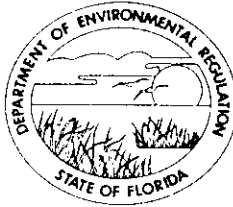


STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY

February 25, 1987

CERTIFIED MAIL-RETURN RECEIPT REQUESTED


Mr. John A. Brafford
Vice President and General Manager
International Minerals & Chemical Corp.
New Wales Operations
Post Office Box 1035
Mulberry, Florida 33860

Dear Mr. Brafford:

Attached is one copy of the Technical Evaluation and Preliminary Determination, and draft permit to increase the allowable nitrogen oxides emissions from your No. 2 DAP plant in Polk County, Florida.

Please submit, in writing, any comments which you wish to have considered concerning the department's proposed action to Mr. Bill Thomas of the Bureau of Air Quality Management.

Sincerely,


C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/pa

Attachments

cc: John B. Koogler, Ph.D., P.E.
Bill Thomas
Wayne Aronson
National Park Service - AIR

PD

P 408 531 167

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Mr. John A. Brafford	
Street and No.	
P.O., State and ZIP Code	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	
2/26/87	

PS Form 3800, Feb. 1982

PS Form 3811, July 1983 447-845

DOMESTIC RETURN RECEIPT

● **SENDER:** Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. Show to whom, date and address of delivery.

2. Restricted Delivery.

3. Article Addressed to:
Mr. John A. Brafford
IMCC New Wales Operations
Post Office Box 1035
Mulberry, FL 33860

4. Type of Service:	Article Number
<input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail	P 408 531 167

Always obtain signature of addressee or agent and **DATE DELIVERED.**

5. Signature - Addressee
X

6. Signature - Agent
X *[Signature]*

7. Date of Delivery
3-2-87

8. Addressee's Address (ONLY if requested and fee paid)

State of Florida
Department of Environmental Regulation
Notice of Proposed Agency Action
on Permit Application

The Department of Environmental Regulation gives notice of its intent to issue a permit to International Minerals and Chemical Corporation to increase the allowable nitrogen oxides emissions from their existing No. 2 Diammonium Phosphate plant. This plant is located in Polk County near the intersection of SR 640 and County Line Road. A determination of best available control technology (BACT) was required.

This application was reviewed under Florida Administrative Code Rule 17-2.500, Prevention of Significant Deterioration. Emissions of nitrogen oxides will increase by 76.4 tons per year. The allowable emissions of other pollutants are not being increased. The department has completed a study of the potential ambient air impact due to this increase in emissions. Based on this study, the department has reasonable assurance that the increase in emissions of nitrogen oxides will not cause or contribute to an exceedance of the ambient air quality standard for this pollutant. No PSD increment is established for nitrogen oxides.

Persons whose substantial interests are affected by the department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32301, within fourteen (14) days of publication of this notice. Failure to file a request for hearing within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this preliminary statement. Therefore, persons who may not object to the proposed agency action may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Model Rule 28-5.207 at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009 Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental Regulation
Southwest District
7601 Highway 301 North
Tampa, Florida 33610

Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

Bartow Public Library
315 Parker Street
Bartow, Florida 33830

Any person may send written comments on the proposed action to Mr. Bill Thomas at the department's Tallahassee address. All comments mailed within 30 days of the publication of this notice will be considered in the department's final determination.

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permit by:

International Minerals and Chemical Corporation (IMCC) DER File No. AC 53-118671
New Wales Operations
Post Office Box 1035
Mulberry, Florida 22860

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit (copy attached) for the proposed project as detailed in the application specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, International Minerals and Chemical Corporation, New Wales Operations, applied on April 3, 1986, to the Department of Environmental Regulation for a permit to increase the allowable nitrogen oxides emissions from their existing No. 2 Diammonium Phosphate plant located in Polk County, Florida.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes and Florida Administrative Code Rules 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that an air construction permit was needed for the proposed work.

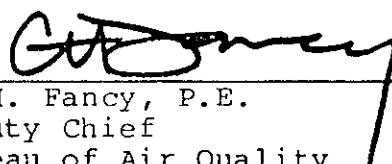
Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, FAC, you (the applicant) are required to publish at your own expense the enclosed Notice of Proposed Agency Action on permit application. The notice must be published one time only in a section of a major local newspaper of general circulation in the county in which the project is located and within thirty (30)

the notice. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S. A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. Petitions must comply with the requirement of Florida Administrative Code Rules 17-103.155 and 28-5.201 (copies enclosed) and be filed with (received by) the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant must be filed within fourteen (14) days of receipt of this intent. Petitions filed by other persons must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this intent, whichever first occurs. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes, concerning the subject permit application. Petitions which are not filed in accordance with the above provisions will be dismissed.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION


C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

Copies furnished to:

John A. Brafford
John B. Koogler, Ph.D., P.E.
Bill Thomas

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on September 26, 1987.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to
§120.52(9), Florida Statutes, with
the designated Department Clerk,
receipt of which is hereby
acknowledged.

Patricia H. Adams
Clerk

Sept. 26, 1987
Date

RULES OF THE ADMINISTRATIVE COMMISSION
MODEL RULES OF PROCEDURE
CHAPTER 28-5
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

28-5.15 Requests for Formal and Informal Proceedings

- (1) Requests for proceedings shall be made by petition to the agency involved. Each petition shall be printed, typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double spaced and indented.
- (2) All petitions filed under these rules should contain:
 - (a) The name and address of each agency affected and each agency's file or identification number, if known;
 - (b) The name and address of the petitioner or petitioners;
 - (c) All disputed issues of material fact. If there are none, the petition must so indicate;
 - (d) A concise statement of the ultimate facts alleged, and the rules, regulations and constitutional provisions which entitle the petitioner to relief;
 - (e) A statement summarizing any informal action taken to resolve the issues, and the results of that action;
 - (f) A demand for the relief to which the petitioner deems himself entitled; and
 - (g) Such other information which the petitioner contends is material.

DER1985 RULES OF ADMINISTRATIVE PROCEDURE - NON-RULEMAKING 17-103

of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to an administrative determination (hearing) under Section 120.57, F.S.

(4) Notice to substantially affected persons concerning applications for Department permits is an essential and integral part of the state environmental licensing process. Therefore, no application for a permit for which publication of notice is required shall be granted until and unless proof of publication of Notice is furnished to the appropriate Department permitting office.

(5)(a) Any applicant or person benefiting from the Department's action may elect to publish notice of proposed agency action in the manner provided by subsection (2) or (3). Any person who elects to publish notice of proposed agency action, upon presentation of proof of publication to the Department, prior to final agency action, shall be entitled to the same benefits under this rule as a person who is required to publish notice of proposed agency action. Since persons whose substantial interests are affected by a Department decision on a permit application may petition for an administrative proceeding within fourteen (14) days after receipt of notice and since, unless notice is given or published as prescribed in this rule, receipt of notice can occur at any time, the applicant or persons benefiting from the Department's action cannot justifiably rely on the finality of

the Department's decision without the notice having been duly given or published.

(b) The notices required by this rule may be combined with other notices required by the Department pursuant to Chapter 403, 376, or 253, F.S., or Chapter 17, FAC.

(c) The provisions of this section shall also apply to the permitting of hazardous waste facilities, but only to the extent it is consistent with Chapter 17-30, Part IV, FAC. Whenever Chapter 17-30, Part IV, FAC, provides for a different time or notice procedure than that set forth in this section, the time and notice provisions of Chapter 17-30 shall govern.

(6) Failure to publish any notice of application, notice of proposed agency action, or notice of agency action required by the Department shall be an independent basis for the denial of a permit.

Specific Authority: 120.53, 403.0276, 403.815, F.S. Law Implemented: 120.53, F.S. History: New 9-20-79, Amended 4-28-81, Transferred from 17-1.62 and Amended 6-1-84.

17-103.155 Petition for Administrative Hearing; Waiver of Right to Administrative Proceeding.

(1)(a) Any person whose substantial interests may be affected by proposed or final agency action may file a petition for administrative proceeding. A petition shall be in the form required by this Chapter and Chapter 28-5, FAC, and shall be filed (received) in the Office of General Counsel of the Department within fourteen (14) days of receipt of notice of proposed agency action or within fourteen (14) days of receipt of notice of

DER1985 RULES OF ADMINISTRATIVE PROCEDURE - NON-RULEMAKING 17-103

agency action whenever there is no public notice of proposed agency action. In addition to the requirements of Rule 28-5.201, FAC, the Petition must specify the county in which the project is or will be located.

(b) Failure to file a petition within fourteen (14) days of receipt of notice of agency action or fourteen (14) days of receipt of notice of proposed agency action, whichever notice first occurs, shall constitute a waiver of any right to request an administrative proceeding under Chapter 120, F.S.

(c) When there has been no publication of notice of agency action or notice of proposed agency action as prescribed in Rule 17-103.150, FAC, a person who has actual knowledge of the agency action or has knowledge which would lead a reasonable person to conclude that the Department has taken final agency action, has a duty to make further inquiry within fourteen (14) days of obtaining such knowledge by contacting the Department to ascertain whether action has occurred. The Department shall upon receipt of such an inquiry, if agency action has occurred, promptly provide the person with notice as prescribed by Rule 17-103.150, FAC. Failure of the person to make inquiry with the Department within fourteen (14) days after obtaining such knowledge may estop the person from obtaining an administrative proceeding on the agency action.

(2)(a) "Receipt of notice of agency action" means receipt of written notice of final agency action, as prescribed by Department rule, or the publication, pursuant to Department rule, of notice of final agency action, whichever first

occurs.

(b) "Receipt of notice of proposed agency action" means receipt of written notice (such as a letter of intent) that the Department proposes to take certain action, or the publication pursuant to Department rule of notice of proposed agency action, whichever first occurs.

(3) Notwithstanding any other provision in this Chapter, should a substantially affected person who fails to timely request a hearing under Section 120.57, F.S., administratively appeal the final Department action or order, the record on appeal should be limited to:

(a) the application, and accompanying documentation submitted by the applicant prior to the issuance of the agency's intent to issue or deny the requested permit.

(b) the materials and information relied upon by the agency in determining the final agency action or order;

(c) any notices issued or published; and

(d) the final agency action or order entered concerning the permit application.

(4) In such cases where persons do not timely exercise their rights accorded by Section 120.57(1), Florida Statutes, the allegations of fact contained in or incorporated by the final agency action shall be deemed uncontested and true, and appellants may not dispute the truth of such allegations upon subsequent appeal.

(5) Any applicant may challenge the Department's request for additional information by filing with the Office of General Counsel an appropriate petition for administrative proceeding pursuant to Section 120.60, F.S., following receipt by

the applicant of the Department's notification, pursuant to Section 403.0876, F.S., that additional information is required.

Specific Authority: 120.53, 403.0876, 403.815, F.S. Law Implemented: 120.53, F.S.

History: New 9-20-79, Amended 4-28-81, Transferred from 17-1.62 and Amended 6-1-84.

17-103.160 Uniformity in Approval and Denial of Applications for Department Permits and Certifications. To the extent possible and consistent with the public interest, the Department approves and denies applications for permits and certifications on a uniform and consistent basis. Final Department actions on applications for permits and certifications shall be consistent with prior Department actions, unless deviation therefrom is explained by the Department in writing or the hearing officer who submits a recommended order to the Department for final agency action in accordance with Section 120.57, Florida Statutes.

Specific Authority: 120.53(1), F.S. Law Implemented: 120.53(1), 120.68(12), F.S. History: New 2-6-78, Transferred from 17-1.63, 6-1-84.

17-103.170 Designation, Preparation and Transmittal of Record for Administrative Appeals.

When any Department action or order is the subject of an administrative appeal under Chapter 17-103, Part II, FAC, the following requirements shall apply:

(1) Designation of Record. Within fifteen (15) days of rendition of the Department's final order, the appellant shall designate

to the Department, in writing, with copies to other parties, those documents or things under the control of or in the possession of the Department which the appellant desires to have included in the record, and which were received or considered in the Department proceeding below. If a proceeding was reported by mechanical recording devices, the appellant shall designate those portions of the proceeding for which it requires written transcription or tapes for transcription. Any other party may designate other portions of the record in the manner provided herein. Such cross-designation shall be filed with the Department, with copies provided other parties, within seven (7) days after receipt of the designation by the appellant.

(2) Original Record. The Department shall thereupon include in the record all of the designated portions of the original papers and exhibits in the proceedings or matter from which administrative appeal is taken, together with a copy of any such parts of the proceedings as were stenographically reported or transcribed from tapes, and as have been designated by the parties and certified by a notary public, the reporter, or other officer for inclusion in the record on appeal or review, and certified copies of the order, if any, of which review is sought. The Department may, at its discretion, substitute certified copies for original papers or documents in its possession.

(3) Preparation of Record. Upon tender or deposit by appellant of the estimated cost of preparation, the Department shall prepare the record in accordance with the designations of the parties. The cost of preparation, and reproduction,

Technical Evaluation
and
Preliminary Determination

International Minerals & Chemical Corporation (IMCC)
New Wales Operations
Polk County, Florida

No. 2 Diammonium Phosphate (DAP) Plant Modification
File No. AC 53-118671

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

February 25, 1987

I. General Information

A. Applicant

International Minerals & Chemical Corporation (IMCC)
New Wales Operations
P. O. Box 1035
Mulberry, Florida 33860

B. Request

On April 2, 1986, Sholtes and Koogler, Environmental Consultants, submitted an application for a permit to construct air pollution sources which requested higher allowable nitrogen oxides (NOx) emissions for IMCC's No. 2 DAP plant (SIC 2874). The application was considered complete on receipt of a letter dated December 18, 1986, that provided additional information on the plant.

C. Project and Location

IMCC was issued a state permit to construct (AC 53-23546) the No. 2 DAP plant on May 5, 1980. The state permit contained limits on particulate matter (PM), fluoride (F), and sulfur dioxide (SO₂). EPA also issued a federal permit (PSD-FL-034) to construct this plant. The federal permit included an emissions standard for nitrogen oxides (NOx) of 0.21 lbs/10⁶ Btu input or 8.6 lbs/hr. IMCC compliance tests of the No. 2 DAP plant showed the NOx emissions were above the standard. The applicant is requesting a higher NOx emission standard for the No. 2 DAP plant. No physical or operational change in the plant or allowable emissions of the other pollutants is included in the request. The No. 2 DAP plant is located in western Polk County near the intersection of State Highway 640 and the Hillsborough/Polk County line. The UTM coordinates of this site are zone 17, 396.7 km E and 3079.4 km N.

D. Air Pollutants Emissions

In the original application for a permit to construct this source (AC 53-23546), the NOx emissions were estimated to be the same as oil fired boilers, 20 pounds of NOx per 1,000 gallons of fuel burned. The applicant originally requested a NOx emissions standard of 5.6 lbs/hr or 23 TPY. The federal permit (PSD-FL-034) allows 0.21 lbs NOx/10⁶ Btu or 8.6 lbs/hr (34 TPY). A compliance test conducted on May 29, 1985, measured NOx emissions in excess of the standard, around 0.71 lbs NOx/10⁶ Btu (104 lbs/1,000 gals.) This application requests the allowable NOx emissions be increased to 42 lbs/hr at maximum production. This would increase the permitted NOx emissions by over 100 TPY. Table 1 summarizes the present and proposed permitted NOx emissions.

Table 1
NOx Emissions for the No. 2 DAP Plant

	<u>lb/hr</u>	<u>TPY</u>
Requested	42	174.8
Permitted	8.6	34.1
Increase	<u>26.4</u>	<u>140.7</u>

The emissions of the other regulated pollutants (particulate matter, fluoride, and sulfur dioxide) are not being changed by the requested modification.

II. Rule Applicability

A. State Regulations

The proposed project, increasing the allowable emissions from an existing source, is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2, Florida Administrative Code.

The existing source, a diammonium phosphate plant, is located in the area of influence of the Hillsborough County Particulate Matter Nonattainment Area (17-2.410(2)(a)1.), i.e., within 50 kilometers. The county the source is located in (Polk) is unclassifiable for particulate matter (17-2.430(1)), and attainment for the other criteria pollutants (17-2.420). However, the adjacent county, Hillsborough, is nonattainment for the pollutant ozone and particulate matter.

Diammonium phosphate plants, which are chemical process plants, are listed in Table 500-1, Major Facility Categories (list of 28). The plant is a major facility (17-2.100) because the emissions of particulate matter (PM), sulfur dioxide (SO₂), and nitrogen oxides (NOx) exceeds 100 TPY for each of these criteria pollutants. The increase in NOx emissions being requested by the applicant is larger than the significant emission rate listed in Table 500-2, Regulated Air Pollutants-Significant Emission Rates.

The project is not subject to new source review for nonattainment areas (17-2.510) because the PM emissions rate will not be changed.

The project is subject to the prevention of significant deterioration (PSD) regulations (17-2.500) because the requested modification to this major facility will result in a significant net emission increase of the criteria pollutant NOx. Allowable NOx emissions will be established by a best available control technology (BACT) determination. Allowable emissions for the other regulated criteria pollutants, PM, SO₂, and fluorides, will not be changed. The March 25, 1980, Technical Evaluation and

Preliminary Determination for this source (copies filed in the department's Tallahassee and Tampa offices) discusses the basis of the standards of the other criteria pollutants.

B. Federal Regulations

The proposed project, a major modification to a major source, is subject to PSD review under federal regulations (40 CFR 52.21) because the modification will result in a significant net emissions increase of a criteria pollutant. The affected source will remain subject to the new source performance standards for diammonium phosphate plants (40 CFR 60, Subpart V).

III. Technical Evaluation

The March 25, 1980, Technical Evaluation and Preliminary Determination discusses the basis of the emission standards for PM, SO₂, and fluorides. The request for a higher NO_x standard will not change the allowable emissions for these criteria pollutants.

Initially, the NO_x emissions from the DAP plant were expected to be low. Since tests or an emissions factor for NO_x from DAP plants were not available when the application for permit to construct was originally processed, the emissions factor for residual oil fired boilers (which was thought to have similar NO_x emissions) was used to estimate the NO_x emissions from the No. 2 DAP plants. Reference method tests on the plant showed the NO_x emission estimate to be low. Actual emissions were much higher.

The BACT determination for NO_x, which is included in the appendix, gives the information and analysis used to revise the NO_x standard for this plant.

After evaluating NO_x test data and cost for this source, the department concluded that BACT for the No. 2 DAP plant is 0.60 lb NO_x/10⁶ Btu or, at 140 TPH DAP production, 25.2 lb NO_x/hr (110.4 TPY). This is a 76.4 TPY increase in the permitted NO_x emissions.

IV. Air Quality Analysis

The proposed emissions increase of NO_x from the No. 2 DAP plant at the IMCC-New Wales facility is 140.7 tons/year. Since this increase exceeds the significant level for PSD applicability (40 TPY) it is subject to the requirements of this rule. In general, these requirements include:

- o An analysis of existing air quality;
- o An Ambient Air Quality Standards (AAQS) analysis;

- o An analysis of impacts on soils, vegetation and growth-related air quality impacts; and
- o A "Good Engineering Practice" (GEP) stack height determination.

The analysis of existing air quality generally relies on preconstruction monitoring data collected in accordance with EPA-approved methods. The AAQS analysis depends on air quality dispersion modeling carried out in accordance with EPA guidelines.

Based on these required analyses, the department has reasonable assurance that the proposed source, as described in this report and subject to the conditions of approval proposed herein, will not cause or contribute to a violation of an ambient air quality standard. A discussion of the modeling methodology and required analysis follows.

1. Modeling Methodology

The EPA-approved Industrial Source Complex Long-Term (ISCLT) air quality dispersion model was used to perform the impact analysis. This model can determine ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area, or volume type sources. The model incorporates elements for plume rise, transport by the mean wind, gaussian dispersion, building wake downwash, separation of sources, and various other input and output features. Since only the pollutant NOx is subject to review and there is only an annual AAQS for NOx, the use of this model is appropriate.

Five years of meteorological data collected by the National Weather Service in Orlando, Florida from 1974-78 were used in the analysis. These data were compiled into a five-year joint frequency distribution of wind direction, wind speed, and atmospheric stability. Normally it is appropriate for each year to be separately modeled, however, in view of the predicted concentration levels the department does not feel that reanalysis is warranted.

Three source groups were evaluated by the applicant. First, the net emissions increase from the No. 2 DAP plant; second, the total NOx emissions from the No. 2 DAP plant; and third, the NOx emissions from the entire IMCC-New Wales facility were modeled, including the requested emissions increase from the No. 2 DAP plant. Receptors were placed in a rectangular grid surrounding the facility (8.0 km by 8.0 km) with a receptor spacing of 0.5 km. No source of NOx other than those of the New Wales facility were included in the analysis.

2. Analysis of Existing Air Quality

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD review. In general, one year of quality assured data using an EPA reference, or the equivalent monitor must be submitted. Sometimes less than one year of data, but not less than four months, may be accepted when department approval is given.

An exemption to the monitoring requirement can be obtained if the maximum air quality impact, as determined through air quality modeling, is less than a pollutant-specific de minimus concentration. In addition, if current monitoring data already exist and these data are representative of the proposed source area, then at the discretion of the department these data may be used.

The air quality modeling completed by the applicant showed that the maximum ground-level concentration, predicted to occur as a result of the net emissions increase, was 0.3 ug/m^3 . This is less than the monitoring de minimus value for NO_2 of 14 ug/m^3 , and thus the applicant did not need to perform additional preconstruction monitoring.

An estimate of the NO_2 level near the New Wales facility cannot be accurately determined without on-site monitoring data, however, NO_2 monitors in urban Hillsborough County show a maximum annual concentration of 54 ug/m^3 in 1985. Concentrations near the rural New Wales facility would be considerably less.

3. Ambient Air Quality Standards (AAQS) Analysis

Given existing air quality in the vicinity of the New Wales facility, the proposed emissions increase from the No. 2 DAP plant is not expected to cause or contribute to a violation of the AAQS.

The BACT determination by the department established the standard for NO_x as $0.60 \text{ lbs}/10^6 \text{ Btu}$. At maximum permitted production, this is equivalent to $25.2 \text{ lbs NO}_x/\text{hr}$ which is lower than the originally proposed emission rate by the applicant.

Dispersion modeling completed by the applicant predicts that the ambient concentration level of NO_2 at the department's BACT emission limit will increase by a maximum of 0.3 ug/m^3 . The modeling also showed the maximum concentration level due to the entire No. 2 DAP plant, including the previously permitted emissions, to be 0.5 ug/m^3 . The maximum annual average concentration of NO_2 due to the entire New Wales facility was predicted to be 2.7 ug/m^3 . When this concentration is added to the maximum existing monitored NO_2 level in urban Hillsborough County of 54 ug/m^3 , the result of 56.7 ug/m^3 is much less than

the AAQS of 100 ug/m³. The ambient levels of NO₂ near the rural New Wales facility after the modification are expected to be much less than 56.7 ug/m³.

4. Additional Impacts

a) Soils, Vegetation and Visibility

The maximum impact of the NO_x emission increase from the No. 2 DAP plant is predicted to be 0.3 ug/m³, annual average. This is less than the significant impact level defined in Rule 17-2.100(170), Florida Administrative Code (FAC) of 1.0 ug/m³. As such, no additional impact on soil, vegetation, or visibility is expected as a result of the proposed emissions increase.

b) Growth Impacts

The proposed modification is not expected to impact the population growth in the county. No future air quality impacts due to growth are expected as a result of this emissions increase.

c) Class I Area Impact

The nearest Class I area to the New Wales site is the Chassahowitzka National Wilderness Area located nearly 100 km to the north-northwest. Given the small impact near the New Wales facility itself, no impact is expected to occur in the Class I area.

d) Good Engineering Practice (GEP) Stack Height

Good engineering practice (GEP) stack height is defined as the greater of (1) 65 meters; or (2) the maximum nearby building height plus 1.5 times the building height as projected width, whichever is less. The height of the stack of the No. 2 DAP plant is 52.1 meters, so that it is less than the GEP limitation height of 65 meters. The stack is also less than the GEP height as calculated using the building dimensions. Thus, building wake downwash can occur in certain meteorological conditions. However, the potential for building wake downwash to significantly increase ground-level concentrations averaged over an annual period is small. In addition, building wake downwash affects ground-level concentrations to the greatest extent near the buildings themselves; the nearest plant property line is 1.8 kilometers from these buildings, therefore, downwash effects are expected to be negligible at this distance.

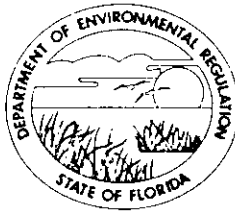
V. Conclusion

Based on the data submitted by IMCC, the department has concluded that the No. 2 DAP plant will comply with the federal and state air pollution control regulations with the NO_x

emission limit established in the BACT determination. The department proposed to issue a permit to construct that will include an emission standard for NOx. The General and Specific Conditions in the proposed permit (draft attached) will assure this source is in compliance with the air pollution control regulations.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY

PERMITTEE:
International Minerals &
Chemical Corporation
New Wales Operations
Post Office Box 1035
Mulberry, Florida 33860

Permit Number: AC 53-118671
Expiration Date: December 31, 1987
County: Polk
Latitude/Longitude: 27° 49' 56.4"N
82° 02' 59.9"W
Project: No. 2 DAP Plant Modification

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

For the modification of two 125 TPH trains (140 TPH total allowed) diammonium phosphate plant with a common cooler unit to be located at the permittee's existing phosphate fertilizer complex in the west part of Polk County near the intersection of State Highway 640 and County Line Road. The UTM coordinates of the proposed plant are zone 17, 396.6 km E and 3078.9 km N.

Construction shall be in accordance with the attached permit application, plan, documents and drawings except as noted in the Specific Conditions.

Attachments:

1. Application for the No. 2 DAP plant signed by Mr. Brafford on March 31, 1986.
2. October 18, 1985, letter by Dr. Koogler.
3. July 3, 1985, letter by Dr. Koogler.
4. August 19, 1985, letter by Dr. Koogler.
5. April 2, 1986, letter by Dr. Koogler.
6. May 9, 1986, letter by Dr. Koogler
7. November 10, 1986, letter by Dr. Koogler.
8. December 18, 1986, letter by Dr. Koogler.

PERMITTEE:
International Minerals &
Chemical Corporation

Permit Number: AC 53-118671
Expiration Date: December 31, 1987

GENERAL CONDITIONS:

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

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

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

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

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

PERMITTEE:
International Minerals &
Chemical Corporation

Permit Number: AC 53-118671
Expiration Date: December 31, 1987

GENERAL CONDITIONS:

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

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

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or department rules.

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

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

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

PERMITTEE:
International Minerals &
Chemical Corporation

Permit Number: AC 53-118671
Expiration Date: December 31, 1987

GENERAL CONDITIONS:

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

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

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

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

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

13. This permit also constitutes:

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

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

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

PERMITTEE:
International Minerals &
Chemical Corporation

Permit Number: AC 53-118671
Expiration Date: December 31, 1987

GENERAL CONDITIONS:

- b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by department rule.
- c. Records of monitoring information shall include:
- the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.

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

SPECIFIC CONDITIONS:

1. Maximum production for both plants shall not exceed a total of 140 TPH DAP and each plant will not operate over 7,920 hours per year. The cooler will be allowed to operate 8,760 hours per year.

PERMITTEE:
International Minerals &
Chemical Corporation

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SPECIFIC CONDITIONS:

2. The maximum allowable discharge from the plants will be:

Pollutant	Max. Emission Rate for each Plant	Total Max Emission for both Plants
Particulate	0.5 lbs/ton P ₂ O ₅	28.2 lbs/hr and 112 TPY
Visible Emissions	20% opacity	20% opacity
Fluoride	0.060 lbs/ton P ₂ O ₅	4.2 lbs/hr & 16.6 TPY
Sulfur Dioxide	0.7 lbs/ton P ₂ O ₅	44 lbs/hr & 174 TPY
Nitrogen Oxides	0.60 lbs/10 ⁶ Btu	25.2 lbs/hr & 110.4 TPY

The max. allowable discharge of particulate from the bag filter serving the cooler will be 0.01 grain/dscf and 4.5 lbs/hr which is 17.8 TPY.

3. Fugitive particulate and fluoride emissions from process, conveying and storage equipment will be controlled by sealing and/or venting all fumes from the equipment to pollution abatement equipment.

4. No. 6 fuel oil for the dryer shall not contain more than 2.5% sulfur. Total heat input to both trains shall not exceed 42 x 10⁶ Btu/hr which is approximately 280 GPH of No. 6 fuel oil.

5. The permittee shall install, calibrate, maintain, operate, and record data from flow monitoring devices that can be used to determine total P₂O₅ input to each plant.

6. The permittee will measure and record the pressure drop across each scrubber system. Pressure drop across the venturi scrubber must be at least 12" H₂O during plant operations. These records will be maintained for 2 years and available for inspection by regulatory agency personnel on request.

7. The company shall comply with all requirements of 40 CFR 60, Subpart V, Standards of Performances for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants.

8. The permittee's ambient air station measuring TSP will be operated on a 6 day schedule established by DER and the data reported to the DER office in Tampa on a quarterly basis.

9. Each plant (train) shall be sampled, while operating near 125 TPH DAP production on oil with approximately 2.5% sulfur content, for particulate matter, sulfur dioxide, nitrogen oxides, visible emissions, and fluorides by the reference methods described in 40 CFR 60, Appendix

PERMITTEE:
International Minerals &
Chemical Corporation

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Expiration Date: December 31, 1987

SPECIFIC CONDITIONS:

A, or other methods as approved by the department. Compliance tests shall be conducted prior to the expiration date of this construction permit or within 45 days after placing a plant in operation. P₂O₅ input, pH of the scrubber solution, and pressure drop across the scrubbers will be as normally operated and reported, along with the data and results, to the department. The department (SW District) shall be notified 10 days prior to any compliance test.

10. An application for permit to operate the No. 2 DAP plant shall be submitted to the department (SW District) within 45 days of the compliance tests. In the event the application for permit to operate does not include tests data on both trains of the No. 2 DAP plant, the permittee shall request the District amend any permit to operate that may be issued for this plant within 45 days of placing the other train in operation.

11. Any permit to operate issued for the No. 2 DAP plant shall require annual tests for particulate matter and fluoride, and on renewal of the permit to operate (every 5 years), tests for sulfur dioxide and nitrogen oxides.

Issued this _____ day of _____, 19____

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

Dale Twachtmann, Secretary

_____ pages attached

Best Available Control Technology (BACT) Determination
International Minerals & Chemical Corporation
Polk County

The applicant has installed a dual train diammonium phosphate (DAP) plant with each train designed for a 70-ton per hour production rate. This (No. 2) DAP plant utilizes a dryer that was designed to be fired with either No. 6 fuel oil or natural gas.

The plant was permitted in 1980 under PSD construction permit PSD-FL-034 for a nitrogen oxides emission rate of 4.3 pounds per hour (0.21 pounds per million Btu heat input) for each of the two 70 tons per hour DAP trains. By letter dated February 27, 1985, EPA modified the nitrogen oxide emission limiting standard to allow a total plant nitrogen oxides emission rate of 8.6 pounds per hour or 0.21 pounds per million Btu heat input.

On May 29, 1985, nitrogen oxides emission measurements were made on the No. 2 DAP plant dryer to demonstrate compliance with the permitted emission limiting standard. The testing, which was performed while operating the dryer on No. 6 fuel oil, resulted in an average nitrogen oxides emission rate of 0.71 pounds per million Btu heat input. Subsequent nitrogen oxides emissions measurements on the No. 2 DAP plant showed nitrogen oxides emissions ranging from 0.80 to 0.88 pounds per million Btu heat input.

In accordance with this finding, the applicant completed a review of the plant operating practices and the dryer burner design, and concluded that there were no practical modifications that could be made to reduce nitrogen oxides emissions to the permitted emission rate of 0.21 pounds per million Btu heat input.

For permitting purposes, the applicant has proposed that the nitrogen oxides limit for the No. 2 DAP plant be set at 1.0 pound of nitrogen oxides (expressed as nitrogen dioxide) per million Btu heat input. At a maximum plant operation rate of 140 tons of DAP per hour and a design heat input rate of 0.3 million Btu per ton of DAP, the proposed limit of 1.0 pound of nitrogen oxides per million Btu heat input will result in a nitrogen oxides emission increase of 151.8 tons per year. The annual increase exceeds the 40 tons per year significant emission increase defined in 17-2.500(2)(e)2 FAC; thus requiring a PSD review and hence a BACT determination for the requested action.

Review Group Members:

This determination was based upon comments received from the applicant and the Stationary Source Control Section.

BACT Determined by DER:

Pollutant	Emission Limit
Nitrogen Oxides	0.60 lb/MMBtu heat input

BACT Determination Rationale

In accordance with the procedure outlined for the BACT analysis, the bureau identified three alternative control strategies that could be incorporated into the No. 2 DAP plant to provide a reduction in emissions of nitrogen oxides. The three strategies selected are listed as follows:

- 1) Replace the existing No. 2 DAP plant burners with low-NOx burners.

The burners for the two dryers in the No. 2 DAP plant were designed during a period of high fuel oil cost in the early 1980's and were designed to be as fuel efficient as possible. It was originally felt that the fuel efficient design would also function similar to low-NOx burners but the emissions have turned out to be much higher than expected.

- 2) Perform physical modifications to the burner/combustion chamber.

The No. 2 DAP plant utilizes a design in which tertiary air is added downstream from the primary and secondary combustion air. In this design, the steam atomized fuel is fired with low primary combustion air with the secondary combustion air being supplied through an orifice plate around the burner, resulting in approximately 100 percent excess air. Tertiary air is then added further downstream resulting in approximately 800 percent excess air in the airstream entering the DAP dryer.

Another DAP plant (No. 1) at the facility utilizes another type of design that has resulted in approximately a 50 percent reduction in nitrogen oxides emissions as compared to the No. 2 DAP plant. The No. 1 plant uses steam atomized fuel oil that is supplied through an orifice plate with approximately 50 percent excess combustion air. Secondary combustion air is supplied through four large openings in the orifice plate surrounding the nozzle, resulting in approximately 600 percent excess air in the combustion chamber downstream of the orifice plate.

It is believed that physical modifications could be made to the burner/combustion chambers of the No. 2 DAP plant dryers that would approximate the burner/combustion chamber design of the No. 1 DAP plant, thereby providing the expected reduction in nitrogen oxides emissions.

- 3) Operate the No. 2 DAP plant dryers using natural gas as the fuel instead of No. 6 fuel oil.

Nitrogen oxides are formed by two mechanisms: Oxidation of fuel-bound nitrogen and thermal fixation of the nitrogen present in the combustion air. When No. 6 fuel oil is fired, fuel nitrogen conversion is generally the primary nitrogen oxides forming mechanism.

Natural gas generally has a lower nitrogen content and burns with a cooler flame. These two characteristics would result in lower emissions of nitrogen oxides at the No. 2 DAP plant. These reductions are evidenced by test data which demonstrated that the nitrogen oxides emissions from the dryers are substantially reduced when fired with natural gas instead of No. 6 fuel oil.

The alternate control strategies have been evaluated from the standpoint of energy, economical, and environmental impacts analysis. In accordance with these reviews, the cost to the applicant of using an alternative control strategy to reduce emissions is heavily considered.

When completing an economic analysis, the strategy has been to obtain the highest reduction of emissions per dollars invested for control equipment or control strategies. This method of maximizing emission reductions per capital invested is a major factor when New Source Performance Standards (NSPS) are developed by the EPA. For nitrogen oxides emissions EPA has determined that a cost of up to \$1,000 per ton of emissions controlled (\$0.50/lb) is reasonable for NSPS. It should be noted that BACT should be a level of control which is at least as stringent as NSPS, thus the cost to provide BACT could be higher than that proposed for NSPS and yet be considered reasonable. For example, the South Coast Air Quality Management District (Los Angeles area) in California, which has high ambient levels of nitrogen oxides, has established a BACT cost guideline of \$9,000 per ton of nitrogen oxides controlled.

The economic evaluations of the three control strategies discussed previously are given below.

Installation of Low NOx Burners

The total expense of replacing the existing burners with low-NOx burners would take into account the cost of both the modifications needed and the lost revenues due to down time of the dryer.

The expense of replacing the burner in the east train of the No. 2 DAP plant would be \$214,866 (capital plus write-off of existing equipment). Assuming that the burner/combustion chamber has a

lifetime of 10 years and using an interest rate of 9.0 percent, the annualized cost of replacing the burner with a low-NOx burner would be approximately \$22,383. Using a corresponding emissions reduction of 100 tons per year for using the low-NOx burner, the cost per ton of control would be approximately \$224.00 which would appear to be reasonable in accordance with the guidelines that are available.

Modification of the Combustion Chamber

The cost associated with modifying the east combustion chamber of the No. 2 DAP plant is estimated to be \$200,000. A modification of this type would provide an emissions reduction which is similar to using a low-NOx burner. This would result in a control cost of approximately \$200.00 per ton of nitrogen oxides, which would again be considered reasonable in comparison to the guidelines available.

It is important to note that the cost of replacing the burners or modifying the combustion chamber to reduce nitrogen oxides emissions should also take into account the amount of revenue lost from the down time associated with making the modifications.

It is expected that the down time required to perform the burner replacement or combustion chamber modification would be approximately three weeks which translates in a DAP production loss of up to 70,000 tons. The profit that could be realized from this amount of DAP produced is directly dependent on the market price of DAP. Currently, due to the fiscal condition of the phosphate fertilizer industry, DAP is being sold for less than the cost of production. However, when the market price for DAP is taken into consideration for a previous period which represents a more representative sales year, the profit that would be lost is substantial and the resulting total cost of modifying the burner/combustion chamber would not be reasonable when compared to the guidelines available.

Operating the Burner with Natural Gas

In response to a request made by the bureau, the applicant has submitted test data which demonstrates that the DAP dryer is capable of meeting the permitted emission limitation (0.21 pound per million Btu) when fired with natural gas. In accordance with this data, the cost to operate using natural gas instead of oil can be completed.

The applicant has stated that the oil consumption necessary to dry the product is 1.5 gallons per ton. Using the data that was submitted for operating at the maximum rate of production (125 tons/hour) and the proposed emission limitation (1.0 pounds per million Btu), the cost to operate and the resulting emissions are

\$60.00 and 28.4 pounds/hour respectively. By comparison, the cost of using natural gas to dry 125 tons of product would compute to \$56.34 and an emission rate of 4.7 pounds/hour when using the data submitted by the applicant. This calculation clearly shows that the applicant should be operating on natural gas both from the standpoint of reducing operating costs and emissions.

In addition to the data submitted, which served as the basis for the computations above, the applicant has submitted data which indicates that with proper operation the DAP dryer can be fired with No. 6 fuel oil at a lower throughput per ton of product resulting in a lower emission rate. During discussions with the bureau, the applicant has indicated that the dryer can be operated with a maximum emissions rate not to exceed 0.60 pounds per million Btu when operating at maximum production for one train (125 tons per hour). The data submitted indicates that the cost to operate at this level would be \$44.57 with a corresponding emission rate of 12.7 pounds/hour. At this level of operation the incremental costs of switching to natural gas would be \$1.47 per pound (\$2,940.00/ton) of nitrogen oxides controlled which would indeed be unreasonable in comparison to the guideline of \$1,000,00/ton of nitrogen oxides controlled for establishing NSPS. It should be noted that the cost of switching to natural gas only results in a change of operating costs, capital investment is not required to modify the facility to use natural gas as fuel. Based on this evaluation, the applicant's proposal of accepting a limitation of 0.60 pounds, per million Btu is justified.

Environmental Impacts Analysis

Dispersion modeling completed by the applicant indicates that the nitrogen oxides emissions at the originally permitted rate (0.21 pounds/million Btu) result in an ambient concentration level of 0.16 ug/m³. The proposal to increase the emission rate to 1.0 pound per million Btu would increase the ambient concentration level by approximately 0.5 ug/m³ for a total of 0.62 ug/m³. This increase in the nitrogen oxides impact as originally proposed is insignificant in comparison to the maximum existing NO₂ level in urban Hillsborough County of 54 ug/m³ and the Ambient Air Quality Standard (AAQS) of 100 ug/m³. Based on the impacts analysis, the proposed emission rate and certainly the counter proposal of 0.6 pounds per million Btu, which would reduce the ambient impacts by a factor of 2, would not constitute a problem from an ambient concentration level standpoint.

Conclusion

In view of the fiscal condition of the phosphate fertilizer industry and the other information presented in the preceding analysis, the bureau has determined that nitrogen oxides emission

limitation of 0.60 pounds/million Btu is justified in all respects as being BACT for this facility.

From an economic standpoint, the firing of No. 6 fuel oil at the 0.60 lb/MMBtu level does not justify switching to natural gas. In addition, the cost of having the applicant perform modifications to the burner/combustion chamber is not justified during a period when the market price of the applicant's product (DAP) is below the cost of production.

In terms of environmental impacts, it has been shown that the emissions limit, as proposed and as agreed to as being BACT, will be minimal.

It is important to note that the level of emissions determined to be BACT in this analysis is subject to change if deemed necessary in accordance with modifications that may be proposed in the future. At that time, the BACT determination would again be completed on a case-by-case basis taking into account the elements as presented herein.

Details of the Analysis May be Obtained by Contacting:

Barry Andrews, P.E., BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended by:

C. H. Fancy, P.E.
Deputy Bureau Chief, BAQM

Date

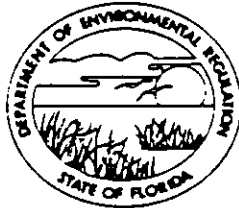
Approved by:

Dale Twachtman, Secretary

Date

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

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



WAIVER OF 90 DAY TIME LIMIT
UNDER SECTIONS 120.60(2) AND 403.0876, FLORIDA STATUTES

License (Permit, Certification) Application No. AC 53-118671

Applicant's Name: International Minerals and Chemical Corporation,
New Wales Operations

The undersigned has read Sections 120.60(2) and 403.0876, Florida Statutes, and fully understands the applicant's rights under that section.

With regard to the above reference license (permit, certification) application, the applicant hereby with full knowledge and understanding of (his) (her) (its) rights under Sections 120.60(2) and 403.0876, Florida Statutes, waives the right under Sections 120.60(2) and 403.0876, Florida Statutes, to have the application approved or denied by the State of Florida Department of Environmental Regulation within the 90 day time period prescribed in Sections 120.60(2) and 403.0876, Florida Statutes. Said waiver is made freely and voluntarily by the applicant, is in (his) (her) (its) self-interest, and without any pressure or coercion by anyone employed by the State of Florida Department of Environmental Regulation.

This waiver shall expire on the 22 day of April 1987.

The undersigned is authorized to make this waiver on behalf of the applicant.

A handwritten signature in black ink, appearing to read "John B. Koogler", is written over a horizontal line.

Signature

John B. Koogler, Engineer of Record

Please Type Name of Signer

February 26, 1987

Date

Sworn to and subscribed
before me this 26 day
of February 1987.

Notary Public, State of Florida
My Commission Expires March 20, 1988
Bonded by Accredited Surety & Casualty Co., Inc.
Orlando, Florida 841-8500