

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

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KA 124-92-02  
October 30, 1992

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

Subject: IMC Fertilizer, Inc.  
Refinement of Fluoride Emission Limits for  
No. 2 DAP Plant

Dear Mr. Fancy:

IMC Fertilizer, Inc. requests a refinement of the fluoride emission limits in permit No. AC53-177264 for the No. 2 DAP plant issued by FDER's Tallahassee office in June 1990. A check in the amount of \$250 (permit amendment fee) is enclosed.

Originally, the DAP 2E and 2W trains shared a common product cooler (permitted under AO53-183082). The cooler was equipped with a baghouse to control emissions of particulate matter. The above construction permit allowed IMC to use the existing cooler/baghouse system for the DAP 2W train and allowed the installation of a new cooler/scrubber system for the DAP 2E train.

The fluoride emission limits in Specific Condition No. 6 of the above construction permit restricted fluoride emissions from the DAP 2E train to 3.86 pounds per hour (corresponding to 0.06 lbF/ton  $P_2O_5$ ). However, the permit did not specify the allowable fluoride emissions from each individual emission point involved in the project. An attempt to prorate the allowable fluoride emissions in the subsequently issued operation permit, No. AO53-215386, was based on an inaccurate estimate provided to FDER (as no test data were available on fluoride emissions from the proposed cooler systems).

A more realistic proration of the allowable fluoride emissions is possible at this time as test data are now available on the four affected points. However, in order to make the prorated allowable fluoride emission limits federally enforceable, it is our understanding that the above construction permit would need to be amended.

The following are the requested fluoride emission limits based on actual test results (attached):



QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL  
PACKAGE  
TRACKING NUMBER

6081756041

1300M

6081756041

Date

10/30/92

RECIPIENT'S COPY

From (Your Name) Please Print <b>John Koogler</b>		Your Phone Number (Very Important) <b>(904) 377-5822</b>		To (Recipient's Name) Please Print <b>Clair Faney</b>		Recipient's Phone Number (Very Important)	
Company <b>DOGLER &amp; ASSOC</b>		Department/Floor No.		Company <b>F.D.E.R.</b>		Department/Floor No.	
Street Address <b>014 NW 13TH ST</b>				Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.) <b>2600 Blair Stone Rd</b>			
City <b>AINSVILLE</b>		State <b>FL</b>		ZIP Required <b>32609</b>		City <b>Titusville FL</b>	
				State <b>FL</b>		ZIP Required <b>32399</b>	
YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.) <b>124-92-02</b>				IF HOLD FOR PICK-UP, Print FEDEX Address Here Street Address			
PAYMENT: <input checked="" type="checkbox"/> Bill Sender <input type="checkbox"/> Bill Recipient's FedEx Acct. No. <input type="checkbox"/> Bill 3rd Party FedEx Acct. No. <input type="checkbox"/> Bill Credit Card				City			
<input type="checkbox"/> Cash <input type="checkbox"/> Check				State			
				ZIP Required			

4 SERVICES (Check only one box)		5 DELIVERY AND SPECIAL HANDLING (Check services required)		6 PACKAGES		WEIGHT In Pounds Oz		YOUR DECLARED VALUE (See right)		Emp. No.		Date		Federal Express Use	
Priority Overnight (Delivery by next business morning) 11 <input type="checkbox"/> OTHER PACKAGING 16 <input checked="" type="checkbox"/> FEDEX LETTER 12 <input type="checkbox"/> FEDEX PAK 13 <input type="checkbox"/> FEDEX BOX 14 <input type="checkbox"/> FEDEX TUBE Economy Two-Day (Delivery by second business day) 30 <input type="checkbox"/> ECONOMY Freight Service (For packages over 150 lbs.) 70 <input type="checkbox"/> OVERNIGHT FREIGHT 80 <input type="checkbox"/> TWO-DAY FREIGHT		Standard Overnight (Delivery by next business afternoon) 51 <input type="checkbox"/> OTHER PACKAGING 56 <input type="checkbox"/> FEDEX LETTER 52 <input type="checkbox"/> FEDEX PAK 53 <input type="checkbox"/> FEDEX BOX 54 <input type="checkbox"/> FEDEX TUBE Government Overnight (Restricted for authorized users only) 46 <input type="checkbox"/> GOVT LETTER 41 <input type="checkbox"/> GOVT PACKAGE		HOLD FOR PICK-UP (Fill in Box H) 1 <input type="checkbox"/> WEEKDAY 31 <input type="checkbox"/> SATURDAY DELIVER 2 <input checked="" type="checkbox"/> WEEKDAY 3 <input type="checkbox"/> SATURDAY (Extra charge) 4 <input type="checkbox"/> DANGEROUS GOODS (Extra charge) 5 <input type="checkbox"/> 6 <input type="checkbox"/> DRY ICE 7 <input type="checkbox"/> OTHER SPECIAL SERVICE 9 <input type="checkbox"/> SATURDAY PICK-UP (Extra charge) 12 <input type="checkbox"/> HOLIDAY DELIVERY (if offered) (Extra charge)		DIM SHIPMENT (Chargeable Weight) L x W x H Received AT 1 <input type="checkbox"/> Regular Stop 2 <input type="checkbox"/> On-Call Stop 3 <input type="checkbox"/> Drop Box 4 <input type="checkbox"/> B.S.C. 5 <input type="checkbox"/> Station		Total Total Total DIM SHIPMENT (Chargeable Weight) _____ lbs. L x W x H Received AT 1 <input type="checkbox"/> Regular Stop 2 <input type="checkbox"/> On-Call Stop 3 <input type="checkbox"/> Drop Box 4 <input type="checkbox"/> B.S.C. 5 <input type="checkbox"/> Station		Emp. No. Date Received By: <b>X</b> Date/Time Received FedEx Employee Number		Federal Express Use Base Charges Declared Value Charge Other 1 Other 2 Total Charges			
© 1991-92 FEDEX PRINTED IN U.S.A. REVISION DATE 6/92 PART #137204 FXEM 10/92 FORMAT #136 <b>136</b>															

Emission Point	Allowable Fluoride Emissions (lb/hr)		
	Present	Proposed	Net Change
DAP 2E	2.1	3.5	+ 1.4
2E Cooler	1.8	0.4	- 1.4
Subtotal	3.9	3.9	0
DAP 2W	2.1	3.5	+ 1.4
2W Cooler	1.8(1)	0.4	- 1.4
Subtotal	3.9	3.9	0
TOTAL	7.8	7.8	0

(1) None mentioned in the current permit (AO53-183082), issued for a common cooler.

Please note that no revisions are being requested for the DAP production rates, operating hours, process equipment or method of operation. The above request is simply to refine the prorated allowable fluoride emissions for the No. 2 DAP plant based on actual measurements.

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:PAR:wa  
Enc.

c: Mr. J. Baretincic, IMC  
Mr. J. Girardin, IMC  
Mr. D. Turley, IMC  
*J. Reynolds*  
*B. Thomas, SW Dist.*



ATTACHMENT 1

TEST RESULTS SUMMARY



IMC FERTILIZER, INC.  
SOURCE SAMPLING CALCULATION REPORT

TEST ON #2DAPE STACK      AT NEW WALES PLANT, FL      CONDUCTED ON 06/29/92

DATA SUMMATIONS

PARAMETER	UNITS	RUN 1	RUN 2	RUN 3
BAROMETER PRESSURE	IN OF HG	29.78	29.78	29.78
STATIC PRESSURE	IN OF HOH	0.60	0.60	0.60
STACK PRESSURE	IN OF HG	29.82	29.82	29.82
AVERAGE SQR. DELTA P	IN HOH <sup>1/2</sup>	0.880	0.882	0.880
AVERAGE DELTA H	IN OF HOH	1.69	1.70	1.69
AVERAGE METER TEMP.	DEGREES F	91	92	92
AVERAGE STACK TEMP.	DEGREES F	107	107	107
METERED SAMPLE VOL.	CUBIC FT.	44.50	44.60	44.50
STD. METER VOLUME	CUBIC FT.	42.04	42.06	41.91
PITOT COEFFICIENT	UNITY	0.84	0.84	0.84
NOZZLE DIAMETER	IN	0.220	0.220	0.220
STACK AREA	SQUARE FT	28.27	28.27	28.27
TRAVERSE POINTS	UNITY	12	12	12
SAMPLING TIME	MINUTES	60	60	60
MOL. WT. OF GAS	LB/LB-MOLE	28.33	28.29	28.34
ACT. STK. VELOCITY	FT/SEC	51.8	51.9	51.7
ACT. STK. GAS FLOW	CU-FT/MIN	87,800	88,103	87,777
STD. GAS FLOW	CU-FT/MIN.	76,479	76,425	76,582
FLUORIDE EMISSION	LB/DAY	40.6	59.3	35.1
ISOKINETIC RATE	%	98.1	98.3	97.7

IMC FERTILIZER, INC.  
SOURCE SAMPLING CALCULATION REPORT

DAP 2E COOLER

TEST ON #2DAPECO STACK AT NEW WALES PLANT, FL CONDUCTED ON 03/18/92

DATA SUMMATIONS

PARAMETER	UNITS	RUN 1	RUN 2	RUN 3
BAROMETER PRESSURE	IN OF HG	30.00	30.00	30.00
STATIC PRESSURE	IN OF HOH	0.55	0.55	0.55
STACK PRESSURE	IN OF HG	30.04	30.04	30.04
AVERAGE SQR. DELTA P IN HOH1/2		1.063	1.067	1.060
AVERAGE DELTA H	IN OF HOH	2.25	2.27	2.25
AVERAGE METER TEMP.	DEGREES F	74	84	84
AVERAGE STACK TEMP.	DEGREES F	102	102	102
METERED SAMPLE VOL.	CUBIC FT.	51.21	51.25	50.61
STD. METER VOLUME	CUBIC FT.	50.32	49.47	48.83
PITOT COFFICIENT	UNITY	0.78	0.78	0.78
NOZZLE DIAMETER	IN	0.220	0.220	0.220
STACK AREA	SQUARE FT	19.63	19.63	19.63
TRAVERSE POINTS	UNITY	20	20	20
SAMPLING TIME	MINUTES	60	60	60
MOL. WT. OF GAS	LB/LB-MOLE	28.59	28.57	28.49
ACT. STK. VELOCITY	FT/SEC	57.3	57.6	57.3
ACT. STK. GAS FLOW	CU-FT/MIN	67,546	67,832	67,496
STD. GAS FLOW	CU-FT/MIN.	61,320	61,489	60,688
PART. EMISSION	LB/DAY	14.7	9.1	9.9
FLUORIDE EMISSION	LB/DAY	2.4	2.8	2.2
ISOKINETIC RATE	%	101.7	99.7	99.8

IMC FERTILIZER, INC.  
SOURCE SAMPLING CALCULATION REPORT

DAP 2W

TEST ON #2DAPW STACK AT NEW WALES PLANT, FL CONDUCTED ON 09/21/92

DATA SUMMATIONS

PARAMETER	UNITS	RUN 1	RUN 2	RUN 3
BAROMETER PRESSURE	IN OF HG	29.98	29.98	29.98
STATIC PRESSURE	IN OF HOH	0.45	0.45	0.45
STACK PRESSURE	IN OF HG	30.01	30.01	30.01
AVERAGE SQR. DELTA P	IN HOH <sup>1/2</sup>	0.989	0.989	0.988
AVERAGE DELTA H	IN OF HOH	2.15	2.17	2.16
AVERAGE METER TEMP.	DEGREES F	92	95	98
AVERAGE STACK TEMP.	DEGREES F	116	116	116
METERED SAMPLE VOL.	CUBIC FT.	49.10	48.80	48.70
STD. METER VOLUME	CUBIC FT.	46.63	46.10	45.78
PITOT COEFFICIENT	UNITY	0.84	0.84	0.84
NOZZLE DIAMETER	IN	0.220	0.220	0.220
STACK AREA	SQUARE FT	28.27	28.27	28.27
TRAVERSE POINTS	UNITY	12	12	12
SAMPLING TIME	MINUTES	60	60	60
MOL. WT. OF GAS	LB/LB-MOLE	28.24	28.51	28.33
ACT. STK. VELOCITY	FT/SEC	58.6	58.3	58.4
ACT. STK. GAS FLOW	CU-FT/MIN	99,384	98,848	99,088
STD. GAS FLOW	CU-FT/MIN.	85,015	86,822	85,536
FLUORIDE EMISSION	LB/DAY	53.8	37.1	30.9
ISOKINETIC RATE	%	97.9	94.8	95.6

IMC FERTILIZER, INC.  
SOURCE SAMPLING CALCULATION REPORT

DAP 2W COOLER

TEST ON #2DAPDC STACK AT NEW WALES PLANT, FL CONDUCTED ON 09/23/92

DATA SUMMATIONS

PARAMETER	UNITS	RUN 1	RUN 2	RUN 3
BAROMETER PRESSURE	IN OF HG	29.89	29.89	29.89
STATIC PRESSURE	IN OF HOH	0.40	0.40	0.40
STACK PRESSURE	IN OF HG	29.92	29.92	29.92
AVERAGE SQR. DELTA P	IN HOH <sup>1/2</sup>	0.884	0.853	0.884
AVERAGE DELTA H	IN OF HOH	1.66	1.66	1.67
AVERAGE METER TEMP.	DEGREES F	97	101	103
AVERAGE STACK TEMP.	DEGREES F	163	163	163
METERED SAMPLE VOL.	CUBIC FT.	44.84	45.05	45.30
STD. METER VOLUME	CUBIC FT.	42.01	41.89	42.03
PITOT COEFFICIENT	UNITY	0.80	0.80	0.80
NOZZLE DIAMETER	IN	0.225	0.225	0.225
STACK AREA	SQUARE FT	19.63	19.63	19.63
TRAVERSE POINTS	UNITY	12	12	12
SAMPLING TIME	MINUTES	60	60	60
MOL. WT. OF GAS	LB/LB-MOLE	28.67	28.65	28.64
ACT. STK. VELOCITY	FT/SEC	51.5	49.7	51.6
ACT. STK. GAS FLOW	CU-FT/MIN	60,709	58,581	60,737
STD. GAS FLOW	CU-FT/MIN.	49,873	48,013	49,766
FLUORIDE EMISSION	LB/DAY	2.0	1.5	2.2
ISOKINETIC RATE	%	99.8	103.4	100.1



ATTACHMENT 2

NO. 2 DAP PLANT PERMITS



PERMITTEE:  
IMC Fertilizer, Inc.

Permit Number: AC 53-177264  
Expiration Date: December 31, 1991

**GENERAL CONDITIONS:**

records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

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

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

**SPECIFIC CONDITIONS:**

1. This permit and the following specific conditions apply only to the DAP 2E cooler and its air pollution control equipment. This permit does not change any conditions of the current permits (AO 53-106293 and AO 53-134734) for this facility.

2. The construction and operation of the DAP 2E cooler and its air pollution control equipment shall be in accordance with the capacities and specifications stated in the application.

3. Product rate through the DAP 2E cooler shall not exceed 140 tons per hour and 1,103,760 tons per year.

4. The DAP 2E cooler may operate up to 7884 hours per year.

5. Particulate matter emissions from the DAP 2E cooler scrubber shall not exceed 6.2 pounds per hour and 24.5 tons per year.

PERMITTEE:  
IMC Fertilizer, Inc.

Permit Number: AC 53-177264  
Expiration Date: December 31, 1991

SPECIFIC CONDITIONS:

6. Fluoride emissions from the DAP 2E cooler scrubber shall not result in an exceedance of the 0.06 pound per ton  $P_2O_5$  standard which covers the entire DAP 2E unit operating at its maximum permitted operating rate. For the typical  $P_2O_5$  content of 46 percent, the maximum fluoride emission rate for the entire process is  $140 \text{ TPH} \times 0.46 \times 0.06 = 3.86$  pounds per hour (15.2 tons per year).

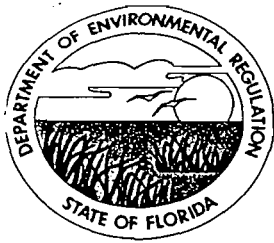
7. All reasonable precautions that apply under F.A.C. Rule 17-2.610(3) shall be implemented to limit unconfined emissions of particulate matter from any activity associated with this project.

8. Within 60 days after initial startup, the DAP 2E cooler scrubber shall be tested for particulate matter and fluoride emissions. Test procedures shall be in accordance with EPA reference methods 1, 2, 3, 5 and 13A or 13B as published in 40 CFR Part 60, Appendix A. The Department's Southwest District office shall be notified in writing at least 5 days prior to initial startup and at least 15 days prior to the compliance test. The test shall be conducted at permitted production capacity or no less than 90 percent thereof.  $P_2O_5$  input, pH of scrubber water, and scrubber pressure drop shall be reported along with the test data. Results of the compliance test shall be reported to the Department's Southwest District office within 45 days of test completion.

9. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

10. An application for an operation permit must be submitted to the Department's Southwest District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rule 17-4.220).





# Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347

Lawton Chiles, Governor

813-623-5561

Carol M. Browner, Secretary

PERMITTEE:  
IMC Fertilizer, Inc.  
Post Office Box 1035  
Mulberry, FL 33860

PERMIT/CERTIFICATION  
Permit No.: AO53-193163  
County: Polk  
Expiration Date: 07/20/96  
Project: DAP Plant 2E Cooler

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

For the operation of a DAP product cooler used to cool product from only the DAP Plant No. 2 East (2E). The cooler receives a maximum of 140 tons/hr. of product (64.4 P2O5 input to DAP Plant 2E) and is designed to cool the product to a maximum of 120 degrees F. Cooled product is discharged to the same product elevator used by DAP Plant 2 West. Emissions from the cooler are controlled by a Buell four cluster cyclone which vents to a Koch Engineering (316L SS) direct contact venturi scrubber at an average measured rate of 64,303 DSCFM. The scrubber is designed to use fresh water or pond water which may contain a small amount of ammonia vaporizer condensate. The scrubber's liquid effluent is discharge to the wet rock grinding facility or recirculated to the cooling pond.

Location: Highway 640 & County Line Road, Mulberry

UTM: 17-396.7E 3079.4N NEDS No.: 0059 Point ID: 56

Replaces Permit No.: AC53-177264

PERMITTEE:  
IMC Fertilizer, Inc.

Permit No.: AO53-193163  
Project: DAP Plant No. 2E  
Cooler

SPECIFIC CONDITIONS:

1. A part of this permit is the attached 15 General Conditions.
2. This source shall comply with all applicable provisions of the new source performance standards listed in 40 CFR 60, Subpart V which were adopted by reference in Rule 17-2.660, F.A.C.
3. Visible emissions from this source shall not be equal to or exceed 20% opacity in accordance with Rule 17-2.610(2), F.A.C.
4. Particulate emissions from this source shall not exceed 0.011 gr/dscf, 6.2 lbs./hr., and 24.5 tons/yr. [Permit AC53-177264]
5. Fluoride emissions from this source shall not result in an exceedance of the 0.060 pound per ton of P2O5 standard which covers the entire DAP Plant No. 2E unit operating at its maximum permitted operating rate. For the typical P2O5 content of 46%, the maximum fluoride emission rate for the entire process is  $140 \times 0.46 \times 0.060 = 3.86$  pounds per hour (15.2 tons per year). The permittee has established a fluoride allocation of 1.8 lbs./hr. (0.028 lbs./ton of P2O5) for the cooler and 2.1 lbs./hr. (0.032 lbs./ton of P2O5) for the DAP Plant No. 2E. [Permit AC53-177264]
6. Product rate through the DAP Plant No. 2E cooler shall not exceed 140 tons/hr. (maximum P2O5 input to DAP Plant No. 2E is 64.4 tons/hr.) and 1,103,760 tons/yr. [Permit AC53-177264]
7. The DAP Plant No. 2E cooler may operate up to 7884 hours per year. [Permit AC53-177264]
8. The minimum pressure drop across the scrubber shall be 14.4 inches of water or no lower than 10% of the measurement during the most recent compliance test. NOTE--The pressure drop during the March 28, 1991 compliance test was 16 inches of water. [Rule 17-4.070(3), F.A.C.]
9. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter in accordance with the provisions in Rule 17-2.610(3), F.A.C. These provisions are applicable to any source, including but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrial related activities such as loading, unloading, storing and handling.

PERMITTEE:  
IMC Fertilizer, Inc.

Permit No.: A053-193163  
Project: DAP Plant No. 2E  
Cooler

10. This source shall continuously measure and permanently record the scrubber's recirculating water flow rate (gpm).  
[Permit AC53-177264]

11. This source shall continuously measure and permanently record the scrubber's total pressure drop (inches of water).  
[Rule 17-2.660, F.A.C. and 40 CFR 60.223(c)]

12. This source shall be tested for particulates, fluorides, and visible emissions at interval of 12 months from the date March 28, 1991. Submit a copy of the test data to this office within 45 days of such testing. [Rules 17-2.700(2) and 17-2.700(7), F.A.C.]

13. Compliance with the emission limitations of Specific Condition Nos. 3, 4, and 5 shall be demonstrated in accordance with EPA Methods 1, 2, 4, 5, 9, and 13A or 13B as published in 40 CFR 60, Appendix A and adopted by reference in Rule 17-2.700, F.A.C.

14. Testing of emissions shall be conducted at the permitted DAP production capacity of 140 tons/hr. or no less than 90 percent thereof. P2O5 input (tons/hr.), gpm scrubber water (fresh water or pond water), DAP product throughput rate (tons/hr.) and scrubber pressure drop (inches of water) shall be reported along with the test data. A compliance test submitted at an operating rate less than 90% of the maximum permitted DAP throughput rate will automatically constitute an amended permit at the lesser rate until another test (showing compliance) at a higher rate is submitted. Failure to submit the required operating data or not operate at actual operating conditions may invalidate the test.  
[Rule 17-4.070(3), F.A.C. and Permit AC53-177264]

15. If a compliance test is conducted when only fresh water is used for scrubber water, a new compliance test shall be required when the scrubber has operated more than 10 days during a calendar year with pond water. [Permit AC53-177264]

16. If the recirculating water flow rate (gpm) to the scrubber varies by plus or minus 25% since the most recent compliance test, then the source shall be re-tested as stipulated in Specific Condition No. 12. [Permittee's letter dated April 3, 1991] NOTE--The compliance test dated March 28, 1991 recorded a recirculating water flow rate of 460 gpm.

PERMITTEE:  
IMC Fertilizer, Inc.

Permit No.: A053-193163  
Project: DAP Plant No. 2E  
Cooler

17. The permittee shall notify the Southwest District Office of the Department at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted. [Rule 17-2.700(2)(a)9., F.A.C.].

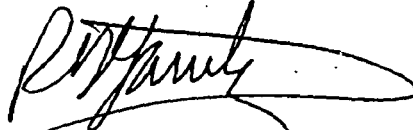
18. Submit for this source, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information pursuant to Subsection 403.061(13), F.S.:

- (A) Annual amount of materials and/or fuels utilized;
- (B) Annual emissions (note calculation basis);
- (C) Any changes in the information contained in the permit.

The report shall be submitted to the Southwest District Office of the Department.

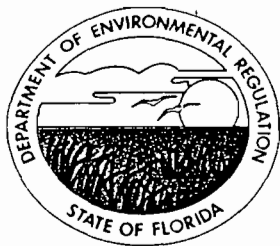
19. Four applications to renew this operating permit shall be submitted to this office at least 60 days prior to the expiration date of the permit pursuant to Rule 17-4.090(1), F.A.C.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION



Richard D. Garrity, Ph.D.  
Director of District Management





# Florida Department of Environmental Regulation

Southwest District

4520 Oak Fair Boulevard

Tampa, Florida 33610-7347

Lawton Chiles, Governor

813-620-6100

Carol M. Browner, Secretary

## PERMITTEE:

IMC Fertilizer, Inc.  
P.O. Box 1035  
Mulberry, FL 33860

## PERMIT/CERTIFICATION:

Permit No: A053-215386  
County: Polk  
Expiration Date: 07/24/97  
Project: DAP II Plant,  
East Train

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

For the operation of the DAP II Plant, East Train. Maximum production rate is 140 tons per hour of diammonium phosphate (DAP) (approximately 70 TPH  $P_2O_5$  feed).

Particulate, fluoride and sulfur dioxide emissions from the DAP production equipment are controlled by two parallel control systems, each consisting of a venturi scrubber followed by a tailgas adsorption scrubber. Equipment and controls included on this permit are described below:

- Emissions from the reactor and the granulator discharge are pretreated by a prescrubber and then controlled by the "RG" venturi scrubber followed by a tailgas scrubber.
- Emissions from the recycle elevator discharge, the recycle conveyor and the dryer-to-screening elevator discharge are all pretreated by equipment cyclones (2) and then controlled by the "RG" venturi scrubber followed by a tailgas scrubber.
- Emissions from the dryer discharge are pretreated by dryer cyclones (4) and then controlled by the "Dryer" venturi scrubber followed by a tailgas scrubber.

The dryer is fired with natural gas at a maximum heat input rate of 36 MMBtu/hr, with No. 6 fuel oil (2.5% sulfur max.) as a backup fuel. Exhaust gas from both scrubber control systems are combined and vented to the atmosphere through a 171 foot high stack.

**Location:** New Wales Operations, Highway 640 and County Line Road

**UTM:** 17-396.7 E 3079.4 N **NEDS No:** 0059 **Point ID No:** 45

Replaces Permit No.: A053-134734

PERMITTEE  
 IMC Fertilizer, Inc.  
 New Wales Operations

PERMIT/EXPIRATION  
 Permit No.: AO53-215386  
 County: Polk  
 Project: DAP II Plant, East Train

**Specific Conditions:**

1. A part of this permit is the attached 15 General Conditions.

Emission and Operating Limitations

2. The DAP II Plant is subject to and shall meet the requirements of the Federal New Source Performance Standards, 40 CFR 60, Subpart V, Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants. (See also Specific Condition Nos. 5, 18, 19 and 20.)  
 [Rule 17-2.660, F.A.C. and 40 CFR 60.220].
3. The East Train of the DAP II Plant shall not operate more than 7,920 hours per year.  
 [Amendment to construction permit AC53-118671, dated June 29, 1987].
4. The maximum production rate of the East Train of the DAP II Plant shall not exceed 140 tons per hour of DAP.  
 [Amendment to construction permit AC53-118671, dated June 29, 1987].
5. The maximum allowable emissions from the East Train of the DAP II Plant shall not exceed the following:

Pollutant	Emission Limitations			Limit Basis
	BACT/NSPS	lbs/hour	tons/year	
Particulate	0.5 lbs/ton P205	14.1	56.0	a
Visible Emissions	20% opacity	-	-	b
Fluorides	0.06 lbs/ton P205	2.1	8.3	a,c
Sulfur Dioxide	0.7 lbs/ton P205	22.0	87.0	a
Nitrogen Oxides	0.6 lbs/MMBtu	12.6	55.2	d

Limit Basis Notes:

- a - BACT (Best Available Control Technology) determination of May 5, 1980 for construction permit AC53-23456.
- b - Rule 17-2.610(2), F.A.C.
- c - Rule 17-2.660, F.A.C. and 40 CFR 60.222(a). (NSPS)
- d - BACT determination of April 27, 1987 for construction permit AC53-118671.

PERMITTEE

IMC Fertilizer, Inc.  
New Wales Operations

PERMIT/EXPIRATION

Permit No.: AO53-215386  
County: Polk  
Project: DAP II Plant, East Train

**Specific Conditions:**

6. The pressure drop across each of the venturi scrubbers (the reactor granulator (R/G) scrubber, and the dryer scrubber) shall be at least 12 inches of water during all periods of operation of the DAP II East Train unless compliance with the emission limitations of Specific Condition No. 5 can be demonstrated by stack test at permitted operating conditions with a lower pressure drop. [June 29, 1989 amendment to Construction Permit AC53-118671].

7. The DAP II East Train dryer shall be fired by natural gas, or No. 6 fuel oil with a maximum sulfur content not to exceed 2.5% sulfur by weight. The maximum fuel heat input rate shall not exceed 36 MMBtu/hr unless compliance with the emission limitations of Specific Condition No. 5 have been demonstrated by stack test under conditions of higher heat input. Reports of such stack tests shall be submitted to the Department along with a request for approval of an increased maximum heat input cap. [BACT determination of May 5, 1980 and June 29, 1989 amendment to Construction Permit AC53-118671].

8. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter in accordance with the provisions in Rule 17-2.610(3), F.A.C. These provisions are applicable to any source, including but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrial related activities such as loading, unloading, storing and handling. Fugitive emissions of particulate and fluorides from process and storage equipment shall be controlled by sealing openings and/or venting all fumes from the equipment to the appropriate control equipment. [Rule 17-2.610(3), F.A.C. and Construction Permit No. AC53-118671].

9. Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Chapter 17-2, or any other requirements under federal, state or local law. [Rule 17-2.210, F.A.C.].

Testing Requirements

10. Test the DAP II East Train scrubbers stack for visible emissions once every 6 months from the baseline date of January 29 and submit a copy of the test data to the Air Section of the Southwest District Office within 45 days of such testing. [Rules 17-2.700(2) and 17-2.700(8), F.A.C.].

PERMITTEE

IMC Fertilizer, Inc.  
New Wales Operations

PERMIT/EXPIRATION

Permit No.: A053-215386  
County: Polk  
Project: DAP II Plant, East Train

**Specific Conditions:**

11. Test the emissions from the DAP II East Train scrubbers stack for the following pollutants annually within one month of the baseline date of January 29. A copy of the test data shall be submitted to the Air Section of the Southwest District Office within 45 days of such testing:

- (X) Particulates
- (X) Fluorides
- (X) Sulfur dioxide (SO<sub>2</sub>) (See Specific Condition No. 16)
- (X) Nitrogen oxides (NO<sub>x</sub>)

[Rules 17-2.700(2) and 17-2.700(8), F.A.C.].

12. The permittee shall notify the Southwest District Office of the Department at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted.

[Rule 17-2.700(2)(a)9., F.A.C.].

13. The maximum production rate and dryer heat input rate for the DAP II Plant East Train shall not exceed 140 tons per hour and 36 MMBtu/hr respectively. Testing of emissions must be conducted within 90-100% of the maximum permitted DAP production rate while the dryer is firing No. 6 fuel oil, with a sulfur content representative of the maximum fired in the dryer, at 90-100% of the maximum permitted heat input rate. A compliance test submitted at a production or heat input rate less than 90% of maximum permitted rate will automatically constitute an amended permit at the lesser rate until another test showing compliance at a higher rate is submitted. Based on the operating rates during the January 27-31, 1992 testing, the current maximum permitted production rate and dryer heat input rate are 123 tons per hour and 16.2 MMBtu/hr respectively. Any time the permitted rates of the source are exceeded by more than 10% a compliance test shall be performed within 30 days of initiation of the higher rates and the test results shall be submitted to the Department within 45 days of testing. Acceptance of the test by the Department will constitute an amended permit at the higher rates, not to exceed the maximum rates specified at the beginning of this condition. The emission limitations in Specific Condition No. 5 shall not change. A statement of the production rate, fuel type, and heat input rate shall be submitted with the test report. (See also Specific Condition No. 15 for additional information to be included with test report.) [Rule 17-4.070(3), F.A.C. and June 29, 1989 amendment to Construction Permit AC53-118671].

PERMITTEE

IMC Fertilizer, Inc.  
New Wales Operations

PERMIT/EXPIRATION

Permit No.: A053-215386  
County: Polk  
Project: DAP II Plant, East Train

**Specific Conditions:**

14. Compliance with the emission limitations of Specific Condition No. 5 shall be determined using EPA Methods 1, 2, 4, 5, 6, 7, 9 and 13A or 13B contained in 40 CFR 60, Appendix A and adopted by reference in Rule 17-2.700, F.A.C., or other methods approved by the Department. The minimum requirements for stationary point source emissions test procedures and reporting shall be in accordance with Rule 17-2.700, F.A.C. and 40 CFR 60, Appendix A. [Rules 17-2.700 & 17-2.660, F.A.C. and 40 CFR 60.224].

15. For each scrubber, the following scrubber operating parameters shall be monitored during any compliance test and a summary of this data shall be included in any emissions test report.

- (X) P<sub>2</sub>O<sub>5</sub> Input
- (X) pH of scrubber solution
- (X) Gas Pressure Drop (inches H<sub>2</sub>O)

[Rule 17-4.070(3), F.A.C. and June 29, 1989 amendment to Construction Permit AC53-118671].

16. The DAP II Plant East Train may be tested while firing natural gas in the dryer if No. 6 fuel oil has not been used since the last test and its use is not expected before the next required test. If natural gas is fired in the dryer then the sulfur dioxide testing requirement of Specific Condition No. 11 is waived. If this option is exercised, the test report shall include a statement certifying that the above fuel oil usage requirement has been met.

17. If testing is conducted while firing No. 6 fuel oil in the dryer, compliance with the sulfur content requirement of Specific Condition No. 7 shall be demonstrated during the test by submitting either of the following with the test report:

- (A) A Certificate of Fuel Oil Analysis from your fuel oil vendor for the fuel used during the compliance test; or
- (B) A Certificate of Fuel Oil Analysis for a fuel oil sample taken during the compliance test.

[Rule 17-4.070(3), F.A.C.].

PERMITTEE

IMC Fertilizer, Inc.  
New Wales Operations

PERMIT/EXPIRATION

Permit No.: A053-215386  
County: Polk  
Project: DAP II Plant, East Train

**Specific Conditions:**

Monitoring and Recordkeeping Requirements

18. The permittee shall install, calibrate, maintain, and operate a monitoring device which can be used to determine the mass flow of phosphorus-bearing feed material ( $P_2O_5$ ) to each train of the DAP II Plant. The monitoring device shall have an accuracy of  $\pm 5\%$  over its operating range.

[Rule 17-2.660, F.A.C. and 40 CFR 60.223(a)].

19. The permittee shall maintain a daily record of "equivalent  $P_2O_5$  feed" according to the procedure specified in 40 CFR 60.223(b).

[Rule 17-2.660, F.A.C. and 40 CFR 60.223(b)].

20. The permittee shall install, calibrate, maintain, and operate monitoring devices which continuously measures and permanently records the total pressure drop across each one of the process scrubbing systems. The monitoring device shall have an accuracy of  $\pm 5\%$  over its operating range. The pressure drop monitoring records shall be retained for at least a two year period.

[Rule 17-2.660, F.A.C. and 40 CFR 60.223(c)].

21. In order to document continuing compliance with the maximum sulfur content requirement of Specific Condition No. 7, the permittee shall maintain a record of the sulfur content of all No. 6 fuel oil received for use in the DAP II Plant dryers. These records may be based on vendor supplied information or analysis of samples taken by the permittee. These records shall be recorded in a permanent form suitable for inspection by the Department upon request, and shall be retained for at least a two year period.

[Rule 17-4.070(3), F.A.C.].

22. The permittee's ambient air station measuring TSP shall be operated on a 6 day schedule as established by DER and the data reported to the DER Southwest District Office in Tampa on a quarterly basis. [Construction Permit AC53-118671].

23. Submit to the Southwest District Office of the Department each calendar year on or before March 1, an emission report for this source for the preceding calendar year containing the following information pursuant to Subsection 403.061(13), F.S.:

- (A) Annual amount of materials and/or fuels utilized;
- (B) Annual emissions (include calculation sheets and note basis for calculations);
- (C) Any changes in the information contained in the permit application.

PERMITTEE

IMC Fertilizer, Inc.  
New Wales Operations

PERMIT/EXPIRATION

Permit No.: A053-215386  
County: Polk  
Project: DAP II Plant, East Train

**Specific Conditions:**

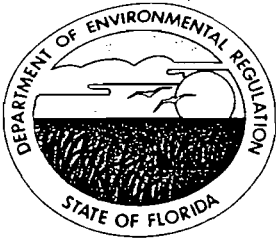
24. Two applications to renew this operating permit shall be submitted to the Southwest District Office of the Department no later than May 25, 1997 (60 days prior to the expiration date of this permit).

[Rule 17-4.090(1), F.A.C.].

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION



*For* Richard D. Garrity, Ph.D.  
Director of District Management  
Southwest District



# Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347  
Lawton Chiles, Governor 813-620-6100 Carol M. Browner, Secretary

**PERMITTEE:**

IMC Fertilizer, Inc.  
P.O. Box 1035  
Mulberry, FL 33860

**PERMIT/CERTIFICATION:**

Permit No: A053-215387  
County: Polk  
Expiration Date: 07/24/97  
Project: DAP II Plant,  
West Train

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

For the operation of the DAP II Plant, West Train. Maximum production rate is 140 tons per hour of diammonium phosphate (DAP) (approximately 70 TPH  $P_2O_5$  feed).

Particulate, fluoride and sulfur dioxide emissions from the DAP production equipment are controlled by two parallel control systems, each consisting of a venturi scrubber followed by a tailgas adsorption scrubber. Equipment and controls included on this permit are described below:

- Emissions from the reactor and the granulator discharge are pretreated by a prescrubber and then controlled by the "RG" venturi scrubber followed by a tailgas scrubber.
- Emissions from the recycle elevator discharge, the recycle conveyor and the dryer-to-screening elevator discharge are all pretreated by equipment cyclones (2) and then controlled by the "RG" venturi scrubber followed by a tailgas scrubber.
- Emissions from the dryer discharge are pretreated by dryer cyclones (4) and then controlled by the "Dryer" venturi scrubber followed by a tailgas scrubber.

The dryer is fired with natural gas at a maximum heat input rate of 36 MMBtu/hr, with No. 6 fuel oil (2.5% sulfur max.) as a backup fuel. Exhaust gas from both scrubber control systems are combined and vented to the atmosphere through a 171 foot high stack.

**Location:** New Wales Operations, Highway 640 and County Line Road

**UTM:** 17-396.7 E 3079.4 N **NEDS No:** 0059 **Point ID No:** 46

**Replaces Permit No.:** A053-139336



PERMITTEE  
IMC Fertilizer, Inc.  
New Wales Operations

PERMIT/EXPIRATION  
Permit No.: A053-215387  
County: Polk  
Project: DAP II Plant, West Train

**Specific Conditions:**

1. A part of this permit is the attached 15 General Conditions.

Emission and Operating Limitations

2. The DAP II Plant is subject to and shall meet the requirements of the Federal New Source Performance Standards, 40 CFR 60, Subpart V, Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants. (See also Specific Condition Nos. 5, 18, 19 and 20.)  
[Rule 17-2.660, F.A.C. and 40 CFR 60.220].

3. The West Train of the DAP II Plant shall not operate more than 7,920 hours per year.  
[Amendment to construction permit AC53-118671, dated June 29, 1987].

4. The maximum production rate of the West Train of the DAP II Plant shall not exceed 140 tons per hour of DAP.  
[Amendment to construction permit AC53-118671, dated June 29, 1987].

5. The maximum allowable emissions from the West Train of the DAP II Plant shall not exceed the following:

Pollutant	Emission Limitations			Limit Basis
	BACT/NSPS	lbs/hour	tons/year	
Particulate	0.5 lbs/ton P205	14.1	56.0	a
Visible Emissions	20% opacity	-	-	b
Fluorides	0.06 lbs/ton P205	2.1	8.3	a,c
Sulfur Dioxide	0.7 lbs/ton P205	22.0	87.0	a
Nitrogen Oxides	0.6 lbs/MMBtu	12.6	55.2	d

Limit Basis Notes:

- a - BACT (Best Available Control Technology) determination of May 5, 1980 for construction permit AC53-23456.
- b - Rule 17-2.610(2), F.A.C.
- c - Rule 17-2.660, F.A.C. and 40 CFR 60.222(a). (NSPS)
- d - BACT determination of April 27, 1987 for construction permit AC53-118671.

PERMITTEE

IMC Fertilizer, Inc.  
New Wales Operations

PERMIT/EXPIRATION

Permit No.: A053-215387  
County: Polk  
Project: DAP II Plant, West Train

**Specific Conditions:**

6. The pressure drop across each of the venturi scrubbers (the reactor granulator (R/G) scrubber, and the dryer scrubber) shall be at least 12 inches of water during all periods of operation of the DAP II West Train unless compliance with the emission limitations of Specific Condition No. 5 can be demonstrated by stack test at permitted operating conditions with a lower pressure drop.  
[June 29, 1989 amendment to Construction Permit AC53-118671].

7. The DAP II West Train dryer shall be fired by natural gas, or No. 6 fuel oil with a maximum sulfur content not to exceed 2.5% sulfur by weight. The maximum fuel heat input rate shall not exceed 36 MMBtu/hr unless compliance with the emission limitations of Specific Condition No. 5 have been demonstrated by stack test under conditions of higher heat input. Reports of such stack tests shall be submitted to the Department along with a request for approval of an increased maximum heat input cap.  
[BACT determination of May 5, 1980 and June 29, 1989 amendment to Construction Permit AC53-118671].

8. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter in accordance with the provisions in Rule 17-2.610(3), F.A.C. These provisions are applicable to any source, including but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrial related activities such as loading, unloading, storing and handling. Fugitive emissions of particulate and fluorides from process and storage equipment shall be controlled by sealing openings and/or venting all fumes from the equipment to the appropriate control equipment.  
[Rule 17-2.610(3), F.A.C. and Construction Permit No. AC53-118671].

9. Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Chapter 17-2, or any other requirements under federal, state or local law.  
[Rule 17-2.210, F.A.C.].

Testing Requirements

10. Test the DAP II West Train scrubbers stack for visible emissions once every 6 months from the baseline date of January 29 and submit a copy of the test data to the Air Section of the Southwest District Office within 45 days of such testing.  
[Rules 17-2.700(2) and 17-2.700(8), F.A.C.].

PERMITTEE

IMC Fertilizer, Inc.  
New Wales Operations

PERMIT/EXPIRATION

Permit No.: AO53-215387  
County: Polk  
Project: DAP II Plant, West Train

**Specific Conditions:**

11. Test the emissions from the DAP II West Train scrubbers stack for the following pollutants annually within one month of the baseline date of January 29. A copy of the test data shall be submitted to the Air Section of the Southwest District Office within 45 days of such testing:

- (X) Particulates
- (X) Fluorides
- (X) Sulfur dioxide (SO<sub>2</sub>) (See Specific Condition No. 16)
- (X) Nitrogen oxides (NOx)

[Rules 17-2.700(2) and 17-2.700(8), F.A.C.].

12. The permittee shall notify the Southwest District Office of the Department at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted.

[Rule 17-2.700(2)(a)9., F.A.C.].

13. The maximum production rate and dryer heat input rate for the DAP II Plant West Train shall not exceed 140 tons per hour and 36 MMBtu/hr respectively. Testing of emissions must be conducted within 90-100% of the maximum permitted DAP production rate while the dryer is firing No. 6 fuel oil, with a sulfur content representative of the maximum fired in the dryer, at 90-100% of the maximum permitted heat input rate. A compliance test submitted at a production or heat input rate less than 90% of maximum permitted rate will automatically constitute an amended permit at the lesser rate until another test showing compliance at a higher rate is submitted. Based on the operating rates during the June 8-12, 1992 testing, the current maximum permitted production rate and dryer heat input rate are 123 tons per hour and 13.5 MMBtu/hr respectively. Any time the permitted rates of the source are exceeded by more than 10% a compliance test shall be performed within 30 days of initiation of the higher rates and the test results shall be submitted to the Department within 45 days of testing. Acceptance of the test by the Department will constitute an amended permit at the higher rates, not to exceed the maximum rates specified at the beginning of this condition. The emission limitations in Specific Condition No. 5 shall not change. A statement of the production rate, fuel type, and heat input rate shall be submitted with the test report. (See also Specific Condition No. 15 for additional information to be included with test report.) [Rule 17-4.070(3), F.A.C. and June 29, 1989 amendment to Construction Permit AC53-118671].

PERMITTEE

IMC Fertilizer, Inc.  
New Wales Operations

PERMIT/EXPIRATION

Permit No.: AO53-215387  
County: Polk  
Project: DAP II Plant, West Train

**Specific Conditions:**

14. Compliance with the emission limitations of Specific Condition No. 5 shall be determined using EPA Methods 1, 2, 4, 5, 6, 7, 9 and 13A or 13B contained in 40 CFR 60, Appendix A and adopted by reference in Rule 17-2.700, F.A.C., or other methods approved by the Department. The minimum requirements for stationary point source emissions test procedures and reporting shall be in accordance with Rule 17-2.700, F.A.C. and 40 CFR 60, Appendix A. [Rules 17-2.700 & 17-2.660, F.A.C. and 40 CFR 60.224].

15. For each scrubber, the following scrubber operating parameters shall be monitored during any compliance test and a summary of this data shall be included in any emissions test report.

- (X) P<sub>2</sub>O<sub>5</sub> Input
- (X) pH of scrubber solution
- (X) Gas Pressure Drop (inches H<sub>2</sub>O)

[Rule 17-4.070(3), F.A.C. and June 29, 1989 amendment to Construction Permit AC53-118671].

16. The DAP II Plant West Train may be tested while firing natural gas in the dryer if No. 6 fuel oil has not been used since the last test and its use is not expected before the next required test. If natural gas is fired in the dryer then the sulfur dioxide testing requirement of Specific Condition No. 11 is waived. If this option is exercised, the test report shall include a statement certifying that the above fuel oil usage requirement has been met.

17. If testing is conducted while firing No. 6 fuel oil in the dryer, compliance with the sulfur content requirement of Specific Condition No. 7 shall be demonstrated during the test by submitting either of the following with the test report:

- (A) A Certificate of Fuel Oil Analysis from your fuel oil vendor for the fuel used during the compliance test; or
- (B) A Certificate of Fuel Oil Analysis for a fuel oil sample taken during the compliance test.

[Rule 17-4.070(3), F.A.C.].

PERMITTEE

IMC Fertilizer, Inc.  
New Wales Operations

PERMIT/EXPIRATION

Permit No.: AO53-215387  
County: Polk  
Project: DAP II Plant, West Train

**Specific Conditions:**

Monitoring and Recordkeeping Requirements

18. The permittee shall install, calibrate, maintain, and operate a monitoring device which can be used to determine the mass flow of phosphorus-bearing feed material ( $P_2O_5$ ) to each train of the DAP II Plant. The monitoring device shall have an accuracy of  $\pm 5\%$  over its operating range.

[Rule 17-2.660, F.A.C. and 40 CFR 60.223(a)].

19. The permittee shall maintain a daily record of "equivalent  $P_2O_5$  feed" according to the procedure specified in 40 CFR 60.223(b).

[Rule 17-2.660, F.A.C. and 40 CFR 60.223(b)].

20. The permittee shall install, calibrate, maintain, and operate monitoring devices which continuously measures and permanently records the total pressure drop across each one of the process scrubbing systems. The monitoring device shall have an accuracy of  $\pm 5\%$  over its operating range. The pressure drop monitoring records shall be retained for at least a two year period.

[Rule 17-2.660, F.A.C. and 40 CFR 60.223(c)].

21. In order to document continuing compliance with the maximum sulfur content requirement of Specific Condition No. 7, the permittee shall maintain a record of the sulfur content of all No. 6 fuel oil received for use in the DAP II Plant dryers. These records may be based on vendor supplied information or analysis of samples taken by the permittee. These records shall be recorded in a permanent form suitable for inspection by the Department upon request, and shall be retained for at least a two year period.

[Rule 17-4.070(3), F.A.C.].

22. The permittee's ambient air station measuring TSP shall be operated on a 6 day schedule as established by DER and the data reported to the DER Southwest District Office in Tampa on a quarterly basis. [Construction Permit No. AC53-118671].

23. Submit to the Southwest District Office of the Department each calendar year on or before March 1, an emission report for this source for the preceding calendar year containing the following information pursuant to Subsection 403.061(13), F.S.:

- (A) Annual amount of materials and/or fuels utilized;
- (B) Annual emissions (include calculation sheets and note basis for calculations);
- (C) Any changes in the information contained in the permit application.

PERMITTEE

IMC Fertilizer, Inc.  
New Wales Operations

PERMIT/EXPIRATION

Permit No.: AO53-215387  
County: Polk  
Project: DAP II Plant, West Train

**Specific Conditions:**

24. Two applications to renew this operating permit shall be submitted to the Southwest District Office of the Department no later than May 25, 1997 (60 days prior to the expiration date of this permit).

[Rule 17-4.090(1), F.A.C.].

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION



*For* Richard D. Garrity, Ph.D.  
Director of District Management  
Southwest District



# Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347 • 813-623-5561

Bob Martinez, Governor

Dale Twachmann, Secretary

John Shearer, Assistant Secretary  
Dr. Richard Garrity, Deputy Assistant Secretary

## PERMITTEE:

IMC Fertilizer, Inc.  
New Wales Operations  
P.O. Box 1035  
Mulberry, Florida 33860

## PERMIT/CERTIFICATION

Permit No: A053-183082  
County: Polk  
Expiration Date: 11/01/95  
Project: DAP No. 2 *West*  
Product Cooler

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

For the operation of a common product cooler in line with two 140 tons/hr. (280 tons/hr. total) Diammonium Phosphate Plants. There are two baghouses in a parallel arrangement for particulate emission control on the gas exit stream from the product cooler.

Location: At the Permittee's phosphate fertilizer complex in Polk County near the intersection of Highway 640 and the Polk/Hillsborough County Line.

UTM: 17-396.7 E 3079.4 N NEDS NO: 0059 Point ID: 47

Replaces Permit No.: A053-106293

PERMITTEE:  
IMC Fertilizer, Inc.  
New Wales Operations  
P.O. Box 1035  
Mulberry, Florida 33860

PERMIT/CERTIFICATION  
Permit No: AO53-183082  
County: Polk  
Expiration Date: 11/01/95  
Project: DAP No. 2  
Product Cooler

SPECIFIC CONDITIONS:

1. A part of this permit is the attached 15 General Conditions.
2. The particulate matter emission rate from the bag filters shall not exceed 0.01 grains/dscf, and shall not exceed 4.5 pounds/hour. [Permit #AC 53-23546].
3. Visible Emissions shall not be equal to or greater than 20% opacity. [Rule 17-2.610(2)(a), F.A.C.].
4. Test for visible emissions and particulates annually, within 30 days of the date August 15, and submit a copy of the test data to the Air Section of the Southwest District Office of the Department of Environmental Regulation within 45 days of testing. [Rule 17-2.700(7)(b), F.A.C.].
5. Because of the expense and complexity of conducting a particulate stack test on minor sources of particulate matter, the Department, pursuant to the authority granted under Rule 17-2.700(3)(d), F.A.C., hereby waives particulate stack testing and specifies an alternate standard of 5% opacity.
6. Compliance with the emission limitation of specific condition #3 or #5 shall be demonstrated using EPA Method 9. The minimum requirements for sampling and reporting shall be in accordance with Rule 17-2.700, F.A.C. and 40 CFR 60.
7. Compliance with the emission limitation of specific condition #2 shall be determined using EPA Methods 1,2,4, and 5 contained in 40 CFR 60, Appendix A and adopted by reference in Rule 17-2.700, F.A.C. The minimum requirements for sampling and reporting shall be in accordance with Rule 17-2.700, F.A.C. and 40 CFR 60.
8. A compliance test which satisfactorily demonstrates compliance with the 5% opacity limit of specific condition #5 will be accepted as proof of compliance with specific conditions #2 and #3.



PERMITTEE:  
IMC Fertilizer, Inc.  
New Wales Operations  
P.O. Box 1035  
Mulberry, Florida 33860

PERMIT/CERTIFICATION  
Permit No: AO53-183082  
County: Polk  
Expiration Date: 11/01/95  
Project: DAP No. 2  
Product Cooler

SPECIFIC CONDITIONS:

9. The maximum permitted production rate is 207 tons per hour based on the rate at which the August 15, 1990 compliance test was conducted. Testing of emissions to show compliance shall be conducted within 10% of the maximum permitted rate. A compliance test submitted at a rate less than 90% of the permitted rate will automatically constitute an amended permit at the lesser rate until another test, showing compliance at a higher rate is submitted. Any time the maximum permitted rate is exceeded by more than 10%, a compliance test shall be performed within 30 days of initiation of the higher rate and the test results shall be submitted to the Department within 45 days of testing. Acceptance of the test by the Department will constitute an amended permit at the higher rate. Emission limitations are not automatically adjusted above the allowable limitations established by this permit. Failure to submit the actual production rate or actual operating conditions may invalidate the test.

[Rule 17-4.070(3), F.A.C.].

10. IMC Fertilizer, Inc. shall notify the Department at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted. [Rule 17-2.700(2)(a)9., F.A.C.].

11. Should the Department have reason to believe that the particulate emission limits of specific condition #2 are not being met, the Department may require that compliance with the particulate emission standard be demonstrated by testing in accordance with Rule 17-2.700, F.A.C.

12. Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information pursuant to Section 403.061(13), Florida Statutes:

- (A) Annual amount of materials and/or fuels utilized.
- (B) Annual emissions (note calculation basis).
- (C) Any changes in the information contained in the permit application.

PERMITTEE:  
IMC Fertilizer, Inc.  
New Wales Operations  
P.O. Box 1035  
Mulberry, Florida 33860

PERMIT/CERTIFICATION  
Permit No: AO53-183082  
County: Polk  
Expiration Date: 11/01/95  
Project: DAP No. 2  
Product Cooler

SPECIFIC CONDITIONS:

13. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter in accordance with Rule 17-2.610(3), F.A.C. These provisions are applicable to any source, including, but not limited to, vehicular movement, transportation of materials, construction, alterations, demolition or wrecking, or industrial related activities such as loading, unloading, storing and handling.

14. Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Chapter 17-2, or any other requirements under federal, state, or local law. [Rule 17-2.210, F.A.C.].

15. Four applications to renew this operating permit shall be submitted to the Southwest District Office of the Department by September 2, 1995.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION



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Dr. Richard D. Garrity  
Deputy Assistant Secretary  
4520 Oak Fair Boulevard  
Tampa, Florida 33610-7347  
Phone (813) 623-5561

MEMORANDUM

TO: Clair H. Fancy, P.E., BAR

THRU: W. C. Thomas, P.E., District Air Administrator

THRU: J. Harry Kerns, P.E., District Air Engineer

FROM: Scott Sheplak, Permitting Engineer

DATE: November 24, 1992

SUBJECT: IMC Fertilizer, Inc.  
Permit No: AC53-177264  
County: Polk  
Project: Fluoride emission limit refinement request from  
Koogler & Associates letter dated October 30, 1992

I have reviewed the subject request and find the request acceptable. Please remind the source the AO permits will also require changes and appropriate fee(s). The District will add the fluoride limit to Permit No. A053-183082.

RECEIVED

DEC 02 1992

Division of Air  
Resources Management



# Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

November 16, 1992

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. John A. Brafford  
Vice President and General Manager  
IMC Fertilizer, Inc.  
P.O. Box 1035  
Mulberry, Florida 33860

Dear Mr. Brafford:

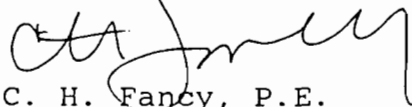
Re: Request for Amendment of AC53-177264 (No. 2 DAP)

The Department received a letter dated October 30, 1992, from Koogler and Associates on behalf of IMC requesting an amendment of the referenced permit. The requested change involves reallocating (to the DAP 2E and 2W Plants) part of the presently allocated fluoride limits for the DAP 2E and 2W coolers.

Since reallocation has no effect on total fluoride emissions from these plants, and since the federal new source standard on which the permit is based does not require allocation, it appears that a construction permit amendment is not required. Any allocation is acceptable as long as the total limit is not exceeded. The federally enforceable condition is that total emissions shall not exceed 0.06 lb. F/ton P<sub>2</sub>O<sub>5</sub>. Since the operation permit limits the individual sources, you will be operating in violation of the operation permit conditions if you exceed the limitations imposed on individual sources prior to amendment of the operation permit.

Therefore, you need to submit a request for an operation permit amendment to the Southwest District Office.

Sincerely,

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

CHF/JR/kw

cc: W. Thomas, SWD  
J. Koogler, P.E.

KOUGLER & ASSOCIATES

BEST AVAILABLE COPY

6216

PH 377-5822

4014 NW 13TH STREET  
GAINESVILLE, FL 32609

63-2/630  
BRANCH 320

October 30 19 92

PAY TO THE ORDER OF Florida Department of Environmental Regulation

\$ 250.00

Two Hundred Fifty

00  
100 DOLLARS



Permit Amendment Fee for IMC  
FOR Permit AC53-177264.

*Marion C. Bayer*

⑆006216⑆ ⑆063000021⑆ 13200045690⑆

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

*your receipt will regard  
to all. Pradeep.*

Subject: IMC Fertilizer, Inc.  
Refinement of Fluoride Emission Limits for  
No. 2 DAP Plant

Dear Mr. Fancy:

IMC Fertilizer, Inc. requests a refinement of the fluoride emission limits in permit No. AC53-177264 for the No. 2 DAP plant issued by FDER's Tallahassee office in June 1990. A check in the amount of \$250 (permit amendment fee) is enclosed.

Originally, the DAP 2E and 2W trains shared a common product cooler(permitted under AO53-183082). The cooler was equipped with a baghouse to control emissions of particulate matter. The above construction permit allowed IMC to use the existing cooler/baghouse system for the DAP 2W train and allowed the installation of a new cooler/scrubber system for the DAP 2E train.

The fluoride emission limits in Specific Condition No. 6 of the above construction permit restricted fluoride emissions from the DAP 2E train to 3.86 pounds per hour (corresponding to 0.06 lbF/ton P<sub>2</sub>O<sub>5</sub>). However, the permit did not specify the allowable fluoride emissions from each individual emission point involved in the project. An attempt to prorate the allowable fluoride emissions in the subsequently issued operation permit, No. AO53-215386, was based on an inaccurate estimate provided to FDER (as no test data were available on fluoride emissions from the proposed cooler systems).

A more realistic proration of the allowable fluoride emissions is possible at this time as test data are now available on the four affected points. However, in order to make the prorated allowable fluoride emission limits federally enforceable, it is our understanding that the above construction permit would need to be amended.

The following are the requested fluoride emission limits based on actual test results (attached):