



INTERNATIONAL MINERALS & CHEMICAL CORPORATION

November 22, 1982

DER

DEC 03 1982

BAQM

D.E.R.

NOV 29 1982

SOUTHWEST DISTRICT
TAMPA

Mr. W. E. Thomas, P.E.
Florida Department of
Environmental Regulation
7601 Highway 301 N
Tampa, Florida 33610

Dear Bill:

Attached is a request for a construction permit to install a 5000 CFM dust collector on an existing storage silo.

Prior to our conversion to wet rock grinding, IMC operated a rock feed system comprised of a wet rock dryer, unground rock storage, and a dry grinding system with the ground rock being stored in a pair of storage silos prior to use in phos acid. The silos each had a 25,000 CFM dust collector and the collectors were permitted by your department. As a condition of the BACT determination on our new DAP facility, these permits were surrendered to the DER.

IMC now wishes to reactivate the use of the east ground rock silo and use it as a storage facility for 75 BPL rock to be used in the manufacture of GTSP. The existing unloading and storage facilities currently in use do not allow us sufficient storage capacity and by using the existing silo we would be able to store an additional 1200 tons of 75 BPL rock.

The dust collector previously used on this silo will not be reactivated. Instead, we intend to use one of the smaller 5000 CFM collectors previously used on the phos acid plants. Our existing unloading facilities use compressed air at a 5000 CFM rate and as such a dust collector of equivalent size will be all that is necessary.

Modification of the silo and installation of the collector will allow IMC to receive 75 BPL rock and pump directly to the

Mr. W. E. Thomas
November 22, 1982

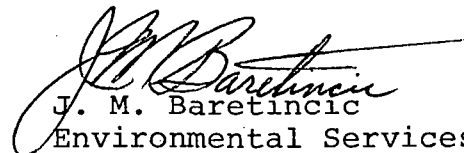
Page Two

plant as the system now exists. In addition, we will have the surge capacity to produce GTSP without having to rely so heavily on the rail system.

In addition to the permit request and drawings, I have attached a computer update on our recent model to show that the additional particulate source will not adversely impact the Tampa non-attainment area.

If you feel that additional information is needed, please do not hesitate to contact me or Jerry Girardin.

Sincerely,


J. M. Baretincic
Environmental Services
& Quality Control Manager

dma

attachments

BEST AVAILABLE COPY

FIRST NATIONAL BANK
OF LAKELAND
LAKELAND, FLORIDA

INTERNATIONAL MINERALS & CHEMICAL CORP.
NEW WALES OPERATIONS
P.O. BOX 1035 • MULBERRY, FLORIDA 33860



63-728
631

CHECK NO. 598465

11	19	82
MONTH	DAY	YEAR

OPERATING ACCOUNT

AMOUNT
*****100.00

PAY TO THE ORDER OF

FLORIDA DEPT. OF ENVIRONMENTAL REGULATION
7601 HIGHWAY 301 NORTH
TAMPA, FL 33610

E. E. Jones
AUTHORIZED SIGNATURE

⑆598465⑆ ⑆063107283⑆ 03 121 6⑆

10. 598465

INTERNATIONAL MINERALS & CHEMICAL CORPORATION
NEW WALES OPERATIONS • P.O. BOX 1035 • MULBERRY, FLORIDA 33860

DETACH BEFORE DEPOSITING

INVOICE DATE			INVOICE NUMBER	REFERENCE NUMBER	PURCHASE ORDER NO.	INVOICE AMOUNT	DISCOUNT	NET PAYABLE
MONTH	DAY	YEAR						
11	15	82	PERMIT FEE	11162-893-800		100.00		100.00
						100.00	.00	100.00

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

№ 33634

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from IMC New Wales Operations Date December 3, 1982

Address P.O. Box 1035 Mulberry, FL 33860 Dollars \$ 100.00

Applicant Name & Address Same as above

Source of Revenue _____

Revenue Code 0106 Application Number AC 53-03143

By Patricia G. Adams

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO.

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION)

Clair Fancey

INITIAL

DATE

2.

Bureau of Air Quality Management

INITIAL

DATE

3.

Pattin

INITIAL

DATE

4.

RE: NEW WALES CHEMICALS

INITIAL

DATE

REMARKS:

Attached is another construction permit application for a minor source at a major facility. We will forward comments after review.

INFORMATION

REVIEW & RETURN

REVIEW & FILE

INITIAL & FORWARD

DISPOSITION

REVIEW & RESPOND

PREPARE RESPONSE

FOR MY SIGNATURE

FOR YOUR SIGNATURE

LET'S DISCUSS

SET UP MEETING

INVESTIGATE & REPT

INITIAL & FORWARD

DISTRIBUTE

CONCURRENCE

FOR PROCESSING

INITIAL & RETURN

DEC 03 1982

BAQM

FROM:

Tom A. Williams

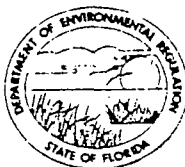
DATE

11-30-82

PHONE

AC 53-63143

DER
DEC 03 1982
BAQM



D.E.R.
NOV 29 1982
SOUTHWEST DISTRICT
TAMPA

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
APPLICATION TO OPERATE/CONSTRUCT
AIR POLLUTION SOURCES

SOURCE TYPE: Air Pollution [X] New¹ [] Existing¹
APPLICATION TYPE: [X] Construction [] Operation [] Modification
COMPANY NAME: IMC, New Wales Operations COUNTY: Polk
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) Dry Rock Silo with Bag Collector
SOURCE LOCATION: Street Rt. 640 & County Line Rd. City Mulberry
UTM: East 396.7 North 3078.9
Latitude ° ' "N Longitude ° ' "W
APPLICANT NAME AND TITLE: T.H. Traylor, Vice President & General Manager
APPLICANT ADDRESS: P. O. Box 1035, Mulberry, FL 33860

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of IMC New Wales Operations

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: T.H. Traylor
T. H. Traylor, Vice President & General Manager
Name and Title (Please Type)
Date: 11-22-82 Telephone No. (813)428-2531

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: C. A. Pflaum PE
C. A. Pflaum, P.E.
Name (Please Type)
IMC, New Wales Operations
Company Name (Please Type)
P. O. Box 1035, Mulberry, FL 33860
Mailing Address (Please Type)
Date: 11-19-82 Telephone No. (813)428-2531

(Affix Seal)

Florida Registration No. 18595

¹See 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..
IMC proposes to use an existing silo for storage of 75 BPL phosphate rock. This will require the installation of a 5000 CFM dust collector.

B. Schedule of project covered in this application (Construction Permit Application Only)
 Start of Construction February 1983 Completion of Construction October 1983

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)
The dust collector to be used was formerly part of the phos acid plant. Cost of this unit will only entail installation cost.

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.
A053-5967 issued 1/24/78, surrendered 1981.

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 No

F. Normal equipment operating time: hrs/day 24 ; days/wk 6.6 ; wks/yr 52 ; if power plant, hrs/yr _____ ;
 if seasonal, describe: _____

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? | <u>No</u> |
| a. If yes, has "offset" been applied? | <u>N/A</u> |
| b. If yes, has "Lowest Achievable Emission Rate" been applied? | <u>N/A</u> |
| c. If yes, list non-attainment pollutants. | |
| <hr/> | |
| 2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. | <u>No</u> |
| 3. Does the State "Prevention of Significant Deterioration" (PSD) requirements apply to this source? If yes, see Sections VI and VII. | <u>No</u> |
| 4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? | <u>No</u> |
| 5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? | <u>No</u> |

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		
75 BPL rock	Part.	100		Silo

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

- Total Process Input Rate (lbs/hr): N.A.
- Product Weight (lbs/hr): _____

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	
Dust	1.30	5.62	0.03 grains/SCF	1.30	1.30	5.62	collector

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)
Mikro-Pulsaire	Dust	99.9	100% > 5 microns	design
Model #64S-8-20				
Bag Collector				

¹See Section V, Item 2.

²Reference 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)

³Calculated from operating rate and applicable standard

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

⁵If Applicable

E. Fuels N.A.

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

*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 _____ Maximum _____

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

Captured dust is returned to the silo.

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

Stack Height: 110 ft. Stack Diameter: 1.5 ft.

Gas Flow Rate: 5000 ACFM Gas Exit Temperature: 110 °F.

Water Vapor Content: Ambient % Velocity: 47.2 FPS

SECTION IV: INCINERATOR INFORMATION

N.A.

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 _____

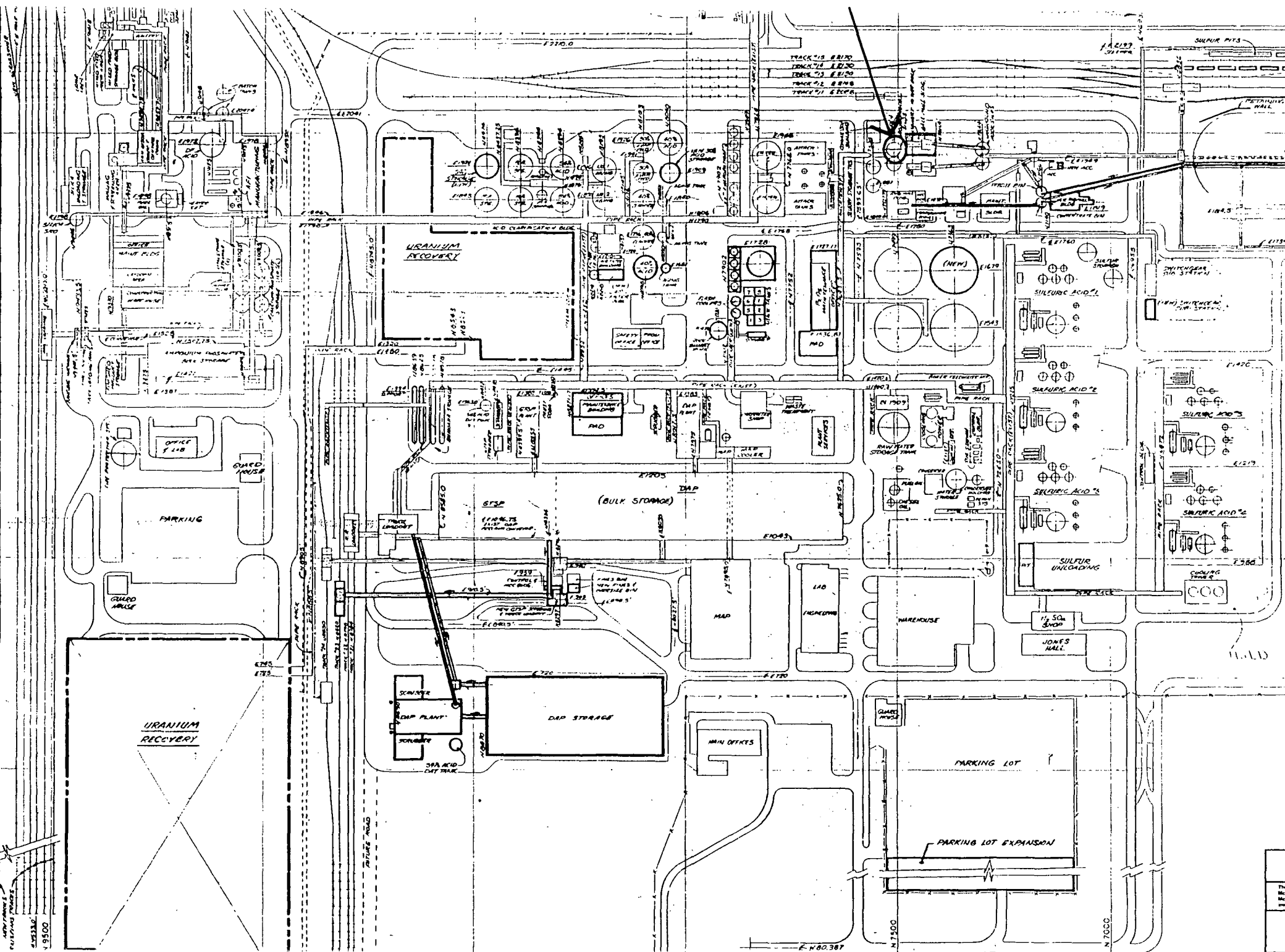
Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

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

Manufacturer _____

Date Constructed _____ Model No. _____

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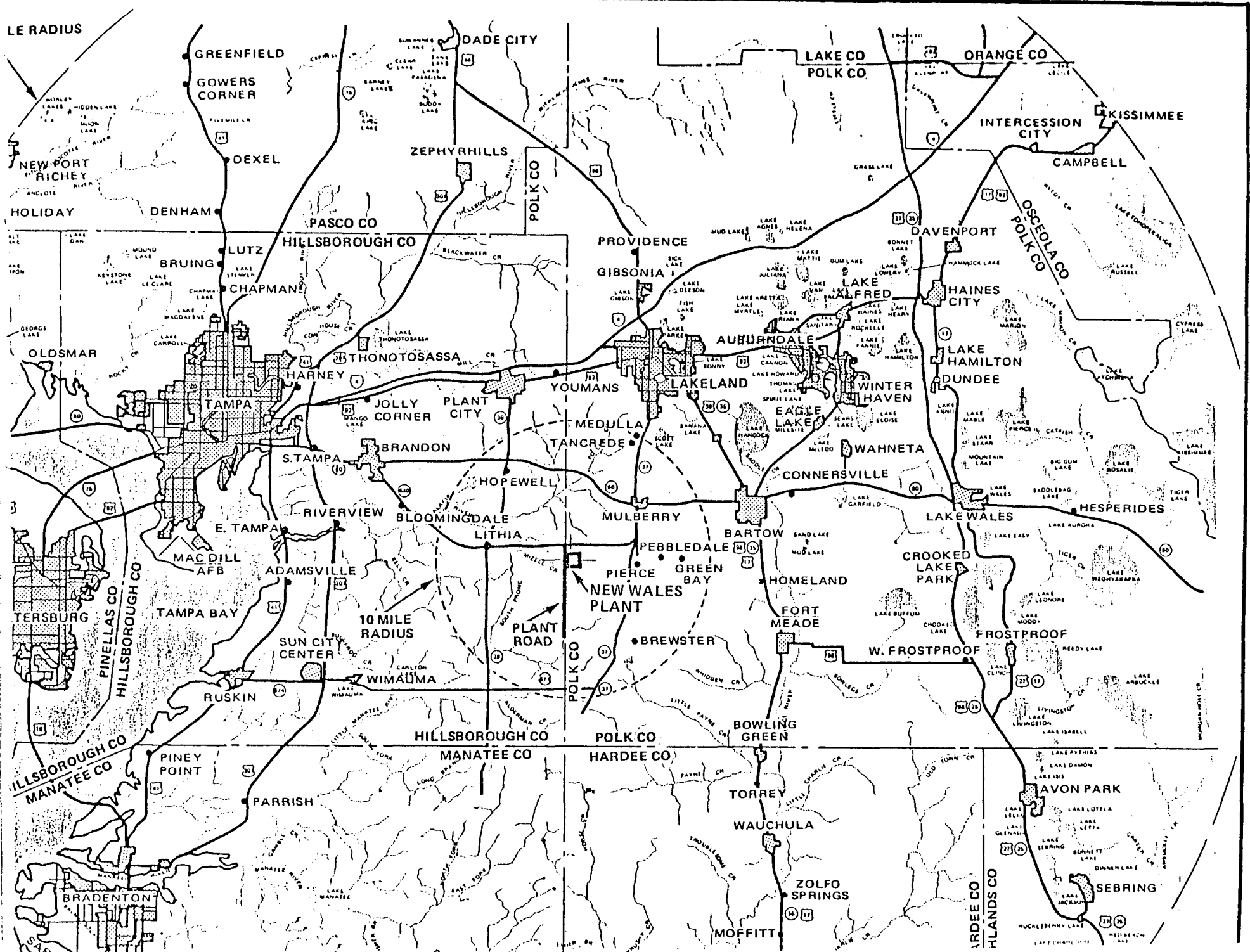


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C. A. CAMPBELL

Vice President, Phosphate Operations



INTERNATIONAL MINERALS & CHEMICAL CORPORATION

February 22, 1982

Mr. T. H. Traylor
Vice President and General Manager
New Wales Operations
Post Office Box 1035
Mulberry, FL 33860

Dear Mr. Traylor:

This letter is your authorization to sign, on behalf of New Wales Operations, various applications for permits from the Florida Department of Environmental Regulations, the U.S. Environmental Protection Agency and other applicable agencies.

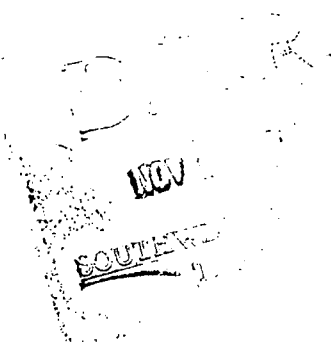
Very truly yours,

C. A. Campbell

t



SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS
 1213 N.W. 6th Street Gainesville, Florida 32601 (904) 377-5822



DER

SKEC 124-81-04

DEC 03 1982

November 17, 1982

BAQM

Mr. A. L. Girardin
 International Minerals & Chemical Corporation
 New Wales Operation
 Post Office Box 1035
 Mulberry, Florida 33860

Subject: Impact of New 76 bpl Rock Storage Silo on
 Hillsborough County Particulate Matter Emissions
 Non-Attainment Area

Dear Jerry,

I have conducted the necessary quality modeling to evaluate the impact of particulate matter emissions from the reactivated rock storage silo proposed for the IMC-New Wales Chemical Complex on the Hillsborough County particulate matter non-attainment area. Particulate matter emissions from this silo will be controlled by a fabric filter collector. The air flow rate exhausted from the silo will be 5,000 actual cubic feet per minute. The particulate matter concentration in the gas stream was estimated to be 0.03 grains per actual cubic foot. Based on this stack gas flow rate and particulate matter concentration, the calculated particulate matter mass emission rate is 1.3 pounds per hour. The height of the discharge above ground level is 110 feet, the stack gas temperature is 108°F and the stack gas velocity is 47.2 feet per second. The equivalent diameter of the discharge from the fabric filter is 18 inches. For purposes of air quality modeling, it was assumed that the source operates 24 hours a day. This is an extremely conservative assumption since you estimated that the source will probably not operate more than 12 hours a day.

Since the emission rate from the proposed source is of such a small magnitude, I made some simplifying assumptions to reduce the amount of modeling necessary to complete the impact study. I assumed that the CRSTER modeling that I conducted and reported to you in my letter of September 22, 1982, would remain unchanged. This being the case, the two critical sets of meteorological data which would require further evaluation with the PTMPW air quality model were data represented by

day 311, 1978 and data represented by day 306, 1979. The impact analysis to evaluate the impact of emissions from the reactivated rock storage silo on the Hillsborough County particulate matter non-attainment area, therefore consisted of two PTMTPW air quality model runs. The input to the model included meteorological data from days 311, 1978 and 306, 1979, emission data and stack parameters from all existing sources at the IMC-New Wales Chemical Complex and particulate matter emission data and stack parameters from the reactivated rock storage silo.

The outputs of the two PTMTPW air quality model runs are attached. The model run with meteorological data from day 311, 1978 shows a maximum 24-hour particulate matter impact at the boundary of the Hillsborough County non-attainment area of 2.85 micrograms per cubic meter. This compares with a significant 24-hour impact level, defined by the Florida Department of Environmental Regulation and the U.S. Environmental Protection Agency, of 5.0 micrograms per cubic meter. Emissions from the reactivated rock storage silo contributed 0.02 micrograms per cubic meter to the 2.85 micrograms per cubic meter impact.

The model run with meteorological data from day 306, 1979 shows a maximum 24-hour particulate matter impact at the boundary of the non-attainment area of 3.76 micrograms per cubic meter. The emissions from the rock storage silo again contribute only 0.02 micrograms per cubic meter to this impact.

This impact study, although abbreviated, shows that the proposed rock storage silo can be put into use without causing of the total particulate matter emission from the IMC-New Wales Chemical Complex to have a significant impact on the Hillsborough County particulate matter non-attainment area.

If you have any questions regarding this impact study, please give me a call.

Very truly yours,

SHOLTES & KOGLER
ENVIRONMENTAL CONSULTANTS, INC.



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

JBK:ldh
Enclosure

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New Wales - Impact @ Hillsborough Co. NAA

311,1978 (Tampa)

EPA DIFFUSION MODEL PTMTF

PAGE 1

STACK HEIGHT ADJUSTMENT = 0.0

*** SOURCE DATA ***

	SOURCE NAME	EMM. RATE (G/SEC)	STACK HT. (M)	STACK TEMP. (DEG-K)	EXIT VEL. (M/SEC)	STACK DIA. (M)	VOL. FLOW (M**3/SEC)	X-COORD. (KM)	Y-COORD. (KM)
NW 05	RAIL GND ROCK UNLOAD	0.60	12.2	315.0	20.20	0.90	0.	396.760	3078.660
NW 09	DAP PLANT	3.60	40.4	319.0	15.50	2.10	0.	396.540	3079.030
NW 10	GTSP PLANT	4.22	40.4	316.0	20.60	1.80	0.	396.550	3079.150
NW 11	MAP PLANT	2.51	40.4	333.0	10.70	1.20	0.	396.530	3079.010
NW 12	GTSP STORAGE	3.62	40.4	315.0	18.90	1.80	0.	396.530	3079.170
NW 13	AUX BOILER	4.01	29.0	564.0	17.10	1.70	0.	396.560	3078.810
NW 21	GTSP ROCK BIN	0.60	13.7	315.0	12.70	0.30	0.	396.530	3079.170
NW 24	MULTIPHOS SHIP BIN	0.45	16.8	315.0	13.90	0.30	0.	396.600	3079.490
NW 25	LIMESTONE STG SILO	0.45	35.4	315.0	10.70	0.30	0.	396.640	3079.360
NW 26	SILICA HANDLING	0.20	5.5	315.0	10.00	0.30	0.	396.700	3079.480
NW 27	AFI PLANT	4.64	52.4	322.0	13.10	2.40	0.	396.750	3079.350
NW 28	AFI STG SILOS(2)	1.20	35.4	315.0	14.90	0.50	0.	396.640	3079.350
NW 29	FERT PRODUCTS SHIP	2.52	40.4	315.0	10.10	0.90	0.	396.450	3079.270
NW 30	AFI LIMESTN FEED SILO	0.45	36.0	315.0	12.70	0.30	0.	396.680	3079.360
NW 31	AFI TRUCK SHIP	0.45	20.0	315.0	8.40	0.30	0.	396.600	3079.330
NW 32	AFI RAIL SHIP	0.45	31.9	315.0	10.70	0.30	0.	396.600	3079.420
NW 33	MULTIPHOS PLANT	3.33	52.4	315.0	7.10	1.40	0.	396.830	3079.420
NW 34	SODA ASH UNLOAD	0.45	18.3	315.0	3.20	0.30	0.	396.840	3079.480
NW 35	SODA ASH CONVEYING	0.45	13.7	315.0	3.20	0.30	0.	396.840	3079.470
NW 36	MULTIPHOS COOLER A	0.60	26.5	438.0	8.50	0.50	0.	396.740	3079.430
NW 37	MULTIPHOS COOLER B	0.60	26.5	464.0	8.50	0.50	0.	396.740	3079.410
NW 38	MULTIPHOS SIZING	0.20	5.2	380.0	8.10	0.40	0.	396.730	3079.440
NW 39	MULTIPHOS CLASS	0.45	17.4	352.0	8.10	0.40	0.	396.730	3079.430
NW 40	SECOND PRODUCT L/O	0.45	32.7	315.0	11.70	0.70	0.	396.310	3079.230
NW 90	LIMING STATION	0.06	21.7	315.0	10.40	0.30	0.	396.830	3078.130
NW 91	THIRD PRODUCT L/O	0.45	30.5	315.0	11.70	0.70	0.	396.310	3079.130
NW 92	DAP SCRUBBER 1	1.78	51.6	315.0	20.90	1.80	0.	396.540	3079.090
NW 93	DAP SCRUBBER 2	1.78	51.6	315.0	20.40	1.80	0.	396.540	3079.220
NW 94	DAP BAG COLLECTOR	0.57	28.1	315.0	10.20	1.80	0.	396.440	3079.150
NW 14	GTSP RAIL LOADING	0.63	30.5	315.0	24.10	0.50	0.	396.410	3079.200
NW 50	AREA 10	0.19	26.2	315.0	25.90	0.30	0.	396.810	3079.500
NW 51	AREA 40	0.06	28.8	315.0	1.80	0.60	0.	396.820	3079.500
NW 95	ROCK STG SILO	0.16	33.5	315.0	14.40	0.46	0.	396.700	3078.900

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New Wales - Impact @ Hillsborough Co. NAA

311,1978 (Tampa)

EPA DIFFUSION MODEL PTMTP

PAGE 2

*** RECEPTORS ***

NO.	X(KM)	Y(KM)	Z(KM)
1.	362.100	3080.500	0.0
2.	370.410	3083.810	0.0
3.	373.120	3087.740	0.0
4.	374.090	3092.270	0.0
5.	369.800	3101.660	0.0

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New Wales - Impact @ Hillsborough Co. NAA

311.1978 (Tampa)

EPA DIFFUSION MODEL RTNTP

PAGE 3

*** METEOROLOGY ***

	WIND DIR. (DEG)	WIND VEL. (M/SEC)	STABILITY CLASS	MIX. HT. (M)	AMB. TEMP. (DEG-K)	PRESS. (MB)
1.	100.	2.06	5	77.	292.	1000.00
2.	107.	1.54	6	77.	292.	1000.00
3.	100.	2.06	5	77.	292.	1000.00
4.	100.	2.06	6	77.	292.	1000.00
5.	109.	2.06	5	77.	292.	1000.00
6.	131.	2.57	5	77.	293.	1000.00
7.	109.	2.06	4	97.	293.	1000.00
8.	145.	2.06	4	318.	295.	1000.00
9.	149.	2.57	4	429.	296.	1000.00
10.	126.	3.09	4	539.	297.	1000.00
11.	134.	3.60	4	650.	298.	1000.00
12.	170.	3.09	4	760.	298.	1000.00
13.	179.	2.57	4	871.	298.	1000.00
14.	160.	3.09	4	871.	298.	1000.00
15.	113.	2.57	4	871.	298.	1000.00
16.	152.	2.57	4	871.	298.	1000.00
17.	125.	3.60	4	874.	297.	1000.00
18.	124.	3.60	4	883.	296.	1000.00
19.	131.	4.63	4	893.	296.	1000.00
20.	97.	2.57	5	785.	295.	1000.00
21.	127.	3.60	4	911.	295.	1000.00
22.	147.	4.63	4	920.	295.	1000.00
23.	180.	2.06	4	929.	294.	1000.00

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New Wales - Impact @ Hillsborough Co. NAA

311,1978 (Tampa)

EPA DIFFUSION MODEL P1MTP

PAGE 4

AVERAGE CONCENTRATIONS (UG/M**3) AND PERCENT CONTRIBUTIONS FOR 24 HOURS

RECEPTORS	SOURCE NAME	1.		2.		3.		4.		5.	
		PARTIAL CONC.	% CONT.	PARTIAL CONC.	% CONT.	PARTIAL CONC.	% CONT.	PARTIAL CONC.	% CONT.	PARTIAL CONC.	% CONT.
NW 05	RAIL GND ROCK UNLOAD	0.00	5.29	0.10	3.52	0.06	2.12	0.01	2.74	0.02	2.91
NW 09	DAP PLANT	0.00	10.04	0.02	0.79	0.17	6.58	0.03	9.67	0.04	5.04
NW 10	GTSP PLANT	0.00	9.42	0.03	1.11	0.21	7.90	0.03	10.12	0.05	6.08
NW 11	NAP PLANT	0.00	7.85	0.28	9.95	0.19	7.19	0.02	7.02	0.07	8.29
NW 12	GTSP STORAGE	0.00	7.84	0.03	0.99	0.18	6.80	0.03	8.65	0.04	5.23
NW 13	AUX BOILER	0.01	16.84	0.02	0.57	0.03	1.24	0.04	12.88	0.05	5.54
NW 21	GTSP ROCK BIN	0.00	2.13	0.13	4.72	0.07	2.80	0.01	1.94	0.02	2.86
NW 24	MULTIPHOS SHIP BIN	0.00	0.76	0.09	3.15	0.07	2.51	0.00	1.00	0.02	1.94
NW 25	LIMESTONE STG SILO	0.00	0.77	0.07	2.37	0.05	1.80	0.00	0.89	0.01	1.56
NW 26	SILICA HANDLING	0.00	0.48	0.06	2.02	0.04	1.58	0.00	0.56	0.01	1.17
NW 27	AFI PLANT	0.00	5.79	0.04	1.38	0.02	0.89	0.02	7.50	0.06	6.63
NW 28	AFI STG SILOS(2)	0.00	2.07	0.17	6.07	0.12	4.66	0.01	2.40	0.03	4.13
NW 29	FERT PRODUCTS SHIP	0.00	4.92	0.33	11.53	0.22	8.46	0.02	5.86	0.07	8.45
NW 30	AFI LIMESTN FEED SILO	0.00	0.76	0.07	2.33	0.05	1.79	0.00	0.87	0.01	1.54
NW 31	AFI TRUCK SHIP	0.00	1.01	0.09	3.09	0.06	2.13	0.00	1.09	0.02	1.88
NW 32	AFI RAIL SHIP	0.00	0.61	0.07	2.42	0.05	2.02	0.00	0.84	0.01	1.60
NW 33	MULTIPHOS PLANT	0.00	3.95	0.33	11.69	0.25	9.36	0.02	5.03	0.08	9.51
NW 34	SODA ASH UNLOAD	0.00	0.73	0.09	3.04	0.07	2.58	0.00	0.87	0.02	1.84
NW 35	SODA ASH CONVEYING	0.00	0.82	0.10	3.38	0.07	2.81	0.00	0.94	0.02	2.00
NW 36	MULTIPHOS COOLER A	0.00	0.94	0.09	3.28	0.07	2.72	0.00	1.14	0.02	2.20
NW 37	MULTIPHOS COOLER B	0.00	0.98	0.09	3.28	0.07	2.68	0.00	1.16	0.02	2.20
NW 38	MULTIPHOS SIZING	0.00	0.53	0.06	2.02	0.04	1.54	0.00	0.58	0.01	1.18
NW 39	MULTIPHOS CLASS	0.00	0.83	0.09	3.07	0.06	2.42	0.00	0.96	0.02	1.89
NW 40	SECOND PRODUCT L/O	0.00	1.06	0.07	2.38	0.04	1.57	0.00	1.26	0.01	1.65
NW 90	LIMING STATION	0.00	0.99	0.00	0.17	0.00	0.13	0.00	0.35	0.00	0.25
NW 91	THIRD PRODUCT L/O	0.00	1.34	0.07	2.42	0.04	1.51	0.00	1.41	0.01	1.70
NW 92	DAP SCRUBBER 1	0.00	3.97	0.01	0.38	0.08	3.09	0.01	4.22	0.02	2.36
NW 93	DAP SCRUBBER 2	0.00	3.08	0.01	0.46	0.08	3.16	0.01	3.75	0.02	2.43
NW 94	DAP BAG COLLECTOR	0.00	1.59	0.08	2.84	0.05	1.96	0.00	1.64	0.02	2.13
NW 14	GTSP RAIL LOADING	0.00	1.60	0.10	3.42	0.06	2.25	0.01	1.73	0.02	2.35
NW 50	AREA 10	0.00	0.26	0.03	1.07	0.03	0.95	0.00	0.33	0.01	0.69
NW 51	AREA 40	0.00	0.08	0.01	0.33	0.01	0.30	0.00	0.10	0.00	0.21
NW 95	ROCK STG SILO	0.00	0.68	0.02	0.78	0.01	0.49	0.00	0.47	0.00	0.57
TOTAL CONCENTRATION (UG/M**3)		0.05		2.85		2.64		0.30		0.83	

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STACK HEIGHT ADJUSTMENT = 0.0

*** SOURCE DATA ***

	SOURCE NAME	EMM. RATE (G/SEC)	STACK HT. (M)	STACK TEMP. (DEG-K)	EXIT VEL. (M/SEC)	STACK DIA. (M)	VOL. FLOW (M**3/SEC)	X-COORD. (KM)	Y-COORD. (FM)
NW 05	RAIL BND ROCK UNLOAD	0.60	12.2	315.0	20.20	0.90	0.	396.760	3078.660
NW 09	DAP PLANT	3.60	40.4	319.0	15.50	2.10	0.	396.540	3079.030
NW 10	GTSP PLANT	4.22	40.4	316.0	20.60	1.80	0.	396.550	3079.150
NW 11	MAP PLANT	2.51	40.4	333.0	10.70	1.20	0.	396.530	3079.010
NW 12	GTSP STORAGE	3.62	40.4	315.0	18.90	1.80	0.	396.530	3079.170
NW 13	AUX BOILER	4.01	29.0	564.0	17.10	1.70	0.	396.560	3078.810
NW 21	GTSP ROCK BIN	0.60	13.7	315.0	12.70	0.30	0.	396.530	3079.170
NW 24	MULTIPHOS SHIP BIN	0.45	16.8	315.0	13.90	0.30	0.	396.600	3079.490
NW 25	LIMESTONE STG SILO	0.45	35.4	315.0	10.70	0.30	0.	396.640	3079.360
NW 26	SILICA HANDLING	0.20	5.5	315.0	10.00	0.30	0.	396.700	3079.480
NW 27	AFI PLANT	4.64	52.4	322.0	13.10	2.40	0.	396.750	3079.350
NW 28	AFI STG SILOS(2)	1.20	35.4	315.0	14.90	0.50	0.	396.640	3079.350
NW 29	FERT PRODUCTS SHIP	2.52	40.4	315.0	10.10	0.90	0.	396.450	3079.270
NW 30	AFI LIMESTN FEED SILO	0.45	36.0	315.0	12.70	0.30	0.	396.680	3079.360
NW 31	AFI TRUCK SHIP	0.45	20.0	315.0	8.40	0.30	0.	396.600	3079.330
NW 32	AFI RAIL SHIP	0.45	31.9	315.0	10.70	0.30	0.	396.600	3079.490
NW 33	MULTIPHOS PLANT	3.33	52.4	315.0	7.10	1.40	0.	396.830	3079.420
NW 34	SODA ASH UNLOAD	0.45	18.3	315.0	3.20	0.30	0.	396.840	3079.480
NW 35	SODA ASH CONVEYING	0.45	13.7	315.0	3.20	0.30	0.	396.840	3079.470
NW 36	MULTIPHOS COOLER A	0.60	26.5	438.0	8.50	0.50	0.	396.740	3079.430
NW 37	MULTIPHOS COOLER B	0.60	26.5	464.0	8.50	0.50	0.	396.740	3079.410
NW 38	MULTIPHOS SIZING	0.20	5.2	380.0	8.10	0.40	0.	396.730	3079.440
NW 39	MULTIPHOS CLASS	0.45	17.4	352.0	8.10	0.40	0.	396.730	3079.430
NW 40	SECOND PRODUCT L/O	0.45	32.7	315.0	11.70	0.70	0.	396.310	3079.230
NW 90	LIMING STATION	0.06	21.7	315.0	10.40	0.30	0.	396.830	3078.130
NW 91	THIRD PRODUCT L/O	0.45	30.5	315.0	11.70	0.70	0.	396.310	3079.130
NW 92	DAP SCRUBBER 1	1.78	51.6	315.0	20.90	1.80	0.	396.540	3079.090
NW 93	DAP SCRUBBER 2	1.78	51.6	315.0	20.40	1.80	0.	396.540	3079.220
NW 94	DAP BAG COLLECTOR	0.57	28.1	315.0	10.20	1.80	0.	396.440	3079.150
NW 14	GTSP RAIL LOADING	0.63	30.5	315.0	24.10	0.50	0.	396.410	3079.200
NW 50	AREA 10	0.19	26.2	315.0	25.90	0.30	0.	396.810	3079.500
NW 51	AREA 40	0.06	28.8	315.0	1.80	0.60	0.	396.820	3079.500
NW 95	ROCK STG SILO	0.16	33.5	315.0	14.40	0.46	0.	396.700	3078.900

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*** RECEPTORS ***

NO.	X(KM)	Y(KM)	Z(KM)
1.	362.100	3080.500	0.0
2.	370.410	3083.810	0.0
3.	373.120	3087.740	0.0
4.	374.090	3092.270	0.0
5.	369.800	3101.660	0.0

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FORM 3

*** METEOROLOGY ***

	WIND DIR. (DEG)	WIND VEL. (M/SEC)	STABILITY CLASS	MIX.HT. (M)	AMB. TEMP. (DEG-K)	PRESS. (MB)
1.	94.	3.09	5	946.	298.	1000.00
2.	92.	3.09	5	946.	298.	1000.00
3.	61.	2.57	5	946.	296.	1000.00
4.	86.	3.09	5	946.	296.	1000.00
5.	87.	2.57	5	946.	296.	1000.00
6.	81.	2.06	5	946.	296.	1000.00
7.	86.	3.60	4	946.	296.	1000.00
8.	71.	2.57	4	946.	296.	1000.00
9.	86.	3.60	4	946.	298.	1000.00
10.	108.	3.60	4	946.	299.	1000.00
11.	103.	5.14	3	946.	301.	1000.00
12.	153.	4.12	4	946.	301.	1000.00
13.	89.	2.57	4	946.	300.	1000.00
14.	242.	1.54	3	946.	300.	1000.00
15.	218.	3.09	4	946.	301.	1000.00
16.	180.	3.09	3	946.	301.	1000.00
17.	192.	1.54	3	946.	300.	1000.00
18.	192.	1.00	4	942.	299.	1000.00
19.	101.	2.06	5	837.	298.	1000.00
20.	39.	1.54	6	753.	298.	1000.00
21.	78.	2.06	5	669.	298.	1000.00
22.	120.	1.03	6	585.	298.	1000.00
23.	105.	1.03	7	501.	296.	1000.00
24.	90.	1.03	6	417.	296.	1000.00

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EPA DIFFUSION MODEL PTMTF

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AVERAGE CONCENTRATIONS (UG/M**3) AND PERCENT CONTRIBUTIONS FOR 24 HOURS

RECEPTORS	1.		2.		3.		4.		5.	
	PARTIAL CONC.	% CONT.	PARTIAL CONC.	% CONT.	PARTIAL CONC.	% CONT.	PARTIAL CONC.	% CONT.	PARTIAL CONC.	% CONT.
NW 05 RAIL GND ROCK UNLOAD	0.03	1.50	0.03	2.51	0.00	1.38	0.10	2.53	0.00	0.54
NW 09 DAP PLANT	0.14	6.39	0.09	8.60	0.02	7.50	0.23	6.20	0.00	4.15
NW 10 GTSP PLANT	0.18	8.31	0.10	9.77	0.03	9.52	0.31	8.11	0.00	6.59
NW 11 MAP PLANT	0.10	4.88	0.07	6.40	0.02	5.21	0.21	5.68	0.00	2.71
NW 12 GTSP STORAGE	0.16	7.36	0.09	8.40	0.03	8.25	0.27	7.30	0.00	5.72
NW 13 AUX BOILER	0.13	5.86	0.10	9.76	0.02	7.19	0.12	3.25	0.00	3.03
NW 21 GTSP ROCK BIN	0.05	2.41	0.02	2.29	0.01	1.83	0.14	3.65	0.00	1.19
NW 24 MULTIPHOS SHIP BIN	0.05	2.33	0.01	1.33	0.00	1.54	0.09	2.47	0.00	2.17
NW 25 LIMESTONE STG SILO	0.03	1.50	0.01	1.11	0.00	1.21	0.07	1.75	0.00	1.42
NW 26 SILICA HANDLING	0.03	1.48	0.01	0.83	0.00	0.91	0.06	1.59	0.00	1.46
NW 27 AFI PLANT	0.18	8.26	0.09	7.97	0.03	10.95	0.21	5.56	0.00	15.73
NW 28 AFI STG SILOS(2)	0.08	3.81	0.03	2.92	0.01	3.21	0.16	4.32	0.00	3.70
NW 29 FERT PRODUCTS SHIP	0.14	6.64	0.07	6.12	0.02	6.09	0.29	7.64	0.00	4.39
NW 30 AFI LIMESTN FEED SILO	0.03	1.48	0.01	1.09	0.00	1.21	0.06	1.70	0.00	1.53
NW 31 AFI TRUCK SHIP	0.04	1.88	0.01	1.39	0.00	1.38	0.09	2.42	0.00	1.38
NW 32 AFI RAIL SHIP	0.04	1.79	0.01	1.07	0.00	1.31	0.07	1.82	0.00	1.88
NW 33 MULTIPHOS PLANT	0.17	8.05	0.07	6.07	0.03	8.34	0.25	6.66	0.00	15.91
NW 34 SODA ASH UNLOAD	0.05	2.28	0.01	1.26	0.00	1.53	0.09	2.28	0.00	3.45
NW 35 SODA ASH CONVEYING	0.05	2.49	0.01	1.40	0.01	1.64	0.10	2.57	0.00	3.58
NW 36 MULTIPHOS COOLER A	0.05	2.23	0.02	1.50	0.01	1.80	0.08	2.22	0.00	2.91
NW 37 MULTIPHOS COOLER B	0.05	2.17	0.02	1.51	0.01	1.79	0.08	2.21	0.00	2.76
NW 38 MULTIPHOS SIZING	0.03	1.40	0.01	0.86	0.00	0.91	0.06	1.54	0.00	1.40
NW 39 MULTIPHOS CLASS	0.05	2.11	0.01	1.33	0.00	1.51	0.09	2.29	0.00	2.37
NW 40 SECOND PRODUCT L/O	0.03	1.30	0.01	1.25	0.00	1.10	0.06	1.62	0.00	0.58
NW 90 LIMING STATION	0.00	0.09	0.00	0.19	0.00	0.07	0.00	0.12	0.00	0.02
NW 91 THIRD PRODUCT L/O	0.03	1.23	0.01	1.34	0.00	1.05	0.06	1.61	0.00	0.46
NW 92 DAP SCRUBBER 1	0.06	2.88	0.04	3.72	0.01	3.60	0.10	2.54	0.00	2.25
NW 93 DAP SCRUBBER 2	0.07	3.15	0.04	3.53	0.01	3.89	0.10	2.66	0.00	3.07
NW 94 DAP BAG COLLECTOR	0.03	1.48	0.02	1.63	0.00	1.40	0.07	1.77	0.00	0.79
NW 14 GTSP RAIL LOADING	0.04	1.83	0.02	1.80	0.00	1.57	0.09	2.37	0.00	0.92
NW 50 AREA 10	0.02	0.82	0.00	0.46	0.00	0.59	0.03	0.76	0.00	1.32
NW 51 AREA 40	0.01	0.26	0.00	0.14	0.00	0.18	0.01	0.24	0.00	0.42
NW 95 ROCK STG SILO	0.01	0.35	0.01	0.47	0.00	0.34	0.02	0.55	0.00	0.19
TOTAL CONCENTRATION (UG/M**3)										
	2.14		1.07		0.31		3.76		0.00	