000	.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	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 2	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 3	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 4	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 5	.200000E-01	.200000E-01	.200000E-01	.200000E-01	.200000E-01	.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	.100000E+00	.100000E+00	.100000E+00	.100000E+00	.100000E+00	.100000E+00
STABILITY CATEGORY 2	.150000E+00	.150000E+00	.150000E+00	.150000E+00	.150000E+00	.150000E+00
STABILITY CATEGORY 3	.200000E+00	.200000E+00	.200000E+00	.200000E+00	.200000E+00	.200000E+00
STABILITY CATEGORY 4	.250000E+00	.250000E+00	.250000E+00	.250000E+00	.250000E+00	.250000E+00
STABILITY CATEGORY 5	.300000E+00	.300000E+00	.300000E+00	.300000E+00	.300000E+00	.300000E+00

- 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	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.14000E+05	1.14000E+05	1.14000E+05	

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	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
3.80000E+04	3.80000E+04	3.80000E+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		3	VOLUME	52.00	63.00	6.00	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.40 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 1.40

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
2.60000E+04	2.60000E+04	2.60000E+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	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729 MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400 8 9 10 FALL VELOCITY (MPS) .3519 .6940 2.9856 MASS FRACTION .1000 .1000 .1000 REFLECTION COEFFICIENT .0000 .0000 .0000 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.63000E+05 1.63000E+05 1.63000E+05
X		5	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729 MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400 8 9 10 FALL VELOCITY (MPS) .3519 .6940 2.9856 MASS FRACTION .1000 .1000 .1000 REFLECTION COEFFICIENT .0000 .0000 .0000 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.63000E+05 1.63000E+05 1.63000E+05
X		6	VOLUME	52.00	63.00	4.00	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.10 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.60 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 MASS FRACTION .2000 .2000 .2000 .2000 .2000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 5.00000E+03 5.00000E+03 5.00000E+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		7	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70
								STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50
								- PARTICULATE CATEGORIES -
								1 2 3 4 5 6 7
								FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729
								MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000
								REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400
								8 9 10
								FALL VELOCITY (MPS) .3519 .6940 2.9856
								MASS FRACTION .1000 .1000 .1000
								REFLECTION COEFFICIENT .0000 .0000 .0000
								- SOURCE STRENGTHS (GRAMS) -
								SEASON 1 SEASON 2 SEASON 3 SEASON 4
								2.40000E+04 2.40000E+04 2.40000E+04
X		8	VOLUME	115.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70
								STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50
								- PARTICULATE CATEGORIES -
								1 2 3 4 5 6 7
								FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729
								MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000
								REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400
								8 9 10
								FALL VELOCITY (MPS) .3519 .6940 2.9856
								MASS FRACTION .1000 .1000 .1000
								REFLECTION COEFFICIENT .0000 .0000 .0000
								- SOURCE STRENGTHS (GRAMS) -
								SEASON 1 SEASON 2 SEASON 3 SEASON 4
								2.40000E+04 2.40000E+04 2.40000E+04
X		9	AREA	25.00	.00	5.00	.00	WIDTH OF AREA (M)= 32.00
								- PARTICULATE CATEGORIES -
								1 2 3 4 5
								FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412
								MASS FRACTION .2000 .2000 .2000 .2000 .2000
								REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500
								- SOURCE STRENGTHS (GRAMS PER SQUARE METER) -
								SEASON 1 SEASON 2 SEASON 3 SEASON 4
								7.91000E+00 7.91000E+00 7.91000E+00
X		10	AREA	25.00	82.00	6.00	.00	WIDTH OF AREA (M)= 30.50
								- PARTICULATE CATEGORIES -
								1 2 3 4 5
								FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412
								MASS FRACTION .2000 .2000 .2000 .2000 .2000
								REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500
								- SOURCE STRENGTHS (GRAMS PER SQUARE METER) -
								SEASON 1 SEASON 2 SEASON 3 SEASON 4
								2.18000E+02 2.18000E+02 2.18000E+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		11	STACK	381.00	69.00	12.20	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 20.20, STACK DIAMETER (M)= 1.220, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0
								- PARTICULATE CATEGORIES -
								1 2 3 4 5 6 7
								FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729
								MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000
								REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400
								8 9 10
								FALL VELOCITY (MPS) .3519 .6940 2.9856
								MASS FRACTION .1000 .1000 .1000
								REFLECTION COEFFICIENT .0000 .0000 .0000
								- SOURCE STRENGTHS (GRAMS) -
								SEASON 1 SEASON 2 SEASON 3 SEASON 4
								1.27100E+03 1.27100E+03 1.27100E+03
X		12	VOLUME	396.00	58.00	4.60	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 10.60 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 4.30
								- PARTICULATE CATEGORIES -
								1 2 3 4 5 6 7
								FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729
								MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000
								REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400
								8 9 10
								FALL VELOCITY (MPS) .3519 .6940 2.9856
								MASS FRACTION .1000 .1000 .1000
								REFLECTION COEFFICIENT .0000 .0000 .0000
								- SOURCE STRENGTHS (GRAMS) -
								SEASON 1 SEASON 2 SEASON 3 SEASON 4
								2.70100E+03 2.70100E+03 2.70100E+03
WARNING - DISTANCE BETWEEN SOURCE 12 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED								
WARNING - DISTANCE BETWEEN SOURCE 12 AND POINT X,Y= 500.00, 90.00 IS LESS THAN PERMITTED								
X		13	STACK	465.00	108.00	15.20	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0
								- PARTICULATE CATEGORIES -
								1 2 3 4 5 6 7
								FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729
								MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000
								REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400
								8 9 10
								FALL VELOCITY (MPS) .3519 .6940 2.9856
								MASS FRACTION .1000 .1000 .1000
								REFLECTION COEFFICIENT .0000 .0000 .0000
								- SOURCE STRENGTHS (GRAMS) -
								SEASON 1 SEASON 2 SEASON 3 SEASON 4
								4.92600E+03 4.92600E+03 4.92600E+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 -

WARNING - DISTANCE BETWEEN SOURCE 13 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 13 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED

X 14 STACK 442.00 99.00 6.10 .00 GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)-

SEASON 1	SEASON 2	SEASON 3	SEASON 4
5.57740E+04	5.57740E+04	5.57740E+04	

WARNING - DISTANCE BETWEEN SOURCE 14 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 14 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED

X 15 VOLUME 366.00 152.00 3.00 .00 STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 7.10
STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 2.80

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)-

SEASON 1	SEASON 2	SEASON 3	SEASON 4
4.18543E+05	4.18543E+05	4.18543E+05	

WARNING - DISTANCE BETWEEN SOURCE 15 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

- 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 16 STACK 381.00 146.00 2.40 .00 GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00,
STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF
ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)-

SEASON 1	SEASON 2	SEASON 3	SEASON 4
2.25640E+04	2.25640E+04	2.25640E+04	

WARNING - DISTANCE BETWEEN SOURCE 16 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

X 17 STACK 381.00 146.00 1.20 .00 GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00,
STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF
ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)-

SEASON 1	SEASON 2	SEASON 3	SEASON 4
3.18000E+02	3.18000E+02	3.18000E+02	

WARNING - DISTANCE BETWEEN SOURCE 17 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

X 18 STACK 366.00 142.00 1.20 .00 GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00,
STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF
ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- 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 -
								- SOURCE STRENGTHS (GRAMS) -
								SEASON 1 SEASON 2 SEASON 3 SEASON 4
								1.58900E+03 1.58900E+03 1.58900E+03
X		19	STACK	308.00	63.00	6.10	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0
								- PARTICULATE CATEGORIES -
								1 2 3 4 5 6 7
								FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729
								MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000
								REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400
								8 9 10
								FALL VELOCITY (MPS) .3519 .6940 2.9856
								MASS FRACTION .1000 .1000 .1000
								REFLECTION COEFFICIENT .0000 .0000 .0000
								- SOURCE STRENGTHS (GRAMS) -
								SEASON 1 SEASON 2 SEASON 3 SEASON 4
								1.58900E+03 1.58900E+03 1.58900E+03
X		20	VOLUME	52.00	63.00	3.00	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 2.10 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 4.30
								- PARTICULATE CATEGORIES -
								1 2 3 4 5 6 7
								FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729
								MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000
								REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400
								8 9 10
								FALL VELOCITY (MPS) .3519 .6940 2.9856
								MASS FRACTION .1000 .1000 .1000
								REFLECTION COEFFICIENT .0000 .0000 .0000
								- SOURCE STRENGTHS (GRAMS) -
								SEASON 1 SEASON 2 SEASON 3 SEASON 4
								3.97200E+03 3.97200E+03 3.97200E+03
X		21	VOLUME	320.00	180.00	6.10	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 5.70
								- PARTICULATE CATEGORIES -
								1 2 3 4 5 6 7
								FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729
								MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000
								REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400
								8 9 10
								FALL VELOCITY (MPS) .3519 .6940 2.9856
								MASS FRACTION .1000 .1000 .1000
								REFLECTION COEFFICIENT .0000 .0000 .0000
								- SOURCE STRENGTHS (GRAMS) -
								SEASON 1 SEASON 2 SEASON 3 SEASON 4
								5.59330E+04 5.59330E+04 5.59330E+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 -

WARNING - DISTANCE BETWEEN SOURCE 21 AND POINT X,Y= 500.00, 60.00 IS LESS THAN PERMITTED

X 22 VOLUME 381.00 131.00 6.10 .00 STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70

STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 5.70

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)-

SEASON 1	SEASON 2	SEASON 3	SEASON 4
5.59330E+04	5.59330E+04	5.59330E+04	

WARNING - DISTANCE BETWEEN SOURCE 22 AND POINT X,Y= 500.00, 60.00 IS LESS THAN PERMITTED

WARNING - DISTANCE BETWEEN SOURCE 22 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

WARNING - DISTANCE BETWEEN SOURCE 22 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED

X 23 VOLUME 439.00 66.00 6.10 .00 STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70

STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 5.70

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)-

SEASON 1	SEASON 2	SEASON 3	SEASON 4
5.59330E+04	5.59330E+04	5.59330E+04	

WARNING - DISTANCE BETWEEN SOURCE 23 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

WARNING - DISTANCE BETWEEN SOURCE 23 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED

WARNING - DISTANCE BETWEEN SOURCE 23 AND POINT X,Y= 500.00, 90.00 IS LESS THAN PERMITTED

- 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		24	VOLUME	497.00	30.00	6.10	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70
								STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 5.70

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
5.59330E+04	5.59330E+04	5.59330E+04	

WARNING - DISTANCE BETWEEN SOURCE 24 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 24 AND POINT X,Y= 500.00, 90.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 24 AND POINT X,Y= 500.00, 100.00 IS LESS THAN PERMITTED

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED **

SEASON 1 - JUL

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	.018225	.007327	.001035
350.000	.013871	.005973	.000679
340.000	.011411	.005021	.000572
330.000	.010742	.004529	.000700
320.000	.008786	.004103	.000755
310.000	.007553	.003389	.000551
300.000	.006337	.003105	.000333
290.000	.006201	.002955	.000317
280.000	.005993	.003154	.000377
270.000	.005043	.002700	.000395
260.000	.004633	.002442	.000333
250.000	.003793	.002100	.000281
240.000	.003372	.001852	.000264
230.000	.003116	.001722	.000271
220.000	.002484	.001394	.000246
210.000	.002312	.001235	.000182
200.000	.002286	.001187	.000137
190.000	.002492	.001278	.000161
180.000	.002938	.001523	.000222
170.000	.003052	.001563	.000275
160.000	.002935	.001629	.000321
150.000	.003331	.001954	.000349
140.000	.004190	.002290	.000340
130.000	.005985	.002665	.000329
120.000	.008750	.003262	.000332
110.000	.013084	.004808	.000357
100.000	.021171	.008998	.000638
90.000	.049867	.018276	.001062
80.000	.055469	.037332	.001364
70.000	.031780	.040832	.001583
60.000	.201069	.034581	.001494
50.000	.096306	.024504	.001282
40.000	.050152	.019040	.001136
30.000	.033823	.013617	.001106
20.000	.026612	.010299	.001142
10.000	.021797	.008433	.001209

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED (CONT.) **

SEASON 2 - Aug

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	.018369	.007358	.001044
350.000	.012954	.005700	.000572
340.000	.010171	.004505	.000348
330.000	.010050	.004215 ✓	.000369
320.000	.008963	.004048	.000469
310.000	.008298	.003495	.000665
300.000	.007852	.003555	.000872
290.000	.008288	.003794	.000807
280.000	.008377	.004355	.000667
270.000	.007032	.003751	.000594
260.000	.006351	.003327	.000621
250.000	.005147	.002817	.000664
240.000	.004602	.002500	.000593 ✓
230.000	.004321	.002366	.000530
220.000	.003521	.001961	.000470
210.000	.003332	.001782	.000425
200.000	.003242	.001680	.000400
190.000	.003342	.001699	.000424
180.000	.003787	.001931	.000479
170.000	.003979	.001999	.000454
160.000	.003984	.002143	.000341
150.000	.004635	.002571	.000262
140.000	.005550	.002935	.000290
130.000	.007588	.003470	.000369
120.000	.010654	.004167	.000394
110.000	.015993	.005549	.000414
100.000	.025166	.008666	.000468
90.000	.058595	.013805	.000552
80.000	.043799	.024711	.000611
70.000	.022552	.026556	.000649
60.000	.174078	.026159	.000757
50.000	.086768	.020338	.000880
40.000	.042880	.017717	.000838
30.000	.027986	.012924	.000792
20.000	.023396	.009346	.000955
10.000	.021193	.008011	.001198

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED (CONT.) **

SEASON 3 - SEP

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	.011022	.004215	.000337
350.000	.008822	.003549	.000238
340.000	.008029	.003321	.000244
330.000	.008798	.003460	.000352
320.000	.009192	.003890	.000456
310.000	.010008	.004102	.000498
300.000	.010793	.004921	.000537
290.000	.011986	.005503 ✓	.000654
280.000	.012875	.006580	.000778
270.000	.011651	.006169	.000852
260.000	.011402	.005959	.000783
250.000	.009708	.005425	.000735
240.000	.008607	.004774	.000673 ✓
230.000	.007925	.004394	.000648
220.000	.006463	.003621	.000581
210.000	.006229	.003340	.000472
200.000	.006230	.003298	.000399
190.000	.006527	.003419	.000445
180.000	.007411	.003927	.000550
170.000	.007591	.003924	.000603
160.000	.007355	.004028	.000594
150.000	.008103	.004530	.000541
140.000	.009615	.004873	.000438
130.000	.012887	.005156	.000341
120.000	.017532	.005206	.000301
110.000	.025289	.006257	.000312
100.000	.034560	.008980	.000418
90.000	.067654	.013600	.000594
80.000	.043486	.021335	.000592
70.000	.016786	.019638	.000493
60.000	.084197	.014733	.000536
50.000	.043751	.009608	.000668
40.000	.023916	.008477	.000631
30.000	.015678	.006359	.000558
20.000	.012426	.004534	.000491
10.000	.011582	.004203	.000424

********** END OF ISCLT PROGRAM, 24 SOURCES PROCESSED **********

? Error: Operation error in file USER
Error Code 1260, Status 0003
Line 1672 In MODEL Of C:MODEL.FOR
PC = 07FA: 0004; SS = 3472, FP = 2FCE, SP = 1A7C

- ISCLT INPUT DATA -

NUMBER OF SOURCES = 24
NUMBER OF X AXIS GRID SYSTEM POINTS = 3
NUMBER OF Y AXIS GRID SYSTEM POINTS = 36
NUMBER OF SPECIAL POINTS = 0
NUMBER OF SEASONS = 3
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 = .10000000E+01
ACCELERATION OF GRAVITY (METERS/SEC**2) = 9.800
HEIGHT OF MEASUREMENT OF WIND SPEED (METERS) = 10.000
ENTRAINMENT PARAMETER FOR UNSTABLE CONDITIONS = .600
ENTRAINMENT PARAMETER FOR STABLE CONDITIONS = .600
CORRECTION ANGLE FOR GRID SYSTEM VERSUS DIRECTION DATA NORTH (DEGREES) = .000
DECAY COEFFICIENT = .00000000E+00
PROGRAM OPTION SWITCHES = 2, 2, 1, 0, 0, 3, 1, 2, 3, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0,
ALL SOURCES ARE USED TO FORM SOURCE COMBINATION 1
RANGE X AXIS GRID SYSTEM POINTS (METERS)= 500.00, 700.00, 2000.00,
AZIMUTH BEARING Y AXIS GRID SYSTEM POINTS (DEGREES)= 10.00, 20.00, 30.00, 40.00, 50.00, 60.00,
70.00, 80.00, 90.00, 100.00, 110.00, 120.00, 130.00, 140.00, 150.00, 160.00,
170.00, 180.00, 190.00, 200.00, 210.00, 220.00, 230.00, 240.00, 250.00, 260.00,
270.00, 280.00, 290.00, 300.00, 310.00, 320.00, 330.00, 340.00, 350.00, 360.00,

- 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	298.0000	298.0000	298.0000	298.0000	298.0000	
SEASON 2	298.0000	298.0000	298.0000	298.0000	298.0000	
SEASON 3	298.0000	298.0000	298.0000	298.0000	298.0000	

- ISCLT INPUT DATA (CONT.) -

- 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	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 2	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 3	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 4	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 5	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05

SEASON 2

	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	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 2	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 3	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 4	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 5	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05

SEASON 3

	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	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 2	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 3	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 4	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04	.100000E+04
STABILITY CATEGORY 5	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05	.100000E+05

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1

STABILITY CATEGORY 1

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
22.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
45.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
67.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
90.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
112.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
135.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
157.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
180.000	.00621137	.00000000	.00000000	.00000000	.00000000	.00000000
202.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
225.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
247.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
270.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
292.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
315.000	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
337.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000

SEASON 1

STABILITY CATEGORY 2

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00400088	.00279061	.00031007	.00000000	.00000000	.00000000
22.500	.00173038	.00186041	.00093020	.00000000	.00000000	.00000000
45.000	.00302066	.00496109	.00217048	.00000000	.00000000	.00000000
67.500	.00489108	.00869191	.00124027	.00000000	.00000000	.00000000
90.000	.00427094	.00652144	.00124027	.00000000	.00000000	.00000000
112.500	.00289064	.00310068	.00124027	.00000000	.00000000	.00000000
135.000	.00280062	.00279061	.00093020	.00000000	.00000000	.00000000
157.500	.00266059	.00093020	.00031007	.00000000	.00000000	.00000000
180.000	.00217048	.00062014	.00031007	.00000000	.00000000	.00000000
202.500	.00027006	.00093020	.00000000	.00000000	.00000000	.00000000
225.000	.00142031	.00217048	.00093020	.00000000	.00000000	.00000000
247.500	.00155034	.00124027	.00031007	.00000000	.00000000	.00000000
270.000	.00155034	.00124027	.00031007	.00000000	.00000000	.00000000
292.500	.00320070	.00279061	.00093020	.00000000	.00000000	.00000000
315.000	.00204045	.00155034	.00093020	.00000000	.00000000	.00000000
337.500	.00155034	.00124027	.00000000	.00000000	.00000000	.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 (.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)
.000	.00043009	.00465102	.00465102	.00000000	.00000000	.00000000
22.500	.00007002	.00310068	.00465102	.00031007	.00000000	.00000000
45.000	.00009002	.00403089	.00900198	.00062014	.00000000	.00000000
67.500	.00043009	.00465102	.01427314	.00217048	.00000000	.00000000
90.000	.00004001	.00186041	.01024225	.00062014	.00000000	.00000000
112.500	.00003001	.00124027	.00621137	.00093020	.00000000	.00000000
135.000	.00006001	.00279061	.00279061	.00031007	.00000000	.00000000
157.500	.00008002	.00341075	.00124027	.00000000	.00000000	.00000000
180.000	.00004001	.00155034	.00062014	.00000000	.00000000	.00000000
202.500	.00001000	.00062014	.00031007	.00000000	.00000000	.00000000
225.000	.00005001	.00217048	.00031007	.00000000	.00000000	.00000000
247.500	.00008002	.00341075	.00186041	.00031007	.00000000	.00000000
270.000	.00039009	.00310068	.00496109	.00000000	.00000000	.00000000
292.500	.00001000	.00062014	.00186041	.00000000	.00000000	.00000000
315.000	.00003001	.00124027	.00248055	.00062014	.00000000	.00000000
337.500	.00001000	.00062014	.00186041	.00000000	.00000000	.00000000

SEASON 1

STABILITY CATEGORY 4

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00404089	.00838184	.01706376	.01210266	.00031007	.00000000
22.500	.00218048	.00403089	.01893417	.02886635	.00403089	.00031007
45.000	.00066015	.00372082	.01831403	.05648243	.01210266	.00155034
67.500	.00103023	.00372082	.01551342	.02668587	.00186041	.00000000
90.000	.00061013	.00341075	.00590130	.01272280	.00062014	.00000000
112.500	.00028006	.00155034	.00248055	.00527116	.00062014	.00000000
135.000	.00033007	.00186041	.00496109	.00279061	.00000000	.00000000
157.500	.00017004	.00093020	.00062014	.00093020	.00000000	.00000000
180.000	.00022005	.00124027	.00558123	.00186041	.00000000	.00000000
202.500	.00059013	.00124027	.00403089	.00310068	.00000000	.00000000
225.000	.00039009	.00217048	.00310068	.00155034	.00000000	.00000000
247.500	.00139031	.00372082	.00248055	.00217048	.00000000	.00000000
270.000	.00075017	.00217048	.00248055	.00248055	.00062014	.00000000
292.500	.00101022	.00155034	.00124027	.00279061	.00093020	.00000000
315.000	.00159035	.00279061	.00496109	.00155034	.00031007	.00000000
337.500	.00092020	.00310068	.00403089	.00124027	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 1

STABILITY CATEGORY 5

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.03118687	.03909861	.01706376	.00000000	.00000000	.00000000
22.500	.00808178	.00993219	.00683150	.00000000	.00000000	.00000000
45.000	.00878193	.01055232	.00465102	.00000000	.00000000	.00000000
67.500	.00777171	.01024225	.00310068	.00000000	.00000000	.00000000
90.000	.00475105	.00403089	.00155034	.00000000	.00000000	.00000000
112.500	.00196043	.00155034	.00000000	.00000000	.00000000	.00000000
135.000	.00279061	.00248055	.00062014	.00000000	.00000000	.00000000
157.500	.00292064	.00279061	.00031007	.00000000	.00000000	.00000000
180.000	.01056233	.00745164	.00124027	.00000000	.00000000	.00000000
202.500	.00286063	.00372082	.00062014	.00000000	.00000000	.00000000
225.000	.01007222	.00838184	.00155034	.00000000	.00000000	.00000000
247.500	.01125248	.01334294	.00217048	.00000000	.00000000	.00000000
270.000	.02257497	.01520335	.00341075	.00000000	.00000000	.00000000
292.500	.02368521	.01365301	.00496109	.00000000	.00000000	.00000000
315.000	.02613575	.01955430	.00496109	.00000000	.00000000	.00000000
337.500	.01391306	.01551342	.00496109	.00000000	.00000000	.00000000

SEASON 2

STABILITY CATEGORY 1

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00016001	.00000000	.00000000	.00000000	.00000000	.00000000
22.500	.00016001	.00000000	.00000000	.00000000	.00000000	.00000000
45.000	.00016001	.00000000	.00000000	.00000000	.00000000	.00000000
67.500	.00016001	.00000000	.00000000	.00000000	.00000000	.00000000
90.000	.00016001	.00000000	.00000000	.00000000	.00000000	.00000000
112.500	.00016001	.00000000	.00000000	.00000000	.00000000	.00000000
135.000	.00016001	.00000000	.00000000	.00000000	.00000000	.00000000
157.500	.00016001	.00000000	.00000000	.00000000	.00000000	.00000000
180.000	.00016001	.00000000	.00000000	.00000000	.00000000	.00000000
202.500	.00016001	.00000000	.00000000	.00000000	.00000000	.00000000
225.000	.00016001	.00000000	.00000000	.00000000	.00000000	.00000000
247.500	.00016001	.00000000	.00000000	.00000000	.00000000	.00000000
270.000	.00016001	.00000000	.00000000	.00000000	.00000000	.00000000
292.500	.00016001	.00000000	.00000000	.00000000	.00000000	.00000000
315.000	.00016001	.00000000	.00000000	.00000000	.00000000	.00000000
337.500	.00016001	.00000000	.00000000	.00000000	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 2

STABILITY CATEGORY 2

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00322019	.00128008	.00096006	.00000000	.00000000	.00000000
22.500	.00100006	.00064004	.00000000	.00000000	.00000000	.00000000
45.000	.00367022	.00288017	.00064004	.00000000	.00000000	.00000000
67.500	.00312019	.00385023	.00160010	.00000000	.00000000	.00000000
90.000	.00230014	.00385023	.00160010	.00000000	.00000000	.00000000
112.500	.00167010	.00160010	.00096006	.00000000	.00000000	.00000000
135.000	.00244015	.00288017	.00096006	.00000000	.00000000	.00000000
157.500	.00232014	.00096006	.00000000	.00000000	.00000000	.00000000
180.000	.00103006	.00224013	.00064004	.00000000	.00000000	.00000000
202.500	.00100006	.00064004	.00000000	.00000000	.00000000	.00000000
225.000	.00232014	.00096006	.00064004	.00000000	.00000000	.00000000
247.500	.00159010	.00128008	.00064004	.00000000	.00000000	.00000000
270.000	.00135008	.00192012	.00032002	.00000000	.00000000	.00000000
292.500	.00094006	.00192012	.00096006	.00000000	.00000000	.00000000
315.000	.00176011	.00192012	.00096006	.00000000	.00000000	.00000000
337.500	.00167010	.00160010	.00000000	.00000000	.00000000	.00000000

SEASON 2

STABILITY CATEGORY 3

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00173010	.00545033	.00321019	.00032002	.00000000	.00000000
22.500	.00248015	.00545033	.00385023	.00000000	.00000000	.00000000
45.000	.00078005	.00224013	.00577035	.00160010	.00000000	.00000000
67.500	.00118007	.00449027	.00641039	.00064004	.00000000	.00000000
90.000	.00023001	.00128008	.00929056	.00032002	.00000000	.00000000
112.500	.00066004	.00160010	.00417025	.00000000	.00000000	.00000000
135.000	.00173010	.00545033	.00449027	.00032002	.00000000	.00000000
157.500	.00023001	.00128008	.00160010	.00000000	.00000000	.00000000
180.000	.00139008	.00353021	.00321019	.00000000	.00000000	.00000000
202.500	.00066004	.00160010	.00032002	.00000000	.00000000	.00000000
225.000	.00101006	.00353021	.00160010	.00032002	.00000000	.00000000
247.500	.00127008	.00288017	.00353021	.00000000	.00000000	.00000000
270.000	.00040002	.00224013	.00385023	.00032002	.00000000	.00000000
292.500	.00046003	.00256015	.00353021	.00032002	.00000000	.00000000
315.000	.00046003	.00256015	.00256015	.00032002	.00000000	.00000000
337.500	.00072004	.00192012	.00160010	.00000000	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 2

STABILITY CATEGORY 4

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00451027	.00737044	.01731104	.00833050	.00000000	.00000000
22.500	.00108006	.00288017	.01186071	.01186071	.00128008	.00000000
45.000	.00232014	.00481029	.01218073	.02051123	.00481029	.00032002
67.500	.00106006	.00449027	.00833050	.01154069	.00128008	.00000000
90.000	.00291017	.00224013	.00865052	.00673040	.00032002	.00000000
112.500	.00100006	.00256015	.00288017	.00417025	.00000000	.00000000
135.000	.00053003	.00224013	.00609037	.00449027	.00032002	.00032002
157.500	.00125008	.00192012	.00321019	.00288017	.00000000	.00000000
180.000	.00202012	.00353021	.01250075	.00865052	.00000000	.00000000
202.500	.00125008	.00192012	.00513031	.00417025	.00000000	.00000000
225.000	.00115007	.00321019	.00705042	.00609037	.00032002	.00000000
247.500	.00053003	.00224013	.00897054	.00673040	.00032002	.00000000
270.000	.00115007	.00321019	.01026062	.01026062	.00032002	.00000000
292.500	.00108006	.00288017	.00641039	.01250075	.00096006	.00000000
315.000	.00234014	.00321019	.00705042	.01667100	.00032002	.00000000
337.500	.00178011	.00417025	.00897054	.00641039	.00032002	.00000000

SEASON 2

STABILITY CATEGORY 5

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.03526212	.03462208	.01378083	.00000000	.00000000	.00000000
22.500	.00808049	.00673040	.00353021	.00000000	.00000000	.00000000
45.000	.00295018	.00353021	.00449027	.00000000	.00000000	.00000000
67.500	.00263016	.00385023	.00256015	.00000000	.00000000	.00000000
90.000	.00342021	.00353021	.00032002	.00000000	.00000000	.00000000
112.500	.00320019	.00096006	.00032002	.00000000	.00000000	.00000000
135.000	.00630038	.00481029	.00096006	.00000000	.00000000	.00000000
157.500	.00221013	.00288017	.00224013	.00000000	.00000000	.00000000
180.000	.00758046	.01186071	.00288017	.00000000	.00000000	.00000000
202.500	.00939056	.01282077	.00224013	.00000000	.00000000	.00000000
225.000	.00850051	.00769046	.00256015	.00000000	.00000000	.00000000
247.500	.01377083	.01122067	.00417025	.00000000	.00000000	.00000000
270.000	.01619097	.01667100	.00513031	.00000000	.00000000	.00000000
292.500	.02359142	.01667100	.00353021	.00000000	.00000000	.00000000
315.000	.01978119	.01955117	.00865052	.00000000	.00000000	.00000000
337.500	.02306139	.01859112	.00962058	.00000000	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3

STABILITY CATEGORY 1

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00008000	.00000000	.00000000	.00000000	.00000000	.00000000
22.500	.00008000	.00000000	.00000000	.00000000	.00000000	.00000000
45.000	.00008000	.00000000	.00000000	.00000000	.00000000	.00000000
67.500	.00008000	.00000000	.00000000	.00000000	.00000000	.00000000
90.000	.00008000	.00000000	.00000000	.00000000	.00000000	.00000000
112.500	.00008000	.00000000	.00000000	.00000000	.00000000	.00000000
135.000	.00008000	.00000000	.00000000	.00000000	.00000000	.00000000
157.500	.00008000	.00000000	.00000000	.00000000	.00000000	.00000000
180.000	.00008000	.00000000	.00000000	.00000000	.00000000	.00000000
202.500	.00008000	.00000000	.00000000	.00000000	.00000000	.00000000
225.000	.00008000	.00000000	.00000000	.00000000	.00000000	.00000000
247.500	.00008000	.00000000	.00000000	.00000000	.00000000	.00000000
270.000	.00008000	.00000000	.00000000	.00000000	.00000000	.00000000
292.500	.00008000	.00000000	.00000000	.00000000	.00000000	.00000000
315.000	.00008000	.00000000	.00000000	.00000000	.00000000	.00000000
337.500	.00008000	.00000000	.00000000	.00000000	.00000000	.00000000

SEASON 3

STABILITY CATEGORY 2

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00107004	.00031001	.00000000	.00000000	.00000000	.00000000
22.500	.00000000	.00000000	.00000000	.00000000	.00000000	.00000000
45.000	.00229009	.00000000	.00093004	.00000000	.00000000	.00000000
67.500	.00061002	.00031001	.00062002	.00000000	.00000000	.00000000
90.000	.00229009	.00000000	.00093004	.00000000	.00000000	.00000000
112.500	.00275011	.00000000	.00062002	.00000000	.00000000	.00000000
135.000	.00184007	.00000000	.00031001	.00000000	.00000000	.00000000
157.500	.00153006	.00031001	.00000000	.00000000	.00000000	.00000000
180.000	.00320013	.00093004	.00031001	.00000000	.00000000	.00000000
202.500	.00122005	.00062002	.00031001	.00000000	.00000000	.00000000
225.000	.00107004	.00031001	.00000000	.00000000	.00000000	.00000000
247.500	.00197008	.00124005	.00031001	.00000000	.00000000	.00000000
270.000	.00242010	.00217009	.00031001	.00000000	.00000000	.00000000
292.500	.00030001	.00062002	.00062002	.00000000	.00000000	.00000000
315.000	.00107004	.00031001	.00000000	.00000000	.00000000	.00000000
337.500	.00059002	.00124005	.00031001	.00000000	.00000000	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3

STABILITY CATEGORY 3

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00120005	.00248010	.00124005	.00000000	.00000000	.00000000
22.500	.00083003	.00248010	.00124005	.00000000	.00000000	.00000000
45.000	.00089004	.00279011	.00279011	.00000000	.00000000	.00000000
67.500	.00203008	.00497020	.00279011	.00000000	.00000000	.00000000
90.000	.00149006	.00403016	.00341014	.00000000	.00000000	.00000000
112.500	.00046002	.00248010	.00279011	.00000000	.00000000	.00000000
135.000	.00198008	.00869035	.00341014	.00031001	.00000000	.00000000
157.500	.00170007	.00124005	.00217009	.00000000	.00000000	.00000000
180.000	.00098004	.00528021	.00310012	.00000000	.00000000	.00000000
202.500	.00035001	.00186007	.00155006	.00000000	.00000000	.00000000
225.000	.00052002	.00279011	.00310012	.00000000	.00000000	.00000000
247.500	.00162006	.00279011	.00310012	.00000000	.00000000	.00000000
270.000	.00166007	.00497020	.00559022	.00000000	.00000000	.00000000
292.500	.00114005	.00217009	.00279011	.00031001	.00000000	.00000000
315.000	.00063003	.00341014	.00186007	.00000000	.00000000	.00000000
337.500	.00052002	.00279011	.00031001	.00000000	.00000000	.00000000

SEASON 3

STABILITY CATEGORY 4

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.00623025	.00776031	.01490060	.00621025	.00000000	.00031001
22.500	.00190008	.00528021	.00869035	.01459058	.00248010	.00000000
45.000	.00125005	.00341014	.00900036	.02079083	.00310012	.00031001
67.500	.00417017	.00838033	.00745030	.00683027	.00093004	.00000000
90.000	.00379015	.00590024	.00372015	.00124005	.00000000	.00000000
112.500	.00257010	.00497020	.00403016	.00341014	.00000000	.00000000
135.000	.00180007	.00466019	.01024041	.00776031	.00000000	.00000000
157.500	.00128005	.00590024	.00962039	.00279011	.00124005	.00000000
180.000	.00353014	.01117045	.02142086	.01552062	.00031001	.00000000
202.500	.00164007	.00590024	.01335053	.00714029	.00031001	.00000000
225.000	.00348014	.00621025	.00931037	.00776031	.00031001	.00000000
247.500	.00226009	.00993040	.00807032	.00745030	.00248010	.00000000
270.000	.00344014	.01055042	.01428057	.01055042	.00341014	.00031001
292.500	.00211008	.00435017	.00776031	.01583063	.00652026	.00000000
315.000	.00250010	.00683027	.01273051	.01335053	.00248010	.00000000
337.500	.00369015	.00528021	.01055042	.00652026	.00031001	.00000000

- ISCLT INPUT DATA (CONT.) -

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

SEASON 3

STABILITY CATEGORY 5

DIRECTION (DEGREES)	WIND SPEED CATEGORY 1 (.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)
.000	.01439058	.01179047	.00310012	.00000000	.00000000	.00000000
22.500	.00620025	.00621025	.00279011	.00000000	.00000000	.00000000
45.000	.00531021	.00341014	.00155006	.00000000	.00000000	.00000000
67.500	.00801032	.00807032	.00093004	.00000000	.00000000	.00000000
90.000	.00515021	.00403016	.00062002	.00000000	.00000000	.00000000
112.500	.00227009	.00186007	.00093004	.00000000	.00000000	.00000000
135.000	.00695028	.00683027	.00062002	.00000000	.00000000	.00000000
157.500	.00740030	.00776031	.00217009	.00000000	.00000000	.00000000
180.000	.01534062	.02142086	.00341014	.00000000	.00000000	.00000000
202.500	.00603024	.00683027	.00310012	.00000000	.00000000	.00000000
225.000	.00894036	.00714029	.00279011	.00000000	.00000000	.00000000
247.500	.01533061	.00993040	.00403016	.00000000	.00000000	.00000000
270.000	.01774071	.01304052	.00652026	.00000000	.00000000	.00000000
292.500	.01915077	.01117045	.00435017	.00000000	.00000000	.00000000
315.000	.01547062	.01117045	.01055042	.00000000	.00000000	.00000000
337.500	.00801032	.00807032	.00776031	.00000000	.00000000	.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	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 2	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 3	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 4	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00	.000000E+00
STABILITY CATEGORY 5	.200000E-01	.200000E-01	.200000E-01	.200000E-01	.200000E-01	.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	.100000E+00	.100000E+00	.100000E+00	.100000E+00	.100000E+00	.100000E+00
STABILITY CATEGORY 2	.150000E+00	.150000E+00	.150000E+00	.150000E+00	.150000E+00	.150000E+00
STABILITY CATEGORY 3	.200000E+00	.200000E+00	.200000E+00	.200000E+00	.200000E+00	.200000E+00
STABILITY CATEGORY 4	.250000E+00	.250000E+00	.250000E+00	.250000E+00	.250000E+00	.250000E+00
STABILITY CATEGORY 5	.300000E+00	.300000E+00	.300000E+00	.300000E+00	.300000E+00	.300000E+00

- 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	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729 MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400 8 9 10 FALL VELOCITY (MPS) .3519 .6940 2.9856 MASS FRACTION .1000 .1000 .1000 REFLECTION COEFFICIENT .0000 .0000 .0000 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.14000E+05 1.14000E+05 1.14000E+05
X		2	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729 MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400 8 9 10 FALL VELOCITY (MPS) .3519 .6940 2.9856 MASS FRACTION .1000 .1000 .1000 REFLECTION COEFFICIENT .0000 .0000 .0000 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 3.80000E+04 3.80000E+04 3.80000E+04
X		3	VOLUME	52.00	63.00	6.00	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.40 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 1.40 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729 MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400 8 9 10 FALL VELOCITY (MPS) .3519 .6940 2.9856 MASS FRACTION .1000 .1000 .1000 REFLECTION COEFFICIENT .0000 .0000 .0000 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.60000E+04 2.60000E+04 2.60000E+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	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729 MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400 8 9 10 FALL VELOCITY (MPS) .3519 .6940 2.9856 MASS FRACTION .1000 .1000 .1000 REFLECTION COEFFICIENT .0000 .0000 .0000 - SOURCE STRENGTHS (GRAMS) SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.63000E+05 1.63000E+05 1.63000E+05
X		5	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729 MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400 8 9 10 FALL VELOCITY (MPS) .3519 .6940 2.9856 MASS FRACTION .1000 .1000 .1000 REFLECTION COEFFICIENT .0000 .0000 .0000 - SOURCE STRENGTHS (GRAMS) SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.63000E+05 1.63000E+05 1.63000E+05
X		6	VOLUME	52.00	63.00	4.00	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.10 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.60 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 MASS FRACTION .2000 .2000 .2000 .2000 .2000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 - SOURCE STRENGTHS (GRAMS) SEASON 1 SEASON 2 SEASON 3 SEASON 4 5.00000E+03 5.00000E+03 5.00000E+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		7	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70
								STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50
								- PARTICULATE CATEGORIES -
								1 2 3 4 5 6 7
								FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729
								MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000
								REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400
								8 9 10
								FALL VELOCITY (MPS) .3519 .6940 2.9856
								MASS FRACTION .1000 .1000 .1000
								REFLECTION COEFFICIENT .0000 .0000 .0000
								- SOURCE STRENGTHS (GRAMS) -
								SEASON 1 SEASON 2 SEASON 3 SEASON 4
								2.40000E+04 2.40000E+04 2.40000E+04
X		8	VOLUME	115.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70
								STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50
								- PARTICULATE CATEGORIES -
								1 2 3 4 5 6 7
								FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729
								MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000
								REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400
								8 9 10
								FALL VELOCITY (MPS) .3519 .6940 2.9856
								MASS FRACTION .1000 .1000 .1000
								REFLECTION COEFFICIENT .0000 .0000 .0000
								- SOURCE STRENGTHS (GRAMS) -
								SEASON 1 SEASON 2 SEASON 3 SEASON 4
								2.40000E+04 2.40000E+04 2.40000E+04
X		9	AREA	25.00	.00	5.00	.00	WIDTH OF AREA (M)= 32.00
								- PARTICULATE CATEGORIES -
								1 2 3 4 5
								FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412
								MASS FRACTION .2000 .2000 .2000 .2000 .2000
								REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500
								- SOURCE STRENGTHS (GRAMS PER SQUARE METER) -
								SEASON 1 SEASON 2 SEASON 3 SEASON 4
								7.91000E+00 7.91000E+00 7.91000E+00
X		10	AREA	25.00	82.00	6.00	.00	WIDTH OF AREA (M)= 30.50
								- PARTICULATE CATEGORIES -
								1 2 3 4 5
								FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412
								MASS FRACTION .2000 .2000 .2000 .2000 .2000
								REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500
								- SOURCE STRENGTHS (GRAMS PER SQUARE METER) -
								SEASON 1 SEASON 2 SEASON 3 SEASON 4
								2.18000E+02 2.18000E+02 2.18000E+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		11	STACK	381.00	69.00	12.20	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 20.20, STACK DIAMETER (M)= 1.220, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0
X		12	VOLUME	396.00	58.00	4.60	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 10.60 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 4.30
X		13	STACK	465.00	108.00	15.20	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.27100E+03	1.27100E+03	1.27100E+03	

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
2.70100E+03	2.70100E+03	2.70100E+03	

WARNING - DISTANCE BETWEEN SOURCE 12 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 12 AND POINT X,Y= 500.00, 90.00 IS LESS THAN PERMITTED

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
4.92600E+03	4.92600E+03	4.92600E+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 -

WARNING - DISTANCE BETWEEN SOURCE 13 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 13 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED

X 14 STACK 442.00 99.00 6.10 .00 GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00,
STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF
ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)-

SEASON 1	SEASON 2	SEASON 3	SEASON 4
5.57740E+04	5.57740E+04	5.57740E+04	

WARNING - DISTANCE BETWEEN SOURCE 14 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 14 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED

X 15 VOLUME 366.00 152.00 3.00 .00 STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 7.10
STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 2.80

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)-

SEASON 1	SEASON 2	SEASON 3	SEASON 4
4.18543E+05	4.18543E+05	4.18543E+05	

WARNING - DISTANCE BETWEEN SOURCE 15 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

- 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		16	STACK	381.00	146.00	2.40	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
2.25640E+04	2.25640E+04	2.25640E+04	

WARNING - DISTANCE BETWEEN SOURCE 16 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

X		17	STACK	381.00	146.00	1.20	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
3.18000E+02	3.18000E+02	3.18000E+02	

WARNING - DISTANCE BETWEEN SOURCE 17 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED

X		18	STACK	366.00	142.00	1.20	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- 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 -

- SOURCE STRENGTHS (GRAMS)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.58900E+03	1.58900E+03	1.58900E+03	

X 19 STACK 308.00 63.00 6.10 .00

GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00,
STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF
ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.58900E+03	1.58900E+03	1.58900E+03	

X 20 VOLUME 52.00 63.00 3.00 .00

STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 2.10
STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 4.30

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
3.97200E+03	3.97200E+03	3.97200E+03	

X 21 VOLUME 320.00 180.00 6.10 .00

STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70
STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 5.70

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
5.59330E+04	5.59330E+04	5.59330E+04	

- SOURCE INPUT DATA (CONT.) -

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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)  /
-------------------------------------------------------------------------------------------------------
WARNING - DISTANCE BETWEEN SOURCE     21 AND POINT X,Y=     500.00,      60.00 IS LESS THAN PERMITTED
X       22 VOLUME      381.00      131.00   6.10     .00 STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)=  17.70
                                                         STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)=   5.70
                                                                          - PARTICULATE CATEGORIES -
                                                                            1      2      3      4      5      6      7
                                                         FALL VELOCITY (MPS)     .0004  .0025  .0086  .0197  .0412  .0877  .1729
                                                         MASS FRACTION           .1000  .1000  .1000  .1000  .1000  .1000  .1000
                                                         REFLECTION COEFFICIENT 1.0000  .9000  .7800  .7200  .6500  .5300  .3400
                                                                            8      9     10
                                                         FALL VELOCITY (MPS)     .3519  .6940 2.9856
                                                         MASS FRACTION           .1000  .1000  .1000
                                                         REFLECTION COEFFICIENT  .0000  .0000  .0000
                                                              - SOURCE STRENGTHS ( GRAMS                              ) -
                                                                   SEASON 1     SEASON 2     SEASON 3     SEASON 4
                                                                 5.59330E+04  5.59330E+04  5.59330E+04
WARNING - DISTANCE BETWEEN SOURCE     22 AND POINT X,Y=     500.00,      60.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE     22 AND POINT X,Y=     500.00,      70.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE     22 AND POINT X,Y=     500.00,      80.00 IS LESS THAN PERMITTED
X       23 VOLUME      439.00       66.00   6.10     .00 STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)=  17.70
                                                         STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)=   5.70
                                                                          - PARTICULATE CATEGORIES -
                                                                            1      2      3      4      5      6      7
                                                         FALL VELOCITY (MPS)     .0004  .0025  .0086  .0197  .0412  .0877  .1729
                                                         MASS FRACTION           .1000  .1000  .1000  .1000  .1000  .1000  .1000
                                                         REFLECTION COEFFICIENT 1.0000  .9000  .7800  .7200  .6500  .5300  .3400
                                                                            8      9     10
                                                         FALL VELOCITY (MPS)     .3519  .6940 2.9856
                                                         MASS FRACTION           .1000  .1000  .1000
                                                         REFLECTION COEFFICIENT  .0000  .0000  .0000
                                                              - SOURCE STRENGTHS ( GRAMS                              ) -
                                                                   SEASON 1     SEASON 2     SEASON 3     SEASON 4
                                                                 5.59330E+04  5.59330E+04  5.59330E+04
WARNING - DISTANCE BETWEEN SOURCE     23 AND POINT X,Y=     500.00,      70.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE     23 AND POINT X,Y=     500.00,      80.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE     23 AND POINT X,Y=     500.00,      90.00 IS LESS THAN PERMITTED
```

- SOURCE INPUT DATA (CONT.) -

C A R	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		24	VOLUME	497.00	30.00	6.10	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70
								STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 5.70

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS) -

SEASON 1	SEASON 2	SEASON 3	SEASON 4
5.59330E+04	5.59330E+04	5.59330E+04	

WARNING - DISTANCE BETWEEN SOURCE 24 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 24 AND POINT X,Y= 500.00, 90.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 24 AND POINT X,Y= 500.00, 100.00 IS LESS THAN PERMITTED

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED **

SEASON 1-OCT

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	.006322	.002269	.000858
350.000	.004930	.001969	.000386
340.000	.004216	.001835	.000149
330.000	.004375	.001797	.000149
320.000	.004311	.001894	.000171
310.000	.004542	.001896	.000174
300.000	.004849	.002218	.000178
290.000	.005754	.002511	.000231
280.000	.007232	.003376	.000293
270.000	.007899	.003955	.000403
260.000	.009834	.004738	.000518
250.000	.010769	.005678	.000670
240.000	.011741	.006330	.000805
230.000	.013131	.007346	.000939
220.000	.012016	.006973	.000992
210.000	.012196	.006947	.000885
200.000	.012384	.006786	.000799
190.000	.012606	.006699	.000850
180.000	.013867	.007341	.000964
170.000	.013830	.006989	.000903
160.000	.013117	.006941	.000667
150.000	.014159	.007499	.000468
140.000	.016759	.007937	.000441
130.000	.021987	.008327	.000517
120.000	.029305	.008212	.000520
110.000	.041163	.010123	.000513
100.000	.052681	.014921	.000510
90.000	.100804	.019808	.000552
80.000	.065210	.023336	.000523
70.000	.015587	.018349	.000469
60.000	.064556	.012087	.000391
50.000	.031161	.007539	.000331
40.000	.015879	.005912	.000261
30.000	.010073	.003955	.000250
20.000	.007787	.002847	.000517
10.000	.006952	.002470	.000926

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED (CONT.) **

SEASON 2 - NOV

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	.011161	.004662	.000462
350.000	.007800	.003568	.000308
340.000	.006011	.002765	.000248
330.000	.005872	.002561 ✓	.000269
320.000	.005015	.002403	.000286
310.000	.004419	.001967	.000242
300.000	.004050	.001915	.000197
290.000	.004471	.002031	.000216
280.000	.005059	.002505	.000260
270.000	.004896	.002536	.000309
260.000	.005450	.002698	.000333
250.000	.005549	.002942	.000376
240.000	.005904	.003171	.000424
230.000	.006589	.003642	.000480
220.000	.006132	.003510	.000512 ✓
210.000	.006519	.003619	.000482
200.000	.007334	.003964	.000495
190.000	.008297	.004439	.000630
180.000	.010048	.005447	.000827
170.000	.010972	.005852	.000884
160.000	.011219	.006341	.000783
150.000	.013136	.007640	.000695
140.000	.015844	.008689	.000712
130.000	.021611	.010034	.000793
120.000	.030116	.011734	.000802
110.000	.044760	.015305	.000807
100.000	.068569	.022324	.000789
90.000	.154914	.029476	.000814
80.000	.098069	.033049	.000760
70.000	.022535	.026461	.000688
60.000	.111830	.019044	.000595
50.000	.057148	.013208	.000534
40.000	.027512	.011461	.000471
30.000	.017219	.008521	.000455
20.000	.014162	.006090	.000496
10.000	.012940	.005098	.000539

** SEASONAL GROUND LEVEL DEPOSITION (GRAMS PER SQUARE METER) FROM ALL SOURCES COMBINED (CONT.) **

SEASON 3 - DEC

- GRID SYSTEM RECEPTORS -

- X AXIS (RANGE , METERS) -

Y AXIS (AZIMUTH BEARING, DEGREES)	500.000	700.000	2000.000
	- DEPOSITION -		
360.000	.018246	.007956	.000805
350.000	.013008	.006044	.000555
340.000	.009275	.004396	.000426
330.000	.008090	.003689	.000401
320.000	.006168	.003125	.000383
310.000	.004835	.002328	.000300
300.000	.003700	.001901	.000223
290.000	.003652	.001689	.000195
280.000	.004042	.001942	.000202
270.000	.004124	.002088	.000234
260.000	.004853	.002397	.000285
250.000	.004991	.002687	.000350
240.000	.005141	.002787	.000375
230.000	.005583	.003086	.000399
220.000	.005197	.002963	.000420
210.000	.005470	.003065	.000414
200.000	.005803	.003189	.000417
190.000	.005946	.003216	.000445
180.000	.006697	.003630	.000487
170.000	.007234	.003774	.000498
160.000	.007608	.004082	.000483
150.000	.009304	.004993	.000507
140.000	.011318	.005850	.000607
130.000	.015143	.007341	.000750
120.000	.021024	.009704	.000821
110.000	.031681	.014008	.000873
100.000	.053108	.022936	.000929
90.000	.135929	.033731	.001021
80.000	.109290	.041849	.000956
70.000	.028944	.032493	.000829
60.000	.162133	.023325	.000703
50.000	.090928	.017848	.000633
40.000	.043457	.017317	.000579
30.000	.026104	.013447	.000599
20.000	.021014	.009862	.000737
10.000	.020229	.008531	.000885

********** END OF ISCLT PROGRAM, 24 SOURCES PROCESSED **********

? Error: Operation error in file USER
Error Code 1260, Status 0003
Line 1672 In MODEL Of C:MODEL.FOR
PC = 07FA: 0004; SS = 3472, FP = 2FCE, SP = 1A7C

- 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	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729 MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400 8 9 10 FALL VELOCITY (MPS) .3519 .6940 2.9856 MASS FRACTION .1000 .1000 .1000 REFLECTION COEFFICIENT .0000 .0000 .0000 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 1.14000E+05 1.14000E+05 1.14000E+05
X		2	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729 MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400 8 9 10 FALL VELOCITY (MPS) .3519 .6940 2.9856 MASS FRACTION .1000 .1000 .1000 REFLECTION COEFFICIENT .0000 .0000 .0000 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 3.80000E+04 3.80000E+04 3.80000E+04
X		3	VOLUME	52.00	63.00	6.00	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.40 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 1.40 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729 MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400 8 9 10 FALL VELOCITY (MPS) .3519 .6940 2.9856 MASS FRACTION .1000 .1000 .1000 REFLECTION COEFFICIENT .0000 .0000 .0000 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.60000E+04 2.60000E+04 2.60000E+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	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)-

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.63000E+05	1.63000E+05	1.63000E+05	

X		5	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)-

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.63000E+05	1.63000E+05	1.63000E+05	

X		6	VOLUME	52.00	63.00	4.00	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 1.10 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.60

- PARTICULATE CATEGORIES -

	1	2	3	4	5
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412
MASS FRACTION	.2000	.2000	.2000	.2000	.2000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500

- SOURCE STRENGTHS (GRAMS)-

SEASON 1	SEASON 2	SEASON 3	SEASON 4
5.00000E+03	5.00000E+03	5.00000E+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		7	VOLUME	35.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729 MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400 8 9 10 FALL VELOCITY (MPS) .3519 .6940 2.9856 MASS FRACTION .1000 .1000 .1000 REFLECTION COEFFICIENT .0000 .0000 .0000 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.40000E+04 2.40000E+04 2.40000E+04
X		8	VOLUME	115.00	120.00	3.80	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 17.70 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 3.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 6 7 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 .0877 .1729 MASS FRACTION .1000 .1000 .1000 .1000 .1000 .1000 .1000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 .5300 .3400 8 9 10 FALL VELOCITY (MPS) .3519 .6940 2.9856 MASS FRACTION .1000 .1000 .1000 REFLECTION COEFFICIENT .0000 .0000 .0000 - SOURCE STRENGTHS (GRAMS) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.40000E+04 2.40000E+04 2.40000E+04
X		9	AREA	25.00	.00	5.00	.00	WIDTH OF AREA (M)= 32.00 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 MASS FRACTION .2000 .2000 .2000 .2000 .2000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 - SOURCE STRENGTHS (GRAMS PER SQUARE METER) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 7.91000E+00 7.91000E+00 7.91000E+00
X		10	AREA	25.00	82.00	6.00	.00	WIDTH OF AREA (M)= 30.50 - PARTICULATE CATEGORIES - 1 2 3 4 5 FALL VELOCITY (MPS) .0004 .0025 .0086 .0197 .0412 MASS FRACTION .2000 .2000 .2000 .2000 .2000 REFLECTION COEFFICIENT 1.0000 .9000 .7800 .7200 .6500 - SOURCE STRENGTHS (GRAMS PER SQUARE METER) - SEASON 1 SEASON 2 SEASON 3 SEASON 4 2.18000E+02 2.18000E+02 2.18000E+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		11	STACK	381.00	69.00	12.20	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 20.20, STACK DIAMETER (M)= 1.220, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
1.27100E+03	1.27100E+03	1.27100E+03	

X		12	VOLUME	396.00	58.00	4.60	.00	STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 10.60 STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 4.30

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
2.70100E+03	2.70100E+03	2.70100E+03	

WARNING - DISTANCE BETWEEN SOURCE 12 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 12 AND POINT X,Y= 500.00, 90.00 IS LESS THAN PERMITTED

X		13	STACK	465.00	108.00	15.20	.00	GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00, STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)

SEASON 1	SEASON 2	SEASON 3	SEASON 4
4.92600E+03	4.92600E+03	4.92600E+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 -

WARNING - DISTANCE BETWEEN SOURCE 13 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 13 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED

X 14 STACK 442.00 99.00 6.10 .00 GAS EXIT TEMP (DEG K)= 300.00, GAS EXIT VEL. (M/SEC)= 1.00,
STACK DIAMETER (M)= 1.000, HEIGHT OF ASSO. BLDG. (M)= .00, WIDTH OF
ASSO. BLDG. (M)= .00, WAKE EFFECTS FLAG = 0

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)-

SEASON 1	SEASON 2	SEASON 3	SEASON 4
5.57740E+04	5.57740E+04	5.57740E+04	

WARNING - DISTANCE BETWEEN SOURCE 14 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED
WARNING - DISTANCE BETWEEN SOURCE 14 AND POINT X,Y= 500.00, 80.00 IS LESS THAN PERMITTED

X 15 VOLUME 366.00 152.00 3.00 .00 STANDARD DEVIATION OF THE CROSSWIND SOURCE DISTRIBUTION (M)= 7.10
STANDARD DEVIATION OF THE VERTICAL SOURCE DISTRIBUTION (M)= 2.80

- PARTICULATE CATEGORIES -

	1	2	3	4	5	6	7
FALL VELOCITY (MPS)	.0004	.0025	.0086	.0197	.0412	.0877	.1729
MASS FRACTION	.1000	.1000	.1000	.1000	.1000	.1000	.1000
REFLECTION COEFFICIENT	1.0000	.9000	.7800	.7200	.6500	.5300	.3400

	8	9	10
FALL VELOCITY (MPS)	.3519	.6940	2.9856
MASS FRACTION	.1000	.1000	.1000
REFLECTION COEFFICIENT	.0000	.0000	.0000

- SOURCE STRENGTHS (GRAMS)-

SEASON 1	SEASON 2	SEASON 3	SEASON 4
4.18543E+05	4.18543E+05	4.18543E+05	

WARNING - DISTANCE BETWEEN SOURCE 15 AND POINT X,Y= 500.00, 70.00 IS LESS THAN PERMITTED