

ENVIRONMENTAL SERVICES

4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 • FAX 377-7158

KA 148-90-01

February 28, 1991

RECEIVED

MAR 01 1991

DER PAGE

0190011

Mr. Clair H. Fancy
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: E. I. DuPont de Nemours & Co., Inc:
Trail Ridge Facility
Zircon Kiln, Permit No. AC10-180154

Dear Mr. Fancy:

It is our understanding that the petition for a hearing filed by the Kingsley Lake area residents has been withdrawn. Consequently, it is likely that the Department will finalize the permit for issuance taking into consideration any comments submitted to the Department on its Intent to Issue the permit.

At this time, we would like to request that the draft permit be amended to reflect the comments submitted to you in our letter dated November 8, 1990. If FDER has any concerns about amending the draft permit, we would appreciate the opportunity to discuss the issue with you prior to the permit being finalized.

If you have any questions, please do not hesitate to give me a call.

Very truly yours,

KOOGLER & ASSOCIATES

Pradeep A. Raval

PAR:wa

cc: Mr. C. Mason, DuPont

J. Hanks
C. Molladay ✓
CHF/BA



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

June 22, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Mark E. Brimhall
Environmental Coordinator
E.I. DuPont de Nemours & Co. Inc.
P. O. Box 753
Starke, Florida 32091

Dear Mr. Brimhal:

Re: File No. AC 10-180154, DuPont Zircon Kiln

The Department has resumed processing your application for a permit to increase the production of the zircon kiln near Starke, Clay County, Florida. We have modeled the ambient impacts of the emissions from this plant using one year of meteorological data and the emission rates and stack parameters we have available for the other sources that were listed in Dr. Koogler's May 29, 1990 letter.

The results do not give the Department reasonable assurance that ambient air quality standards will be met for SO₂ and particulate matter. Without reasonable assurance, the regulations prevent us from approving your request.

Please review the emission rates and stack parameters we used in the modeling results (attached) and investigate and propose any options available to you, including additional modeling that will provide us reasonable assurance that the ambient air quality standards will be met with this increase in production rate for the zircon kiln.

We request you reply to this letter within 45 days of its receipt.

Mr. Mark E. Brimhall
Page 2
June 22, 1990

If you have any questions, please write to me or call Cleve Holladay (modeling issues) or Willard Hanks (application status).

Sincerely,



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

CHF/CH/plm

Enclosure: Model Results

c: Andy Kutyna, NE District
John Koogler, P.E.

Reporter: E. L. MATTHEW

At (Newspaper, T.V., Radio, etc.): Bradford G
Telegraph

From: W. HANKS

Division: DARM

Bureau/Sect.: OAN

Phone: 488-1344

Topic of Call: PROPOSED PERMIT FOR DUPONT
Zircon kiln

Questions asked:

1. ALLOWABLE PM + SO₂ EMISSIONS
2. AMBIENT AIR IMPACT TO PUBLIC
3. MEANS TO KEEP PUBLIC OUT OF HIGH IMPACT AREAS

Deadline:

Summary of Conversation (use remainder of sheet, and back, if necessary):

Discussed Tech. Eval. + Prel. Det.
IN GENERAL HE SAID PUBLIC
CONCERNED WITH ALL SOURCE OF
AP BECAUSE OF ATTEMPT TO
PUT RIO-HAZ, WASTE INC IN AREA

DER Employee Interviewed W. Hanks

THE BRADFORD COUNTY
— SINCE 1877 —
Telegraph

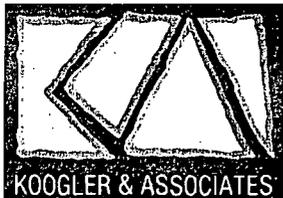
P. O. Drawer A
STARKE, FLORIDA 32091



RECEIVED
NOV 26 1990
DER-BAQ

Mr. Willard Hanks
Bureau of Air Pollution, DER
2600 Blair Stone Road
Tallahassee, FL 32399-2400





KOOGLER & ASSOCIATES

ENVIRONMENTAL SERVICES

4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 • FAX 377-7158

KA 148-90-01

August 6, 1990

RECEIVED

AUG 7 1990

DER-BAQM

Mr. Clair Fancy
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: E.I. DuPont de Nemours & Co., Inc.
Trail Ridge
Zircon Kiln Permit Amendment
File No AC10-180154

Dear Clair:

This is in response to your letter dated June 22, 1990, which discussed the modeling results of the ambient air impacts for particulate matter and sulfur dioxide emitted from DuPont's Trail Ridge plant.

As discussed with Cleve Holladay and Willard Hanks of your staff, we are submitting the modeling done for the DuPont Trail Ridge plant using updated information regarding air emission rates and receptor locations. The ISC-ST model results (see Attachment 4) provide reasonable assurance that the Zircon kiln as proposed will not cause a violation of any ambient air quality standard (see Table 2).

The modeling was done using the approved EPA ISC-ST model with 1986 Jacksonville meteorological data provided by FDER. The modeling inputs, shown in Table 1, reflects the current information from the permits and compliance test reports. The updated emission data used in modeling are more conservative than the data used in FDER's modeling.

A. Emission Rates

The emission rate inputs have been updated to reflect the currently permitted (maximum allowable) emissions for the Ilmenite Dryer Nos. 1 and 2, Zircon Kiln, and Zircore Kiln. The stack parameters are from test reports submitted to the Department. Table 1 summarizes the inputs used for the modeling.

B. Receptor Location

Receptors, using the polar receptor grid system, have been located to correspond to the DuPont facility boundary. Based on information obtained from DuPont and Camp Blanding (U.S. Government military training facility), the areas restricting public access are shown on Attachments 1, 2, and 3. DuPont's mining and processing operations are located on land which has been leased from Camp Blanding. DuPont has operated at this location for several decades under the lease and will continue to operate until the mineral ore being mined is exhausted.

The DuPont Trail Ridge facility is enveloped by the Camp Blanding boundary which is fenced, except across major roads. Entry into Camp Blanding property from the major roads is restricted by gates. Entry to the DuPont facility is by a private (DuPont) road from Highway 230 to the Trail Ridge plant. The private road is fenced on either side and a security gate is located within a kilometer of the offices. The nearest public road is approximately three kilometers from the sources modeled.

Since the distance from the sources to the nearest fenced boundary is 1.5 km, the receptors are located at a radius of 1.5 km and 1.75 km. The results obtained in FDER's modeling indicate a gradual and definite decrease in impacts beyond 500 meters of the sources. This trend is also reflected in the attached modeling results when comparing the impacts at a distance of 1500 meters and 1750 meters from the sources. Additional receptor rings were not necessary as confirmed by the modeling results.

The modeling results show that the ambient impacts for both particulate matter and sulfur dioxide are well below the ambient air quality standards. The PM annual and 24-hr maximum impacts are 5.6 and 68.8 $\mu\text{g}/\text{m}^3$, respectively, compared with the AAQS of 50 and 150 $\mu\text{g}/\text{m}^3$, respectively. The SO_2 annual, 24-hr, and 3-hr maximum impacts are 9.3, 110.4, and 335.2 $\mu\text{g}/\text{m}^3$, respectively, compared with the AAQS of 60, 260, and 1300 $\mu\text{g}/\text{m}^3$, respectively. Even with appropriate background levels added, the PM and SO_2 impacts will be well below AAQS.



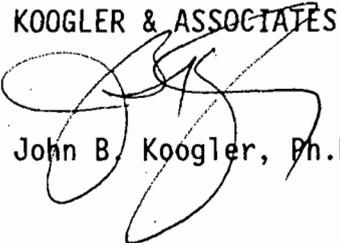
Mr. Clair Fancy
Florida Department
of Environmental Regulation

August 6, 1990
Page 3

If you have any questions, please do not hesitate to give me a call.

Very truly yours,

KOOGLER & ASSOCIATES


John B. Koogler, Ph.D., P.E.

JBK:wa
Enc.

cc: Mr. Mark Brimhall

A. Hanks
C. Holladay (w/attachment 4)
A. Kutypa / E Dist.
CHF/BA



TABLE 1

MODELING INPUT

E.I. DUPONT DE NEMOURS & COMPANY, INC.
 TRAIL RIDGE PLANT
 STARKE, CLAY COUNTY, FLORIDA

Source	Emissions		Stack Diameter (m)	Stack Height (m)	Gas Temp (°K)	Gas Velocity (m/s)
	PM (g/s)	SO ₂ (g/s)				
1. Ilmenite Dryer No. 1	3.95	4.51	0.61	10.06	366	18.1
2. Ilmenite Dryer No. 2	3.95	4.51	0.61	10.06	366	19.9
3. Zircon Kiln	2.71	7.91	0.46	12.19	405	59.6
4. Zircore Kiln	1.15	4.28	0.39	12.19	466	31.4

47.31
 375 lb/m
 > 250TPY



TABLE 2

MODELING RESULTS

E.I. DUPONT DE NEMOURS & COMPANY, INC.
TRAIL RIDGE PLANT
STARKE, CLAY COUNTY, FLORIDA

Pollutant	Ambient Impact ug/m3		Ambient Air Quality Standard ug/m3
PM/PM10			
Annual	5.6	1000 m est 26.9	50
24-hr	68.8	1000 m est 108	150
SO ₂			
Annual	9.3	1000 m est 63	60
24-hr	110.4	1000 m est 253	260
3-hr	335.2	1000 m est 443	1300

Background
13

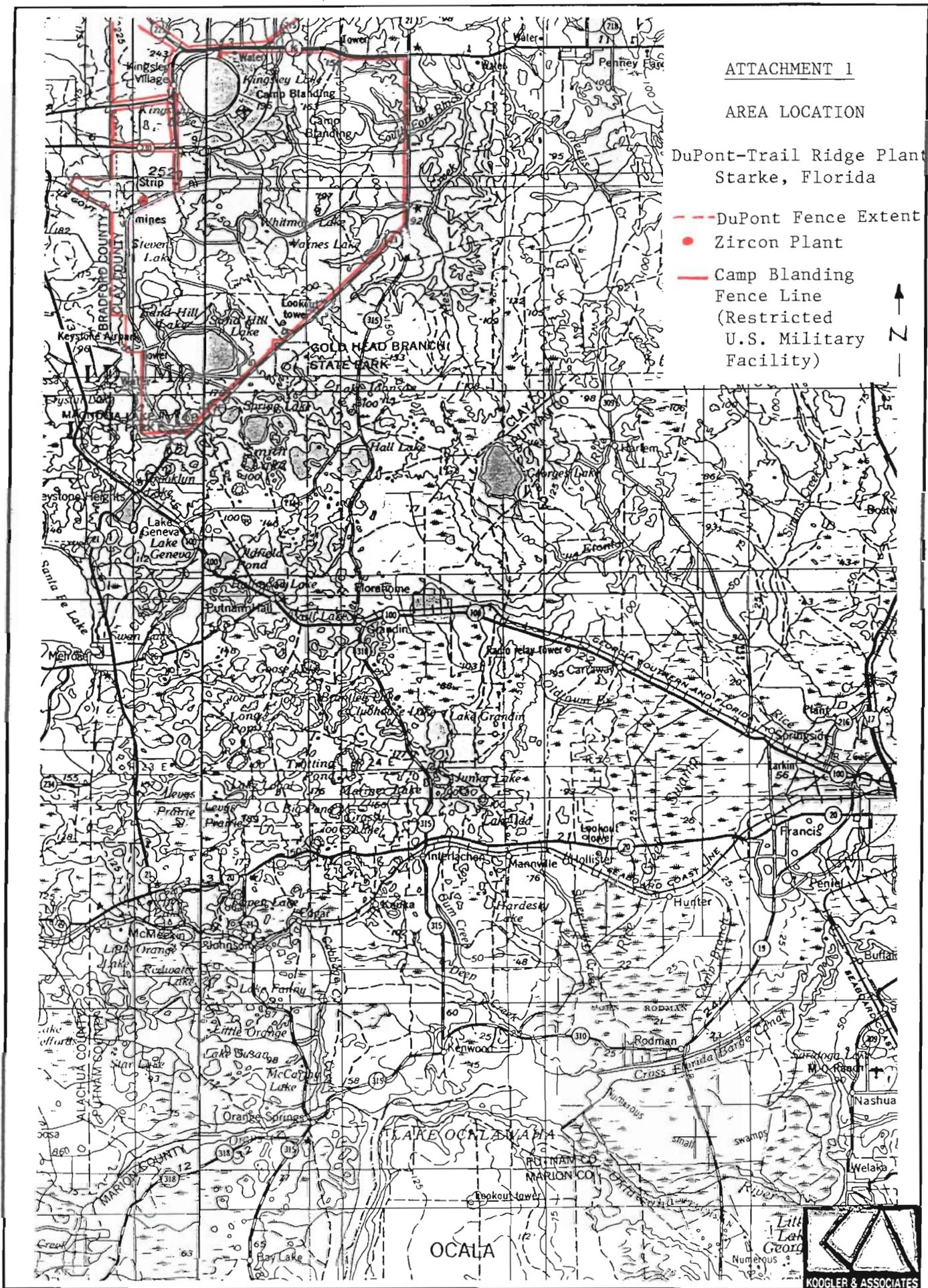


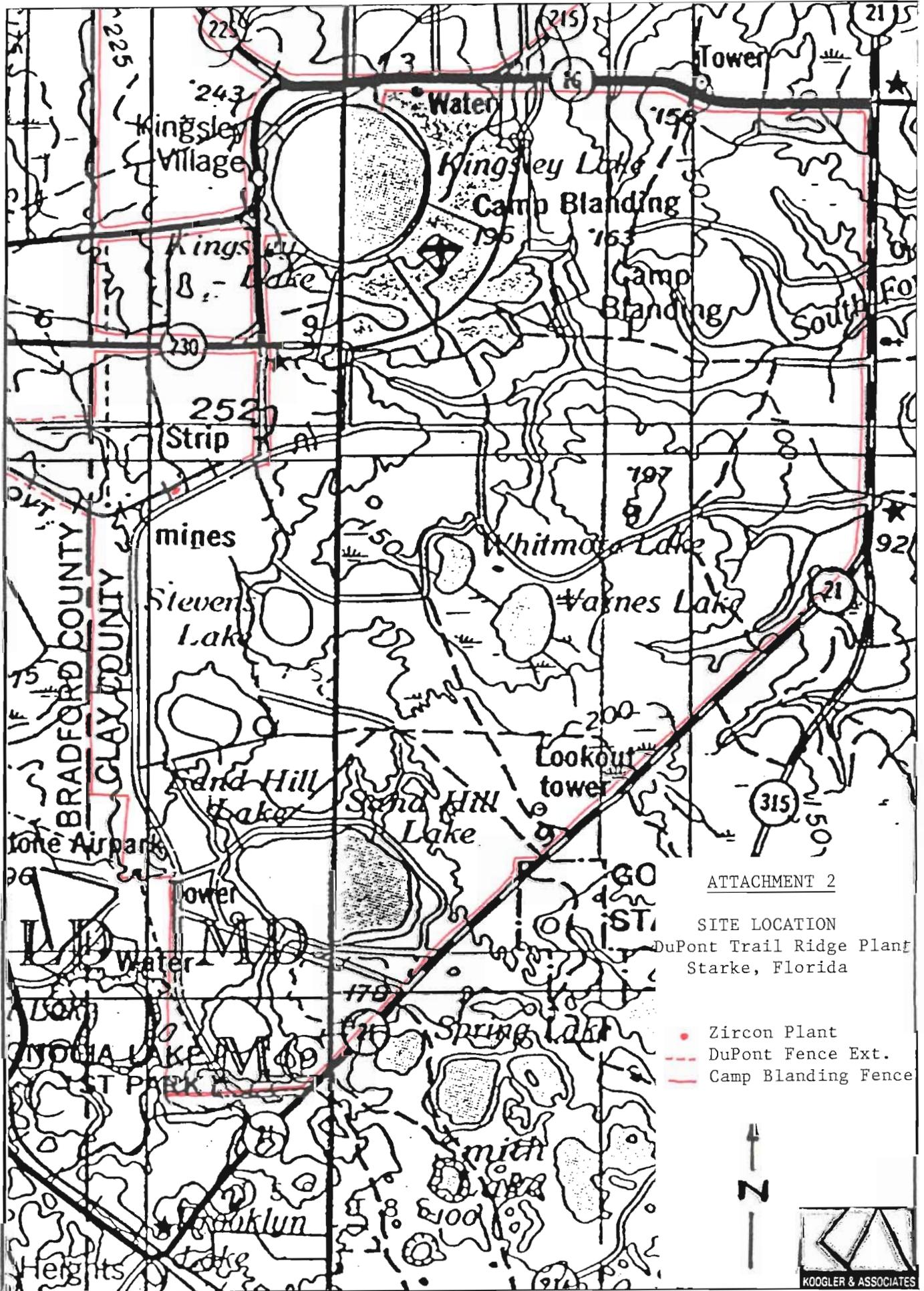
ATTACHMENT 1

AREA LOCATION

DuPont-Trail Ridge Plant
Starke, Florida

-  DuPont Fence Extent
-  Zircon Plant
-  Camp Blanding Fence Line (Restricted U.S. Military Facility)





ATTACHMENT 2

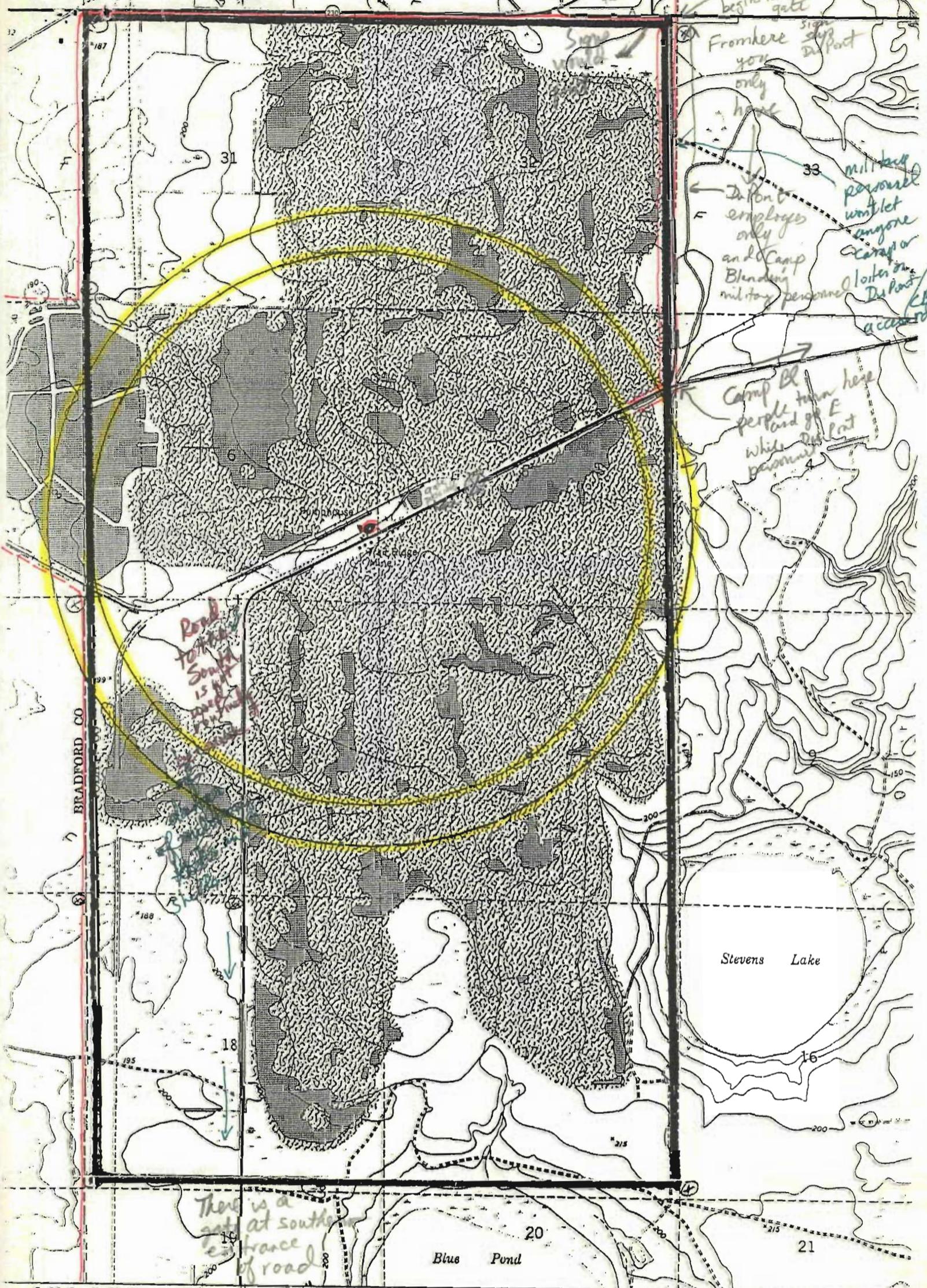
SITE LOCATION
 DuPont Trail Ridge Plant
 Starke, Florida

- Zircon Plant
- - - DuPont Fence Ext.
- Camp Blanding Fence



Public Rd

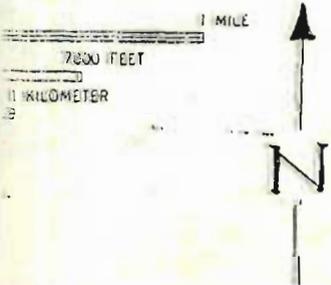
Private Road begins here, no gate



R. 22 E. R. 23 E. 2'30" 5.4 MI. TO FLORIDA 21 KEYSTONE HEIGHTS 7.9 MI. INTERIOR-GEOLOGICAL SURVEY WASHINGTON D.C. 1972 180 000 FEET (EAST) 403000m E.

ATTACHMENT 3
RECEPTOR LOCATION
 DuPont Trail Ridge Plant
 Starke, Florida

- Zircon Plant**
- ROAD CLASSIFICATION**
- Heavy-duty ——— 4 LANE 16 LANE Light-duty ———
 - Medium-duty ——— 4 LANE 16 LANE Unimproved dirt ———
 - U.S. Route
 - State Route



- Receptor Ring
- Camp Blanding Fence
- DuPont Fence Extension
- Area Leased From Camp Blanding

QUADRANGLE LOCATION



STARKE, FLA
 NE/4 STARKE 15' QUADRAN
 N2952 E W2200 17 E

- a. sign posted keep out without authorization
- b. They also patrol 24 hours/day

DER Notice of Intent to Permit DuPont's Emissions Increase Plan

The Florida Department of Environmental Regulation has given notice of its intent to issue a permit allowing the DuPont Company to increase emissions from the zircon kiln at its Trail Ridge plant off Highway 230 just southwest of Kingsley Lake.

The permit would raise the level of allowable emissions of particulate (dust) from 9.8 pounds to 21.5 pounds per hour (94.4 tons per year); also raising the limit of sulfur dioxide to 62.7 pounds per hour (274.7 tons per year); and increasing emissions of nitrogen oxides to 7.7 pounds per hour (33.7 tons per year). Both sulfur dioxide and nitrogen oxides are regulated pollutants.

The Notice of Intent, published in the November 1 issue of *The Telegraph*, stated that "Increased emissions will not cause or contribute to a violation of the ambient air quality standard." A determination of Best Available Control Technology (BACT) was not required, according to the legal notice.

Willard Hanks, a review engineer with DER approved the DuPont application, which he described basically as increased production of a sand-dryer for zircon ore.

"Tests have measured particulate matter emission near the plant at an equivalent of 10 tons per year," Hanks said. "A 'dry cyclone' dust-settling chamber removes dust, and DER has reasonable assurance that areas to which the public would have access would be safe," Hanks said.

However, ambient air quality standards may be exceeded on a limited ac-

cess road from SR 230 into the Trail Ridge plant, Hanks said, while the kiln is in operation at higher production rates.

"One condition of the permit is that DePont shall take reasonable precautions to prevent public access to the plant entrance road," Hanks said. These precautions will include the placement of signs limiting access to such roads by the public," Hanks added, "and routine patrolling at intervals of the access road adjacent of the plant. Hanks said the emissions would not be detrimental to employees working at the plant.

Hanks said that DER's decision to issue the permit was based on a computerized modeling process which was reviewed by a meteorologist and himself as the review engineer.

Stepped up production by the zircon kiln is anticipated by DuPont due to the growing demand for zircon on the world market, caused by new developments in its use for ceramics, of which zircon is an important ingredient. In 1985 DuPont produced only 40 to 50 tons of zircon, a mineral found in the quartz sands along Trail Ridge east of Starke. It is also used in making artificial diamonds and other gem stones. In 1989 DuPont produced 90 tons of zircon, which dropped to 85 tons this year due to the weakening economy, and growing competition from mines in Australia and South Africa.

At one time, DuPont ranked as third or fourth largest producer of zircon in the world, but has now declined to fifth or sixth position, Don Luebke, manager of DuPont's Florida plants, said.



KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 • FAX 377-7158

KA 148-90-01

November 8, 1990

Clair
RECEIVED

NOV 13 1990

DER-BAQM

Mr. Clair H. Fancy
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: E.I. DuPont de Nemours & Co., Inc.
Trail Ridge Facility
Zircon Kiln, Permit No. AC10-180154

Dear Clair:

This is in response to the Department's Intent to Issue the above referenced permit for the Zircon kiln located at the Trail Ridge facility, Clay County, Florida.

The only comment we have concerns Specific Condition No. 4. It does not seem appropriate to impose emission limitations on the Ilmenite dryers and the Zircore kiln through a specific condition in the Zircon kiln permit. These sources are independent in their operation and are permitted separately. Furthermore, the emissions limitations for the respective sources are presently already addressed in the following individual permits:

Ilmenite Dryer Nos. 1 and 2:	A010-123142
Zircore Kiln:	A010-180224
Zircon Kiln:	A010-177632

The same is true for the individual compliance testing requirements and FDER's authority to require testing when compliance status is suspect.

If the Department wishes to document the air emissions used in the permit review process, we recommend the following change to Specific Condition No. 4 to serve that purpose without inadvertently requiring source emission restrictions in multiple permits:

From: Particulate matter and sulfur dioxide emissions from the other sources at this facility shall not exceed the quantities listed below.

(Table)

Emission tests may be required when the Department has reasons to suspect these standards are being exceeded.

To: Particulate matter and sulfur dioxide emissions from the other sources at this facility are stated below for inventory purposes.

(Table)

Emission tests may be required when the Department has reasons to suspect that the standard stated in Specific Condition No. 3 is being exceeded.

If necessary, we will gladly meet with the Department to resolve this issue.

If you have any questions, please do not hesitate to give me a call.

Very truly yours,

KOGLER & ASSOCIATES



Pradeep A. Raval

PAR:wa

cc: Mr. Mark Brimhall

A. Nankar
C. Holladay
A. Kutyma

1 ISCST (DATED 88348)

PROCESS STARTING TIME: 11:32: 2
DATE: 6/ 7/1990

*** Clay Drier PM ***

CALCULATE (CONCENTRATION=1,DEPOSITION=2)	ISW(1) = 1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)	ISW(2) = 4
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)	ISW(3) = 1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)	ISW(4) = 0
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)	ISW(5) = 0
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)	ISW(6) = 1

COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)
WITH THE FOLLOWING TIME PERIODS:

HOURLY (YES=1,NO=0)	ISW(7) = 0
2-HOUR (YES=1,NO=0)	ISW(8) = 0
3-HOUR (YES=1,NO=0)	ISW(9) = 0
4-HOUR (YES=1,NO=0)	ISW(10) = 0
6-HOUR (YES=1,NO=0)	ISW(11) = 0
8-HOUR (YES=1,NO=0)	ISW(12) = 0
12-HOUR (YES=1,NO=0)	ISW(13) = 0
24-HOUR (YES=1,NO=0)	ISW(14) = 1
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)	ISW(15) = 1

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) = 1
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 (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3)	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) = 2
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)	ISW(26) = 1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)	ISW(27) = 1

REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)	ISW(28) = 1
TYPE OF POLLUTANT TO BE MODELLED (1=S02,2=OTHER)	ISW(29) = 2
DEBUG OPTION CHOSEN (YES=1,NO=2)	ISW(30) = 2
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)	ISW(31) = 0

NUMBER OF INPUT SOURCES	NSOURC = 4
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 = 5
NUMBER OF Y (THETA) GRID VALUES	NYPNTS = 36
NUMBER OF DISCRETE RECEPTORS	NXWYPT = 0
SOURCE EMISSION RATE UNITS CONVERSION FACTOR	TK = .10000E+07

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 = .000000E+00
SURFACE STATION NO.	ISS = 13889
YEAR OF SURFACE DATA	ISY = 86
UPPER AIR STATION NO.	IUS = 13861

* MAXIMUM VALUE EQUALS 12.16544 AND OCCURRED AT (300.0, 300.0) *

DIRECTION / (DEGREES) /	RANGE (METERS)				
	150.0	200.0	300.0	400.0	500.0
360.0 /	3.27062	4.89131	6.41578	6.42552	5.96633
350.0 /	3.56222	5.31504	6.79708	6.61621	5.99563
340.0 /	3.37660	4.94977	6.09855	5.76875	5.11339
330.0 /	3.50866	5.25796	6.54166	6.18551	5.48837
320.0 /	4.64073	7.03806	8.75543	8.24428	7.29352
310.0 /	6.21452	9.24375	11.09920	10.12834	8.68748
300.0 /	7.09935	10.30525	12.16544	11.09665	9.53271
290.0 /	5.86208	8.00702	8.68348	7.57246	6.31618
280.0 /	4.26654	5.79624	6.29374	5.47475	4.54421
270.0 /	4.34590	6.19343	7.17586	6.49465	5.55446
260.0 /	4.91833	7.29137	8.84051	8.17441	7.09632
250.0 /	4.61092	6.83865	8.38780	7.81934	6.81963
240.0 /	4.45523	7.05238	9.33929	8.98061	7.95605
230.0 /	4.46861	7.53329	10.50342	10.28588	9.20294
220.0 /	3.71521	6.61193	9.81647	9.93288	9.07290
210.0 /	2.74197	4.96639	7.61883	7.88617	7.31798
200.0 /	2.44275	4.26835	6.46713	6.72879	6.28474
190.0 /	2.81987	4.84762	7.45598	7.96668	7.61819
180.0 /	3.09161	5.32746	8.26230	8.91096	8.58195
170.0 /	2.55947	4.29757	6.61290	7.21585	7.05618
160.0 /	2.33269	3.63367	5.16424	5.43179	5.21210
150.0 /	3.23033	4.79276	6.27198	6.24957	5.77393
140.0 /	4.70951	6.79464	8.43018	8.12398	7.34196
130.0 /	5.61975	7.76398	8.89632	8.12568	7.06968
120.0 /	6.96632	9.57253	10.62818	9.39784	7.94772
110.0 /	7.70891	10.32770	11.18001	9.79084	8.20817
100.0 /	7.65083	10.13301	10.86469	9.52078	8.03069
90.0 /	7.32471	9.40833	9.80866	8.53904	7.20493
80.0 /	7.42273	9.76404	10.67853	9.61682	8.33021
70.0 /	7.58542	10.28865	11.37207	10.12336	8.66020
60.0 /	7.11894	10.00214	11.54630	10.56124	9.21262
50.0 /	6.35104	9.31417	11.45978	10.91575	9.79178
40.0 /	5.40815	7.93881	9.71860	9.19394	8.18217
30.0 /	4.09199	5.94608	7.31495	7.00484	6.30142
20.0 /	3.17733	4.65037	5.75523	5.49738	4.91153
10.0 /	3.09487	4.54579	5.73831	5.58078	5.06083

HIGH
24-HR
SGROUP# 1

*** Clay Drier PM ***

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

* MAXIMUM VALUE EQUALS 147.11350 AND OCCURRED AT (300.0, 320.0) *

DIRECTION / (DEGREES) /	RANGE (METERS)				
	150.0	200.0	300.0	400.0	500.0
360.0 /	67.22464 (148, 1)	80.79764 (148, 1)	71.86044 (148, 1)	62.64695 (345, 1)	67.80962 (345, 1)
350.0 /	47.08199C(225, 1)	68.53173C(225, 1)	82.45939C(233, 1)	94.70818 (298, 1)	92.96047 (298, 1)
340.0 /	49.53223C(225, 1)	82.13541C(225, 1)	115.89740C(225, 1)	117.27640C(225, 1)	107.14070C(225, 1)
330.0 /	50.86109C(137, 1)	67.74676C(77, 1)	101.35370C(77, 1)	95.64628C(77, 1)	82.22206C(77, 1)
320.0 /	60.88805C(328, 1)	101.17230C(77, 1)	147.11350C(77, 1)	135.98800C(77, 1)	114.78620C(77, 1)
310.0 /	66.89632C(222, 1)	94.54505C(188, 1)	120.58530C(68, 1)	108.93630C(68, 1)	91.14185C(68, 1)
300.0 /	99.37978C(188, 1)	122.73440C(188, 1)	112.04520C(188, 1)	86.43219C(188, 1)	68.41953C(247, 1)
290.0 /	96.70704C(95, 1)	129.34860C(95, 1)	129.95130C(95, 1)	107.74170C(95, 1)	86.62956C(95, 1)

280.0 /	74.38525C(174, 1)	85.52197C(174, 1)	83.10110C(134, 1)	73.76888C(134, 1)	60.89775C(134, 1)
270.0 /	59.31256C(104, 1)	72.48765C(104, 1)	122.83700C(261, 1)	132.13930C(261, 1)	122.58680C(261, 1)
260.0 /	94.05369C(237, 1)	122.36500C(237, 1)	122.76670C(237, 1)	100.70270C(237, 1)	80.11320C(237, 1)
250.0 /	88.76062C(185, 1)	105.82450C(185, 1)	95.96986C(185, 1)	91.22869C(130, 1)	84.66239C(130, 1)
240.0 /	60.78389C(130, 1)	86.41893C(130, 1)	115.40520C(124, 1)	121.05030C(124, 1)	112.99600C(124, 1)
230.0 /	59.74981C(87, 1)	83.47883C(87, 1)	111.96180C(129, 1)	108.98860C(129, 1)	97.62306C(154, 1)
220.0 /	55.34572C(271, 1)	75.58958 (8, 1)	116.01230 (8, 1)	111.71530 (8, 1)	104.12310 (10, 1)
210.0 /	39.25460C(271, 1)	77.99482 (8, 1)	121.73680 (8, 1)	118.09340 (8, 1)	103.55540 (8, 1)
200.0 /	38.26124C(90, 1)	49.39899C(284, 1)	95.15508C(284, 1)	100.73450C(284, 1)	91.96348C(284, 1)
190.0 /	45.50209C(279, 1)	53.67836C(279, 1)	96.05718C(285, 1)	113.56760C(285, 1)	111.06050C(285, 1)
180.0 /	43.85795C(113, 1)	62.20318C(289, 1)	102.61880C(11, 1)	112.53130C(317, 1)	109.42000C(317, 1)
170.0 /	51.98600C(151, 1)	54.06181C(151, 1)	65.26222 (318, 1)	73.55432 (318, 1)	69.99017 (318, 1)
160.0 /	42.21070C(151, 1)	44.97079C(64, 1)	76.41606C(56, 1)	81.78931C(56, 1)	88.16896C(306, 1)
150.0 /	41.50218C(270, 1)	49.31753C(325, 1)	86.04716C(319, 1)	94.13605C(319, 1)	88.87976C(319, 1)
140.0 /	74.67543C(119, 1)	93.48773C(119, 1)	99.81161C(60, 1)	102.95780C(60, 1)	93.97085C(60, 1)
130.0 /	100.71070C(236, 1)	109.05510C(236, 1)	90.54189 (112, 1)	85.35876 (112, 1)	74.29865C(5, 1)
120.0 /	100.29850C(236, 1)	112.15300C(236, 1)	100.81550C(236, 1)	86.79726 (42, 1)	76.03632 (42, 1)
110.0 /	89.66586C(199, 1)	109.52870C(199, 1)	97.41859C(115, 1)	76.83858C(115, 1)	58.60033C(115, 1)
100.0 /	78.91880C(199, 1)	90.91039C(199, 1)	80.14799 (200, 1)	63.62817C(14, 1)	61.18462C(14, 1)
90.0 /	77.17953 (158, 1)	88.64562 (158, 1)	83.55634 (183, 1)	80.67154 (183, 1)	70.54710 (183, 1)
80.0 /	92.62717 (159, 1)	100.25530 (159, 1)	78.57956 (159, 1)	63.71189C(19, 1)	59.66085C(19, 1)
70.0 /	77.86124C(198, 1)	92.52541 (211, 1)	98.58321 (211, 1)	85.95970 (58, 1)	75.10937 (202, 1)
60.0 /	87.80109C(121, 1)	108.26390 (211, 1)	123.12250 (211, 1)	108.82750 (211, 1)	94.14233C(57, 1)
50.0 /	87.74155C(121, 1)	94.61929C(121, 1)	85.23551C(210, 1)	89.38780C(210, 1)	84.31167C(210, 1)
40.0 /	62.91792C(195, 1)	82.29197C(210, 1)	103.81400C(210, 1)	97.04670C(210, 1)	84.89494C(210, 1)
30.0 /	63.71930C(287, 1)	82.04124C(287, 1)	74.27841C(287, 1)	79.09050 (37, 1)	73.83578 (37, 1)
20.0 /	47.95128C(287, 1)	61.86987C(287, 1)	57.26842C(180, 1)	54.41590 (37, 1)	50.11762C(169, 1)
10.0 /	51.31676C(287, 1)	72.53807C(287, 1)	75.68162C(287, 1)	64.09647 (37, 1)	59.07846 (37, 1)

2ND HIGH
24-HR
SGROUP# 1

*** Clay Drier PM ***

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

* MAXIMUM VALUE EQUALS 112.45800 AND OCCURRED AT (400.0, 180.0) *

DIRECTION / (DEGREES) /	RANGE (METERS)				
	150.0	200.0	300.0	400.0	500.0
360.0 /	41.35970C(175, 1)	46.49857C(287, 1)	61.00090 (78, 1)	61.12624C(231, 1)	58.13445C(231, 1)
350.0 /	43.13548C(239, 1)	56.18573C(71, 1)	79.82882 (298, 1)	84.26103C(233, 1)	77.25039C(343, 1)
340.0 /	45.87182C(239, 1)	51.49803C(206, 1)	62.60603C(343, 1)	70.16807C(343, 1)	70.36845C(343, 1)
330.0 /	46.24960C(178, 1)	58.38578C(137, 1)	67.17430C(71, 1)	68.70936C(71, 1)	62.75604C(71, 1)
320.0 /	58.42872C(137, 1)	87.96484C(328, 1)	93.63141C(328, 1)	89.26536C(125, 1)	81.31051C(125, 1)
310.0 /	66.42506C(188, 1)	90.25283C(68, 1)	104.13260C(188, 1)	91.96269C(147, 1)	78.68368C(147, 1)
300.0 /	89.67070C(120, 1)	112.16140C(95, 1)	102.60360C(95, 1)	82.47615C(247, 1)	65.53031C(188, 1)
290.0 /	75.65575C(135, 1)	94.60392C(135, 1)	91.38065C(135, 1)	74.53424C(135, 1)	61.74790C(136, 1)
280.0 /	44.54386C(104, 1)	67.62405C(134, 1)	76.91111C(174, 1)	60.76571C(174, 1)	55.48259C(173, 1)
270.0 /	56.31947C(174, 1)	71.67270C(185, 1)	74.21925C(185, 1)	63.03122C(185, 1)	50.95274C(185, 1)
260.0 /	85.60599C(185, 1)	108.68740C(185, 1)	110.25750C(185, 1)	92.80696C(185, 1)	75.09140C(185, 1)
250.0 /	57.36086C(296, 1)	81.68224C(296, 1)	92.69013C(296, 1)	83.61612C(296, 1)	72.55967C(243, 1)
240.0 /	60.62983C(185, 1)	73.42757C(124, 1)	101.59550C(130, 1)	91.96639C(130, 1)	81.09096 (333, 1)
230.0 /	49.85345C(123, 1)	77.55350C(123, 1)	102.83450C(67, 1)	105.34400C(154, 1)	95.40923C(307, 1)
220.0 /	48.23729C(87, 1)	69.59664C(123, 1)	95.55531 (10, 1)	107.50780 (10, 1)	97.27666 (8, 1)
210.0 /	34.10698 (8, 1)	44.64387 (10, 1)	78.41644 (10, 1)	81.08488 (10, 1)	73.63008 (10, 1)
200.0 /	33.13257C(279, 1)	40.00319C(245, 1)	72.05991 (303, 1)	84.44849 (303, 1)	88.16631C(335, 1)
190.0 /	44.19569C(86, 1)	45.12564C(86, 1)	89.41645C(284, 1)	99.40536C(284, 1)	93.61638C(284, 1)
180.0 /	43.66066C(289, 1)	56.31587C(113, 1)	98.40873C(317, 1)	112.45800C(11, 1)	105.15920C(11, 1)
170.0 /	35.06651C(113, 1)	49.20712C(113, 1)	48.91684C(113, 1)	62.48031 (363, 1)	65.79325 (363, 1)
160.0 /	39.14077C(270, 1)	44.53124C(151, 1)	56.17235C(306, 1)	79.77050C(306, 1)	76.38503C(56, 1)
150.0 /	38.10323C(115, 1)	48.63151C(319, 1)	63.65369C(60, 1)	74.16275C(306, 1)	79.59823C(306, 1)

140.0 /	61.24810C(144, 1)	65.75035 (99, 1)	89.17376C(119, 1)	81.80287C(319, 1)	77.00755C(319, 1)
130.0 /	89.50591C(119, 1)	104.54050C(119, 1)	89.28837C(236, 1)	84.28930C(5, 1)	73.39967 (112, 1)
120.0 /	78.73048C(142, 1)	98.20065C(142, 1)	94.76076C(142, 1)	81.52026C(236, 1)	69.30418 (112, 1)
110.0 /	79.27325 (200, 1)	101.05750C(115, 1)	95.73360C(199, 1)	71.26795C(199, 1)	53.18782C(359, 1)
100.0 /	74.40720 (200, 1)	89.94209 (200, 1)	79.55740C(192, 1)	60.99603 (200, 1)	51.73766C(204, 1)
90.0 /	64.49501C(194, 1)	69.27351 (190, 1)	75.44895 (158, 1)	56.03428 (158, 1)	43.76898 (191, 1)
80.0 /	64.97704C(194, 1)	78.75912C(194, 1)	72.91222C(194, 1)	58.12431C(352, 1)	57.19763C(352, 1)
70.0 /	76.25233 (159, 1)	83.09914C(121, 1)	92.78719 (58, 1)	84.77641 (202, 1)	73.07333 (58, 1)
60.0 /	73.84146 (211, 1)	99.81019C(121, 1)	106.92990C(57, 1)	105.05210C(57, 1)	90.95885 (211, 1)
50.0 /	61.79247 (201, 1)	74.10374 (201, 1)	78.43716C(207, 1)	69.74323C(207, 1)	67.66657C(3, 1)
40.0 /	59.64548C(215, 1)	77.03032C(195, 1)	90.56434C(105, 1)	80.54672C(105, 1)	76.45104C(321, 1)
30.0 /	52.01435C(197, 1)	63.71050C(179, 1)	72.55632 (37, 1)	56.12048C(287, 1)	49.29722C(162, 1)
20.0 /	41.23211C(197, 1)	49.81458C(34, 1)	56.43193 (37, 1)	52.41447C(180, 1)	47.02981 (37, 1)
10.0 /	49.74261 (148, 1)	59.04134 (148, 1)	66.02309C(180, 1)	63.44646C(287, 1)	51.32248C(287, 1)

PROCESS ENDING TIME: 12:11:50
DATE: 6/ 7/1990

1 ISCST (DATED 88348)

PROCESS STARTING TIME: 12:28:17
DATE: 6/ 7/1990

*** Clay Drier SO2 ***

CALCULATE (CONCENTRATION=1,DEPOSITION=2)	ISW(1) = 1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)	ISW(2) = 4
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)	ISW(3) = 1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)	ISW(4) = 0
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)	ISW(5) = 0
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)	ISW(6) = 1
COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION) WITH THE FOLLOWING TIME PERIODS:	
HOURLY (YES=1,NO=0)	ISW(7) = 0
2-HOUR (YES=1,NO=0)	ISW(8) = 0
3-HOUR (YES=1,NO=0)	ISW(9) = 0
4-HOUR (YES=1,NO=0)	ISW(10) = 0
6-HOUR (YES=1,NO=0)	ISW(11) = 0
8-HOUR (YES=1,NO=0)	ISW(12) = 0
12-HOUR (YES=1,NO=0)	ISW(13) = 0
24-HOUR (YES=1,NO=0)	ISW(14) = 1
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)	ISW(15) = 1
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) = 1
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 (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3)	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) = 2
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)	ISW(26) = 1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)	ISW(27) = 1
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)	ISW(28) = 1
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)	ISW(29) = 1
DEBUG OPTION CHOSEN (YES=1,NO=2)	ISW(30) = 2
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)	ISW(31) = 0
NUMBER OF INPUT SOURCES	NSOURC = 4
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 = 5
NUMBER OF Y (THETA) GRID VALUES	NYPNTS = 36
NUMBER OF DISCRETE RECEPTORS	NXWYPT = 0
SOURCE EMISSION RATE UNITS CONVERSION FACTOR	TK = .10000E+07
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 = .000000E+00
SURFACE STATION NO.	ISS = 13889
YEAR OF SURFACE DATA	ISY = 86
UPPER AIR STATION NO.	IUS = 13861

*** Clay Drier S02 ***

*** SOURCE DATA ***

EMISSION RATE										TEMP.		EXIT VEL.			BLDG.		
TYPE=0,1										TYPE=0		TYPE=0			TYPE=0		
T	W	(GRAMS/SEC)								(DEG. K)	(M/SEC)	BLDG.	BLDG.	BLDG.			
Y	A	NUMBER	TYPE=2							VERT. DIM	HORZ. DIM	DIAMETER	HEIGHT	LENGTH	WIDTH		
SOURCE	P	K	PART.	(GRAMS/SEC)	X	Y	BASE	HEIGHT	TYPE=1	TYPE=1,2	TYPE=0	TYPE=0	TYPE=0	TYPE=0			
NUMBER	E	E	CATS.	*PER METER**2	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)			
10	0	0	0	.45000E+01	.0	.0	.0	10.06	389.00	15.85	.70	.00	.00	.00			
20	0	0	0	.42700E+01	.0	.0	.0	12.19	428.00	15.54	.43	.00	.00	.00			
30	0	0	0	.61400E+01	.0	.0	.0	12.19	405.00	28.65	.46	.00	.00	.00			
40	0	0	0	.45100E+01	.0	.0	.0	10.06	389.00	15.85	.70	.00	.00	.00			
* CALM HOURS (=1) FOR DAY 1 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 2 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 3 * 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 4 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 5 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 6 * 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 7 * 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 11 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 12 * 1 1 1 0 0 1 1 1 1 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 14 * 1 1 1 0 1 1 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 15 * 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 16 * 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 17 * 0 1 0 0 0 0 1 0 1 1 1 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 18 * 0 1 1 1 1 1 1 1 0 0 1 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 19 * 0 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 21 * 0 0 0 1 1 1 1 1 1 1 1 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 22 * 0 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 23 * 0 0 1 0 0 1 1 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 25 * 0 0 0 0 0 0 0 0 1 0 1 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 28 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 30 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 31 * 0 0 0 1 0 1 0 1 1 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 32 * 0 1 1 1 1 1 0 0 1 1 1 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 33 * 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 34 * 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 35 * 1 1 1 1 0 1 1 1 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 36 * 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 38 * 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 39 * 1 1 1 1 0 1 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 40 * 1 1 0 1 1 0 1 1 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 41 * 1 0 0 1 1 0 1 1 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 43 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 45 * 1 0 0 0 0 0 1 0 1 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 46 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 47 * 1 1 1 1 1 0 1 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 48 * 1 0 1 1 1 1 1 1 1 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 49 * 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 51 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 52 * 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 54 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 55 * 1 1 0 0 1 1 1 0 1 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 56 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 57 * 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 59 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 60 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 61 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	
* CALM HOURS (=1) FOR DAY 64 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	

62	* CALM HOURS (=1) FOR DAY 293	* 0 1 0	25
61	* CALM HOURS (=1) FOR DAY 294	* 0 1 0 1 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1	24
60	* CALM HOURS (=1) FOR DAY 295	* 1 0 1 1 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1	23
59	* CALM HOURS (=1) FOR DAY 296	* 1 1 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1	22
58	* CALM HOURS (=1) FOR DAY 297	* 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 1	21
57	* CALM HOURS (=1) FOR DAY 299	* 0 1 0 1 1	20
56	* CALM HOURS (=1) FOR DAY 300	* 0 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 1	19
55	* CALM HOURS (=1) FOR DAY 301	* 0 1 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 0	18
54	* CALM HOURS (=1) FOR DAY 302	* 1 0 1 0 1 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	17
53	* CALM HOURS (=1) FOR DAY 305	* 0	16
52	* CALM HOURS (=1) FOR DAY 306	* 0 1 0 0	15
51	* CALM HOURS (=1) FOR DAY 307	* 0 0 1 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 1 1	14
50	* CALM HOURS (=1) FOR DAY 308	* 1 1 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 1 1	13
49	* CALM HOURS (=1) FOR DAY 309	* 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 1 1	12
48	* CALM HOURS (=1) FOR DAY 310	* 1 1 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1	11
47	* CALM HOURS (=1) FOR DAY 311	* 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 1 1	10
46	* CALM HOURS (=1) FOR DAY 312	* 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1	9
45	* CALM HOURS (=1) FOR DAY 313	* 1 0 1 1 1 1 1 1 1 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 1 1 1 1	8
44	* CALM HOURS (=1) FOR DAY 314	* 1 1 1 1 1 1 1 1 1 0	7
43	* CALM HOURS (=1) FOR DAY 315	* 1 0 0 1 1 1 1 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0	6
42	* CALM HOURS (=1) FOR DAY 316	* 0 1 0 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 1	5
41	* CALM HOURS (=1) FOR DAY 317	* 1 1 1 1 1 0	4
40	* CALM HOURS (=1) FOR DAY 319	* 0 1 1 1 1 1	3
39	* CALM HOURS (=1) FOR DAY 320	* 1 0 1 0 1 1 1 1 1 1 0 1 1 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1	2
38	* CALM HOURS (=1) FOR DAY 321	* 0 1 1 0	1
37	* CALM HOURS (=1) FOR DAY 322	* 0 0 0 0 0 1 0	
36	* CALM HOURS (=1) FOR DAY 323	* 0 0 0 1 0	
35	* CALM HOURS (=1) FOR DAY 324	* 1 0 1 1 1 1 0	
34	* CALM HOURS (=1) FOR DAY 325	* 0 1 1 1 1 1	
33	* CALM HOURS (=1) FOR DAY 326	* 1 1 1 1 1 0 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1	
32	* CALM HOURS (=1) FOR DAY 327	* 1 1 1 0 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1	
31	* CALM HOURS (=1) FOR DAY 328	* 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
30	* CALM HOURS (=1) FOR DAY 329	* 1 1 1 1 1 1 1 1 1 0	
29	* CALM HOURS (=1) FOR DAY 331	* 0 0 0 1 0	
28	* CALM HOURS (=1) FOR DAY 332	* 1 1 0	
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23	* CALM HOURS (=1) FOR DAY 338	* 0 0 0 0 0 0 0 1 0	
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20	* CALM HOURS (=1) FOR DAY 343	* 1 1 1 0 0 1 1 0	
19	* CALM HOURS (=1) FOR DAY 344	* 0 0 0 0 0 0 0 1 1 0	
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16	* CALM HOURS (=1) FOR DAY 351	* 1 1 1 1 1 1 1 1 0 0 0 0 1 1 0 1 0 0 0 0 0 0 0 0 0 1 1 1 1	
15	* CALM HOURS (=1) FOR DAY 352	* 1 1 1 1 1 1 0	
14	* CALM HOURS (=1) FOR DAY 353	* 0	
13	* CALM HOURS (=1) FOR DAY 354	* 0 1 1 1 0	
12	* CALM HOURS (=1) FOR DAY 355	* 1 0 1 1 1 1 1 0	
11	* CALM HOURS (=1) FOR DAY 359	* 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1	
10	* CALM HOURS (=1) FOR DAY 360	* 0 0 0 0 0 1 1 0	
9	* CALM HOURS (=1) FOR DAY 362	* 0 1 0 0	
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'N'-DAY
365 DAYS
SGROUP# 1

*** Clay Drier S02 ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 28.48555 AND OCCURRED AT (300.0, 300.0) *

DIRECTION / (DEGREES) /	RANGE (METERS)				
	150.0	200.0	300.0	400.0	500.0
360.0 /	7.99383	11.80029	15.27049	15.15524	13.97824
350.0 /	8.71126	12.79669	16.09740	15.51934	13.97491
340.0 /	8.25231	11.88855	14.38650	13.47647	11.87319
330.0 /	8.54586	12.59651	15.39660	14.42406	12.72857
320.0 /	11.22983	16.78197	20.55884	19.20914	16.91436
310.0 /	15.01023	21.98937	25.96103	23.48322	20.03753
300.0 /	17.12926	24.50957	28.48555	25.76622	22.01974
290.0 /	14.12785	19.00631	20.30624	17.57489	14.58884
280.0 /	10.29756	13.77437	14.71641	12.69598	10.48563
270.0 /	10.49988	14.74747	16.82303	15.10209	12.85105
260.0 /	11.86260	17.34838	20.72083	19.00485	16.41572
250.0 /	11.11534	16.27970	19.68355	18.19502	15.78110
240.0 /	10.75408	16.81961	21.93884	20.90590	18.41398
230.0 /	10.80579	17.99221	24.69736	23.96873	21.32217
220.0 /	9.03555	15.89520	23.22709	23.27346	21.11731
210.0 /	6.70098	12.00680	18.12296	18.55625	17.09018
200.0 /	5.98864	10.34151	15.41409	15.86797	14.71334
190.0 /	6.95017	11.81601	17.88634	18.89371	17.92128
180.0 /	7.63788	13.01404	19.85312	21.15131	20.19390
170.0 /	6.33064	10.52245	15.96713	17.22752	16.70086
160.0 /	5.72559	8.83070	12.40274	12.92314	12.30740
150.0 /	7.88896	11.56916	14.92752	14.73831	13.52997
140.0 /	11.44751	16.31753	19.96908	19.08836	17.15629
130.0 /	13.58604	18.51137	20.91712	18.96428	16.41896
120.0 /	16.79610	22.72564	24.84529	21.81142	18.36998
110.0 /	18.60473	24.55008	26.16957	22.73702	18.96855
100.0 /	18.46767	24.08465	25.44364	22.13231	18.58342
90.0 /	17.66626	22.35837	22.98875	19.87323	16.69522
80.0 /	17.90791	23.23895	25.08590	22.43190	19.33953
70.0 /	18.28818	24.43591	26.60995	23.52561	20.04769
60.0 /	17.19802	23.81445	27.09240	24.60866	21.37971
50.0 /	15.37269	22.24600	27.00301	25.53534	22.79846
40.0 /	13.12404	18.98920	22.89807	21.48370	19.01809
30.0 /	9.96597	14.27467	17.30009	16.42220	14.68501
20.0 /	7.76572	11.19596	13.63134	12.89441	11.44510
10.0 /	7.56217	10.95049	13.61038	13.10529	11.80374

HIGH
24-HR
SGROUP# 1

*** Clay Drier SO2 ***
* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 337.79270 AND OCCURRED AT (300.0, 320.0) *

DIRECTION / (DEGREES) /	RANGE (METERS)				
	150.0	200.0	300.0	400.0	500.0
360.0 /	160.92680 (148, 1)	189.67480 (148, 1)	166.52720 (148, 1)	151.67690 (345, 1)	161.51340 (345, 1)
350.0 /	113.39770C(225, 1)	162.17890C(225, 1)	193.58210C(233, 1)	223.31910 (298, 1)	216.66630 (298, 1)
340.0 /	119.97030C(225, 1)	196.88900C(225, 1)	274.05910C(225, 1)	274.22680C(225, 1)	248.51360C(225, 1)
330.0 /	120.28690C(137, 1)	158.35110C(77, 1)	233.57040C(77, 1)	219.00070C(77, 1)	187.66420C(77, 1)
320.0 /	145.62750C(328, 1)	235.17660C(77, 1)	337.79270C(77, 1)	310.44730C(77, 1)	261.21050C(77, 1)
310.0 /	161.37660C(188, 1)	225.13120C(188, 1)	277.01820C(68, 1)	248.78720C(68, 1)	207.53610C(68, 1)
300.0 /	237.77490C(188, 1)	288.28700C(188, 1)	258.51830C(188, 1)	197.89630C(188, 1)	156.92760C(247, 1)
290.0 /	230.61790C(95, 1)	304.20390C(95, 1)	301.38050C(95, 1)	248.00650C(95, 1)	198.48560C(95, 1)

280.0 /	178.67480C(174, 1)	201.60100C(174, 1)	193.45320C(134, 1)	169.85460C(134, 1)	139.34970C(134, 1)
270.0 /	141.58210C(104, 1)	170.56330C(185, 1)	290.83690C(261, 1)	308.05880C(261, 1)	283.24550C(261, 1)
260.0 /	219.05220C(237, 1)	282.93220C(237, 1)	281.41470C(237, 1)	229.76300C(237, 1)	182.28240C(237, 1)
250.0 /	210.18380C(185, 1)	246.79250C(185, 1)	220.90750C(185, 1)	212.45810C(130, 1)	195.79940C(130, 1)
240.0 /	143.95650C(185, 1)	201.00180C(130, 1)	272.05750C(124, 1)	282.82730C(124, 1)	262.07740C(124, 1)
230.0 /	141.06010C(87, 1)	194.96870C(87, 1)	260.82780C(129, 1)	251.37820C(129, 1)	225.68750C(154, 1)
220.0 /	131.53220C(271, 1)	177.93380 (8, 1)	269.34030 (8, 1)	257.45500 (8, 1)	244.01270 (10, 1)
210.0 /	92.80393C(271, 1)	183.78550 (8, 1)	282.42940 (8, 1)	271.82610 (8, 1)	237.30080 (8, 1)
200.0 /	91.40397C(90, 1)	119.12840C(284, 1)	223.47400C(284, 1)	233.45910C(284, 1)	211.54420C(284, 1)
190.0 /	109.29030C(279, 1)	126.29720C(279, 1)	231.01100C(285, 1)	267.81590C(285, 1)	258.84760C(285, 1)
180.0 /	107.19090C(289, 1)	148.72560C(289, 1)	243.61970C(11, 1)	263.62430C(317, 1)	254.02040C(317, 1)
170.0 /	124.26130C(151, 1)	126.42880C(151, 1)	156.02990 (318, 1)	172.81510 (318, 1)	162.72420 (318, 1)
160.0 /	101.53990C(151, 1)	108.33890C(64, 1)	180.53600C(56, 1)	194.46900C(306, 1)	210.63360C(306, 1)
150.0 /	99.91328C(270, 1)	120.93700C(319, 1)	207.38910C(319, 1)	222.57860C(319, 1)	207.66370C(319, 1)
140.0 /	176.64110C(119, 1)	218.41460C(119, 1)	236.28210C(60, 1)	240.78080C(60, 1)	218.04010C(60, 1)
130.0 /	237.96960C(236, 1)	254.37460C(236, 1)	211.19080 (112, 1)	197.04690 (112, 1)	170.05140C(5, 1)
120.0 /	238.98500C(236, 1)	264.82410C(236, 1)	235.64460C(236, 1)	200.02010 (42, 1)	174.26960 (42, 1)
110.0 /	214.87500C(199, 1)	257.03340C(199, 1)	226.80740C(115, 1)	176.87360C(115, 1)	134.07220C(115, 1)
100.0 /	189.44220C(199, 1)	214.36650C(199, 1)	185.37280 (200, 1)	150.09590C(14, 1)	143.38040C(14, 1)
90.0 /	185.19130 (158, 1)	208.64910 (158, 1)	193.87810 (183, 1)	185.56040 (183, 1)	161.54520 (183, 1)
80.0 /	220.10220 (159, 1)	233.88130 (159, 1)	180.36190 (159, 1)	148.57050C(19, 1)	138.19030C(19, 1)
70.0 /	184.42720C(198, 1)	218.98550 (211, 1)	228.84130 (211, 1)	196.53210 (58, 1)	172.86700 (202, 1)
60.0 /	211.04760C(121, 1)	255.41290 (211, 1)	286.31380 (211, 1)	251.00960 (211, 1)	217.55260C(57, 1)
50.0 /	210.33300C(121, 1)	223.19980C(121, 1)	203.00150C(210, 1)	210.17860C(210, 1)	196.38920C(210, 1)
40.0 /	149.49400C(195, 1)	194.85700C(210, 1)	242.18600C(210, 1)	224.34310C(210, 1)	195.24780C(210, 1)
30.0 /	152.83420C(287, 1)	192.54910C(287, 1)	171.62890 (37, 1)	184.39800 (37, 1)	170.65390 (37, 1)
20.0 /	115.76560C(287, 1)	145.94980C(287, 1)	134.61290C(180, 1)	126.81720C(169, 1)	119.93950C(169, 1)
10.0 /	124.45800C(287, 1)	172.25740C(287, 1)	176.40710C(287, 1)	149.83050 (37, 1)	137.03250 (37, 1)

2ND HIGH
24-HR
SGROUP# 1

*** Clay Drier SO2 ***

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

* MAXIMUM VALUE EQUALS 262.68330 AND OCCURRED AT (400.0, 180.0) *

DIRECTION / (DEGREES) /	RANGE (METERS)				
	150.0	200.0	300.0	400.0	500.0
360.0 /	99.88603C(175, 1)	109.65750C(287, 1)	140.48370 (78, 1)	145.27580C(231, 1)	136.16700C(231, 1)
350.0 /	102.12700 (148, 1)	131.71200C(71, 1)	191.87210 (298, 1)	195.24890C(233, 1)	181.95410C(343, 1)
340.0 /	107.90670C(239, 1)	124.88290C(269, 1)	150.22730C(343, 1)	166.56390C(343, 1)	165.54990C(343, 1)
330.0 /	112.18900C(178, 1)	138.95660C(178, 1)	157.57240C(138, 1)	158.39050C(71, 1)	144.03390C(71, 1)
320.0 /	138.76730C(137, 1)	206.64400C(328, 1)	216.15140C(328, 1)	206.76610C(125, 1)	187.07620C(125, 1)
310.0 /	158.31660C(120, 1)	210.21610C(68, 1)	242.64930C(188, 1)	211.42990C(147, 1)	180.05160C(147, 1)
300.0 /	213.14490C(120, 1)	262.30850C(95, 1)	236.04570C(95, 1)	190.51850C(247, 1)	149.95610C(71, 1)
290.0 /	176.52130C(135, 1)	219.19530C(135, 1)	210.00390C(135, 1)	170.52540C(135, 1)	142.07880C(136, 1)
280.0 /	106.53720C(104, 1)	161.00030C(134, 1)	178.42260C(174, 1)	139.95520C(174, 1)	128.33150C(173, 1)
270.0 /	134.66800C(174, 1)	170.41290C(104, 1)	173.71330C(185, 1)	145.98340C(185, 1)	117.21350C(185, 1)
260.0 /	204.22210C(185, 1)	255.55630C(185, 1)	255.64810C(185, 1)	213.54560C(185, 1)	171.95180C(185, 1)
250.0 /	136.85440C(296, 1)	192.60310C(296, 1)	216.18850C(296, 1)	193.58250C(296, 1)	166.73800C(243, 1)
240.0 /	141.46140C(130, 1)	174.08170C(124, 1)	234.90260C(130, 1)	211.32980C(130, 1)	186.94350 (333, 1)
230.0 /	115.37960C(123, 1)	178.91980C(123, 1)	237.22840C(67, 1)	245.66310C(154, 1)	223.75800C(307, 1)
220.0 /	113.87910C(87, 1)	162.55820C(123, 1)	228.66590 (10, 1)	254.14180 (10, 1)	223.12450 (8, 1)
210.0 /	81.14600 (8, 1)	106.85720 (10, 1)	184.41240 (10, 1)	188.65120 (10, 1)	170.09410 (10, 1)
200.0 /	79.83105C(279, 1)	96.11474C(82, 1)	173.05660 (303, 1)	201.79660C(335, 1)	210.08370C(335, 1)
190.0 /	104.72810C(86, 1)	107.50090C(82, 1)	212.50740C(284, 1)	232.44150C(284, 1)	216.81950C(284, 1)
180.0 /	104.64310C(113, 1)	131.80070C(113, 1)	234.39670C(317, 1)	262.68330C(11, 1)	243.33310C(11, 1)
170.0 /	85.24268C(113, 1)	116.87710C(113, 1)	116.86470 (363, 1)	149.52330 (363, 1)	160.51940C(354, 1)
160.0 /	93.56069C(270, 1)	104.95390C(151, 1)	141.32000C(306, 1)	190.87450C(56, 1)	176.91440C(56, 1)
150.0 /	90.07773C(115, 1)	120.26580C(325, 1)	152.33140C(60, 1)	179.25540C(306, 1)	188.86320C(306, 1)

62	140.0 /	145.46030C(144, 1)	152.90650 (99, 1)	205.75360C(119, 1)	193.02150C(319, 1)	179.60280C(319, 1)
61	130.0 /	210.17000C(119, 1)	242.16670C(119, 1)	205.60980C(236, 1)	193.92550C(5, 1)	168.41340 (112, 1)
60	120.0 /	188.98250C(142, 1)	232.24950C(142, 1)	220.43490C(142, 1)	189.08870C(236, 1)	160.06490 (112, 1)
59	110.0 /	191.14470C(115, 1)	241.28910C(115, 1)	220.48940C(199, 1)	162.90640C(199, 1)	122.58080C(359, 1)
58	100.0 /	178.62090 (200, 1)	211.87850 (200, 1)	182.99470C(192, 1)	140.00680 (200, 1)	122.28390C(204, 1)
57	90.0 /	152.99100C(194, 1)	161.29890 (190, 1)	174.19250 (158, 1)	128.30690 (158, 1)	100.76110 (191, 1)
56	80.0 /	154.97730C(194, 1)	184.54190C(194, 1)	168.11650C(194, 1)	137.08240C(352, 1)	133.26270C(352, 1)
55	70.0 /	181.13050 (159, 1)	195.64780C(121, 1)	213.36870 (58, 1)	196.18410 (202, 1)	166.59120 (58, 1)
54	60.0 /	176.59040 (211, 1)	234.95600C(121, 1)	248.04700C(57, 1)	242.77870C(57, 1)	208.71180 (211, 1)
53	50.0 /	146.09690 (201, 1)	174.11080C(105, 1)	182.81880C(121, 1)	161.96750 (358, 1)	161.07870C(3, 1)
52	40.0 /	143.16710C(215, 1)	180.58530C(195, 1)	210.72240C(105, 1)	185.55940C(105, 1)	180.66960C(321, 1)
51	30.0 /	126.42780C(179, 1)	151.87190C(179, 1)	171.00750C(287, 1)	128.22920C(287, 1)	116.60940C(216, 1)
50	20.0 /	98.57171C(197, 1)	118.34500C(34, 1)	131.29590 (37, 1)	125.30950 (37, 1)	107.68540 (37, 1)
49	10.0 /	119.17490 (148, 1)	139.78560C(180, 1)	155.46100C(180, 1)	146.67900C(287, 1)	118.62200C(180, 1)

PROCESS ENDING TIME: 13: 8: 4
DATE: 6/ 7/1990

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SUBCHAPTER C—AIR PROGRAMS

PART 50—NATIONAL PRIMARY AND SECONDARY AMBIENT AIR QUALITY STANDARDS

Sec.

50.1 Definitions.

50.2 Scope.

50.3 Reference conditions.

50.4 National primary ambient air quality standards for sulfur oxides (sulfur dioxide).

50.5 National secondary ambient air quality standards for sulfur oxides (sulfur dioxide).

50.6 National primary and secondary ambient air quality standards for particulate matter.

50.7 [Reserved]

50.8 National primary ambient air quality standards for carbon monoxide.

50.9 National primary and secondary ambient air quality standards for ozone.

50.10 [Reserved]

50.11 National primary and secondary ambient air quality standard for nitrogen dioxide.

50.12 National primary and secondary ambient air quality standards for lead.

APPENDIX A—REFERENCE METHOD FOR THE DETERMINATION OF SULFUR DIOXIDE IN THE ATMOSPHERE (PARAROSANILINE METHOD)

APPENDIX B—REFERENCE METHOD FOR THE DETERMINATION OF SUSPENDED PARTICULATE MATTER IN THE ATMOSPHERE (HIGH-VOLUME METHOD)

APPENDIX C—MEASUREMENT PRINCIPLE AND CALIBRATION PROCEDURE FOR THE MEASUREMENT OF CARBON MONOXIDE IN THE ATMOSPHERE (NON-DISPERSIVE INFRARED PHOTOMETRY)

APPENDIX D—MEASUREMENT PRINCIPLE AND CALIBRATION PROCEDURE FOR THE MEASUREMENT OF OZONE IN THE ATMOSPHERE

APPENDIX E—REFERENCE METHOD FOR DETERMINATION OF HYDROCARBONS CORRECTED FOR METHANE

APPENDIX F—MEASUREMENT PRINCIPLE AND CALIBRATION PROCEDURE FOR THE MEASUREMENT OF NITROGEN DIOXIDE IN THE ATMOSPHERE (GAS PHASE CHEMILUMINESCENCE)

APPENDIX G—REFERENCE METHOD FOR THE DETERMINATION OF LEAD IN SUSPENDED PARTICULATE MATTER COLLECTED FROM AMBIENT AIR

APPENDIX H—INTERPRETATION OF THE NATIONAL AMBIENT AIR QUALITY STANDARDS FOR OZONE

APPENDIX I—[RESERVED]

Sec.

APPENDIX J—REFERENCE METHOD FOR THE DETERMINATION OF PARTICULATE MATTER AS PM_{10} IN THE ATMOSPHERE

APPENDIX K—INTERPRETATION OF THE NATIONAL AMBIENT AIR QUALITY STANDARDS FOR PARTICULATE MATTER

AUTHORITY: Secs. 109 and 301(a), Clean Air Act, as amended (42 U.S.C. 7409, 7601(a)).

SOURCE: 36 FR 22384, Nov. 25, 1971, unless otherwise noted.

§ 50.1 Definitions.

(a) As used in this part, all terms not defined herein shall have the meaning given them by the Act.

(b) "Act" means the Clean Air Act, as amended (42 U.S.C. 1857-1857I, as amended by Pub. L. 91-604).

(c) "Agency" means the Environmental Protection Agency.

(d) "Administrator" means the Administrator of the Environmental Protection Agency.

(e) "Ambient air" means that portion of the atmosphere, external to buildings, to which the general public has access.

(f) "Reference method" means a method of sampling and analyzing the ambient air for an air pollutant that is specified as a reference method in an appendix to this part, or a method that has been designated as a reference method in accordance with Part 53 of this chapter; it does not include a method for which a reference method designation has been cancelled in accordance with § 53.11 or § 53.16 of this chapter.

(g) "Equivalent method" means a method of sampling and analyzing the ambient air for an air pollutant that has been designated as an equivalent method in accordance with Part 53 of this chapter; it does not include a method for which an equivalent method designation has been cancelled in accordance with § 53.11 or § 53.16 of this chapter.

(h) "Traceable" means that a local standard has been compared and certified either directly or via not more than one intermediate standard, to a primary standard such as a National

Environmental Protection Agency

Bureau of Standards Standard Reference Material (NBS SRM), or a USEPA/NBS-approved Certified Reference Material (CRM).

[36 FR 22384, Nov. 25, 1971, as amended at 41 FR 11253, Mar. 17, 1976; 48 FR 2529, Jan. 20, 1983]

§ 50.2 Scope.

(a) National primary and secondary ambient air quality standards under section 109 of the Act are set forth in this part.

(b) National primary ambient air quality standards define levels of air quality which the Administrator judges are necessary, with an adequate margin of safety, to protect the public health. National secondary ambient air quality standards define levels of air quality which the Administrator judges necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Such standards are subject to revision, and additional primary and secondary standards may be promulgated as the Administrator deems necessary to protect the public health and welfare.

(c) The promulgation of national primary and secondary ambient air quality standards shall not be considered in any manner to allow significant deterioration of existing air quality in any portion of any State.

(d) The proposal, promulgation, or revision of national primary and secondary ambient air quality standards shall not prohibit any State from establishing ambient air quality standards for that State or any portion thereof which are more stringent than the national standards.

§ 50.3 Reference conditions.

All measurements of air quality are corrected to a reference temperature of 25° C. and to a reference pressure of 760 millimeters of mercury (1,013.2 millibars).

§ 50.4 National primary ambient air quality standards for sulfur oxides (sulfur dioxide).

The national primary ambient air quality standards for sulfur oxides measured as sulfur dioxide by the reference method described in Appendix

A to this part, or by an equivalent method, are:

(a) 80 micrograms per cubic meter (0.03 p.p.m.)—annual arithmetic mean.

(b) 365 micrograms per cubic meter (0.14 p.p.m.)—Maximum 24-hour concentration not to be exceeded more than once per year.

§ 50.5 National secondary ambient air quality standards for sulfur oxides (sulfur dioxide).

The national secondary ambient air quality standard for sulfur oxide measured as sulfur dioxide by the reference method described in Appendix A to this part, or by any equivalent method is 1,300 micrograms per cubic meter (0.5 p.p.m.) maximum 3-hour concentration not to be exceeded more than once per year.

[38 FR 25681, Sept. 14, 1973]

§ 50.6 National primary and secondary ambient air quality standards for particulate matter.

(a) The level of the national primary and secondary 24-hour ambient air quality standards for particulate matter is 150 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), 24-hour average concentration. The standards are attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu\text{g}/\text{m}^3$, as determined in accordance with Appendix K to this part, is equal to or less than one.(b) The level of the national primary and secondary annual standards for particulate matter is 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), annual arithmetic mean. The standards are attained when the expected annual arithmetic mean concentration, as determined in accordance with Appendix K to this part, is less than or equal to 50 $\mu\text{g}/\text{m}^3$.(c) For the purpose of determining attainment of the primary and secondary standards, particulate matter shall be measured in the ambient air as PM_{10} (particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers) by:

(1) A reference method based on Appendix J and designated in accordance with Part 53 of this chapter, or

State road running through

Write a letter to Region - see

Questions and Answers

Write a letter

3 week turnaround - RTP

Give a description of the terrain, Is the
area being patrolled regularly. Try to be specific
Try to make

↓
Are there any physical
barriers between

In order to further clarify whether or
not the road is ambient air, please
answer the following specific questions

Mail a copy of whatever info I have to
Pradeep Raval

Fax copy each of

Addendum to PSD application

PM₁₀ 4.6 ~ 6.2

Vandenberg

road to Dupont must be clearly marked and patrolled

ATTACHMENT 4

CALCULATE (CONCENTRATION=1,DEPOSITION=2)	ISW(1) = 1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)	ISW(2) = 4
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)	ISW(3) = 1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)	ISW(4) = 0
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)	ISW(5) = 0
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)	ISW(6) = 1

COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)

WITH THE FOLLOWING TIME PERIODS:

HOURLY (YES=1,NO=0)	ISW(7) = 0
2-HOUR (YES=1,NO=0)	ISW(8) = 0
3-HOUR (YES=1,NO=0)	ISW(9) = 0
4-HOUR (YES=1,NO=0)	ISW(10) = 0
6-HOUR (YES=1,NO=0)	ISW(11) = 0
8-HOUR (YES=1,NO=0)	ISW(12) = 0
12-HOUR (YES=1,NO=0)	ISW(13) = 0
24-HOUR (YES=1,NO=0)	ISW(14) = 1
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)	ISW(15) = 1

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) = 1
MAXIMUM 50 TABLES (YES=1,NO=0)	ISW(18) = 1
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)	ISW(19) = 1
RURAL-URBAN OPTION (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3)	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) = 2
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)	ISW(26) = 1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)	ISW(27) = 1
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)	ISW(28) = 1
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)	ISW(29) = 2
DEBUG OPTION CHOSEN (YES=1,NO=2)	ISW(30) = 2
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)	ISW(31) = 0

NUMBER OF INPUT SOURCES	NSOURC = 4
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 = 2
NUMBER OF Y (THETA) GRID VALUES	NYPNTS = 36
NUMBER OF DISCRETE RECEPTORS	NXWYPT = 0
SOURCE EMISSION RATE UNITS CONVERSION FACTOR	TK = .10000E+07
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED	ZR = 10.00 METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA	INET = 9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION	DECAY = 0.000000E+00
SURFACE STATION NO.	ISS = 13889
YEAR OF SURFACE DATA	ISY = 86
UPPER AIR STATION NO.	IUS = 13861
YEAR OF UPPER AIR DATA	IUY = 86
ALLOCATED DATA STORAGE	LIMIT = 43500 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MIMIT = 1963 WORDS

*** DUPONT PM MODELING MET = JAX86

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

1500.0, 1750.0,

*** 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,				

*** SOURCE DATA ***

SOURCE NUMBER	PK E	PART. CATS.	EMISSION RATE		X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP.	EXIT VEL.	BLDG. HEIGHT (METERS)	BLDG. LENGTH (METERS)	BLDG. WIDTH (METERS)	
			TYPE=0,1 (GRAMS/SEC)	TYPE=2 (GRAMS/SEC)					TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	TYPE=0 (M/SEC); HRZ.DIM TYPE=1,2 (METERS)				
1	0	0	0	0.39500E+01	0.0	0.0	0.0	10.06	366.00	18.10	0.61	0.00	0.00	0.00
2	0	0	0	0.39500E+01	0.0	0.0	0.0	10.06	366.00	19.90	0.61	0.00	0.00	0.00
3	0	0	0	0.27100E+01	0.0	0.0	0.0	12.19	405.00	59.60	0.46	0.00	0.00	0.00
4	0	0	0	0.11500E+01	0.0	0.0	0.0	12.19	466.00	31.40	0.39	0.00	0.00	0.00
* CALM HOURS (=1) FOR DAY 1 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 2 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 3 * 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 4 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 5 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 6 * 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 7 * 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 11 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 12 * 1 1 1 0 0 1 1 1 1 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 14 * 1 1 1 0 1 1 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 15 * 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 16 * 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 17 * 0 1 0 0 0 1 0 1 1 1 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 18 * 0 1 1 1 1 1 1 1 0 0 1 0 1 0 0														
* CALM HOURS (=1) FOR DAY 19 * 0 1 0 1 1 1 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 21 * 0 0 0 1 1 1 1 1 1 1 0 0 0 1 1														
* CALM HOURS (=1) FOR DAY 22 * 0 1 1 1 1 1 1 1 1 0 0 0 0 1 1														
* CALM HOURS (=1) FOR DAY 23 * 0 0 1 0 0 1 1 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 25 * 0 0 0 0 0 0 0 0 1 0 1 0 0 0 0														
* CALM HOURS (=1) FOR DAY 28 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 30 * 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1														
* CALM HOURS (=1) FOR DAY 31 * 0 0 0 1 0 1 0 1 1 0 0 0 0 0 1														
* CALM HOURS (=1) FOR DAY 32 * 0 1 1 1 1 1 0 0 1 1 1 0 0 0 1														
* CALM HOURS (=1) FOR DAY 33 * 1 1 1 1 1 1 1 1 1 1 0 0 0 0 1														
* CALM HOURS (=1) FOR DAY 34 * 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 35 * 1 1 1 1 0 1 1 1 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 36 * 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 38 * 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 39 * 1 1 1 1 0 1 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 40 * 1 1 0 1 1 0 1 1 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 41 * 1 0 0 1 1 0 1 1 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 43 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 45 * 1 0 0 0 0 1 0 1 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 46 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 47 * 1 1 1 1 1 0 1 0 0 0 1 0 0 0 0														
* CALM HOURS (=1) FOR DAY 48 * 1 0 1 1 1 1 1 1 1 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 49 * 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 51 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 52 * 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 54 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 55 * 1 1 0 0 1 1 1 0 1 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 56 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0														
* CALM HOURS (=1) FOR DAY 57 * 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0														

*** DUPONT PM MODELING MET = JAX36 ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 5.59268 AND OCCURRED AT (1500.0, 50.0) *

DIRECTION / RANGE (METERS)
(DEGREES) / 1500.0 1750.0

360.0 /	3.66894	3.21295
350.0 /	3.51221	3.09008
340.0 /	2.88639	2.55113
330.0 /	3.29021	2.92783
320.0 /	3.98569	3.47642
310.0 /	3.86732	3.30059
300.0 /	3.88373	3.22405
290.0 /	2.18554	1.76207
280.0 /	1.54124	1.24155
270.0 /	2.15710	1.76973
260.0 /	3.12045	2.62415
250.0 /	3.01704	2.54565
240.0 /	3.59525	3.03998
230.0 /	4.10562	3.43121
220.0 /	4.05276	3.35764
210.0 /	3.48102	2.91083
200.0 /	3.09213	2.59443
190.0 /	4.18832	3.56164
180.0 /	4.80499	4.07734
170.0 /	4.33987	3.72785
160.0 /	3.20100	2.76069
150.0 /	3.40314	2.96167
140.0 /	4.14015	3.60973
130.0 /	3.76779	3.32458
120.0 /	3.53250	3.01319
110.0 /	3.34986	2.83756
100.0 /	3.87034	3.39660
90.0 /	3.75722	3.34505
80.0 /	4.72139	4.21418
70.0 /	4.65492	4.11143
60.0 /	4.96492	4.31343
50.0 /	5.59268	4.88127
40.0 /	4.53450	3.95621
30.0 /	3.64452	3.20807
20.0 /	2.58886	2.24078
10.0 /	3.02798	2.68006

OK

*** DUPONT PM MODELING MET = JAX86 ***

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

* MAXIMUM VALUE EQUALS 68.76443 AND OCCURRED AT (1500.0, 180.0) *

DIRECTION / RANGE (METERS)
(DEGREES) / 1500.0 1750.0

DIRECTION / (DEGREES) /	1500.0	1750.0
360.0 /	40.23042 (345, 1)	35.83742C(36, 1)
350.0 /	40.69951 (298, 1)	33.00613 (345, 1)
340.0 /	56.02885C(343, 1)	50.04677C(343, 1)
330.0 /	32.99065C(222, 1)	29.43745C(222, 1)
320.0 /	41.02249C(224, 1)	36.22469C(68, 1)
310.0 /	40.13168C(223, 1)	36.09741C(223, 1)
300.0 /	29.89713C(95, 1)	27.58215C(95, 1)
290.0 /	28.60838C(136, 1)	25.16663C(136, 1)
280.0 /	36.58499C(173, 1)	33.04123C(173, 1)
270.0 /	48.48451C(261, 1)	39.05891C(261, 1)
260.0 /	39.90746C(172, 1)	35.90736C(172, 1)
250.0 /	43.52493C(130, 1)	36.97301C(130, 1)
240.0 /	47.93872C(124, 1)	38.86908C(124, 1)
230.0 /	52.64113C(156, 1)	46.86049C(156, 1)
220.0 /	48.40247 (10, 1)	39.42894 (10, 1)
210.0 /	41.91528 (8, 1)	34.56505 (8, 1)
200.0 /	50.08975C(335, 1)	41.19193C(335, 1)
190.0 /	48.04018C(285, 1)	38.74536C(285, 1)
180.0 /	68.76443C(349, 1)	59.93878C(349, 1)
170.0 /	58.22218C(349, 1)	49.99551C(349, 1)
160.0 /	52.08197C(306, 1)	42.91359C(306, 1)
150.0 /	43.08913C(306, 1)	36.36058C(288, 1)
140.0 /	46.16440C(59, 1)	40.86105C(59, 1)
130.0 /	33.60774C(306, 1)	33.27950C(300, 1)
120.0 /	33.50133 (364, 1)	29.94032 (364, 1)
110.0 /	29.95413C(141, 1)	26.05020C(141, 1)
100.0 /	47.20523C(14, 1)	43.25407C(14, 1)
90.0 /	29.92372C(142, 1)	32.59401C(142, 1)
80.0 /	40.51823C(117, 1)	44.31352C(117, 1)
70.0 /	34.63783C(184, 1)	34.89517C(184, 1)
60.0 /	52.88963C(57, 1)	46.03015C(57, 1)
50.0 /	46.55684 (50, 1)	41.96024 (50, 1)
40.0 /	53.52921C(210, 1)	48.81110C(210, 1)
30.0 /	32.00400C(213, 1)	30.51698C(213, 1)
20.0 /	29.78450C(164, 1)	25.27382C(164, 1)
10.0 /	28.72337C(180, 1)	25.14821C(180, 1)

Up
Up

*** DUPONT PM MODELING MET = JAX86 ***

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

* MAXIMUM VALUE EQUALS 63.53609 AND OCCURRED AT (1500.0, 180.0) *

DIRECTION / (DEGREES) /	RANGE (METERS)	
	1500.0	1750.0
360.0 /	36.12059C(36, 1)	33.23415 (345, 1)
350.0 /	39.75275C(343, 1)	32.82317 (298, 1)
340.0 /	44.81923 (298, 1)	39.73315 (298, 1)
330.0 /	32.97690C(71, 1)	27.81389C(71, 1)
320.0 /	40.70828C(68, 1)	35.02298 (69, 1)
310.0 /	38.36737C(224, 1)	33.44217C(224, 1)
300.0 /	28.97946C(312, 1)	25.78638C(312, 1)
290.0 /	26.42636C(135, 1)	22.81566C(135, 1)
280.0 /	19.42221C(174, 1)	16.75072C(174, 1)
270.0 /	25.09386C(94, 1)	24.67334C(94, 1)
260.0 /	27.04059C(334, 1)	23.43996C(155, 1)
250.0 /	34.07253C(259, 1)	30.44812C(259, 1)
240.0 /	37.17290C(18, 1)	36.00983C(18, 1)
230.0 /	50.23869C(85, 1)	42.34952C(85, 1)
220.0 /	43.09676C(334, 1)	35.44162C(334, 1)
210.0 /	35.34682C(335, 1)	29.39342C(335, 1)
200.0 /	36.41705C(305, 1)	29.90753C(241, 1)
190.0 /	39.48424C(302, 1)	32.69704C(243, 1)
180.0 /	63.53609C(317, 1)	54.13202C(317, 1)
170.0 /	54.86774C(354, 1)	46.58186C(354, 1)
160.0 /	36.32797C(56, 1)	30.29291C(56, 1)
150.0 /	42.69312C(288, 1)	35.27649C(306, 1)
140.0 /	38.90794C(306, 1)	35.12823C(289, 1)
130.0 /	33.11868C(5, 1)	28.63560C(5, 1)
120.0 /	32.73808 (112, 1)	27.57698 (112, 1)
110.0 /	22.86668C(55, 1)	23.02608C(45, 1)
100.0 /	38.52200C(119, 1)	37.69133C(119, 1)
90.0 /	29.76959 (183, 1)	31.62196C(102, 1)
80.0 /	35.19350 (116, 1)	35.54970 (116, 1) <i>up</i>
70.0 /	33.75667 (202, 1)	28.28682 (53, 1)
60.0 /	42.70749C(52, 1)	37.82550C(52, 1)
50.0 /	42.69958C(210, 1)	37.50836C(321, 1)
40.0 /	43.27460C(321, 1)	35.77690C(321, 1)
30.0 /	29.40880 (37, 1)	24.28146C(208, 1)
20.0 /	25.69576C(169, 1)	21.37125C(180, 1)
10.0 /	25.00774C(35, 1)	24.05780C(255, 1)

*** DUPONT PH MODELING MET = JAX86 ***

* 50 MAXIMUM 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *

RANK	CON.	PER. DAY	X OR RANGE (METERS)	Y(METERS) OR DIRECTION (DEGREES)	RANK	CON.	PER. DAY	X OR RANGE (METERS)	Y(METERS) OR DIRECTION (DEGREES)
1	68.76443C	1 349	1500.0	180.0	26	46.55684	1 50	1500.0	50.0
2	63.53609C	1 317	1500.0	180.0	27	46.16440C	1 59	1500.0	140.0
3	59.93878C	1 349	1750.0	180.0	28	46.03015C	1 57	1750.0	60.0
4	58.22218C	1 349	1500.0	170.0	29	45.92827	1 348	1500.0	180.0
5	56.02885C	1 343	1500.0	340.0	30	44.81923	1 298	1500.0	340.0
6	54.86774C	1 354	1500.0	170.0	31	44.31352C	1 117	1750.0	80.0
7	54.13202C	1 317	1750.0	180.0	32	43.52493C	1 130	1500.0	250.0
8	53.52921C	1 210	1500.0	40.0	33	43.27460C	1 321	1500.0	40.0
9	52.88963C	1 57	1500.0	60.0	34	43.25407C	1 14	1750.0	100.0
10	52.64113C	1 156	1500.0	230.0	35	43.09676C	1 334	1500.0	220.0
11	52.08197C	1 306	1500.0	160.0	36	43.08913C	1 306	1500.0	150.0
12	50.23869C	1 85	1500.0	230.0	37	42.91359C	1 306	1750.0	160.0
13	50.08975C	1 335	1500.0	200.0	38	42.70749C	1 52	1500.0	60.0
14	50.04677C	1 343	1750.0	340.0	39	42.69958C	1 210	1500.0	50.0
15	49.99551C	1 349	1750.0	170.0	40	42.69312C	1 288	1500.0	150.0
16	48.81110C	1 210	1750.0	40.0	41	42.60092C	1 321	1500.0	50.0
17	48.48451C	1 261	1500.0	270.0	42	42.34952C	1 85	1750.0	230.0
18	48.40247	1 10	1500.0	220.0	43	42.01463C	1 11	1500.0	180.0
19	48.04018C	1 285	1500.0	190.0	44	42.00638C	1 225	1500.0	340.0
20	47.93872C	1 124	1500.0	240.0	45	41.96024	1 50	1750.0	50.0
21	47.82906C	1 285	1500.0	180.0	46	41.91528	1 8	1500.0	210.0
22	47.20523C	1 14	1500.0	100.0	47	41.81752C	1 253	1500.0	230.0
23	46.90009C	1 307	1500.0	230.0	48	41.19193C	1 335	1750.0	200.0
24	46.86049C	1 156	1750.0	230.0	49	41.02249C	1 224	1500.0	320.0
25	46.58186C	1 354	1750.0	170.0	50	40.88194C	1 284	1500.0	180.0

CALCULATE (CONCENTRATION=1,DEPOSITION=2)	ISW(1) = 1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)	ISW(2) = 4
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)	ISW(3) = 1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)	ISW(4) = 0
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)	ISW(5) = 0
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)	ISW(6) = 1

COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)

WITH THE FOLLOWING TIME PERIODS:

HOURLY (YES=1,NO=0)	ISW(7) = 0
2-HOUR (YES=1,NO=0)	ISW(8) = 0
3-HOUR (YES=1,NO=0)	ISW(9) = 0
4-HOUR (YES=1,NO=0)	ISW(10) = 0
6-HOUR (YES=1,NO=0)	ISW(11) = 0
8-HOUR (YES=1,NO=0)	ISW(12) = 0
12-HOUR (YES=1,NO=0)	ISW(13) = 0
24-HOUR (YES=1,NO=0)	ISW(14) = 1
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)	ISW(15) = 1

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) = 1
MAXIMUM 50 TABLES (YES=1,NO=0)	ISW(18) = 1
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)	ISW(19) = 1
RURAL-URBAN OPTION (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3)	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) = 2
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)	ISW(26) = 1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)	ISW(27) = 1
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)	ISW(28) = 1
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)	ISW(29) = 1
DEBUG OPTION CHOSEN (YES=1,NO=2)	ISW(30) = 2
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)	ISW(31) = 0

NUMBER OF INPUT SOURCES

NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)	NSOURC = 4
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)	NGROUP = 0
NUMBER OF X (RANGE) GRID VALUES	IPERD = 0
NUMBER OF Y (THETA) GRID VALUES	NXPNTS = 2 ✓
NUMBER OF DISCRETE RECEPTORS	NYPNTS = 36 ✓
SOURCE EMISSION RATE UNITS CONVERSION FACTOR	NXWYPT = 0
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED	TK = .10000E+07
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA	ZR = 10.00 METERS ✓
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION	IMET = 9
SURFACE STATION NO.	DECAY = 0.000000E+00
YEAR OF SURFACE DATA	ISS = 13889
UPPER AIR STATION NO.	ISY = 86
YEAR OF UPPER AIR DATA	IUS = 13861
ALLOCATED DATA STORAGE	IUY = 86
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	LIMIT = 43500 WORDS
	MIMIT = 1963 WORDS

*** DUPONT SO2 MODELING MET = JAX86

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

1500.0, 1750.0,

*** 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,				

*** DUPONT SO2 MODELING MET = JAX86 ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
 * FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 9.25543 AND OCCURRED AT (1500.0, 50.0) *

DIRECTION / (DEGREES) /	RANGE (METERS)	
	1500.0	1750.0
360.0 /	6.05211	5.32609
350.0 /	5.80340	5.12368
340.0 /	4.76869	4.22543
330.0 /	5.42037	4.83720
320.0 /	6.61845	5.79175
310.0 /	6.51664	5.57043
300.0 /	6.60490	5.50083
290.0 /	3.74378	3.03002
280.0 /	2.64118	2.13533
270.0 /	3.67281	3.02487
260.0 /	5.27205	4.44757
250.0 /	5.09353	4.30958
240.0 /	6.06223	5.13960
230.0 /	6.95818	5.83731
220.0 /	6.88127	5.72767
210.0 /	5.88782	4.94684
200.0 /	5.19448	4.38019
190.0 /	6.99005	5.97554
180.0 /	8.04197	6.86390
170.0 /	7.20009	6.22428
160.0 /	5.30435	4.60238
150.0 /	5.65263	4.94285
140.0 /	6.88391	6.02547
130.0 /	6.25759	5.53146
120.0 /	5.94331	5.08097
110.0 /	5.65468	4.79535
100.0 /	6.44351	5.66035
90.0 /	6.20527	5.53151
80.0 /	7.77637	6.95565
70.0 /	7.69822	6.81401
60.0 /	8.23621	7.18204
50.0 /	9.25543	8.10984
40.0 /	7.51229	6.57686
30.0 /	6.01665	5.31312
20.0 /	4.30343	3.73764
10.0 /	4.99175	4.43261

*** DUPONT SO2 MODELING MET = JAX86 ***

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

* MAXIMUM VALUE EQUALS 110.42366 AND OCCURRED AT (✓ 1500.0, 180.0) *

DIRECTION / (DEGREES) /	1500.0	1750.0	RANGE (METERS)
360.0 /	67.61853 (345, 1)	57.15074C(36, 1)	
350.0 /	69.87810 (298, 1)	56.75468 (298, 1)	
340.0 /	91.95245C(343, 1)	82.66386C(343, 1)	
330.0 /	56.18970C(77, 1)	49.09598C(222, 1)	
320.0 /	67.41658C(224, 1)	60.34984C(68, 1)	
310.0 /	66.03050C(223, 1)	59.63124C(223, 1)	
300.0 /	49.21283C(95, 1)	45.25018C(95, 1)	
290.0 /	47.77257C(136, 1)	41.98389C(136, 1)	
280.0 /	60.28859C(173, 1)	54.54955C(173, 1)	
270.0 /	84.01537C(261, 1)	68.06531C(261, 1)	
260.0 /	66.21468C(172, 1)	59.60590C(172, 1)	
250.0 /	73.45348C(130, 1)	62.64413C(130, 1)	
240.0 /	82.58339C(124, 1)	67.38116C(124, 1)	
230.0 /	87.29936C(156, 1)	77.83476C(156, 1)	
220.0 /	82.47185 (10, 1)	67.63979 (10, 1)	
210.0 /	72.48587 (8, 1)	59.97914 (8, 1)	
200.0 /	84.14214C(335, 1)	69.83769C(335, 1)	
190.0 /	82.50351C(285, 1)	67.00552C(285, 1)	
180.0 /	110.42366C(349, 1)	97.59233C(349, 1)	
170.0 /	93.72664C(349, 1)	81.56912C(349, 1)	
160.0 /	87.88095C(306, 1)	73.10522C(306, 1)	
150.0 /	73.12575C(306, 1)	61.26001C(288, 1)	
140.0 /	74.45219C(59, 1)	66.65546C(59, 1)	
130.0 /	56.42075C(5, 1)	52.30217C(300, 1)	
120.0 /	55.66704 (112, 1)	49.92842 (364, 1)	
110.0 /	48.65868C(141, 1)	42.80757C(141, 1)	
100.0 /	78.00696C(14, 1)	71.73724C(14, 1)	
90.0 /	51.03371 (183, 1)	50.29071C(142, 1)	
80.0 /	61.54660C(117, 1)	68.10820C(117, 1)	
70.0 /	57.43990 (202, 1)	55.06308C(184, 1)	
60.0 /	88.36838C(57, 1)	77.18086C(57, 1)	
50.0 /	75.23250 (50, 1)	68.33174 (50, 1)	
40.0 /	87.73341C(210, 1)	80.07790C(210, 1)	
30.0 /	51.66890C(213, 1)	49.27615C(213, 1)	
20.0 /	48.82727C(164, 1)	41.84558C(164, 1)	
10.0 /	47.60017C(180, 1)	41.89592C(180, 1)	

*** DUPONT SO2 MODELING MET = JAX86 ***

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

* MAXIMUM VALUE EQUALS 107.48894 AND OCCURRED AT (1500.0, 180.0) *

DIRECTION / (DEGREES) /	RANGE (METERS)	
	1500.0	1750.0
360.0 /	57.07143C(36, 1)	56.40205 (345, 1)
350.0 /	67.44266C(343, 1)	55.60400C(343, 1)
340.0 /	73.93384 (298, 1)	65.86833 (298, 1)
330.0 /	56.16769C(71, 1)	47.61951C(71, 1)
320.0 /	57.29234C(68, 1)	57.55763 (69, 1)
310.0 /	63.53207C(224, 1)	55.74640C(224, 1)
300.0 /	48.10202C(312, 1)	42.94254C(312, 1)
290.0 /	44.40073C(135, 1)	38.35971C(135, 1)
280.0 /	32.57454C(174, 1)	28.16609C(174, 1)
270.0 /	40.03230C(94, 1)	39.60582C(94, 1)
260.0 /	45.99579C(334, 1)	39.12152C(257, 1)
250.0 /	56.21931C(259, 1)	50.33075C(259, 1)
240.0 /	58.82324C(18, 1)	57.63512C(18, 1)
230.0 /	85.31874C(85, 1)	72.35484C(85, 1)
220.0 /	72.53096C(334, 1)	60.23119C(334, 1)
210.0 /	58.48256C(335, 1)	49.08263C(335, 1)
200.0 /	61.52478C(305, 1)	50.99063C(305, 1)
190.0 /	66.49834C(302, 1)	55.26678C(302, 1)
180.0 /	107.48894C(317, 1)	92.10342C(317, 1)
170.0 /	89.70573C(354, 1)	77.03627C(354, 1)
160.0 /	62.07256C(56, 1)	52.01245C(56, 1)
150.0 /	71.34326C(288, 1)	60.39702C(306, 1)
140.0 /	64.92844C(306, 1)	57.95270C(289, 1)
130.0 /	55.88846C(306, 1)	48.72765C(5, 1)
120.0 /	55.51323 (364, 1)	47.06866 (112, 1)
110.0 /	39.31998C(55, 1)	36.16190C(45, 1)
100.0 /	61.36473C(119, 1)	60.51422C(119, 1)
90.0 /	46.12840C(230, 1)	49.38124C(102, 1)
80.0 /	55.09380 (116, 1)	56.21643 (116, 1)
70.0 /	54.09029C(184, 1)	48.20186 (202, 1)
60.0 /	70.90359C(52, 1)	63.23969C(52, 1)
50.0 /	72.46400C(210, 1)	60.68643C(321, 1)
40.0 /	72.47560C(321, 1)	60.45258C(321, 1)
30.0 /	50.96611 (37, 1)	41.28908 (37, 1)
20.0 /	42.94754C(169, 1)	35.68494C(169, 1)
10.0 /	41.77827C(35, 1)	37.85426C(255, 1)

*** DUPONT SO2 MODELING MET = JAX86 ***

* 50 MAXIMUM 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *

RANK	CON.	PER. DAY	X Y(METERS)		RANK	CON.	PER. DAY	X Y(METERS)	
			OR RANGE (METERS)	OR DIRECTION (DEGREES)				OR RANGE (METERS)	OR DIRECTION (DEGREES)
1	110.42366C	1 349	1500.0	180.0	26	77.18086C	1 57	1750.0	60.0
2	107.48894C	1 317	1500.0	180.0	27	77.03627C	1 354	1750.0	170.0
3	97.59233C	1 349	1750.0	180.0	28	75.23250	1 50	1500.0	50.0
4	93.72664C	1 349	1500.0	170.0	29	74.45219C	1 59	1500.0	140.0
5	92.10342C	1 317	1750.0	180.0	30	73.93384	1 298	1500.0	340.0
6	91.95245C	1 343	1500.0	340.0	31	73.45348C	1 130	1500.0	250.0
7	89.70573C	1 354	1500.0	170.0	32	73.12575C	1 306	1500.0	150.0
8	88.36838C	1 57	1500.0	60.0	33	73.10522C	1 306	1750.0	160.0
9	87.88095C	1 306	1500.0	160.0	34	72.92664C	1 11	1500.0	180.0
10	87.73341C	1 210	1500.0	40.0	35	72.53096C	1 334	1500.0	220.0
11	87.29936C	1 156	1500.0	230.0	36	72.48587	1 8	1500.0	210.0
12	85.31874C	1 85	1500.0	230.0	37	72.47560C	1 321	1500.0	40.0
13	84.14214C	1 335	1500.0	200.0	38	72.46400C	1 210	1500.0	50.0
14	84.01537C	1 261	1500.0	270.0	39	72.40582C	1 225	1500.0	340.0
15	82.66386C	1 343	1750.0	340.0	40	72.35484C	1 85	1750.0	230.0
16	82.58339C	1 124	1500.0	240.0	41	71.73724C	1 14	1750.0	100.0
17	82.50351C	1 285	1500.0	190.0	42	71.34326C	1 288	1500.0	150.0
18	82.47185	1 10	1500.0	220.0	43	70.90359C	1 52	1500.0	60.0
19	81.56912C	1 349	1750.0	170.0	44	69.87810	1 298	1500.0	350.0
20	80.90247C	1 285	1500.0	180.0	45	69.83769C	1 335	1750.0	200.0
21	80.27943C	1 307	1500.0	230.0	46	69.29440C	1 284	1500.0	180.0
22	80.07790C	1 210	1750.0	40.0	47	68.63832C	1 285	1750.0	180.0
23	78.00696C	1 14	1500.0	100.0	48	68.55968	1 53	1500.0	60.0
24	77.83476C	1 156	1750.0	230.0	49	68.33174	1 50	1750.0	50.0
25	77.44966	1 348	1500.0	180.0	50	68.10820C	1 117	1750.0	80.0

*** DUPONT SO2 MODELING MET = JAX86 ***

* HIGHEST 3-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 335.15308 AND OCCURRED AT (1750.0, 80.0) *

DIRECTION / (DEGREES) /	RANGE (METERS)	
	1500.0	1750.0
360.0 /	304.10229 (345, 3)	252.77757 (345, 3)
350.0 /	291.60645 (345, 2)	244.65233 (345, 2)
340.0 /	237.80507 (225, 7)	194.07721 (225, 7)
330.0 /	200.52032 (40, 8)	198.58502 (148, 1)
320.0 /	256.54468 (357, 5)	213.30231 (17, 6)
310.0 /	244.83673 (223, 7)	236.67291 (223, 7)
300.0 /	248.02960 (266, 6)	203.09584 (266, 6)
290.0 /	175.22313 (184, 7)	144.68146 (184, 7)
280.0 /	233.92552 (173, 7)	225.39134 (173, 7)
270.0 /	200.31703 (261, 1)	164.60138 (261, 1)
260.0 /	216.38361 (155, 7)	216.84706 (155, 7)
250.0 /	200.57152 (258, 7)	210.01454 (258, 7)
240.0 /	184.78270 (124, 7)	152.93138 (124, 7)
230.0 /	206.65143 (307, 6)	202.22011 (156, 1)
220.0 /	217.28822 (2, 2)	191.42860 (2, 2)
210.0 /	260.79980 (361, 5)	216.12099 (361, 5)
200.0 /	228.24396 (305, 4)	190.73329 (305, 4)
190.0 /	266.75098 (285, 1)	240.57184 (85, 1)
180.0 /	325.03906 (348, 8)	274.65771 (348, 8)
170.0 /	262.74072 (344, 6)	236.25966 (344, 6)
160.0 /	291.51953 (306, 1)	244.15208 (306, 1)
150.0 /	258.85522 (161, 6)	220.31085 (161, 6)
140.0 /	242.59242 (133, 3)	199.44032 (133, 3)
130.0 /	209.06981 (306, 7)	187.23737 (306, 7)
120.0 /	210.44440 (228, 3)	188.00511 (228, 3)
110.0 /	215.03368 (141, 7)	195.41095 (141, 7)
100.0 /	200.50267(275, 3)	209.00380 (118, 1)
90.0 /	284.87720 (230, 2)	299.96460 (230, 2)
80.0 /	294.52295 (117, 1)	335.15308 (117, 1)
70.0 /	231.37865 (184, 2)	247.16078 (184, 2)
60.0 /	236.49022 (336, 6)	218.80687 (336, 6)
50.0 /	272.79639 (210, 7)	221.11327 (210, 7)
40.0 /	248.47125 (208, 6)	250.20337(255, 1)
30.0 /	287.53882 (192, 7)	284.59131 (192, 7)
20.0 /	221.68593 (164, 7)	186.33641 (164, 7)
10.0 /	221.43285(180, 7)	228.53180 (331, 1)

*** DUPONT SO2 MODELING MET = JAX86 ***

* SECOND HIGHEST 3-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 254.99200 AND OCCURRED AT (1500.0, 180.0) *

DIRECTION / RANGE (METERS)
(DEGREES) / 1500.0 1750.0

360.0 /	251.71246 (321, 6)	212.93024 (321, 6)
350.0 /	253.35658 (343, 4)	211.28661 (343, 4)
340.0 /	204.85072 (37, 1)	178.42723 (188, 8)
330.0 /	191.69301 (175, 7)	193.77895 (175, 7)
320.0 /	243.51341 (17, 6)	210.67316 (357, 5)
310.0 /	197.35390 (69, 3)	172.39516 (69, 3)
300.0 /	217.18178 (312, 6)	185.12848 (312, 6)
290.0 /	148.14574 (280, 5)	131.88385 (203, 5)
280.0 /	134.71524 (1, 5)	121.76334 (174, 7)
270.0 /	157.30052 (261, 6)	127.74413 (261, 6)
260.0 /	208.33006 (32, 6)	194.04442 (133, 7)
250.0 /	197.69017 (16, 7)	177.60341 (16, 7)
240.0 /	183.94122 (332, 5)	150.59625 (332, 5)
230.0 /	199.38800 (156, 3)	176.53539C(124, 8)
220.0 /	187.26610 (303, 8)	156.22931 (10, 2)
210.0 /	217.92877 (360, 5)	187.79457 (360, 5)
200.0 /	174.42543 (317, 3)	178.12872 (289, 7)
190.0 /	236.60732 (361, 6)	220.23712 (285, 1)
180.0 /	254.99200 (349, 6)	222.33820 (349, 6)
170.0 /	223.07794C(354, 7)	195.22133C(354, 7)
160.0 /	236.79466 (303, 2)	197.59935 (303, 2)
150.0 /	242.93488 (354, 5)	209.55336 (354, 5)
140.0 /	189.84007 (347, 1)	165.07811 (347, 1)
130.0 /	162.66339 (299, 5)	165.46051 (338, 1)
120.0 /	187.62172C(90, 3)	176.18788C(90, 3)
110.0 /	184.02814 (43, 6)	179.99281C(45, 3)
100.0 /	189.29588 (118, 1)	196.78326 (61, 2)
90.0 /	181.62157C(102, 2)	206.93031C(102, 2)
80.0 /	239.66811 (111, 8)	247.49559 (116, 2)
70.0 /	222.06517 (54, 1)	240.01552 (65, 8)
60.0 /	214.98314 (203, 6)	202.82143 (279, 1)
50.0 /	232.80247 (321, 7)	208.42259 (359, 1)
40.0 /	223.16542C(256, 1)	207.54555 (208, 6)
30.0 /	236.22931 (240, 6)	198.20465 (240, 6)
20.0 /	215.97508 (299, 3)	179.56696 (299, 3)
10.0 /	210.01031 (345, 4)	209.42235 (163, 7)

*** DUPONT SO2 MODELING MET = JAX86 ***

* 50 MAXIMUM 3-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *

RANK	CON.	PER. DAY	X OR RANGE (METERS)	Y(METERS) OR DIRECTION (DEGREES)	RANK	CON.	PER. DAY	X OR RANGE (METERS)	Y(METERS) OR DIRECTION (DEGREES)
1	335.15308	1 117	1750.0	80.0	26	247.16078	2 184	1750.0	70.0
2	325.03906	8 348	1500.0	180.0	27	244.83673	7 223	1500.0	310.0
3	304.10229	3 345	1500.0	360.0	28	244.85233	2 345	1750.0	350.0
4	299.96460	2 230	1750.0	90.0	29	244.15208	1 306	1750.0	160.0
5	294.52295	1 117	1500.0	80.0	30	243.51341	6 17	1500.0	320.0
6	291.60645	2 345	1500.0	350.0	31	242.93488	5 354	1500.0	150.0
7	291.51953	1 306	1500.0	160.0	32	242.59242	3 133	1500.0	140.0
8	287.53882	7 192	1500.0	30.0	33	240.57184	1 85	1750.0	190.0
9	284.87720	2 230	1500.0	90.0	34	240.01552	8 65	1750.0	70.0
10	284.59131	7 192	1750.0	30.0	35	239.66811	8 111	1500.0	80.0
11	274.65771	8 348	1750.0	180.0	36	238.56981C	3 267	1500.0	80.0
12	272.79639	7 210	1500.0	50.0	37	237.80507	7 225	1500.0	340.0
13	266.75098	1 285	1500.0	190.0	38	236.79466	2 303	1500.0	160.0
14	262.74072	6 344	1500.0	170.0	39	236.67291	7 223	1750.0	310.0
15	260.79980	5 361	1500.0	210.0	40	236.60732	6 361	1500.0	190.0
16	258.85522	6 161	1500.0	150.0	41	236.54701	2 116	1500.0	80.0
17	256.54468	5 357	1500.0	320.0	42	236.49022	6 336	1500.0	60.0
18	254.99200	6 349	1500.0	180.0	43	236.25966	6 344	1750.0	170.0
19	253.35658	4 343	1500.0	350.0	44	236.22931	6 240	1500.0	30.0
20	252.77757	3 345	1750.0	360.0	45	233.92552	7 173	1500.0	280.0
21	251.71246	6 321	1500.0	360.0	46	232.80247	7 321	1500.0	50.0
22	250.20937C	1 256	1750.0	40.0	47	231.37865	2 184	1500.0	70.0
23	248.47125	6 208	1500.0	40.0	48	228.53180	1 331	1750.0	10.0
24	248.02960	6 266	1500.0	300.0	49	228.24396	4 305	1500.0	200.0
25	247.49559	2 116	1750.0	80.0	50	228.01723	3 356	1500.0	190.0