

CMI
CONSOLIDATED MINERALS, INC.
FEED SUPPLEMENT DIVISION

June 27, 1989

D. E. R.

JUN 30 1989

SOUTHWEST DISTRICT
TAMPA

Mr. J. Harry Kerns, P.E.
District Air Engineer
Department of Environmental Regulation
Southwest District
4520 Oak Fair Blvd.
Tampa, FL 33610

Dear Mr. Kerns:

Please find attached four copies of a construction permit application for the Consolidated Minerals Inc. Plant City KBF4 Dryer Dust Collector.

Also attached is a check in the amount of \$200.00 to cover the application fee. A copy of this application and the appropriate application fee has been transmitted to the Hillsborough County Environmental Protection Commission.

If you have any questions concerning the contents of this application, please let me know.

Sincerely,

Robert L. Harrison Jr.
Robert L. Harrison, Jr.
Environmental Supervisor

RLHjr:tc

cc: F. W. Cheesman

Attachments

CMI

CONSOLIDATED MINERALS, INC.
FEED SUPPLEMENT DIVISION

June 30, 1989

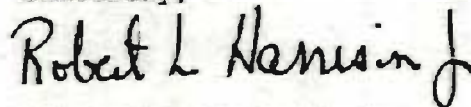
Mr. Jerry Campbell
Hillsborough County Environmental
Protection Commission
1900 Ninth Avenue
Tampa, FL 33606

Dear Mr. Campbell:

I was notified by your staff that two recently submitted permits for the Research and Development Facility, construction should have been marked instead of operation. Please be advised that CMI wishes to change these permit applications to reflect construction, not operation.

Please contact this office if you have any other questions.

Sincerely,



Robert L. Harrison, Jr.
Environmental Supervisor

RLH:cr

cc: Bill Thomas/DER

RECEIVED - DATE 7-3-89
D.E.R. - S.W.D.

APPLICATION TRACKING SYSTEM

07/03/89

APPL NO:166885

APPL RECVD:06/29/89 TYPE CODE:AC SUBCODE:00

LAST UPDATE:07/03/89

DER OFFICE RECVD:TPA DER OFFICE TRANSFER TO:TLH APPLICATION COMPLETE:00/00/00

DER PROCESSOR:THOMAS Richardson

APPL STATUS:AC DATE:06/29/89 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)

RELIEF: (SSAC/EXEMPTIONS/VARIANCE)

(Y/N) N MANUAL TRACKING DISTRICT:40 COUNTY:29
(Y/N) DNR REVIEW REQD? LAT/LONG:
(Y/N) N PUBLIC NOTICE REQD? BASIN-SEGMENT:
(Y/N) N GOV BODY LOCAL APPROVAL REQD? COE #:
(Y/N) Y LETTER OF INTENT REQD? (I/ISSUE D/DENY) ALT#:

PROJECT SOURCE NAME:R & D ROTARY KILN W/SCRUBBER
STREET:CORONET RD. CITY:PLANT CITY
STATE:FL ZIP: PHONE:
APPLICATION NAME:CONSOLIDATED MINERALS, INC.
STREET:P.O. BOX 790 CITY:PLANT CITY
STATE:FL ZIP:34289 PHONE:
AGENT NAME:CONSOLIDATED MINERALS, INC.
STREET:P.O. BOX 790 CITY:PLANT CITY
STATE:FL ZIP:34289 PHONE:813-752-1161

FEE #1 DATE PAID:06/29/89 AMOUNT PAID:C0200 RECEIPT NUMBER:00139925

Table with columns for event type (B, C, D, E, F, G, H, I, J, K, L, M, N), description, and date (MM/DD/YY). Rows include events like 'DATE APPLICANT INFORMED OF NEED FOR PUBLIC NOTICE' and 'DATE DNR REVIEW WAS COMPLETED'.

COMMENTS:

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

No 139926

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Consolidated Municipal Date 6/29/89
Address PO Box 300 Seesburg Jr Dollars \$ 200.00
Applicant Name & Address same
Source of Revenue R & D Rotary Club w/Scrubber
Revenue Code 1032 Application Number A029-116885
By Alvina King
ck 25822

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

No 139925

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Consolidated Municipal Date 6/29/89
Address PO Box 300 Seesburg Jr Dollars \$ 200.00
Applicant Name & Address same
Source of Revenue R & D Rotary Club w/Scrubber
Revenue Code 1032 Application Number A029-116885
By Alvina King
ck 25821

AC 29-166885

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2500 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301



JUN 29 1989

BOB GRAMM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

SOUTHWEST DISTRICT
TAMPA

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Air Pollution [] New¹ [X] Existing¹
APPLICATION TYPE: [] Construction [X] Operation [] Modification
COMPANY NAME: Consolidated Minerals, Inc. COUNTY: Hillsborough
Identify the specific emission point source(s) addressed in this application (i.e. Line
Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) R&D Rotary Kiln
with Scrubber
SOURCE LOCATION: Street Coronet Road City Plant City
UTM: East 17-393.8 North 3096.3
Latitude ° ' "N Longitude ° ' "W
APPLICANT NAME AND TITLE: F. W. Cheesman/President
APPLICANT ADDRESS: P.O. Box 790 Plant City, FL 34289

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Consolidated Minerals, Inc.

I certify that the statements made in this application for a Operation permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: *F. W. Cheesman*
F. W. Cheesman/President
Name and Title (Please Type)

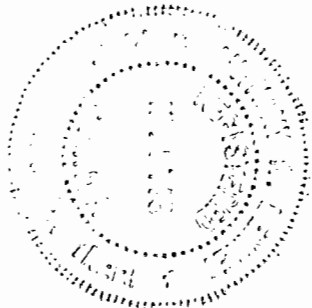
Date: _____ Telephone No. (813)752-1161

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Anthony R. Lenkei

Anthony R. Lenkei
Name (Please Type)

Consolidated Minerals, Inc.
Company Name (Please Type)

P.O. Box 790 Plant City, FL 34289
Mailing Address (Please Type)

Florida Registration No. 8716 Date: 6, 28, 89 Telephone No. (813)752-1161

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

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

Start of Construction _____ Completion of Construction _____

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Not Applicable - The pollution control systems are already installed.

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

This source was issued a permit, A029-73474; on September 27, 1983 and expired on September 15, 1988.

Page Two, Section II

- A. There are two R&D projects that will require the use of the pilot plant equipment. The first is the production of CDP. This will be the same process that is used at the Plant City Facility. The only exception is that a lower grade rock, BPL, will be used.

The second project is the production of artificial aggregate from waste ash generated at incinerators. It is proposed to fuse the waste ash into a glass like product by mixing the ash with limestone and a flux, such as fluorspar, and heating to produce a semifused mass.

The venting of emissions, from both of the processes, will be through a Tellerette-packed crossflow wet scrubber and will meet existing state and federal emissions control standards and thus be in full compliance.

E. Requested permitted equipment operating time: hrs/day 12; days/wk 5; wks/yr 23;
if power plant, hrs/yr _____; if seasonal, describe: Variable as project deamnds.

Will operate no more than 1400 hours during a year.

F. If this is a new source or major modification, answer the following questions.
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? NO
a. If yes, has "offset" been applied? N/A
b. If yes, has "Lowest Achievable Emission Rate" been applied? N/A
c. If yes, list non-attainment pollutants. _____

2. Does best available control technology (BACT) apply to this source?
If yes, see Section VI. NO

3. Does the State "Prevention of Significant Deterioration" (PSD)
requirement apply to this source? If yes, see Sections VI and VII. NO

4. Do "Standards of Performance for New Stationary Sources" (NSPS)
apply to this source? NO

5. Do "National Emission Standards for Hazardous Air Pollutants"
(NESHAP) apply to this source? NO

H. Do "Reasonably Available Control Technology" (RACT) requirements apply
to this source? NO

a. If yes, for what pollutants? _____

b. If yes, in addition to the information required in this form,
any information requested in Rule 17-2.650 must be submitted.

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

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

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

| Description | Contaminants | | Utilization Rate - lbs/hr | Relate to Flow Diagram |
|-----------------|--------------|------|---------------------------|------------------------|
| | Type | % Wt | | |
| Phosphate Rock | Particulate | 100% | 265 lbs/hr | |
| Phosphate Rock | Fluoride | 3.5% | 265 lbs/hr | |
| Phosphoric Acid | Fluoride | 1.0% | 75 lbs/hr | |
| Soda Ash | Particulate | 100% | 60 lbs/hr | |
| | | | | |

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

1. Total Process Input Rate (lbs/hr): 400 lbs/hr
2. Product Weight (lbs/hr): 330 lbs/hr

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

| Name of Contaminant | Emission ¹ | | Allowed ² Emission Rate per Rule 17-2 | Allowable ³ Emission lbs/hr | Potential ⁴ Emission | | Relate to Flow Diagram |
|---------------------|-----------------------|-------------|--|--|---------------------------------|------|------------------------|
| | Maximum lbs/hr | Actual T/yr | | | lbs/yr | T/yr | |
| Particulate | 0.33 | 0.23 | 17-2.650(2)(b)(2) | .33 | 16.25 | 71.2 | |
| Fluoride | 0.22 | 0.15 | 17-2.600(3) | .22 | 10.9 | 47.7 | |
| Opacity | | | 17-2.610(2)(a) | 20% | | | |
| | | | | | | | |
| | | | | | | | |

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

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

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

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

| Description | Contaminants | | Utilization Rate - lbs/hr | Relate to Flow Diagram |
|-------------|--------------|------|---------------------------|------------------------|
| | Type | % Wt | | |
| Waste Ash | Particulate | 100% | 356 lbs/hr | |
| Limestone | Particulate | 100% | 40 lbs/hr | |
| Fluorspar | Particulate | 100% | 4 lbs/hr | |
| Fluorspar | Particulate | 48% | 4 lbs/hr | |
| | | | | |

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

1. Total Process Input Rate (lbs/hr): 400 lbs/hr

2. Product Weight (lbs/hr): 380 lbs/hr

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

| Name of Contaminant | Emission ¹ | | Allowed Emission Rate per Rule 17-2 | Allowable ³ Emission lbs/hr | Potential ⁴ Emission | | Relate to Flow Diagram |
|---------------------|-----------------------|-------------|-------------------------------------|--|---------------------------------|------|------------------------|
| | Maximum lbs/hr | Actual T/yr | | | lbs/xRhr | T/yr | |
| Particulate | 0.40 | .28 | 17-2.650(2)(b)(2) | 0.40 | 20.0 | 87.6 | |
| Fluoride | 0.003 | .002 | 17-2.600(3) | 0.003 | .13 | .56 | |
| Opacity | | | 17-2.610(2)(a) | 20% | | | |
| | | | | | | | |
| | | | | | | | |

¹See Section V, item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

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

J. Control Devices: (See Section V, Item 4) ROTARY KILN

| Name and Type (Model & Serial No.) | Contaminant | Efficiency | Range of Particles Size Collected (in microns) (If applicable) | Basis for Efficiency (Section V Item 5) |
|---------------------------------------|-------------|------------|---|--|
| Packed Crossflow | Particulate | 98+% | N/A | See Attach- ment D |
| Wet Scrubber with | | | | |
| Impingement Chamber | Fluoride | 98+% | N/A | |
| | | | | |
| | | | | |
| | | | | |

E. Fuels

| Type (Be Specific) | Consumption* | | Maximum Heat Input (MMBTU/hr) |
|--------------------|---------------|---------------|----------------------------------|
| | avg/hr | max./hr | |
| Natural Gas | .0034 MMCF/Hr | .0044 MMCF/Hr | 4.37 MMBTU/Hr |
| | | | |
| | | | |
| | | | |

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis: N/A

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average _____ Maximum _____

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

All solid and liquid wastes will be returned to the plants closed circuit
recirculated process water system.

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

Stack Height: 14.2 ft. Stack Diameter: 0.83 ft.
 Gas Flow Rate: 3107 ACFM DSCFM Gas Exit Temperature: 80 °F.
 Water Vapor Content: 3.5 % Velocity: 94.18 FPS

SECTION IV: INCINERATOR INFORMATION

NOT APPLICABLE

| Type of Waste | Type 0 (Plastics) | Type I (Rubbish) | Type II (Refuse) | Type III (Garbage) | Type IV (Pathological) | Type V (Liq. & Gas By-prod.) | Type VI (Solid By-prod.) |
|--------------------------|-------------------|------------------|------------------|--------------------|------------------------|------------------------------|--------------------------|
| Actual lb/hr Incinerated | | | | | | | |
| Uncontrolled (lbs/hr) | | | | | | | |

Description of Waste _____

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

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

| | Volume (ft) ³ | Heat Release (BTU/hr) | Fuel | | Temperature (°F) |
|-------------------|--------------------------|-----------------------|------|--------|------------------|
| | | | Type | BTU/hr | |
| Primary Chamber | | | | | |
| Secondary Chamber | | | | | |

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

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made. SEE ATTACHMENT A-1 and A-2
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
SEE ATTACHMENT A-1 AND A-2
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.) SEE ATTACHMENT B
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency). SEE ATTACHMENT C
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained. SEE ATTACHMENT D
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
SEE ATTACHMENT E
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

NOT APPLICABLE

ER Form 17-1.202(1)

Effective November 30, 1982

Page 7 of 12

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit. NOT APPLICABLE

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

NOT APPLICABLE

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes No

Contaminant

Rate or Concentration

| Contaminant | Rate or Concentration |
|-------------|-----------------------|
| | |
| | |
| | |
| | |

B. Has EPA declared the best available control technology for this class of sources (if yes, attach copy)

Yes No

Contaminant

Rate or Concentration

| Contaminant | Rate or Concentration |
|-------------|-----------------------|
| | |
| | |
| | |
| | |

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

Contaminant

Rate or Concentration

| Contaminant | Rate or Concentration |
|-------------|-----------------------|
| | |
| | |
| | |
| | |

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

1. Control Device/System:

2. Operating Principles:

3. Efficiency:*

4. Capital Costs:

*Explain method of determining

- 5. Useful Life:
- 7. Energy:
- 9. Emissions:

- 6. Operating Costs:
- 8. Maintenance Cost:

| Contaminant | Rate or Concentration |
|-------------|-----------------------|
| | |
| | |
| | |
| | |

10. Stack Parameters

- a. Height: ft. b. Diameter: ft.
- c. Flow Rate: ACFM d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:² h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:² h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

7. Describe the control technology selected:

1. Control Device:

2. Efficiency:¹

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:²

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

¹ Explain method of determining efficiency.

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant

Rate or Concentration

| | |
|--|--|
| | |
| | |
| | |

(8) Process Rate:¹

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant

Rate or Concentration

| | |
|--|--|
| | |
| | |
| | |

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data ^{NOT APPLICABLE}

1. _____ no. sites _____ TSP _____ () SO₂ _____ Wind spd/dir

Period of Monitoring _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

- a. Was instrumentation EPA referenced or its equivalent? [] Yes [] No
- b. Was instrumentation calibrated in accordance with Department procedures?
[] Yes [] No [] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from _____ / _____ / _____ to _____ / _____ / _____
month day year month day year
2. Surface data obtained from (location) _____
3. Upper air (mixing height) data obtained from (location) _____
4. Stability wind rose (STAR) data obtained from (location) _____

C. Computer Models Used

1. _____ Modified? If yes, attach description.
2. _____ Modified? If yes, attach description.
3. _____ Modified? If yes, attach description.
4. _____ Modified? If yes, attach description.

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

D. Applicants Maximum Allowable Emission Data

| Pollutant | Emission Rate |
|-----------------|-----------------|
| TSP | _____ grams/sec |
| SO ₂ | _____ grams/sec |

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

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

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

SECTION V SUPPLEMENTAL INFORMATION

2. Particulate Emission Estimate (Waste Ash, Limestone & Fluorspar)
Estimate Scrubber System Loading: 20 lbs/hr
100%-98% (Scrubber System Efficiency) = 2% Discharge
20 lbs/hr x 2% = 0.40 lbs/hr Discharge
0.40 lbs x 1400 operating hours = 560 lbs/year
560 lbs/yr ÷ 2000 lbs/ton = 0.28 Tons/Year Emissions

Potential Emissions

20 lbs/hr Scrubber System Loading
20 lbs/hr x 8760 hrs/year =
175,200 lbs/year ÷ 2000 lbs/ton =
87.6 Tons/Year Potential Emissions

Fluoride Emission Estimate

Estimate Scrubber System Loading: .129 lbs/hr
100%-98% (Scrubber System Efficiency) = 2% Discharge
.129 lbs/hr x 2% = .003 lbs/hr Discharge
.003 lbs/hr x 1400 operating hours = 4.2 lbs/year
4.2 lbs/year ÷ 2000 lbs/ton = .002 Tons/Year Emissions

Potential Emissions

.129 lbs/hr Scrubber System Loading
.129 lbs/hr x 8760 hrs/year =
1130 lbs/hr ÷ 2000 lbs/ton =
.56 tons/year Potential Emissions

Particulate Emission Estimate (Phosphate Rock, Phosphoric Acid, Soda Ash)

Estimate Scrubber System Loading: 16.25 lbs/hr
100%-98% (Scrubber System Efficiency) = 2% Discharge
16.25 lbs/hr x 2% = 0.33 lbs/hr Discharge
0.33 lbs x 1400 operating hours = 462 lbs/year
462 lbs/year ÷ 2000 lbs/ton = .23 Tons/Year Emissions

Potential Emissions

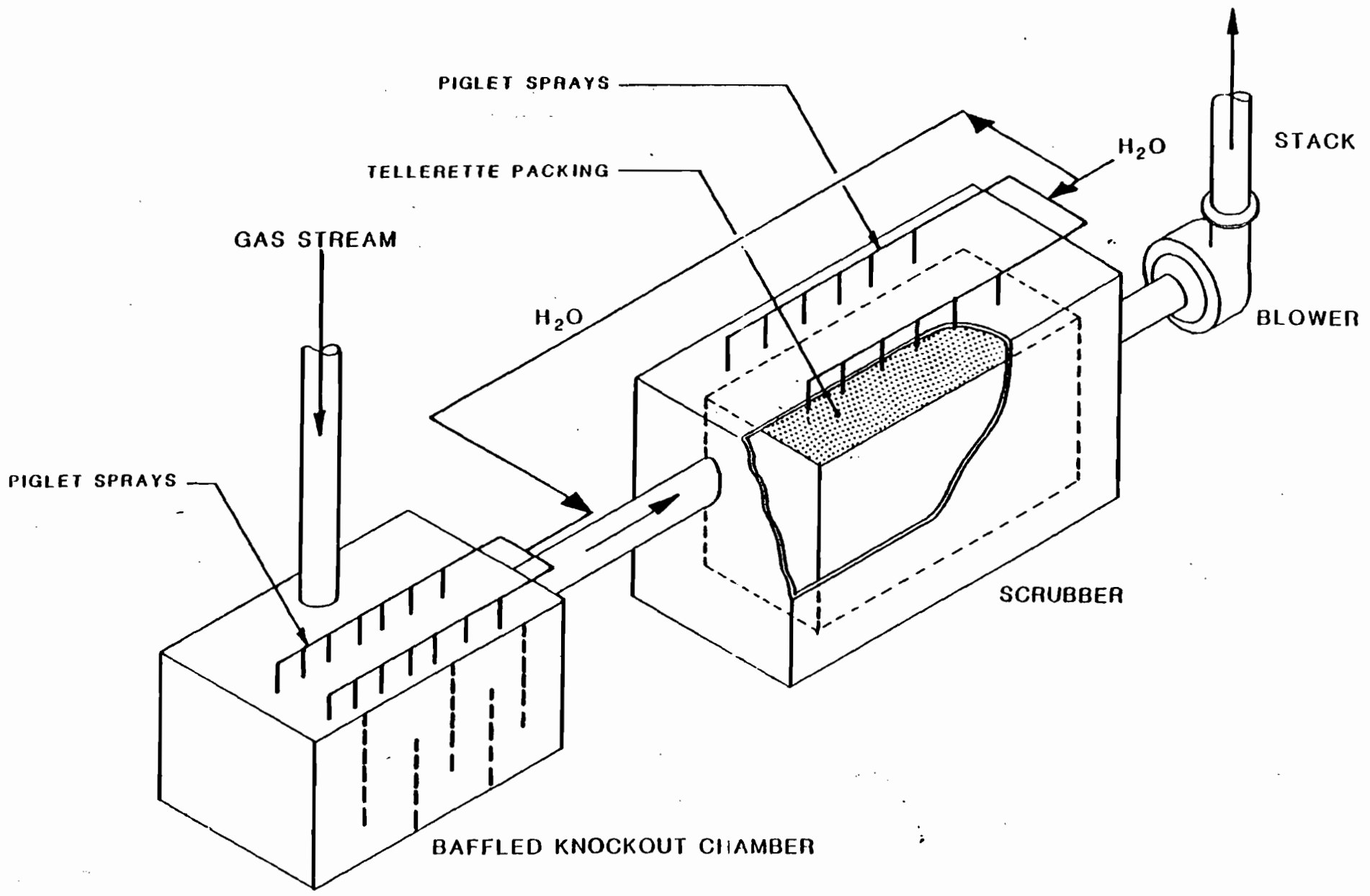
16.25 lbs/hr Scrubber System Loading
16.25 lbs/hr x 8760 hrs/year =
142,350 lbs/hr ÷ 2000 lbs/ton =
71.2 Tons/Year Potential Emissions

Fluoride Emission Estimate

Estimate Scrubber System Loading: 10.9 lbs/hr
100%-98% (Scrubber System Efficiency) = 2% Discharge
10.9 lbs/hr x 2% = .22 lbs/hr Discharge
.22 lbs/hr x 1400 operating hours = 306 lbs/year
306 lbs/year ÷ 2000 lbs/ton = .15 Tons/Year Emissions

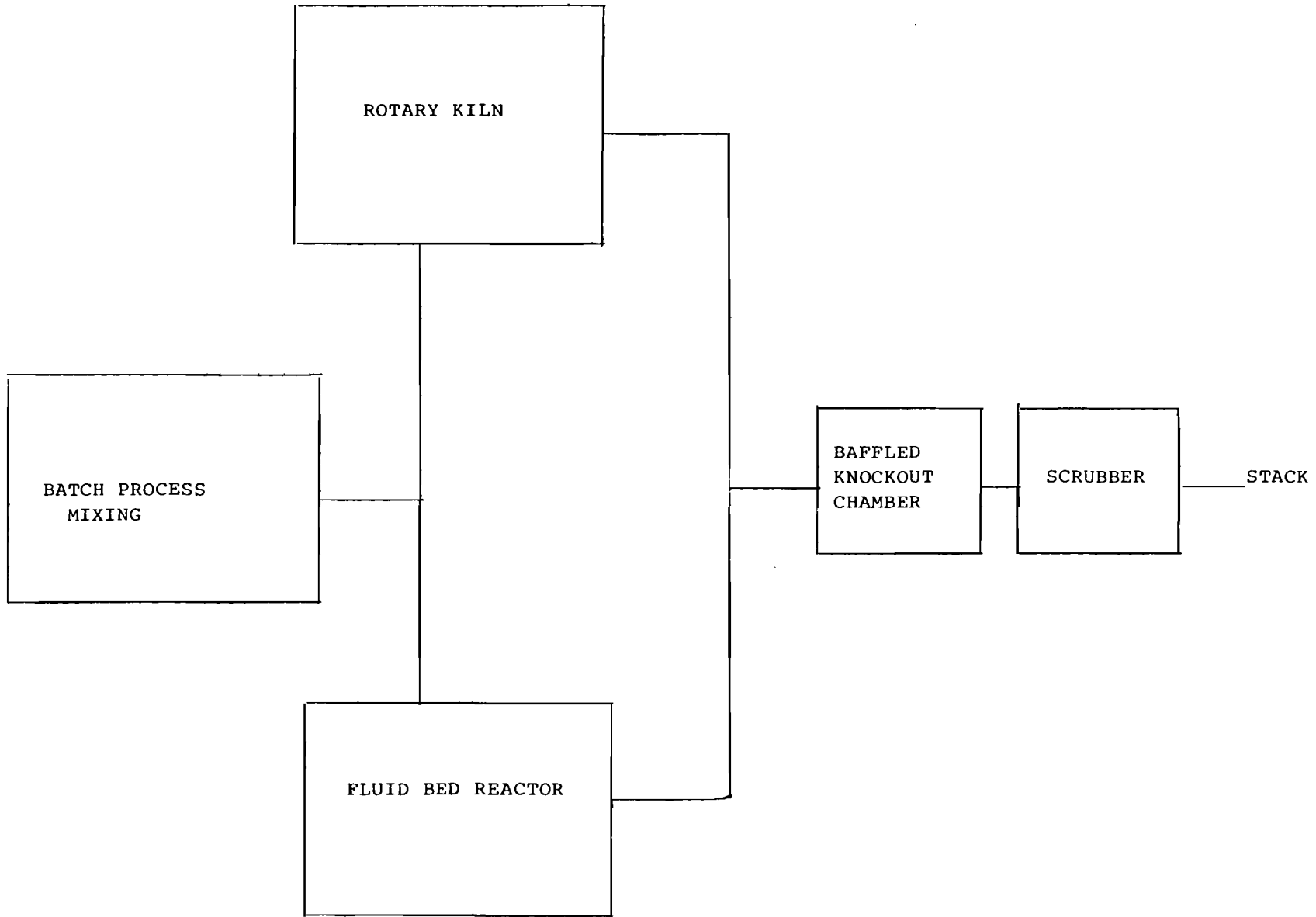
Potential Emissions

10.9 lbs/hr Scrubber System Loading
10.9 lbs/hr x 8760 =
95,484 lbs/hr ÷ 2000 lbs/ton =
47.7 Tons/Year Potential Emissions

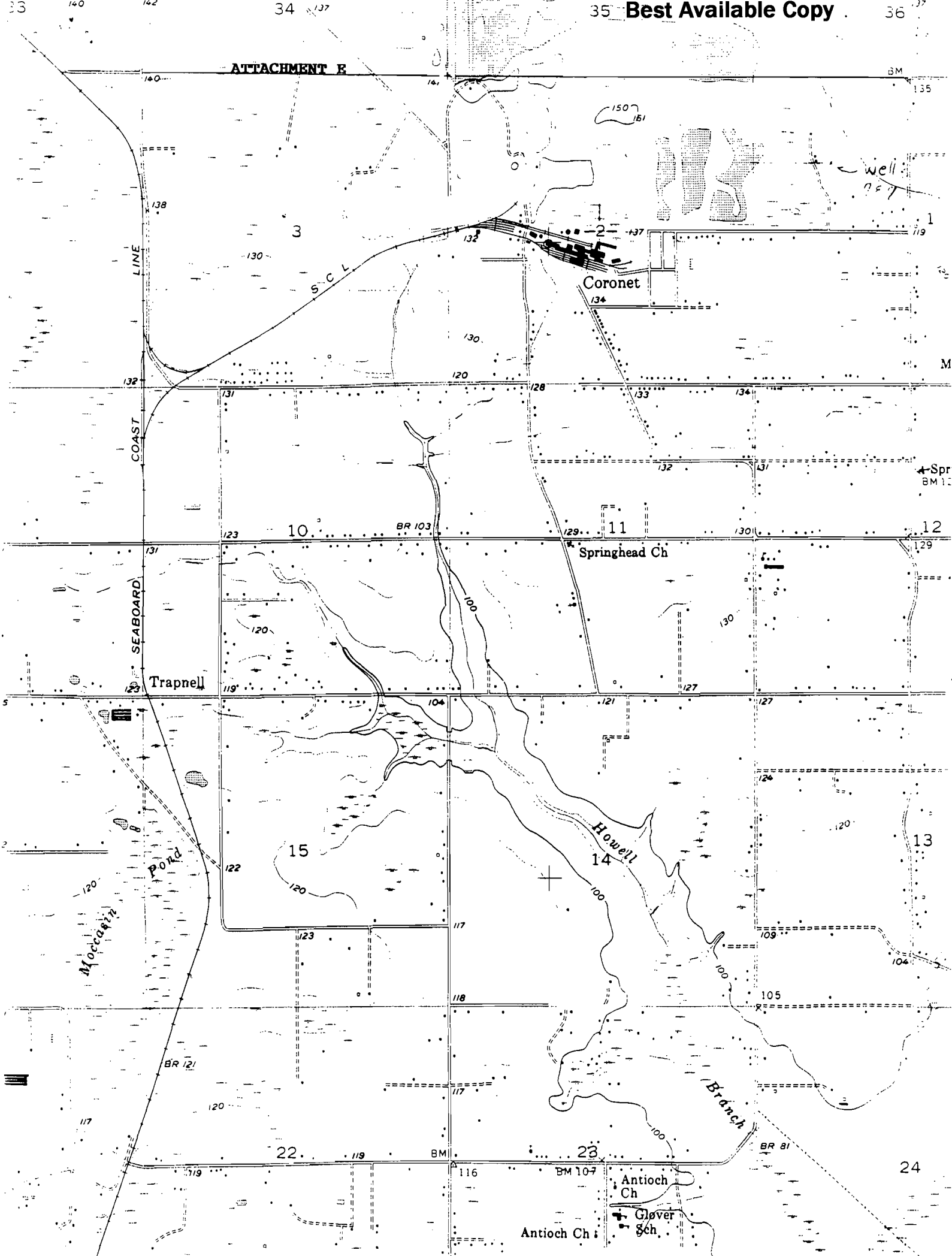


ATTACHMENT B

ATTACHMENT D



ATTACHMENT E



AC 29-166885

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2500 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301



JUN 29 1989

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

SOUTHWEST DISTRICT
TAMPA

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Air Pollution [] New¹ [XX] Existing¹

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

COMPANY NAME: Consolidated Minerals, Inc. COUNTY: Hillsborough

Identify the specific emission point source(s) addressed in this application (i.e. Line
Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) R&D Fluid Bed Reactor
with Scrubber

SOURCE LOCATION: Street Coronet Road City Plant City

UTM: East 17-393.8 North 3096.3

Latitude ° ' "N Longitude ° ' "W

APPLICANT NAME AND TITLE: F. W. Cheesman/President

APPLICANT ADDRESS: P.O. Box 790 Plant City, FL 34289

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Consolidated Minerals, Inc.

I certify that the statements made in this application for a Operation permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: *F. W. Cheesman*

F. W. Cheesman/President
Name and Title (Please Type)

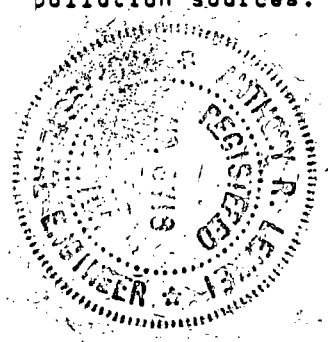
Date: _____ Telephone No. (813)752-1161

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Anthony R. Lenkei

Anthony R. Lenkei
Name (Please Type)

Consolidated Minerals, Inc.
Company Name (Please Type)

P.O. Box 790 Plant City, FL 34289
Mailing Address (Please Type)

Florida Registration No. 8716 Date: 6, 28, 89. Telephone No. (813)752-1161

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

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

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Not Applicable - The pollution control systems are already installed.

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

This source was issued a permit, A029-73474, on September 27, 1983 and expired
on September 15, 1988.

Page Two, Section II

- A. There are two R&D projects that will require the use of the pilot plant equipment. The first is the production of CDP. This will be the same process that is used at the Plant City Facility. The only exception is that a lower grade rock, BPL, will be used.

The second project is the production of artificial aggregate from waste ash generated at incinerators. It is proposed to fuse the waste ash into a glass like product by mixing the ash with limestone and a flux, such as fluorspar, and heating to produce a semifused mass.

The venting of emissions, from both of the processes, will be through a Tellerette-packed crossflow wet scrubber and will meet existing state and federal emissions control standards and thus be in full compliance.

E. Requested permitted equipment operating time: hrs/day 12; days/wk 5; wks/yr 23; if power plant, hrs/yr _____; if seasonal, describe: Variable as project deamnds.
Will operate no more than 1400 hours during a year.

F. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? NO
a. If yes, has "offset" been applied? N/A
b. If yes, has "Lowest Achievable Emission Rate" been applied? N/A
c. If yes, list non-attainment pollutants. _____

2. Does best available control technology (BACT) apply to this source? NO
If yes, see Section VI.

3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. NO

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? NO

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? NO

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? NO

a. If yes, for what pollutants? _____

b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

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

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

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

| Description | Contaminants | | Utilization Rate - lbs/hr | Relate to Flow Diagram |
|-----------------|--------------|------|---------------------------|------------------------|
| | Type | % Wt | | |
| Phosphate Rock | Particulate | 100% | 265 lbs/hr | |
| Phosphate Rock | Fluoride | 3.5% | 265 lbs/hr | |
| Phosphoric Acid | Fluoride | 1.0% | 75 lbs/hr | |
| Soda Ash | Particulate | 100% | 60 lbs/hr | |
| | | | | |

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

1. Total Process Input Rate (lbs/hr): 400 lbs/hr
2. Product Weight (lbs/hr): 330 lbs/hr

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

| Name of Contaminant | Emission ¹ | | Allowed ⁴ Emission Rate per Rule 17-2 | Allowable ³ Emission lbs/hr | Potential ⁴ Emission | | Relate to Flow Diagram |
|---------------------|-----------------------|-------------|--|--|---------------------------------|------|------------------------|
| | Maximum lbs/hr | Actual T/yr | | | lbs/yr | T/yr | |
| Particulate | 0.33 | 0.23 | 17-2.650(2)(b)(2) | .33 | 16.25 | 71.2 | |
| Fluoride | 0.22 | 0.15 | 17-2.600(3) | .22 | 10.9 | 47.7 | |
| Opacity | | | 17-2.610(2)(a) | 20% | | | |
| | | | | | | | |
| | | | | | | | |

¹See Section V, item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

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

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

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

| Description | Contaminants | | Utilization Rate - lbs/hr | Relate to Flow Diagram |
|-------------|--------------|------|---------------------------|------------------------|
| | Type | % Wt | | |
| Waste Ash | Particulate | 100% | 356 lbs/hr | |
| Limestone | Particulate | 100% | 40 lbs/hr | |
| Fluorspar | Particulate | 100% | 4 lbs/hr | |
| Fluorspar | Particulate | 48% | 4 lbs/hr | |
| | | | | |

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

1. Total Process Input Rate (lbs/hr): 400 lbs/hr

2. Product Weight (lbs/hr): 380 lbs/hr

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

| Name of Contaminant | Emission ¹ | | Allowed ² Emission Rate per Rule 17-2 | Allowable ³ Emission lbs/hr | Potential ⁴ Emission | | Relate to Flow Diagram |
|---------------------|-----------------------|-------------|--|--|---------------------------------|------|------------------------|
| | Maximum lbs/hr | Actual T/yr | | | lbs/xxhr | T/yr | |
| Particulate | 0.40 | .28 | 17-2.650(2)(b)(2) | 0.40 | 20.0 | 87.6 | |
| Fluoride | 0.003 | .002 | 17-2.600(3) | 0.003 | .13 | .56 | |
| Opacity | | | 17-2.610(2)(a) | 20% | | | |
| | | | | | | | |
| | | | | | | | |

¹See Section V, item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

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

J. Control Devices: (See Section V, Item 4) FLUID BED REACTOR

| Name and Type (Model & Serial No.) | Contaminant | Efficiency | Range of Particles Size Collected (in microns) (If applicable) | Basis for Efficiency (Section V Item 5) |
|---------------------------------------|-------------|------------|---|--|
| Packed Crossflow | Particulate | 98+% | N/A | See Attach- ment D |
| Wet Scrubber with | | | | |
| Impingement Chamber | Fluoride | 98+% | N/A | |
| | | | | |
| | | | | |
| | | | | |

E. Fuels

| Type (Be Specific) | Consumption* | | Maximum Heat Input (MMBTU/hr) |
|--------------------|---------------|---------------|----------------------------------|
| | avg/hr | max./hr | |
| Natural Gas | .0039 MMCF/Hr | .0044 MMCF/Hr | 4.37 MMBTU/Hr |
| | | | |
| | | | |
| | | | |

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis: N/A

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average _____ Maximum _____

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

All solid and liquid wastes will be returned to the plants closed circuit
recirculated process water system.

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

Stack Height: 14.2 ft. Stack Diameter: 0.83 ft.
 Gas Flow Rate: 3107 ACFM DSCFM Gas Exit Temperature: 80 °F.
 Water Vapor Content: 3.5 % Velocity: 94.18 FPS

SECTION IV: INCINERATOR INFORMATION

NOT APPLICABLE

| Type of Waste | Type 0 (Plastics) | Type I (Rubbish) | Type II (Refuse) | Type III (Garbage) | Type IV (Pathological) | Type V (Liq. & Gas By-prod.) | Type VI (Solid By-prod.) |
|--------------------------|-------------------|------------------|------------------|--------------------|------------------------|------------------------------|--------------------------|
| Actual lb/hr Incinerated | | | | | | | |
| Uncontrolled (lbs/hr) | | | | | | | |

Description of Waste _____

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

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

| | Volume (ft) ³ | Heat Release (BTU/hr) | Fuel | | Temperature (°F) |
|-------------------|--------------------------|-----------------------|------|--------|------------------|
| | | | Type | BTU/hr | |
| Primary Chamber | | | | | |
| Secondary Chamber | | | | | |

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

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made. SEE ATTACHMENT A-1 and A-2
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
SEE ATTACHMENT A-1 AND A-2
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.) SEE ATTACHMENT B
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency). SEE ATTACHMENT C
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained. SEE ATTACHMENT D
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
SEE ATTACHMENT E
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

NOT APPLICABLE

ER Form 17-1.202(1)

Effective November 30, 1982

Page 7 of 12

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit. NOT APPLICABLE

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

NOT APPLICABLE

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes No

Contaminant

Rate or Concentration

| Contaminant | Rate or Concentration |
|-------------|-----------------------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes No

Contaminant

Rate or Concentration

| Contaminant | Rate or Concentration |
|-------------|-----------------------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

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

Contaminant

Rate or Concentration

| Contaminant | Rate or Concentration |
|-------------|-----------------------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

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

1. Control Device/System:

2. Operating Principles:

3. Efficiency:*

4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

| Contaminant | Rate or Concentration |
|-------------|-----------------------|
| | |
| | |
| | |

10. Stack Parameters

- a. Height: ft.
- b. Diameter: ft.
- c. Flow Rate: ACFM
- d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy ²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

- j. Applicability to manufacturing processes:
- k. Ability to construct with control devices, install in available space, and operate within proposed levels:

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Costs:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency:¹
- 3. Capital Cost:
- 4. Useful Life:
- 5. Operating Cost:
- 6. Energy:²
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:
- a. (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

Explain method of determining efficiency.
 Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

| Contaminant | Rate or Concentration |
|-------------|-----------------------|
| | |
| | |
| | |

(8) Process Rate:¹

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

| Contaminant | Rate or Concentration |
|-------------|-----------------------|
| | |
| | |
| | |

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data ^{NOT APPLICABLE}

1. _____ no. sites _____ TSP _____ () SO₂* _____ Wind spd/dir

Period of Monitoring _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

- a. Was instrumentation EPA referenced or its equivalent? Yes No
- b. Was instrumentation calibrated in accordance with Department procedures?
 Yes No Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from _____ / _____ / _____ to _____ / _____ / _____
month day year month day year
2. Surface data obtained from (location) _____
3. Upper air (mixing height) data obtained from (location) _____
4. Stability wind rose (STAR) data obtained from (location) _____

C. Computer Models Used

1. _____ Modified? If yes, attach description.
2. _____ Modified? If yes, attach description.
3. _____ Modified? If yes, attach description.
4. _____ Modified? If yes, attach description.

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

D. Applicants Maximum Allowable Emission Data

| Pollutant | Emission Rate |
|-----------------|-----------------|
| TSP | _____ grams/sec |
| SO ² | _____ grams/sec |

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

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

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

SECTION V SUPPLEMENTAL INFORMATION

2. Particulate Emission Estimate (Waste Ash, Limestone & Fluorspar)
Estimate Scrubber System Loading: 20 lbs/hr
100%-98% (Scrubber System Efficiency) = 2% Discharge
20 lbs/hr x 2% = 0.40 lbs/hr Discharge
0.40 lbs x 1400 operating hours = 560 lbs/year
560 lbs/yr ÷ 2000 lbs/ton = 0.28 Tons/Year Emissions

Potential Emissions

20 lbs/hr Scrubber System Loading
20 lbs/hr x 8760 hrs/year =
175,200 lbs/year ÷ 2000 lbs/ton =
87.6 Tons/Year Potential Emissions

Fluoride Emission Estimate

Estimate Scrubber System Loading: .129 lbs/hr
100%-98% (Scrubber System Efficiency) = 2% Discharge
.129 lbs/hr x 2% = .003 lbs/hr Discharge
.003 lbs/hr x 1400 operating hours = 4.2 lbs/year
4.2 lbs/year ÷ 2000 lbs/ton = .002 Tons/Year Emissions

Potential Emissions

.129 lbs/hr Scrubber System Loading
.129 lbs/hr x 8760 hrs/year =
1130 lbs/yr ÷ 2000 lbs/ton =
.56 tons/year Potential Emissions

Particulate Emission Estimate (Phosphate Rock, Phosphoric Acid, Soda Ash)

Estimate Scrubber System Loading: 16.25 lbs/hr
100%-98% (Scrubber System Efficiency) = 2% Discharge
16.25 lbs/hr x 2% = 0.33 lbs/hr Discharge
0.33 lbs x 1400 operating hours = 462 lbs/year
462 lbs/year ÷ 2000 lbs/ton = .23 Tons/Year Emissions

Potential Emissions

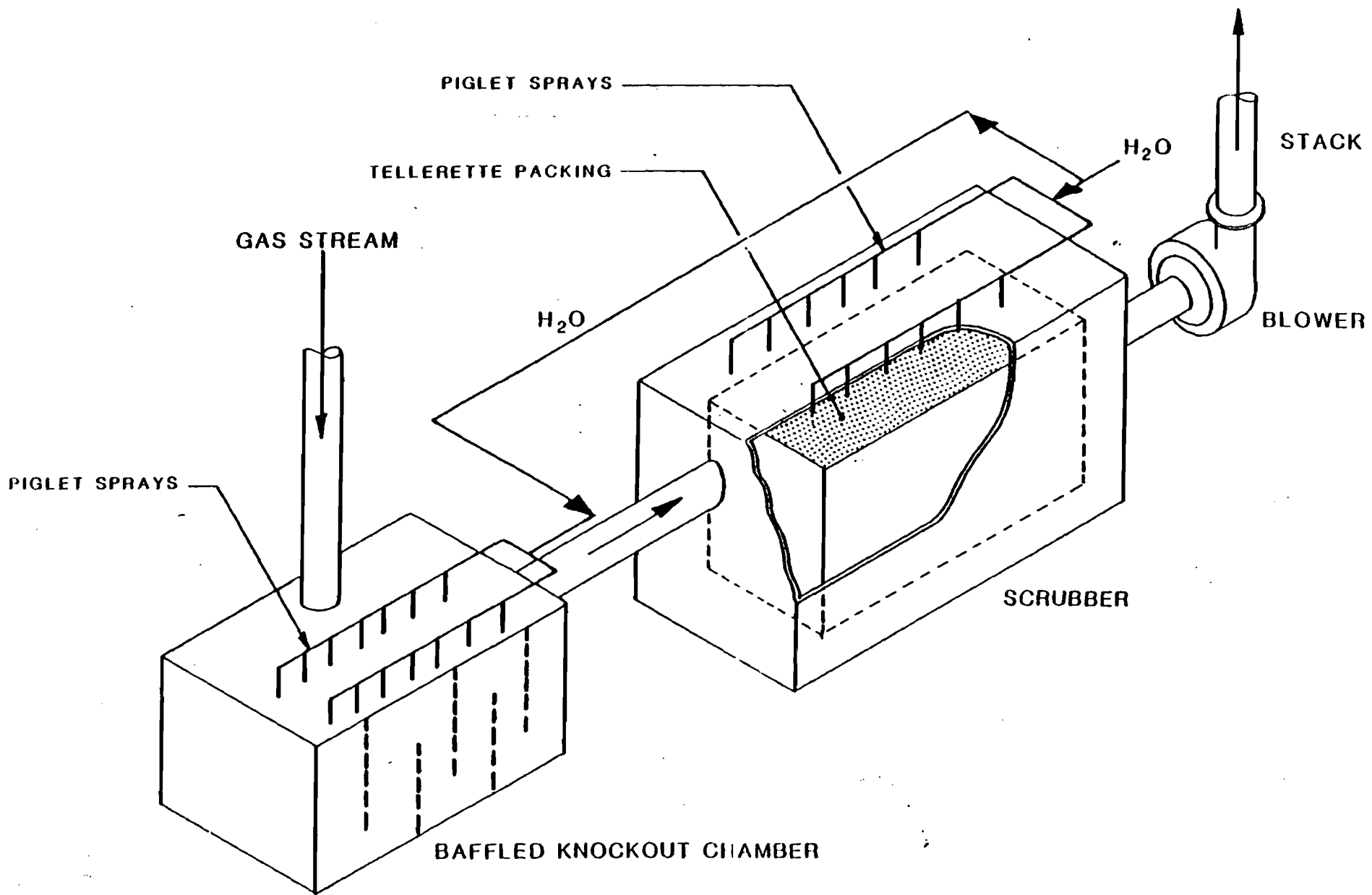
16.25 lbs/hr Scrubber System Loading
16.25 lbs/hr x 8760 hrs/year =
142,350 lbs/hr ÷ 2000 lbs/ton =
71.2 Tons/Year Potential Emissions

Fluoride Emission Estimate

Estimate Scrubber System Loading: 10.9 lbs/hr
100%-98% (Scrubber System Efficiency) = 2% Discharge
10.9 lbs/hr x 2% = .22 lbs/hr Discharge
.22 lbs/hr x 1400 operating hours = 306 lbs/year
306 lbs/year ÷ 2000 lbs/ton = .15 Tons/Year Emissions

Potential Emissions

10.9 lbs/hr Scrubber System Loading
10.9 lbs/hr x 8760 =
95,484 lbs/hr ÷ 2000 lbs/ton =
47.7 Tons/Year Potential Emissions



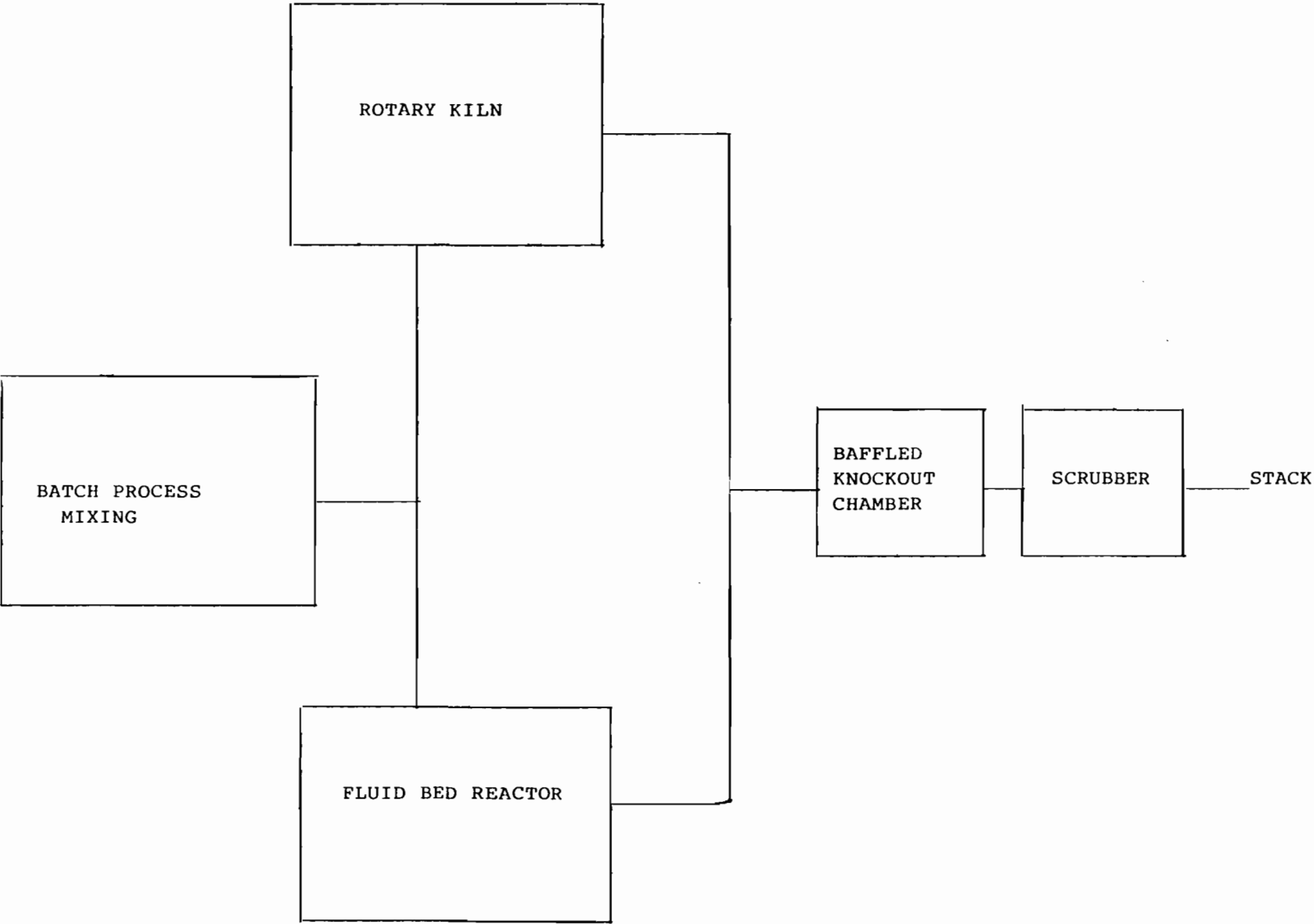
ATTACHMENT B

ATTACHMENT C

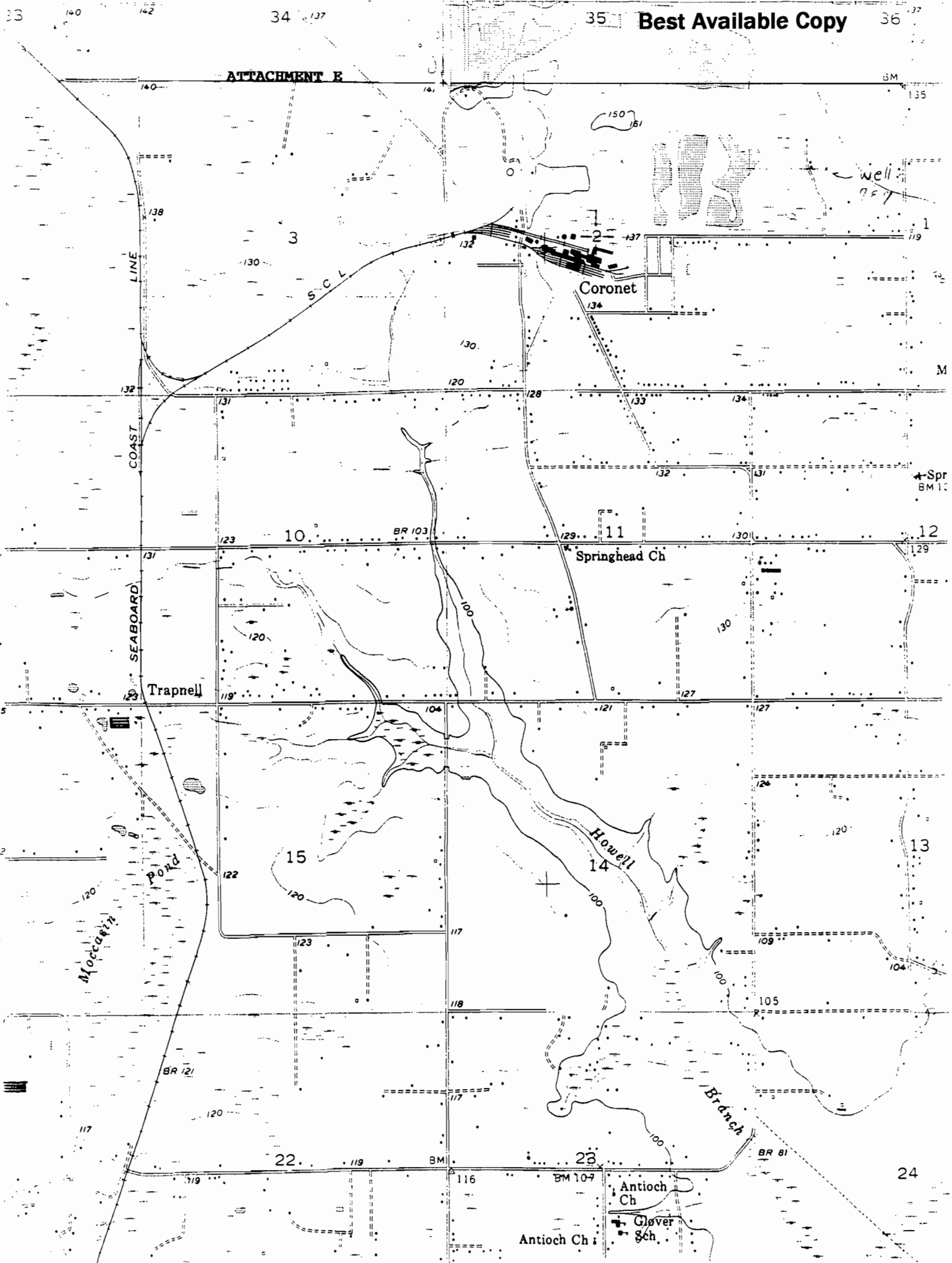
The scrubber referenced in this permit is a horizontal, crossflow, Tellerette-packed wet scrubber. A baffled spray chamber is located upstream of the scrubber to quench the gas stream and to provide the initial fluoride removal from the inlet gases.

The scrubber and associated systems were designed, built, and installed by the previous owner of the facility, and no records of the original design data have been found. However, the United States Environmental Protection Agency recognizes that properly sized irrigated packed bed scrubbers are 98+% efficient for the removal of gaseous and particulate fluorides.

ATTACHMENT D



ATTACHMENT E



File Copy

PM:
10-1-90
Plant City, FL
Tampa, FL

CMI

CONSOLIDATED MINERALS, INC.
FEED SUPPLEMENT DIVISION

RECEIVED
OCT 4 1990
DER-BAQM

October 1, 1990

Mr. C. H. Fancy, P.E.
Deputy Chief Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400


Re: Permit AC29-166885

Dear Mr. Fancy:

Consolidated Minerals, Inc. is requesting that this construction permit, AC29-166885, be extended to April 1, 1990.

Should you have any questions concerning this matter, please contact me.

Sincerely,



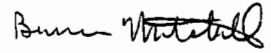
Robert L. Harrison, Jr.
Environmental Supervisor

RLH:cr

cc: F. W. Cheesman
Bill Thomas/SW District
Jerry Campbell/HCEPC
Willard Hanks } 10-5-90 ASU
BA/CHF

10-5-90

Mr. Harrison called. After discussion, it was decided to extend the expiration date to June 30, 1991.





Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

October 12, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. F. W. Cheesman, President
Consolidated Minerals, Inc.
Post Office Box 790
Plant City, Florida 34289

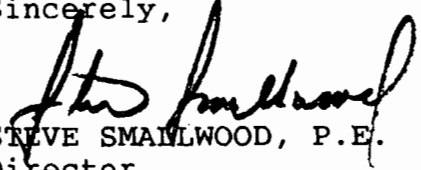
Dear Mr. Cheesman:

Re: Amendment of Permit No. AC 29-166885

The Department is in receipt of Mr. Robert Harrison's October 1, 1990, letter requesting your permit to construct a rotary kiln/fluid bed reactor research and development facility be extended. The purpose of the extension is to allow time to modify the scrubber, run the experiments, conduct the compliance tests, and submit an application for permit to operate. This request is acceptable and the expiration date of Permit No. AC 29-166885 is changed from December 1, 1990, to July 1, 1991.

A copy of this letter must be filed with the referenced construction permit and shall become a part of the permit.

Sincerely,


STEVE SMALLWOOD, P.E.
Director
Division of Air Resources
Management

SS/WH/plm

Attachment:
CMI October 1, 1990, letter

c: Bill Thomas, SW District
Jerry Campbell, EPCHC

PM:
10-1-90
Plant City, FL
Tampa, FL



CONSOLIDATED MINERALS, INC.
FEED SUPPLEMENT DIVISION

RECEIVED
OCT 4 1990
DER-BAQM

October 1, 1990

Mr. C. H. Fancy, P.E.
Deputy Chief Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Permit AC29-166885

Dear Mr. Fancy:

Consolidated Minerals, Inc. is requesting that this construction permit, AC29-166885, be extended to April 1, 1990.

Should you have any questions concerning this matter, please contact me.

Sincerely,

Robert L. Harrison, Jr.
Environmental Supervisor

RLH:cr

cc: F. W. Cheesman
Bill Thomas/SW District
Jerry Campbell/HCEPC

Willard Hanks } 10-5-90 RW
BA/CHF

10-5-90

Mr. Harrison called. After discussion, it was decided to extend the expiration date to June 30, 1991.

10-8-90

MR. HARRISON SAID EXTENSION NEEDED SO THAT THE SCRUBBER CAN BE "DEBUGGED" PRIOR TO COMPLIANCE TEST

PM:
10-1-90
Plant City, FL
Tampa, FL



CONSOLIDATED MINERALS, INC.
FEED SUPPLEMENT DIVISION

RECEIVED
OCT 4 1990
DER-BAQM

October 1, 1990

Mr. C. H. Fancy, P.E.
Deputy Chief Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Permit AC29-166885

Dear Mr. Fancy:

Consolidated Minerals, Inc. is requesting that this construction permit, AC29-166885, be extended to April 1, 1990.

Should you have any questions concerning this matter, please contact me.

Sincerely,

Robert L. Harrison, Jr.
Environmental Supervisor

RLH:cr

cc: F. W. Cheesman
Bill Thomas/SW District
Jerry Campbell/HCEPC

Willard Hanks }
BA/CHF } 10-5-90 ABW

10-5-90

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10-8-90

MR. HARRISON SAID EXTENSION NEEDED SO THAT THE SCRUBBER CAN BE "DEBUGGED" PRIOR TO COMPLIANCE TEST



State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

| For Routing To Other Than The Addressee | |
|---|-----------------|
| To: _____ | Location: _____ |
| To: _____ | Location: _____ |
| To: _____ | Location: _____ |
| From: _____ | Date: _____ |

Interoffice Memorandum

TO: Steve Smallwood
FROM: Clair Fancy *CF*
DATE: October 12, 1990
SUBJ: Amendment to Construction Permit No. AC 29-166885
CMI - Research and Development Facility

Attached for your approval and signature is a letter extending the expiration date for the above referenced construction permit.

The request is not controversial.

I recommend your approval and signature.

CF/WH/plm

Attachment

P 256 395 204

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

U.S.G.P.O. 1989-234-555

PS Form 3800, June 1985

| | |
|---|---------------------------|
| Sent to | F.W. Cheesman |
| Street and No. | Consolidated Minerals |
| P.O., State and ZIP Code | PO Box 790 |
| Postage | Plant City, FL |
| 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 | 10-12-90 AC 29-166 885 |

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 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 additional service(s) requested.

1. Show to whom delivered, date, and addressee's address. (Extra charge) 2. Restricted Delivery (Extra charge)

| | |
|---|---|
| 3. Article Addressed to: Mr. F.W. Cheesman Consolidated Minerals, Inc P.O. BOX 790 Plant City, FL 34289 | 4. Article Number 256 395 204 Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise |
| 5. Signature - Addressee X <i>Mary</i> | Always obtain signature of addressee or agent and <u>DATE DELIVERED</u> . 8. Addressee's Address (ONLY if requested and fee paid) |
| 6. Signature - Agent X | |
| 7. Date of Delivery 10-15-90 | |

PS Form 3811, Apr. 1989

U.S.G.P.O. 1989-238-815

DOMESTIC RETURN RECEIPT



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

March 21, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. F. W. Cheesman, President
Consolidated Minerals, Inc.
Post Office Box 790
Plant City, Florida 34289

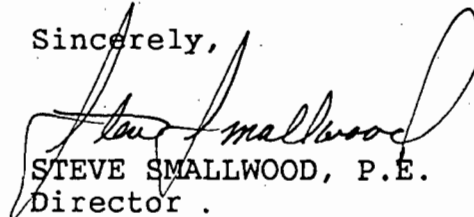
Dear Mr. Cheesman:

Re: Amendment of Permit No. AC 29-166885

The Department is in receipt of Mr. Robert Harrison's March 12, 1990, letter requesting your permit to construct a rotary kiln/fluid bed reactor research and development facility be extended. The purpose of the extension is to allow time to run the experiments, conduct the compliance tests, and submit an application for permit to operate. This request is acceptable and the expiration date of permit No. AC 29-166885 is changed from June 1, 1990, to December 1, 1990.

A copy of this letter must be filed with the referenced construction permit and shall become a part of the permit.

Sincerely,



STEVE SMALLWOOD, P.E.

Director

Division of Air Resources
Management

SS/WH/plm

Attachment:

CMI March 12, 1990 letter

c: Bill Thomas, SW District
Jerry Campbell, EPCHC



State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

| For Routing To Other Than The Addressee | |
|---|-----------------|
| To: _____ | Location: _____ |
| To: _____ | Location: _____ |
| To: _____ | Location: _____ |
| From: _____ | Date: _____ |

Interoffice Memorandum

TO: Steve Smallwood *(ok)*
FROM: Clair Fancy *CF*
DATE: March 21, 1990
SUBJ: Amendment of CMI Construction Permit No. AC 29-166885

Attached for your approval and signature is a letter that will extend the expiration date of a construction permit for a rotary kiln/fluid bed reactor research and development facility at CMI's Plant City, Hillsborough County, Florida, phosphate chemical plant. The extension is needed to run the experiments, conduct the compliance tests, and submit the application for permit to operate.

This request is not controversial. I recommend your approval and signature.

CF/plm

Attachment

P 938 762 852

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

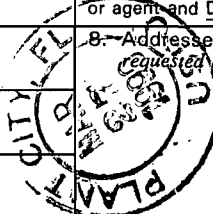
PS Form 3800, June 1985

| | |
|---|----|
| Sent to Mr. F. W. Cheesman, CMI | |
| Street and No. P. O. Box 790 | |
| P.O., State and ZIP Code Plant City, FL 34289 | |
| 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 Permit: AC 29-166885 Mailed: 3-23-90 | |

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 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 additional service(s) requested.

1. Show to whom delivered, date, and addressee's address. 2. Restricted Delivery (Extra charge)

| | |
|---|---|
| 3. Article Addressed to: Mr. F. W. Cheesman, President Consolidated Minerals, Inc. Post Office Box 790 Plant City, Florida 34289 | 4. Article Number P 938 762 852 |
| Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise | |
| Always obtain signature of addressee or agent and DATE DELIVERED. | |
| 5. Signature - Address X <i>Mary</i> | 8. Addressee's Address (ONLY if requested and fee paid) |
| 6. Signature - Agent X | |
| 7. Date of Delivery 3-27-90 | |



CMI
CONSOLIDATED MINERALS, INC.
FEED SUPPLEMENT DIVISION

RECEIVED
MAR 15 1990
DET

March 12, 1990

Mr. C. H. Fancy, P.E.
Deputy Chief Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Permit AC29-166885

Dear Mr. Fancy:

Consolidated Minerals, Inc. is requesting that this construction permit, AC29-166885, be extended to December 1, 1990.

Should you have any questions concerning this matter, please contact me.

Sincerely,

Robert L. Harrison Jr.

Robert L. Harrison, Jr.
Environmental Supervisor

RLH:cr

cc: F. W. Cheesman
Bill Thomas/SW District
Jerry Campbell/HCEPC

J. Thomas

CMI

CONSOLIDATED MINERALS, INC.
FEED SUPPLEMENT DIVISION

RECEIVED

OCT 2 1989

DER-BAQ...

September 29, 1989

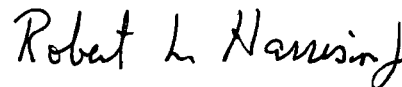
Mr. C. H. Fancy, P.E.
Deputy Chief Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear Mr. Fancy:

As per the requirements of construction permits AC29-167251 and AC29-166885, proof of publication is enclosed.

Should you have any questions concerning this matter, please contact me.

Sincerely,



Robert L. Harrison, Jr.
Environmental Supervisor

RLH:cr

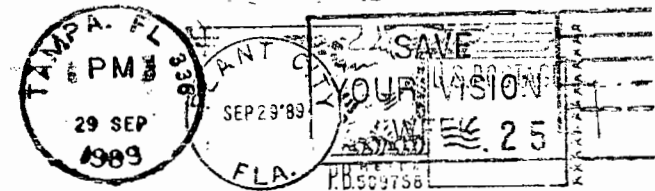
Enclosure

cc: F. W. Cheesman

H. Hambs
H. Kerns, SW Dist
E. Secc, EPCHE

**CMI CONSOLIDATED
MINERALS, INC.**

P. O. Box 790 • Plant City, Florida 34289-0790



Mr. C. H. Fancy, P.E.
Deputy Chief Bureau of Air
Quality Management
Florida Department of Environmental
Reguation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400



THE TAMPA TRIBUNE

Published Daily
Tampa, Hillsborough County, Florida

State of Florida }
County of Hillsborough } ss.

Before the undersigned authority personally appeared
G. T. Gleason, who on oath says that he is Controller of The Tampa Tribune, a daily
newspaper published at Tampa in Hillsborough County, Florida; that the attached copy
of advertisement being a

LEGAL NOTICE

in the matter of .. STATE OF FLORIDA DEPT.. OF ENVIRONMENTAL
REGULATION.

was published in said newspaper in the issues of September 22, 1989

Affiant further says that the said The Tampa Tribune is a newspaper published at
Tampa, in said Hillsborough County, Florida, and that the said newspaper has
heretofore been continuously published in said Hillsborough County, Florida, each day
and has been entered as second class mail matter at the post office in Tampa, in said
Hillsborough County, Florida, for a period of one year next preceding the first publica-
tion of the attached copy of advertisement; and affiant further says that he has neither
paid nor promised any person, firm, or corporation any discount, rebate, commission or
refund for the purpose of securing this advertisement for publication in the said
newspaper.

Sworn to and subscribed before me, this ..22nd... day
of September

G. T. Gleason
Rebecca Lynne Bouchard

(SEAL)

Notary Public, State of Florida
My Commission Expires Jan. 6, 1993
Bonded Thru Troy Fain - Insurance Inc.

State of Florida
Department of
Environmental Regulation
Notice of Intent to Issue
The Department of Environ-
mental Regulation hereby
gives notice of its intent to
issue permits to Consolidated
Minerals, Inc., P.O. Box 790,
Plant City, Florida 34289, to
construct a potassium
fluoroborate product prepara-
tion plant controlled by a dust
collector and a rotary
kiln/fluid bed reactor R & D
(research and development)
facility controlled by a packed
crossflow wet scrubber. This
equipment will be installed at
their phosphate feed prepara-
tion plant located on Coronet
Road, Plant City, Hillsborough
County, Florida. Construction
and operation of the proposed
equipment will emit 1.2 TPY
particulate matter and 0.7
TPY fluoride. The impact of
these emissions on the
ambient air quality will be in-
significant. A determination of
Best Available Control Tech-
nology (BACT) was not re-
quired. The Department is is-
suing this intent to issue for
the reasons stated in the Tech-
nical Evaluation and Prelimi-
nary Determination.
A person whose substantial
interests are affected by the
Department's proposed per-
mitting decision may petition
for an administrative proceed-
ing (hearing) in accordance
with Section 120.57, Florida
Statutes. The petition must
contain the information set
forth below and must be filed
(received) in the Office of Gen-
eral Counsel of the Depart-
ment at 2600 Blair Stone Road,
Tallahassee, Florida 32399-
2400, within fourteen (14) days
of publication of this notice.
Petitioner shall mail a copy of
the petition to the applicant at
the address indicated above
at the time of filing. Failure to
file a petition within this time
period shall constitute a waver
of any right such person
may have to request an ad-
ministrative determination
(hearing) under Section 120.57,
Florida Statutes.
The Petition shall contain
the following information;
(a) The name, address, and
telephone number of each
petitioner, the applicant's
name and address, the Depart-
ment Permit File Number and
the county in which the pro-
ject is proposed;
(b) A statement of how and
when each petitioner received
notice of the Department's ac-
tion or proposed action;
(c) A statement of how each
petitioner's substantial
interests are affected by the
Department's action or pro-
posed action;
(e) A statement of the mate-
rial facts disputed by
petitioner, if any;

(3) A statement of facts
which petitioner contends to
warrant reversal or modifica-
tion of the Department's ac-
tion or proposed action;
(f) A statement of which
rules or statutes petitioner
contends require reversal or
modification of the Depart-
ment's action or proposed ac-
tion; and
(g) A statement of the relief
sought by petitioner, stating
precisely the action petitioner
wants the Department to take
with respect to the Depart-
ment's action or proposed ac-
tion.
If a petition is filed, the ad-
ministrative hearing process
is designed to formulate open
action. Accordingly, the
Department's final action may
be different from the position
taken by it in this Notice. Per-
sons whose substantial
interests will be affected by
any decision of the Depart-
ment with regard to the peti-
tion have the right to petition
to become a party to the pro-
ceeding. The petition must
conform to the requirements
specified above and be filed
(received) within 14 days of
publication of this notice in
the Office of General Counsel
at the above address of the
Department. Failure to
petition within the allowed
time frame constitutes a waver
of any right such person
has to request a hearing
under Section 120.57, F.S., and
to participate as a party to
this proceeding. Any
subsequent intervention will
only be at the approval of the
presiding officer upon motion
filed pursuant to Rule 28-
5.207, F.A.C.
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:
Department of
Environmental Regulation
Bureau of Air
Quality Management
2600 Blair Stone Road
Tallahassee, Florida
32399-2400
Dept. of
Environmental Regulation
Southwest District
4520 Oak Fair Blvd.
Tampa, Florida 33610-7347
Environmental Protection
Commission
of Hillsborough County
1410 North 21st Street
Tampa, Florida 33605
Any person may send writ-
ten comments to Mr. Bill Thom-
as at the Department's Tallah-
assee address. All comments
mailed within 14 days of the
publication of this notice will
be considered in the Depart-
ment's final determination.
4163 9/22/89

CMI

CONSOLIDATED MINERALS, INC. FEED SUPPLEMENT DIVISION

July 18, 1989

RECEIVED
JUL 20 1989
DER-BAQM

Mr. Willard M. Hanks
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399

**RE: PERMIT APPLICATIONS FOR RESEARCH & DEVELOPMENT
ROTARY KILN/FLUID BED REACTOR AND KBF4 DRYER
DUST COLLECTOR**

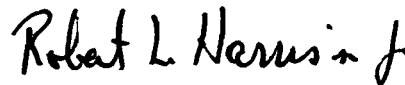
Dear Mr. Hanks:

I am enclosing a flow diagram of the KBF4 Dryer Dust Collector marked attachment C-3. Also, as we discussed, the allowable emission should have been .46 on page 4 of the application. One other misplaced decimal point is on Attachment A, Estimate Dust Collector Loading should have been 28.0 lbs/hr, not 280 lbs/hr.

I am enclosing a copy of our expired Research & Development Facility Scrubber permit. As for the estimated and potential emissions figures, these were based on what this type of scrubber system is rated as per the old application.

If you have any other questions or comments about these permits, please contact me.

Sincerely,



Robert L. Harrison, Jr.
Environmental Supervisor

RLHjr:tc

Enclosures

cc: *W. Hanks*
H. Kerns, SW Dist.
E. Lucc, HCEPC
CHF/BT

JUL 19 1989 TAMPA FL 331

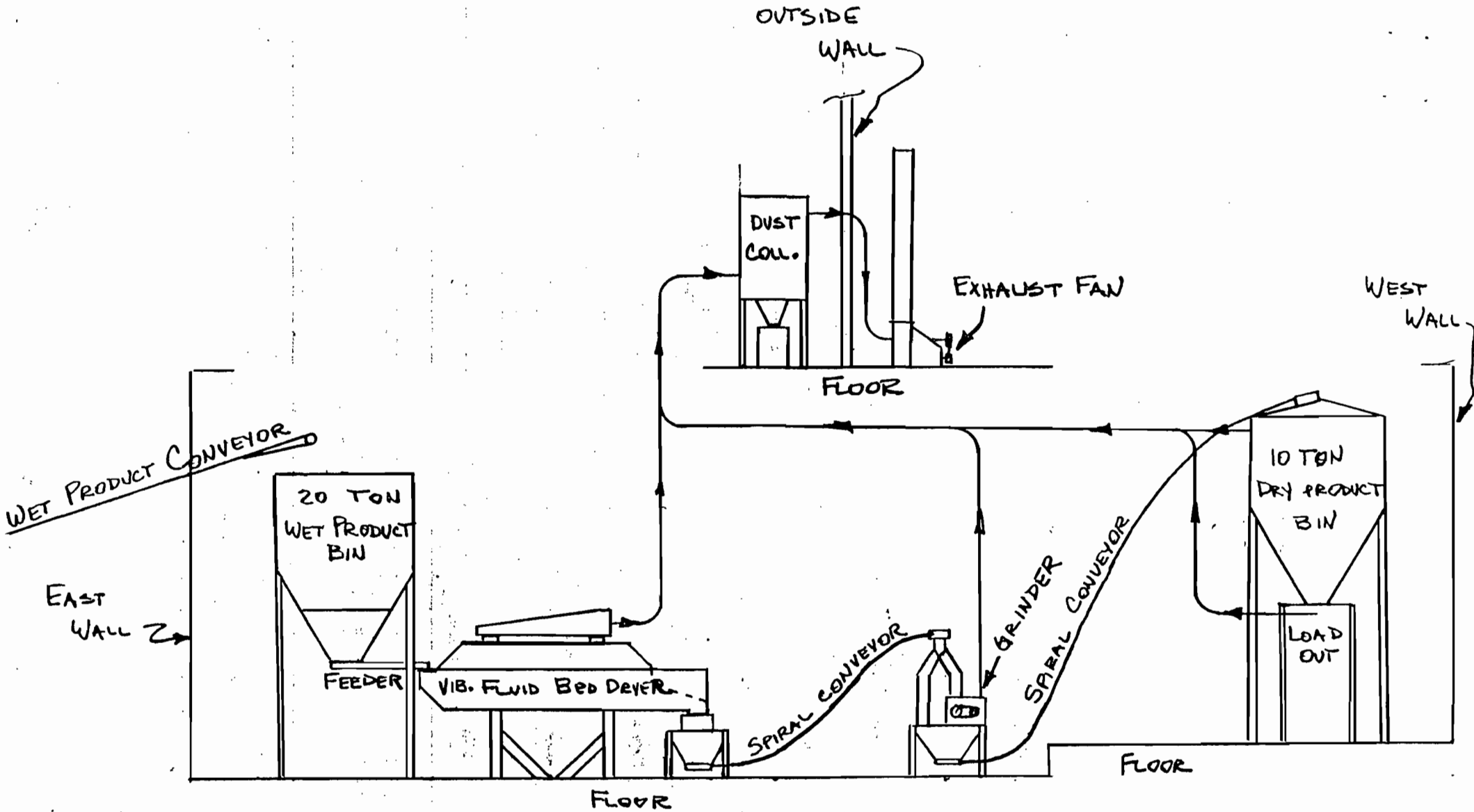
CONSOLIDATED MINERALS INC.

FEED SUPPLEMENT DIVISION

P. O. Box 790 • Plant City, Florida 34289

MR. WILLARD M. HANKS
DEPARTMENT OF ENVIRONMENTAL REGULATION
TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE FL 32399

FIRST CLASS MAIL



FLOW SHEET - KBF₄ DRYING/GRINDING

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

WILLIAM K. HENNESSEY
DISTRICT MANAGER

SOUTHWEST DISTRICT

7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610-9544

September 27, 1983

Mr. T. E. Baroody, Director of
Business & Technical Planning
& Development
Amax Chemical Corporation
402 South Kentucky Avenue
Lakeland, FL 33801

Dear Mr. Baroody:

SEP 30 1983

Re: Hillsborough County - AP
R & D Facility Scrubber

Enclosed is Permit Number A029-73474 dated 09-27-83, to
operate the subject pollution source, issued pursuant to Section
403.061(14), Florida Statutes.

Should you object to this permit, including any and all of the
conditions contained therein, you may file an appropriate petition
for administrative hearing. This petition must be filed within
fourteen (14) days of the receipt of this letter. Further, the
petition must conform to the requirements of Florida Administra-
tive Code Rule 28-5.201, (copy enclosed). The petition must be
filed with the Office of General Counsel, Department of
Environmental Regulation, Twin Towers Office Building, 2600 Blair
Stone Road, Tallahassee, Florida 32301.

If no petition is filed within the prescribed time, you will be
deemed to have accepted this permit and waived your right to
request an administrative hearing on this matter.

Acceptance of the permit constitutes notice and agreement that the
department may periodically review this permit for compliance,
including site inspections where applicable, and may initiate
enforcement action for violation of the conditions and
requirements thereof.

Sincerely,


W. K. Hennessey
District Manager

WKH/scm
BER1P8QEP67-1.201(7)

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

PART II
FORMAL PROCEEDINGS

28-5.201 Initiation of Formal Proceedings.

- (1) Initiation of formal proceedings shall be made by petition to the agency responsible for rendering final agency action. The term petition as used herein includes any application or other document which expresses a request for formal proceedings. Each petition should 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, and an explanation of how his/her substantial interests will be affected by the agency determination;
 - (c) A statement of when and how petitioner received notice of the agency decision or intent to render a decision;
 - (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
 - (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief;
 - (f) A demand for relief to which the petitioner deems himself entitled; and
 - (g) Other information which the petitioner contends is material.

A petition may be denied if the petitioner does not state adequately a material factual allegation, such as a substantial interest in the agency determination, or if the petition is untimely. (Section 28-5.201(3)(a), FAC)

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION



SOUTHWEST DISTRICT

7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610-9544

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

WILLIAM K. HENNESSEY
DISTRICT MANAGER

PERMITTEE:

Mr. T. E. Baroody, Director
of Business & Technical
Planning & Development
402 South Kentucky Avenue
Lakeland, FL 33801

PERMIT/CERTIFICATION

Permit No.: A029-73474
County: Hillsborough
Expiration Date: 9/15/88
Project: R & D Facility
Scrubber

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 fluoride compound R & D facility fluid bed reactor system with a packed bed scrubber.

Location: Coronet Road, East of Plant City, Hillsborough County

UTM: 17-393.8E 3096.3N NEDS NO: 0231 Point ID: 01

Replaces Permit No.: AC29-65451

PERMITTEE: Permit/Certification No.: A029-73474
Amax Chemical Corporation Project: R & D Facility Scrubber

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 the 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 403.712(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 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 any order from the department.

PERMITTEE:
Amax Chemical Corp.

Permit/Certification Number: A029-73474
Project: R & D Facility Scrubber

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 maybe required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purposes 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 non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

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.

PERMITTEE:

Permit/Certification No: A029-73474

Amax Chemical Corporation Project: R & D Facility Scrubber

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 Section 403.73 and 403.111, Florida Statutes.

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

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

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

13. This permit also constitutes:

- () Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- () Certification of Compliance with State Water Quality Standards (Section 401. PL 92-500)
- () 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: Permit/Certification No.: A029-73474
Amex Chemical Corporation Project: R & D Facility Scrubber

14. (con't)

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. Test the emissions for the following pollutant(s) at intervals of 12 months from the date July 28, 1983 and submit a copy of test data to the Air Section of the Southwest District Office within forty five days of such testing (Section 17-2.700 (2), Florida Administrative Code (F.A.C.)).

- | | |
|------------------|--------------------------|
| (X) Particulates | () Sulfur Oxides |
| (X) Fluorides | () Nitrogen Oxides |
| (X) Opacity | () Hydrocarbons |
| | () Total Reduced Sulfur |

*Fuel analysis may be submitted for required sulfur dioxide emission test.

2. Testing of emissions must be accomplished at approximately the rates as stated in the application. Failure to submit the input rates or operation at conditions which do not reflect actual operating conditions may invalidate the data (Section 403.161(1)(c), Florida Statutes).

PERMITTEE: Permit/Certification No.: A029-73474
Amax Chemical Corporation Project: R & D Facility Scrubber

SPECIFIC CONDITIONS (con't):

3. Maximum allowable emissions from the (emissions unit) shall be:

Pollutant Emissions Limitation

| | |
|--------------|--------------|
| Particulates | 1.0 lbs/hr. |
| Fluorides | 0.15 lbs/hr. |
| Opacity | 20% |


4. The Department and Hillsborough County Environmental Protection Commission will be given 30 days prior notice for all compliance tests.

5. Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

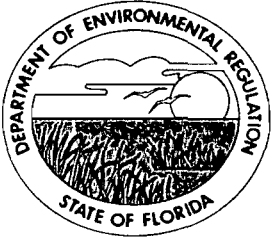
- (A) Annual amount of materials and/or fuels utilized.
- (B) Annual emissions (note calculation basis).
- (C) Any changes in the information contained in the permit application.

Issued this 27th day of Sept
1982.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION



W. K. Hennessey
District Manager



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION NOTICE OF PERMITS

Mr. F. W. Cheesman, President
Consolidated Minerals, Inc.
Post Office Box 790
Plant City, Florida 34289

October 19, 1989

Enclosed are construction permits Nos. AC 29-167251 and -166885 for Consolidated Minerals, Inc. to construct a potassium fluoborate product preparation plant and a rotary kiln/fluid bed reactor research and development facility in Hillsborough County, Florida. These permits are issued pursuant to Section 403, Florida Statutes.

Any party to these permits has the right to seek judicial review of the permits pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date these permits are filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



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

Copies furnished to:

B. Thomas, SW District
J. Campbell, EPCHC
A. Lenkei, P.E.

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on 10/20/09.

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.

Kim Jones
Clerk

10/20/09
Date

Final Determination

**Consolidated Minerals, Inc.
Hillsborough County
Plant City, Florida**

Permit Numbers: Sources

AC 29-167251 Potassium Fluoborate Product Preparation Plant
AC 29-166885 Rotary Kiln/Fluid Bed Reactor R & D Facility

**Florida Department of Environmental Regulation
Division of Air Resources Management
Bureau of Air Regulation**

October 16, 1989

Final Determination

The Technical Evaluation and Preliminary Determination for the permits to construct a potassium fluoborate product preparation plant (File No. AC 29-167251) and a rotary kiln/fluid bed reactor research and development facility (File No. AC 29-166885) at Consolidated Minerals, Inc. phosphate feed preparation plant near Plant City, Hillsborough County, Florida, was distributed on August 30, 1989. The Notice of Proposed Agency Action was published in The Tampa Tribune on September 22, 1989. Copies of the evaluation were available for public inspection at the Environmental Protection Commission of Hillsborough County's office in Tampa and the Department's offices in Tampa and Tallahassee.

In a letter dated September 1, 1989, the applicant requested the proposed hours of operation of the potassium fluoborate product preparation plant be increased. The Bureau approved this request prior to the Notice of Proposed Agency Action being published.

The final action of the Department will be to issue the construction permits as proposed in the Technical Evaluation and Preliminary Determination with the change mentioned above.



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

PERMITTEE:
Consolidated Minerals, Inc.
P. O. Box 790
Plant City, FL 34289

Permit Number: 29-167251
Expiration Date: June 1, 1990
County: Hillsborough
Latitude/Longitude: 27°59'21
82°04'48"
Project: Potassium Fluoborate
Product Preparation Plant

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

Construction of a 2,500 lbs/hr potassium fluoborate product preparation plant consisting of a wet product conveyor, 20 ton wet product bin, dryer feeder, vibrating fluid bed dryer, grinder, two spiral conveyors, 10 ton dry product bin, load-out section, Flex-Kleen Model 84-BVBS-36IIIG dust collector, 1800 acfm fan, and a 9 inch diameter x 10 foot high stack. The plant will be located at CMI's feed supplement facility (SIC 2048) on Coronet Road, Plant City, Hillsborough County, Florida. The UTM coordinates of this plant are Zone 17, 393.8 km E and 3096.3 km N.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Application received June 30, 1989.
2. CMI letter dated July 18, 1989.
3. CMI letter dated September 1, 1989.
4. DER letter dated September 15, 1989.

PERMITTEE:
Consolidated Minerals, Inc.

Permit Number: AC 29-167251
Expiration Date: June 1, 1990

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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. Neither 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 is not 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, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; 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:
Consolidated Minerals, Inc.

Permit Number: AC 29-167251
Expiration Date: June 1, 1990

GENERAL CONDITIONS:

6. The permittee shall 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 and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor 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 provide the Department with the following information:

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

PERMITTEE:
Consolidated Minerals, Inc.

Permit Number: AC 29-167251
Expiration Date: June 1, 1990

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 for 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 involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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 17-4.120 and 17-30.300, F.A.C., 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 or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and 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.

PERMITTEE:
Consolidated Minerals, Inc.

Permit Number: AC 29-167251
Expiration Date: June 1, 1990

GENERAL CONDITIONS:

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. Production of the potassium fluoborate product preparation plant shall not exceed 2,500 lbs/hr.
2. Operation of this plant shall not exceed 24 hrs/day, 7 days/week, and 52 weeks/year but not more than 4,000 hours in any 12 month period. The permittee shall maintain a log to show compliance with the condition.
3. Only natural gas shall be used as fuel in this dryer. Heat input shall not exceed 0.4 MMBtu/hr (approximately 400 CFH natural gas).
5. Particulate matter emissions from this plant shall not exceed 0.03 grains/dscf and 0.46 lbs/hr (0.9 TPY).
6. Visible emissions from any part of this plant shall not exceed 5% opacity.
7. Compliance with the emission standards in Specific Conditions Nos. 5 and 6 shall be determined by EPA Methods Nos. 5 and 9 described in 40 CFR 60, Appendix A (July 1, 1988) while the plant is operating at its permitted capacity. The method 5 test will be waived if visible emissions are less than 5% opacity.
8. The Environmental Protection Commission of Hillsborough County shall be notified at least 15 days prior to any compliance test.

PERMITTEE:
Consolidated Minerals, Inc.

Permit Number: AC 29-167251
Expiration Date: June 1, 1990

SPECIFIC CONDITIONS:

9. The permittee shall use reasonable precautions to minimize unconfined emissions from this plant. These precautions shall include keeping covers on the process equipment openings, sheltering exposed potassium fluoborate from the wind, cleaning up spills promptly, and wetting the area if needed to minimize unconfined emissions.

10. 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. 17-4.090).

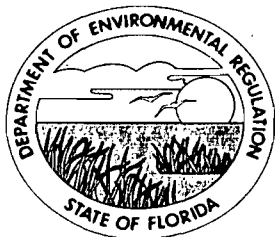
11. An application for an operation permit must be submitted to the Environmental Protection Commission of Hillsborough County office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly 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. 17-4.220).

Issued this 17th day
of October, 1989

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



Dale Twachtmann, Secretary



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

PERMITTEE:

Consolidated Minerals, Inc.
P. O. Box 790
Plant City, FL 34289

Permit Number: 29-166885

Expiration Date: June 1, 1990

County: Hillsborough

Latitude/Longitude: 27°59'21"
82°04'48"

Project: R & D Facility

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

Construction and operation of the research and development (R & D) facility which contains a batch process mixing area, rotary kiln, fluid bed reactor, and a packed crossflow wet scrubber with an impingement chamber. The plant will be located at CMI's feed supplement facility (SIC 2048) on Coronet Road, Plant City, Hillsborough County, Florida. The UTM coordinates of this plant are Zone 17, 393.8 km E and 3096.3 km N.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Application received June 29 and 30, 1989.
2. CMI letter dated July 18, 1989.

PERMITTEE:
Consolidated Minerals, Inc.

Permit Number: AC 29-166885
Expiration Date: June 1, 1990

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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. Neither 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 is not 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, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; 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:
Consolidated Minerals, Inc.

Permit Number: AC 29-166885
Expiration Date: June 1, 1990

GENERAL CONDITIONS:

6. The permittee shall 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 and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor 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 provide the Department with the following information:

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

PERMITTEE:
Consolidated Minerals, Inc.

Permit Number: AC 29-166885
Expiration Date: June 1, 1990

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 for 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 involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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 17-4.120 and 17-30.300, F.A.C., 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 or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and 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.

PERMITTEE:
Consolidated Minerals, Inc.

Permit Number: AC 29-166885
Expiration Date: June 1, 1990

GENERAL CONDITIONS:

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. The feed to the process equipment shall not exceed 400 lbs/hr. Operation shall not exceed 1,400 hrs/year.

2. Emissions from the packed crossflow wet scrubber shall not exceed 0.4 lbs/hr of particulate matter, 0.22 lbs/hr of fluoride, and 20% opacity.

3. Compliance with the emission limits in Specific Condition No. 2 shall be determined while the facility is operating at its maximum process rate by reference EPA Methods 5, 9, and 13A or B as described in 40 CFR 60, Appendix A (July 1, 1988).

4. The Environmental Protection Commission of Hillsborough County shall be notified at least 15 days prior to any compliance test.

5. Operation of the R & D facility shall not cause or contribute to an objectionable odor.

6. The permittee shall use reasonable precautions to minimize unconfined emissions from this source. These precautions shall include cleaning up spills promptly, and wetting the area when needed to minimize emissions.

7. 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. 17-4.090).

PERMITTEE:
Consolidated Minerals, Inc.

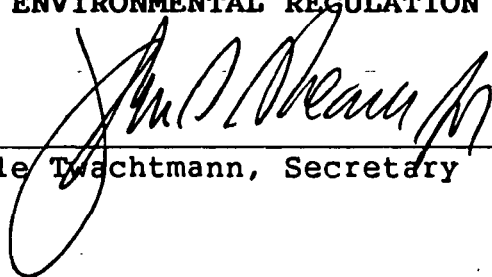
Permit Number: AC 29-166885
Expiration Date: June 1, 1990

SPECIFIC CONDITIONS:

8. An application for an operation permit must be submitted to the Environmental Protection Commission of Hillsborough County 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. 17-4.220).

Issued this 17th day
of October, 1989

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION


Dale Trachtmann, Secretary



RECEIVED

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

| For Routing To Other Than The Addressee | |
|---|-----------------|
| To: _____ | Location: _____ |
| To: _____ | Location: _____ |
| To: _____ | Location: _____ |
| From: _____ | Date: _____ |

Interoffice Memorandum

TO: Dale Twachtmann
FROM: Steve Smallwood *Smallwood*
DATE: October 16, 1989
SUBJ: Approval of Construction Permit Numbers:
AC 29-167251 and -166885
Consolidated Minerals, Inc.

*Please call
Patty Adams
when signed
8-1344*

Attached for your approval and signature are two construction permits prepared by the Bureau of Air Regulation for the above mentioned company to construct a potassium fluoborate product preparation plant and a rotary kiln/fluid bed reactor research and development facility at their Plant City, Hillsborough County, Florida, phosphate feed plant.

The Bureau approved the applicant's request that operation time of the potassium fluoborate product preparation plant be increased prior to the Notice of the Proposed Agency Action being published. No comments were received during the public notice period.

Day 90, after which these permits will be issued by default, is December 2, 1989.

I recommend your approval and signature.

SS/WH/t

attachments

P 938 762 720

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

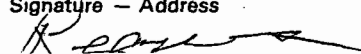
(See Reverse)

PS Form 3800, June 1985

| | |
|--|----|
| Sent to Mr. F. W. Cheesman, CMI | |
| Street and No. P. O. Box 790 | |
| P.O. State and ZIP Code Plant City, FL 34289 | |
| 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 Permit: AC 29-167251 AC 29-166885 Mailed: 10-20-89 | |

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 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 additional service(s) requested.

1. Show to whom delivered, date, and addressee's address. 2. Restricted Delivery (Extra charge)

| | |
|---|---|
| 3. Article Addressed to: Mr. F. W. Cheesman President Consolidated Minerals, Inc. P. O. Box 790 Plant City, FL 34289 | 4. Article Number P 938 762 720 |
| | Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise |
| Always obtain signature of addressee or agent and DATE DELIVERED. | |
| 5. Signature - Address X  | 8. Addressee's Address (ONLY if requested and fee paid) |
| 6. Signature - Agent X | |
| 7. Date of Delivery 10-23-89 | |



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachmann, Secretary

John Shearer, Assistant Secretary

August 30, 1989

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. F. W. Cheesman, President
Consolidated Minerals, Inc.
P. O. Box 790
Plant City, Florida 34289

Dear Mr. Cheesman:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permits to construct the potassium fluoborate product preparation plant and the rotary kiln/fluid bed reactor R & D facility.

Please submit any written comments 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/WH/t

Attachments

cc: B. Thomas, SW District
J. Campbell, EPCHC
A. Lenkei, P.E.

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permits by:

Consolidated Minerals, Inc.
P. O. Box 790
Plant City, Florida 34289

DER File Nos. AC 29-167251
AC 29-166885

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue permits (copies attached) for the proposed projects 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, Consolidated Minerals, Inc., applied on June 29 and 30, 1989, to the Department of Environmental Regulation for permits to construct a potassium fluoborate product preparation plant controlled by a dust collector and a rotary kiln/fluid bed reactor R & D (research and development) facility controlled by a packed crossflow wet scrubber.

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 air construction permits are required for the proposed work.

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department, at the address specified within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permits.

The Department will issue the permits with the attached conditions unless a 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. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. 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.

The Petition shall contain the following information;

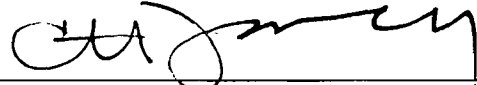
- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

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 notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application(s) have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office in General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such

person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

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:

B. Thomas, SW District
J. Campbell, EPCHC
A. Lenkei, P.E.

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 August 30, 1989.

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.

Martha J. Wise August 30, 1989
Clerk Date

State of Florida
Department of Environmental Regulation
Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue permits to Consolidated Minerals, Inc., P. O. Box 790, Plant City, Florida 34289, to construct a potassium fluoborate product preparation plant controlled by a dust collector and a rotary kiln/fluid bed reactor R & D (research and development) facility controlled by a packed crossflow wet scrubber. This equipment will be installed at their phosphate feed preparation plant located on Coronet Road, Plant City, Hillsborough County, Florida. Construction and operation of the proposed equipment will emit less than 1 TPY particulate matter and less than 0.6 TPY fluoride. The impact of these emissions on the ambient air quality will be insignificant. A determination of Best Available Control Technology (BACT) was not required. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

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. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. 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.

The Petition shall contain the following information;

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

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 Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

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:

Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dept. of Environmental Regulation
Southwest District
4520 Oak Fair Blvd.
Tampa, Florida 33610-7347

Environmental Protection Commission
of Hillsborough County
1410 North 21st Street
Tampa, Florida 33605

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

Technical Evaluation
and
Preliminary Determination

Consolidated Minerals, Inc.
Hillsborough County
Plant City, Florida

| File Numbers: | Source |
|---------------|--|
| AC 29-167251 | Potassium Fluoborate Product Preparation Plant |
| AC 29-166885 | Rotary Kiln/Fluid Bed Reactor R & D Facility |

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

August 29, 1989

I. General Information

A. Applicant

Consolidated Minerals, Inc. (CMI)
P. O. Box 790
Plant City, Florida 34289

B. Request

On June 30, 1989, the applicant submitted an application for a permit to construct a potassium fluoborate product preparation plant with emissions controlled by a Flex-Kleen dust collector. On June 29, 1989, the applicant submitted two applications for a permit to construct a rotary kiln/fluid bed reactor R & D (research and development) facility with emissions controlled by a packed crossflow wet scrubber. These applications were required because the applicant had allowed the existing permit to operate the R & D facility (AO 29-73474) to expire on September 27, 1988.

The applications were considered complete on July 20, 1989, when additional information was received (CMI letter dated July 18, 1989).

C. Project and Location

Both projects are located at the applicant's phosphate feed supplement plant (SIC 2048) on Coronet Road, Plant City, Hillsborough County, Florida. The UTM coordinates of this plant are Zone 17, 393.8 km E and 3096.3 km N.

The potassium fluoborate product preparation plant consists of a wet bin, vibrating fluid bed dryer, grinder, dry product bin, with emissions controlled by a Flex-Kleen Model 84-BVB5-36 III G dust collector estimated to be over 99% efficient. The 0.4 MMBtu/hr dryer is fired with natural gas. This operation will emit particulate matter. The particulate matter contains fluoride.

The rotary kiln/fluid bed reactor R & D facility consists of a batch process mixing section, the kiln and reactor, with emissions controlled by a packed crossflow wet scrubber with impingement chamber that is estimated to be over 98% efficient for controlling particulate matter and fluoride. The equipment uses 1.4 MMBtu/hr of natural gas.

II. Rule Applicability

The proposed projects, a potassium fluoborate product preparation plant and a rotary kiln/fluid bed reactor R & D

facility at a phosphate feed supplement plant (SIC 2048), are subject to preconstruction review under the provisions of Chapter 403, F.S., and Chapter 17-2, F.A.C.

The plant site is in an area designated nonattainment for ozone (F.A.C. Rule 17-2.410), in the area of influence of the Hillsborough County TSP Nonattainment Area (F.A.C. Rule 17-2.410), and attainment for other criteria pollutants (F.A.C. Rule 17-2.420).

The phosphate feed preparation plant is a major facility because permitted particulate matter emissions exceed 100 TPY. The increase in emissions by these projects will be less than the significant emission rates listed in Table 500-2 of Chapter 17-2, F.A.C.

The projects are exempt from the preconstruction review requirements of F.A.C. Rules 17-2.500(5) and 17-2.510(4) because they will not cause a significant net emissions increase of any pollutant.

The proposed projects are subject to F.A.C. Rule 17-2.520, Sources Not Subject to PSD or Nonattainment Requirements. Emission standards shall be based on F.A.C. Rules 17-2.610(2), 17-2.610(3), 17-2.650(2)(c)5, 17-2.650(2)(c)12, and 17-2.700(1)(d)6. Higher emissions could subject the projects to other regulations.

III. Technical Evaluation

A. Potassium Fluoborate Product Preparation Plant

This plant will process 2,500 lbs/hr of potassium fluoborate. The process equipment handling the wet feed (conveyor, wet product bin, and dryer feeder) is not connected to the dust collector serving this plant. Generally, the wet material is not a source of unconfined particulate matter emissions.

All process equipment handling dried product (vibration fluid bed dryer, grinder, dry product bin, and load out area) are vented to the Flex-Kleen dust collector. This dust collector has 382 sq. ft. of filter area to treat the 1800 acfm of contaminated air from the process equipment. At an allowable particulate matter emission rate of 0.03 grains/dscf, the maximum emissions would be 0.46 lbs/hr. The product is estimated to be 60.3% fluoride. Thus, maximum fluoride emissions are estimated to be 0.28 lbs/hr. There should be no visible emissions from this equipment. The applicant estimated the actual particulate matter emissions, based on the baghouse being 99.98% efficient, at 0.006 lbs/hr.

Regulations require reasonable precautions to be used to minimize unconfined emissions from this plant. The Department believes these precautions include keeping covers on this equipment, sheltering the material being handled from the wind, cleaning up spills, and wetting the area when needed to reduce emissions.

The products of combustion from burning 400 CFH of natural gas in the dryer will be insignificant.

B. Research and Development Facility

The R & D facility consists of a batch process mixing section that feeds the rotary kiln and fluid bed reactor. Emissions from the kiln and reactor pass through a 98% efficient air pollution control system consisting of a baffled knockout chamber and a packed crossflow wet scrubber before being discharged to the atmosphere.

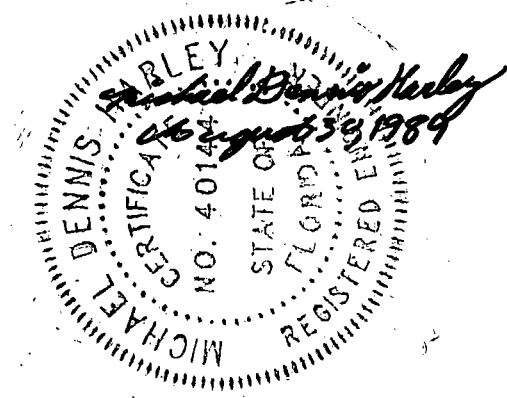
Two studies are currently planned for this facility. One involves making a calcium phosphate product (CDP) using a mixture of approximately 400 lbs/hr of phosphate rock, phosphoric acid, and soda ash. The other involves producing artificial aggregate from a mixture of approximately 400 lbs/hr of waste ash generated at incinerators, limestone, and fluorspar. The studies are expected to take about 1400 hrs/yr. Emissions from the CDP study are estimated to be 0.33 lbs/hr (0.23 TPY) particulate matter and 0.22 lbs/hr (0.15 TPY) fluoride. Emissions from the artificial aggregate study are estimated to be 0.40 lbs/hr (0.28 TPY) particulate matter and 0.003 lbs/hr (0.002 TPY) fluoride.

VI. Ambient Air Impact

It is the judgement of the Department that the allowable emissions from these projects will not violate any ambient air quality standard or PSD increment.

V. Conclusion

Based on the information provided by Consolidated Minerals, Inc., the Department has reasonable assurance that the proposed construction/installation of the potassium fluoborate product preparation plant and the rotary kiln/fluid bed reactor R & D facility, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapter 17-2 of the Florida Administrative Code.





Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

PERMITTEE:
Consolidated Minerals, Inc.
P. O. Box 790
Plant City, FL 34289

Permit Number: 29-167251
Expiration Date: June 1, 1990
County: Hillsborough
Latitude/Longitude: 27°59'21
82°04'48"
Project: Potassium Fluoborate
Product Preparation Plant

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

Construction of a 2,500 lbs/hr potassium fluoborate product preparation plant consisting of a wet product conveyor, 20 ton wet product bin, dryer feeder, vibrating fluid bed dryer, grinder, two spiral conveyors, 10 ton dry product bin, load-out section, Flex-Kleen Model 84-BVBS-36IIIIG dust collector, 1800 acfm fan, and a 9 inch diameter x 10 foot high stack. The plant will be located at CMI's feed supplement facility (SIC 2048) on Coronet Road, Plant City, Hillsborough County, Florida. The UTM coordinates of this plant are Zone 17, 393.8 km E and 3096.3 km N.

The source shall be in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Application received June 30, 1989.
2. CMI letter dated July 18, 1989.

PERMITTEE:
Consolidated Minerals, Inc.

Permit Number: AC 29-167251
Expiration Date: June 1, 1990

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
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. Neither 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 is not 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, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; 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:
Consolidated Minerals, Inc.

Permit Number: AC 29-167251
Expiration Date: June 1, 1990

GENERAL CONDITIONS:

6. The permittee shall 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 and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor 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 provide the Department with the following information:

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

PERMITTEE:
Consolidated Minerals, Inc.

Permit Number: AC 29-167251
Expiration Date: June 1, 1990

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 for 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 involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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 17-4.120 and 17-30.300, F.A.C., 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 or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and 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.

PERMITTEE:
Consolidated Minerals, Inc.

Permit Number: AC 29-167251
Expiration Date: June 1, 1990

GENERAL CONDITIONS:

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. Production of the potassium fluoborate product preparation plant shall not exceed 2,500 lbs/hr.
2. Operation of this plant shall not exceed 8 hrs/day, 5 days/week, and 52 weeks/year or 2,080 hrs/year.
3. Only natural gas shall be used as fuel in this dryer. Heat input shall not exceed 0.4 MMBtu/hr (approximately 400 CFH natural gas).
5. Particulate matter emissions from this plant shall not exceed 0.03 grains/dscf and 0.46 lbs/hr (0.5 TPY).
6. Visible emissions from any part of this plant shall not exceed 5% opacity.
7. Compliance with the emission standards in Specific Conditions Nos. 5 and 6 shall be determined by EPA Methods Nos. 5 and 9 described in 40 CFR 60, Appendix A (July 1, 1988) while the plant is operating at its permitted capacity. The method 5 test will be waived if visible emissions are less than 5% opacity.
8. The Environmental Protection Commission of Hillsborough County shall be notified at least 15 days prior to any compliance test.

PERMITTEE:
Consolidated Minerals, Inc.

Permit Number: AC 29-167251
Expiration Date: June 1, 1990

SPECIFIC CONDITIONS:

9. The permittee shall use reasonable precautions to minimize unconfined emissions from this plant. These precautions shall include keeping covers on the process equipment openings, sheltering exposed potassium fluoborate from the wind, cleaning up spills promptly, and wetting the area if needed to minimize unconfined emissions.

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

11. An application for an operation permit must be submitted to the Environmental Protection Commission of Hillsborough County 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. 17-4.220).

Issued this _____ day
of _____, 1989

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Dale Twachtmann, Secretary



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachmann, Secretary

John Shearer, Assistant Secretary

PERMITTEE:
Consolidated Minerals, Inc.
P. O. Box 790
Plant City, FL 34289

Permit Number: 29-166885
Expiration Date: June 1, 1990
County: Hillsborough
Latitude/Longitude: 27°59'21
82°04'48"
Project: R & D Facility

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

Construction and operation of the research and development (R & D) facility which contains a batch process mixing area, rotary kiln, fluid bed reactor, and a packed crossflow wet scrubber with an impingement chamber. The plant will be located at CMI's feed supplement facility (SIC 2048) on Coronet Road, Plant City, Hillsborough County, Florida. The UTM coordinates of this plant are Zone 17, 393.8 km E and 3096.3 km N.

The source shall be in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Application received June 29 and 30, 1989.
2. CMI letter dated July 18, 1989.

PERMITTEE:
Consolidated Minerals, Inc.

Permit Number: AC 29-166885
Expiration Date: June 1, 1990

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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. Neither 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 is not 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, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; 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:
Consolidated Minerals, Inc.

Permit Number: AC 29-166885
Expiration Date: June 1, 1990

GENERAL CONDITIONS:

6. The permittee shall 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 and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor 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 provide the Department with the following information:

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

PERMITTEE:
Consolidated Minerals, Inc.

Permit Number: AC 29-166885
Expiration Date: June 1, 1990

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 for 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 involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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 17-4.120 and 17-30.300, F.A.C., 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 or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and 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.

PERMITTEE:
Consolidated Minerals, Inc.

Permit Number: AC 29-166885
Expiration Date: June 1, 1990

GENERAL CONDITIONS:

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. The feed to the process equipment shall not exceed 400 lbs/hr. Operation shall not exceed 1,400 hrs/year.
2. Emissions from the packed crossflow wet scrubber shall not exceed 0.4 lbs/hr of particulate matter, 0.22 lbs/hr of fluoride, and 20% opacity.
3. Compliance with the emission limits in Specific Condition No. 2 shall be determined while the facility is operating at its maximum process rate by reference EPA Methods 5, 9, and 13A or B as described in 40 CFR 60, Appendix A (July 1, 1988).
4. The Environmental Protection Commission of Hillsborough County shall be notified at least 15 days prior to any compliance test.
5. Operation of the R & D facility shall not cause or contribute to an objectionable odor.
6. The permittee shall use reasonable precautions to minimize unconfined emissions from this source. These precautions shall include cleaning up spills promptly, and wetting the area when needed to minimize emissions.
7. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the BAQM prior to 60 days before the expiration of the permit (F.A.C. 17-4.090).

PERMITTEE:
Consolidated Minerals, Inc.

Permit Number: AC 29-166885
Expiration Date: June 1, 1990

SPECIFIC CONDITIONS:

8. An application for an operation permit must be submitted to the Environmental Protection Commission of Hillsborough County 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. 17-4.220).

Issued this _____ day
of _____, 1989

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Dale Twachtmann, Secretary

Attachments Available Upon Request

P 938 762 664

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

| | |
|---|----|
| Sent to | |
| Mr. F. W. Cheesman, Consolidated Minerals, Inc. | |
| Street and No. P.O. Box 790 | |
| P.O. State and ZIP Code Plant City, FL 34289 | |
| 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 | |
| Mailed: 8-30-89 | |
| Permit: AC 29-167251 | |
| AC 29-166885 | |

PS Form 3800, June 1985

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 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 additional service(s) requested.

1. Show to whom delivered, date, and addressee's address. (Extra charge) 2. Restricted Delivery (Extra charge)

| | |
|--|---|
| 3. Article Addressed to: Mr. F. W. Cheesman, President Consolidated Minerals, Inc. P. O. Box 790 Plant City, FL 34289 | 4. Article Number P 938 762 664 Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise Always obtain signature of addressee or agent and DATE DELIVERED. |
| 5. Signature - Address X <i>M. Keenan</i> | 8. Addressee's Address (ONLY if requested and fee paid) |
| 6. Signature - Agent X | |
| 7. Date of Delivery 9-1-89 | |

PS Form 3811, May 1988 * U.S.G.P.O. 1988-212-865 DOMESTIC RETURN RECEIPT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

#200pd.
6-30-89
Rept. #117038

TWIN TOWERS OFFICE BUILDING
2800 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

D.E.R.
JUN 30 1989
SOUTHWEST DISTRICT
TAMPA



AC 29-167251

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Point Source (Air Pollution) New¹ Existing¹

APPLICATION TYPE: Construction Operation Modification

COMPANY NAME: Consolidated Minerals, Inc. COUNTY: Hillsborough

Identify the specific emission point source(s) addressed in this application (i.e. Line
Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) KBF4 Dust Collector

SOURCE LOCATION: Street Coronet Road City Plant City

UTM: East 17-393.8 North 30963

Latitude ° ' "N Longitude ° ' "W

APPLICANT NAME AND TITLE: F. W. Cheesman/President

APPLICANT ADDRESS: P.O. Box 790 Plant City, FL 34289

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

4. APPLICANT

I am the undersigned owner or authorized representative* of Consolidated Minerals, Inc.

I certify that the statements made in this application for a Construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: F.W. Cheesman
F. W. Cheesman/President
Name and Title (Please Type)

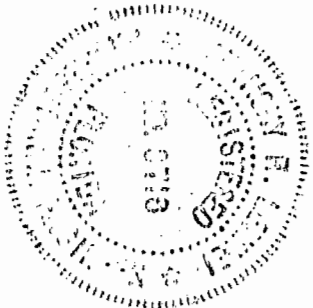
Date: _____ Telephone No. (813)752-1161

8. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Anthony R. Lenkei

Anthony R. Lenkei
Name (Please Type)

Consolidated Minerals, Inc.
Company Name (Please Type)

P.O. Box 790 Plant City, FL 34289
Mailing Address (Please Type)

Florida Registration No. 8716 Date: 6, 28, 89. Telephone No. (813)752-1161

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

The Flex-Kleen Dust Collector will have a total cloth area of 382 ft² and an airflow of 1800 CFM. It will collect any dust that is generated from the final product preparation. This will involve drying and crushing of the KBF4 product. This unit will meet or exceed all state and federal pollution control standards.

B. Schedule of project covered in this application (Construction Permit Application Only)
Start of Construction July 1989 Completion of Construction January 1990

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

| | |
|--|-----------------|
| <u>Flex-Kleen Dust Collector</u> | <u>\$ 8,000</u> |
| <u>Duct Work</u> | <u>10,000</u> |
| <u>Exhaust Fan</u> | <u>5,000</u> |
| <u>Total Pollution Control Equipment</u> | <u>\$23,000</u> |

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

NOT APPLICABLE

E. Requested permitted equipment operating time: hrs/day 8; days/wk 5; wks/yr 52;
if power plant, hrs/yr _____; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions.
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? NO
a. If yes, has "offset" been applied? N/A
b. If yes, has "Lowest Achievable Emission Rate" been applied? N/A
c. If yes, list non-attainment pollutants. N/A

2. Does best available control technology (BACT) apply to this source?
If yes, see Section VI. NO

3. Does the State "Prevention of Significant Deterioration" (PSD)
requirement apply to this source? If yes, see Sections VI and VII. NO

4. Do "Standards of Performance for New Stationary Sources" (NSPS)
apply to this source? NO

5. Do "National Emission Standards for Hazardous Air Pollutants"
(NESHAP) apply to this source? NO

H. Do "Reasonably Available Control Technology" (RACT) requirements apply
to this source? NO

a. If yes, for what pollutants? _____

b. If yes, in addition to the information required in this form,
any information requested in Rule 17-2.650 must be submitted.

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

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

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

| Description | Contaminants | | Utilization Rate - lbs/hr | Relate to Flow Diagram |
|-----------------------------|--------------|------|---------------------------|------------------------|
| | Type | % Wt | | |
| Potassium Fluoborate (KBF4) | Particulate | 100% | 2,500 | See Attachment C-1 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

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

1. Total Process Input Rate (lbs/hr): 2,500
2. Product Weight (lbs/hr): 2,500

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

| Name of Contaminant | Emission ¹ | | Allowed Emission Rate per Rule 17-2 | Allowable ³ Emission lbs/hr | Potential ⁴ Emission | | Relate to Flow Diagram |
|---------------------|-----------------------|-------------|-------------------------------------|--|---------------------------------|-------|------------------------|
| | Maximum lbs/hr | Actual T/yr | | | lbs/yr | T/yr | |
| Particulate | .006 | .006 | 17-2.650(2)(b)(2) | .046 | 28.0 | 122.6 | See Attachment C-2 |
| Opacity | | | 17-2.610(2)(a) | 5% | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

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

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

| Name and Type (Model & Serial No.) | Contaminant | Efficiency | Range of Particles Size Collected (in microns) (If applicable) | Basis for Efficiency (Section V Item 5) |
|---------------------------------------|-------------|------------|---|--|
| Flex-Kleen Model | | | | |
| 84-BVBS-36 III G | Particulate | 99.98 | 150 to 3 u | Manufacturer specifications |
| | | | | |
| | | | | |
| | | | | |

E. Fuels

| Type (Be Specific) | Consumption* | | Maximum Heat Input (MMBTU/hr) |
|--------------------|---------------|---------------|----------------------------------|
| | avg/hr | max./hr | |
| Natural Gas | .00035 MCF/hr | .0004 MMCF/hr | .396 MMBTU/hr |
| | | | |
| | | | |

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average _____ Maximum _____

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

Any solid waste will be returned to the circuit for reprocessing.

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

Stack Height: 10' ft. Stack Diameter: 9" ft.
 Gas Flow Rate: 1800 ACFM DSCFM Gas Exit Temperature: 150 °F.
 Water Vapor Content: .06 % Velocity: 60 FPS

SECTION IV: INCINERATOR INFORMATION

NOT APPLICABLE

| Type of Waste | Type 0 (Plastics) | Type I (Rubbish) | Type II (Refuse) | Type III (Garbage) | Type IV (Pathological) | Type V (Liq. & Gas By-prod.) | Type VI (Solid By-prod.) |
|--------------------------|----------------------|---------------------|---------------------|-----------------------|---------------------------|---------------------------------|-----------------------------|
| Actual lb/hr Incinerated | | | | | | | |
| Uncontrolled (lbs/hr) | | | | | | | |

Description of Waste _____

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

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer: _____

Date Constructed _____ Model No. _____

| | Volume (ft) ³ | Heat Release (BTU/hr) | Fuel | | Temperature (°F) |
|-------------------|-----------------------------|--------------------------|------|--------|---------------------|
| | | | Type | BTU/hr | |
| Primary Chamber | | | | | |
| Secondary Chamber | | | | | |

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

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control devices: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made. SEE ATTACHMENT A
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). SEE ATTACHMENT A
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.) SEE ATTCHMENT B
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency). SEE ATTACHMENT A
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained. SEE ATTACHMENT C-1 AND C-2
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map). SEE ATTACHMENT D
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram. SEE ATTACHMENT E

- 9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
- 10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

NOT APPLICABLE

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes No

| Contaminant | Rate or Concentration |
|-------------|-----------------------|
| | |
| | |
| | |
| | |

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes No

| Contaminant | Rate or Concentration |
|-------------|-----------------------|
| | |
| | |
| | |
| | |

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

| Contaminant | Rate or Concentration |
|-------------|-----------------------|
| | |
| | |
| | |
| | |

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

- | | |
|---------------------------|--------------------------|
| 1. Control Device/System: | 2. Operating Principles: |
| 3. Efficiency:* | 4. Capital Costs: |

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

| Contaminant | Rate or Concentration |
|-------------|-----------------------|
| | |
| | |
| | |

10. Stack Parameters

a. Height:

ft.

b. Diameter:

ft.

c. Flow Rate:

ACFM

d. Temperature:

°F.

e. Velocity:

FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power.- KWH design rate.

- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Costs:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

5. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency:¹
- 3. Capital Cost:
- 4. Useful Life:
- 5. Operating Cost:
- 6. Energy:²
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:
- a. (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

Explain method of determining efficiency.
 Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant

Rate or Concentration

| | |
|--|--|
| | |
| | |
| | |

(8) Process Rate:¹

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant

Rate or Concentration

| | |
|--|--|
| | |
| | |
| | |

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ () SO₂ _____ Wind spd/dir

Period of Monitoring _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

- a. Was instrumentation EPA referenced or its equivalent? [] Yes [] No
- b. Was instrumentation calibrated in accordance with Department procedures?
[] Yes [] No [] Unknown

B. Meteorological Data Used for Air Quality Modeling

- 1. _____ Year(s) of data from _____ / _____ / _____ to _____ / _____ / _____
month day year month day year
- 2. Surface data obtained from (location) _____
- 3. Upper air (mixing height) data obtained from (location) _____
- 4. Stability wind rose (STAR) data obtained from (location) _____

C. Computer Models Used

- 1. _____ Modified? If yes, attach description.
- 2. _____ Modified? If yes, attach description.
- 3. _____ Modified? If yes, attach description.
- 4. _____ Modified? If yes, attach description.

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

D. Applicants Maximum Allowable Emission Data

| Pollutant | Emission Rate | |
|-----------------|---------------|-----------|
| TSP | _____ | grams/sec |
| SO ² | _____ | grams/sec |

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

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

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

ATTACHMENT A

Particulate Emission Estimate

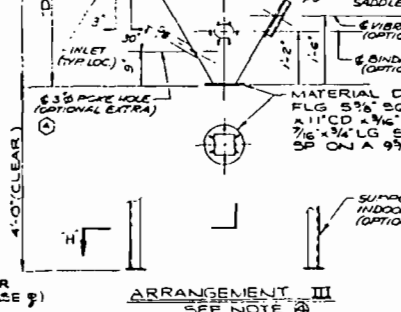
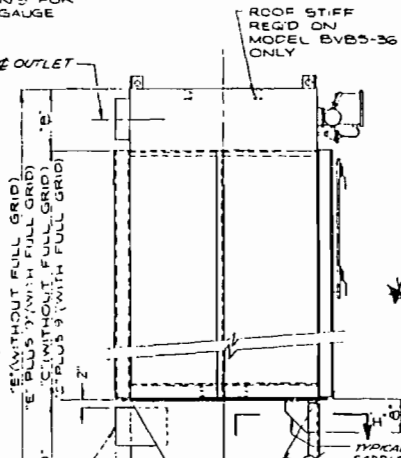
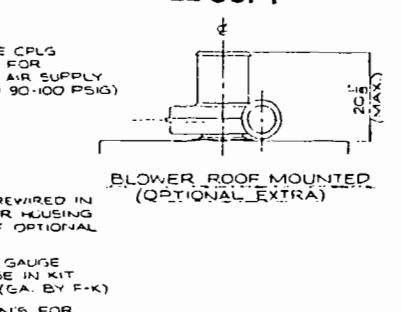
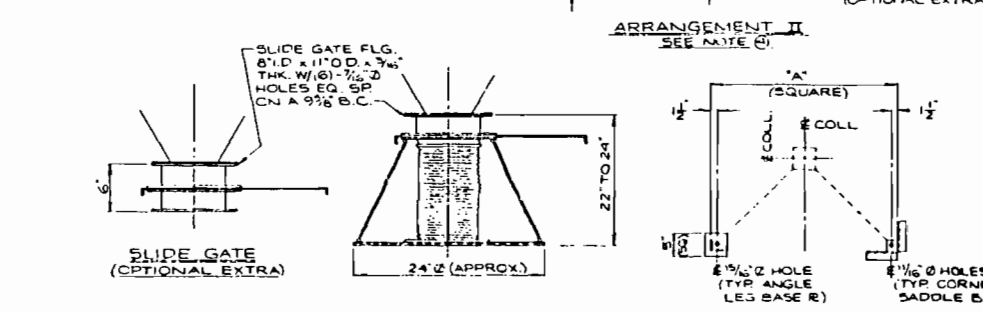
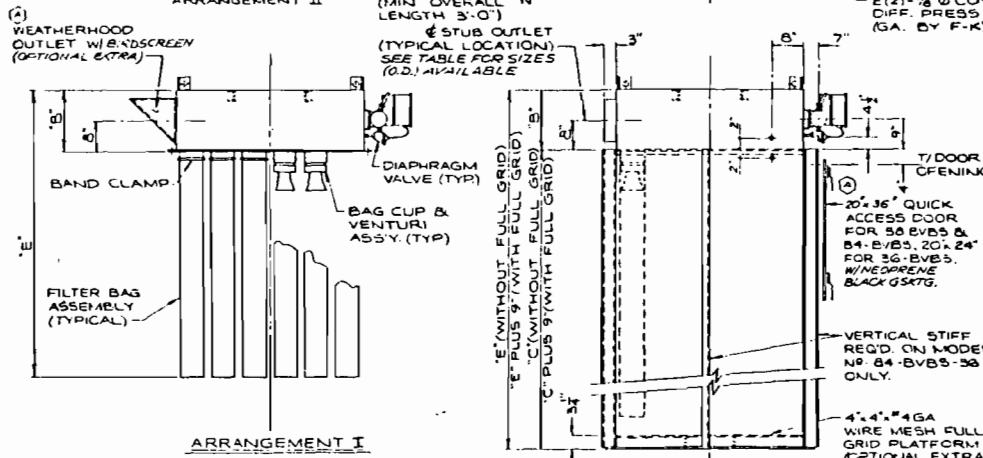
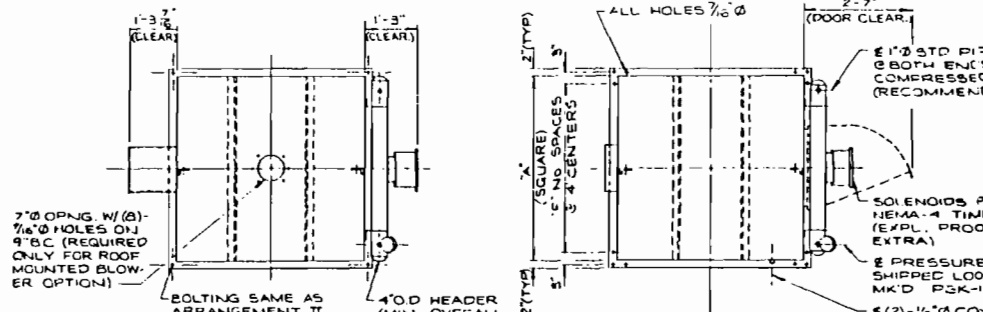
Estimate Dust Collector Loading: 280 lbs/hr
100% - 99.98% (Dust Collector Efficiency) = .02%
28 lbs/hr x .02% = .0056 lbs/hr Discharge
.0056 lbs/hr x 2080 operating hours = 11.65 lbs/yr
11.65 lbs/yr - 2,000 lbs/ton = .0058 tons/yr

Potential Emissions

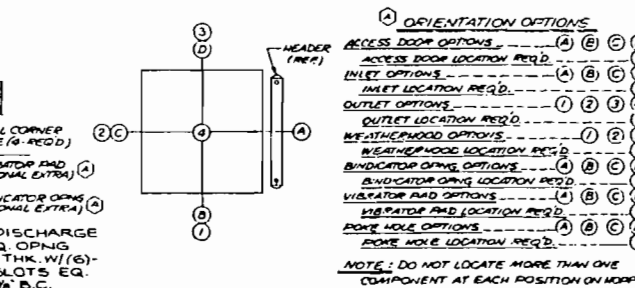
28 lbs/hr Dust Collector Loading
28 lbs/hr x 8760 hrs/yr
245,280 lbs/yr - 2,000 lbs/ton =
122.6 tons/year Potential Emissions

ATTACHMENT B

BEST AVAILABLE COPY



| MODEL NO. | ARRANGEMENT | FILTER AREA SQ. FT. | NO. OF BAGS | BAG LENGTH (IN) | NO. SOLID VALVES | COMP. AIR PRESS. (PSIG) | DIMENSIONS (WITHOUT DUTCHMAN) | | | | | E BOLT PUNCHES | OUTLET SIZE (IN) | W. (IN) |
|------------|-------------|---------------------|-------------|-----------------|------------------|-------------------------|-------------------------------|-------|--------|--------|----|-------------------|------------------|---------|
| | | | | | | | A | B | C | D | E | | | |
| 18-BVBS-1 | I | 17 | 9 | 18 | 3 | 4.0 | 2'-0" | 1'-4" | | 2'-10" | 5 | 2" OP 3" | 17 1/2 | |
| 36-BVBS-9 | I | 39 | 9 | 36 | 3 | 4.2 | 2'-0" | 1'-4" | | 4'-4" | 5 | 3" OP 4" | 20 1/2 | |
| | II | | | | | | 1'-4" | 3'-2" | 4'-4" | | | | | |
| | III | | | | | | 1'-4" | 3'-2" | 4'-4" | | | | | |
| 54-BVBS-9 | I | 63 | 9 | 54 | 3 | 4.5 | 2'-0" | 1'-4" | | 6'-2" | 5 | 4" OP 5" | 22 1/2 | |
| | II | | | | | | 1'-4" | 3'-0" | 6'-4" | | | | | |
| | III | | | | | | 1'-4" | 3'-0" | 6'-4" | | | | | |
| 84-BVBS-9 | I | 99 | 9 | 84 | 3 | 5.0 | 2'-0" | 1'-4" | | 8'-4" | 5 | 5" OP 6" | 28 1/2 | |
| | II | | | | | | 1'-4" | 7'-5" | 8'-11" | | | | | |
| | III | | | | | | 1'-4" | 7'-5" | 8'-11" | | | | | |
| 18-BVBS-16 | I | 30 | 16 | 18 | 4 | 3.2 | 2'-8" | 1'-4" | | 2'-10" | 7 | 3" OP 3" | 27 1/2 | |
| 36-BVBS-16 | I | 69 | 16 | 36 | 4 | 5.5 | 2'-8" | 1'-4" | | 4'-4" | 7 | 4 1/2" OP 6" | 30 1/2 | |
| | II | | | | | | 1'-4" | 3'-2" | 4'-6" | | | | | |
| | III | | | | | | 1'-4" | 3'-2" | 4'-6" | | | | | |
| 54-BVBS-16 | I | 115 | 16 | 54 | 4 | 5.8 | 2'-8" | 1'-4" | | 6'-2" | 7 | 5 1/2" OP 7" | 32 1/2 | |
| | II | | | | | | 1'-4" | 3'-0" | 6'-4" | | | | | |
| | III | | | | | | 1'-4" | 3'-0" | 6'-4" | | | | | |
| 84-BVBS-16 | I | 170 | 16 | 84 | 4 | 6.2 | 2'-8" | 1'-4" | | 8'-4" | 7 | 6 1/2" OP 8" | 35 1/2 | |
| | II | | | | | | 1'-4" | 7'-5" | 10'-6" | | | | | |
| | III | | | | | | 1'-4" | 7'-5" | 10'-6" | | | | | |
| 18-BVBS-25 | I | 47 | 25 | 18 | 5 | 6.3 | 3'-4" | 1'-4" | | 2'-10" | 9 | 4" OP 5" | 37 1/2 | |
| 36-BVBS-25 | I | 108 | 25 | 36 | 5 | 6.5 | 3'-4" | 1'-4" | | 4'-4" | 9 | 5 1/2" OP 7 1/2" | 40 1/2 | |
| | II | | | | | | 1'-4" | 3'-2" | 4'-6" | | | | | |
| | III | | | | | | 1'-4" | 3'-2" | 4'-6" | | | | | |
| 54-BVBS-25 | I | 180 | 25 | 54 | 5 | 6.7 | 3'-4" | 1'-4" | | 6'-2" | 9 | 7 1/2" OP 9 1/2" | 42 1/2 | |
| | II | | | | | | 1'-4" | 3'-0" | 6'-4" | | | | | |
| | III | | | | | | 1'-4" | 3'-0" | 6'-4" | | | | | |
| 84-BVBS-25 | I | 265 | 25 | 84 | 5 | 7.0 | 3'-4" | 1'-4" | | 8'-4" | 9 | 8 1/2" OP 10 1/2" | 47 1/2 | |
| | II | | | | | | 1'-4" | 7'-5" | 11'-1" | | | | | |
| | III | | | | | | 1'-4" | 7'-5" | 11'-1" | | | | | |
| 84-BVBS-36 | I | 382 | 36 | 84 | 6 | 8.5 | 4'-0" | 1'-4" | | 8'-4" | 11 | 10 1/2" OP 12" | 50 1/2 | |
| | II | | | | | | 1'-4" | 7'-5" | 11'-6" | | | | | |
| | III | | | | | | 1'-4" | 7'-5" | 11'-6" | | | | | |



- NOTES:**
- 1) PYRAMID HOPPER HEIGHT IS BASED ON 60° SLOPE & MATERIAL DISCHARGE OPNS. THAT WILL SUIT AN 8" AIRLOCK
 - 2) DESIGN PRESSURE IS 15:17WG
 - 3) DRAWING TO BE USED FOR GENERAL ARRANGEMENT ONLY. NOT TO BE USED FOR CONSTRUCTION UNLESS CERTIFIED.
 - 4) WHEN A FULL INTERNAL GRID IS INCLUDED W/ UNIT, THE MODEL IS DESIGNATED AS "ARR. II G" OR "ARR. III G".

- NOTES (CONT.):**
- 5) CHOOSE OUTLET AND INLET SIZE FROM THE TABLE BASED ON 3000-4000 FT./MIN GAS VELOCITY.

ORIENTATION OPTIONS

ACCESS DOOR LOCATION REQ'D: (A) (B) (C) (D) (E) (F) (G)

INLET OPTIONS: (A) (B) (C) (D) (E) (F) (G)

OUTLET LOCATION REQ'D: (1) (2) (3) (4) (5) (6) (7) (8) (9)

WEATHERHOOD OPTIONS: (1) (2) (3) (4) (5) (6) (7) (8) (9)

INDICATOR OPNG OPTIONS: (A) (B) (C) (D) (E) (F) (G)

WEATHERHOOD OPNG LOCATION REQ'D: (A) (B) (C) (D) (E) (F) (G)

WEATHERHOOD PAD OPTIONS: (A) (B) (C) (D) (E) (F) (G)

WEATHERHOOD PAD LOCATION REQ'D: (A) (B) (C) (D) (E) (F) (G)

ROSE HOLE OPTIONS: (A) (B) (C) (D) (E) (F) (G)

ROSE HOLE LOCATION REQ'D: (A) (B) (C) (D) (E) (F) (G)

NOTE: DO NOT LOCATE MORE THAN ONE COMPONENT AT EACH POSITION ON MAP.

FLEX-KLEEN CORPORATION
SUBSIDIARY OF RESEARCH-CORNING INC.

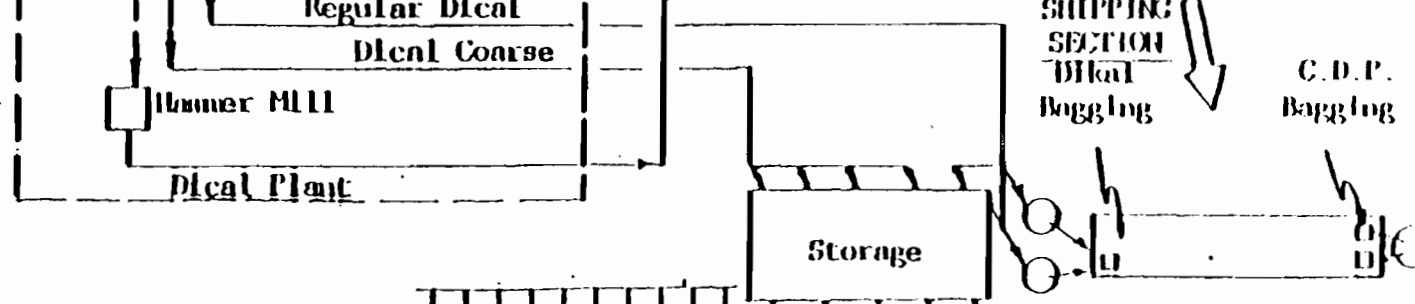
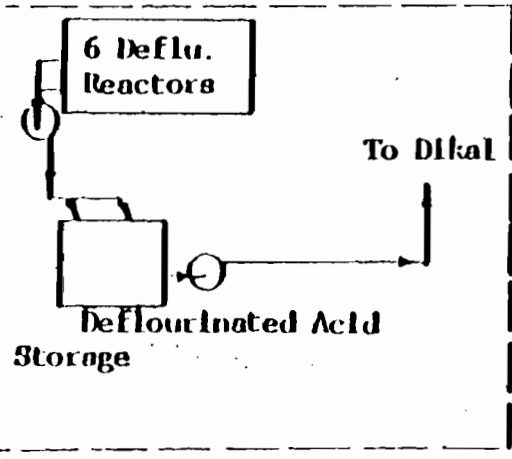
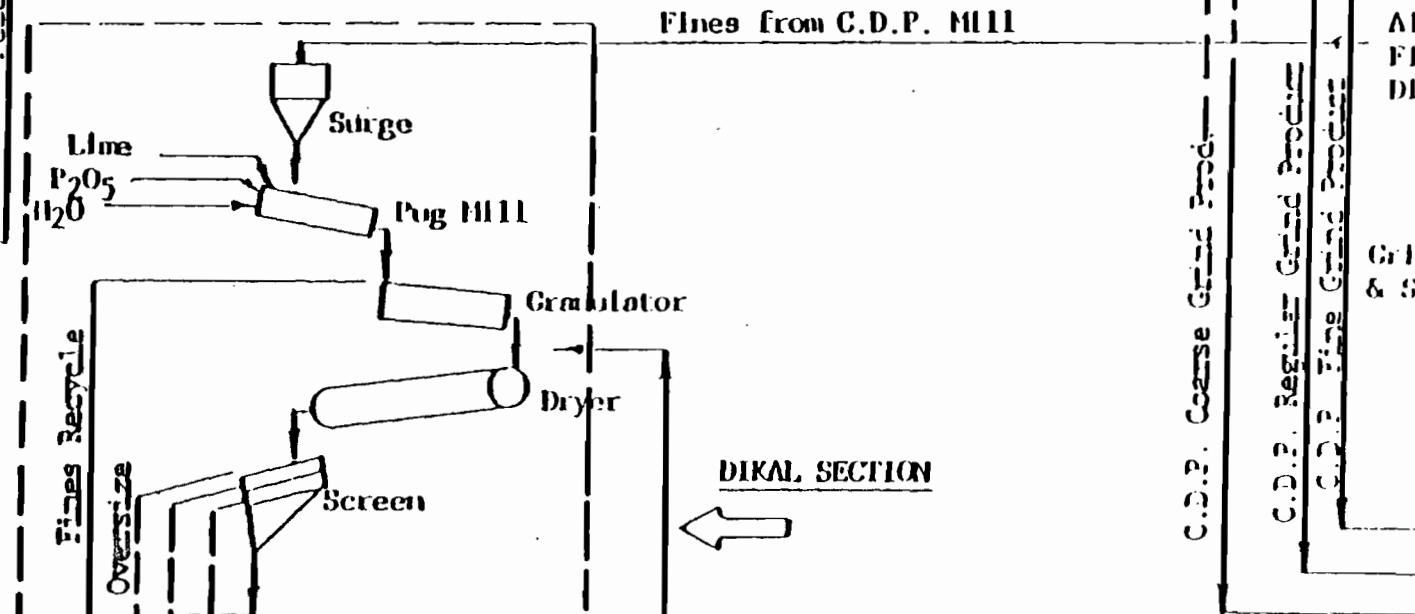
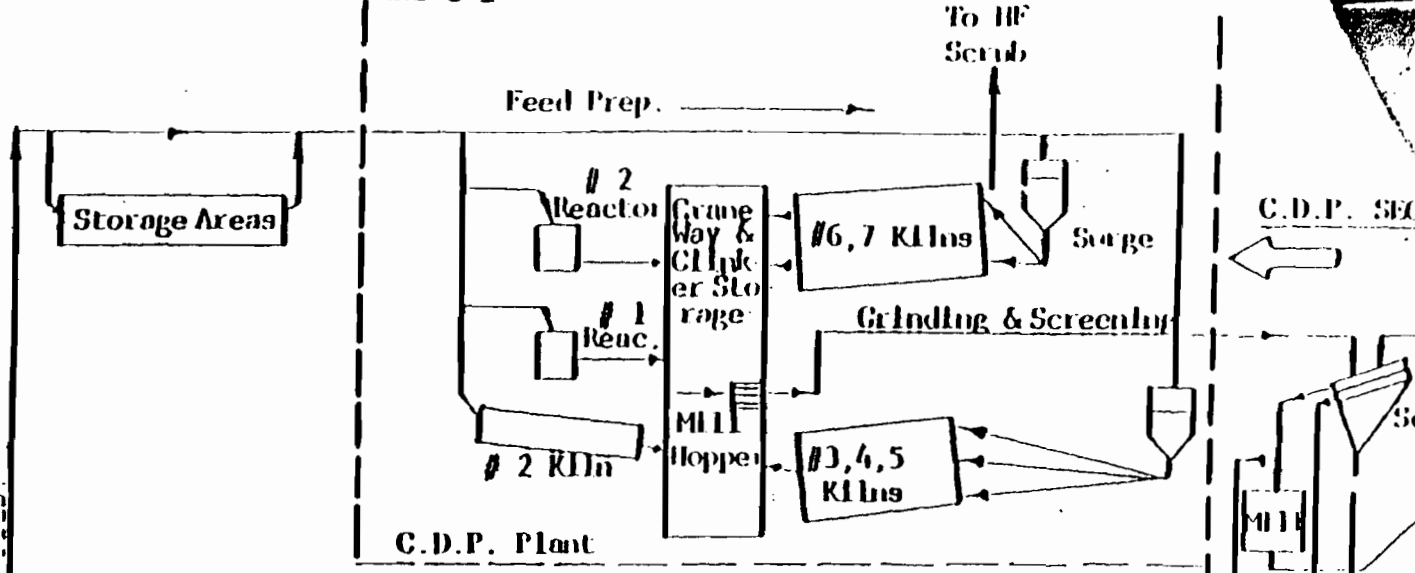
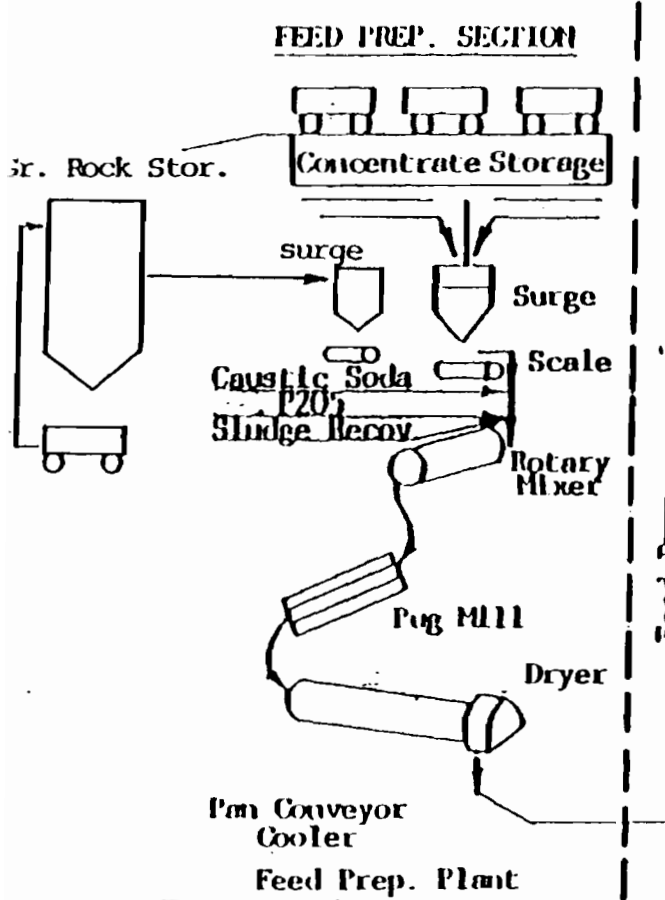
DATE: 7-27-85

GENERAL DATA

MODEL: 54-BVBS-16

ARRANGEMENT: ARR. II G

THIS DRAWING SUPERCEDES A-75F-55

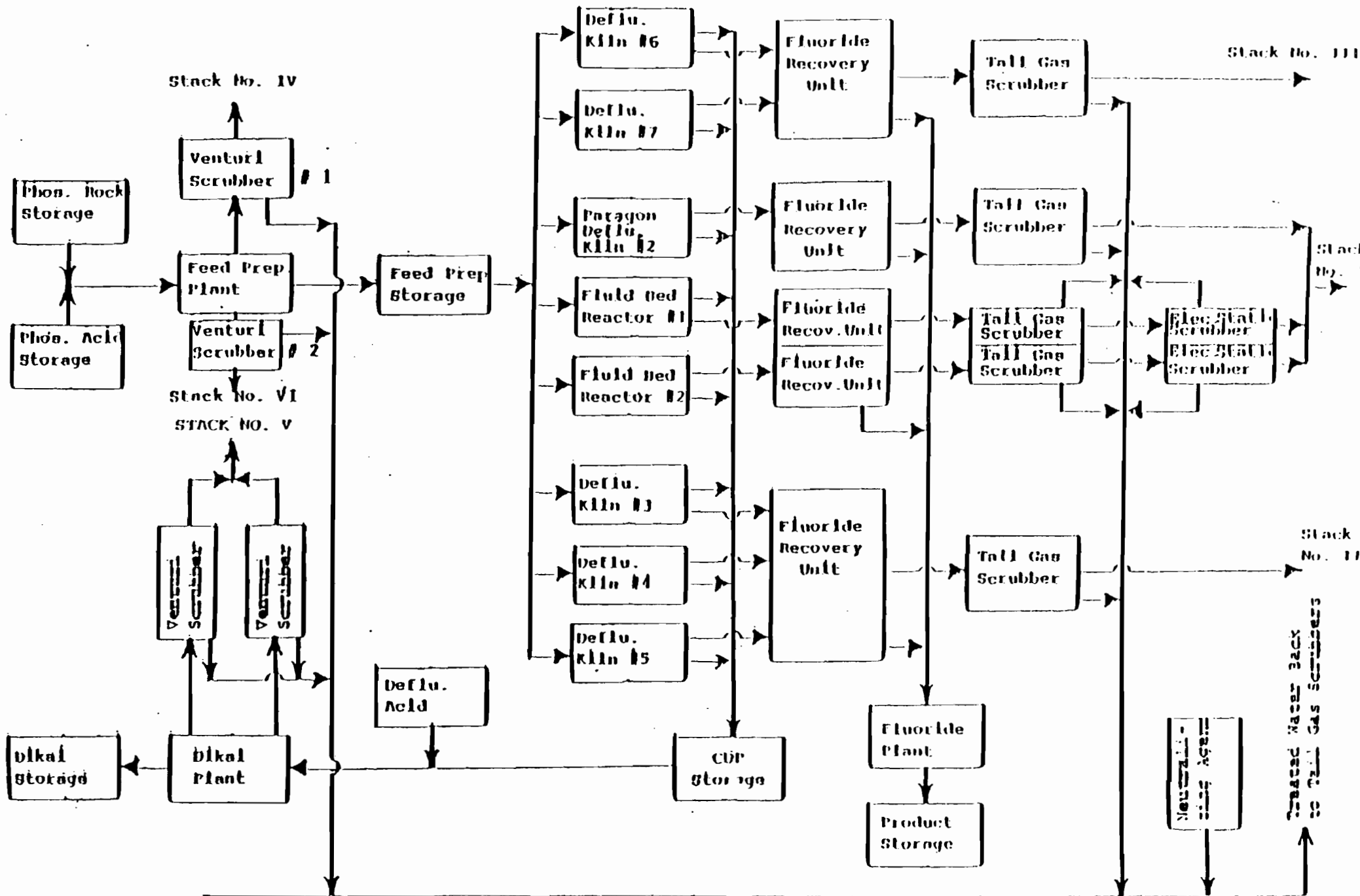


Best Available Copy

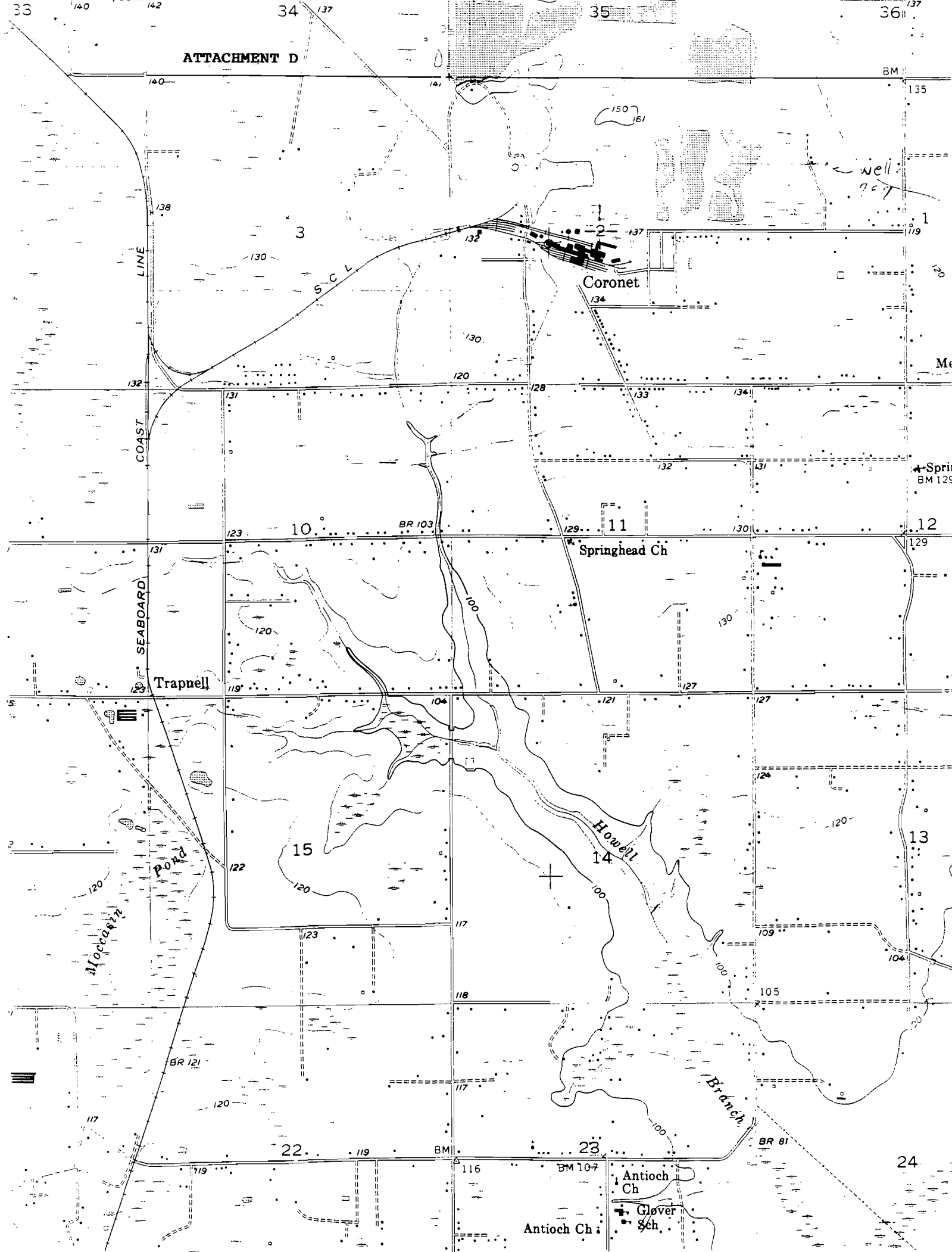
CMI PLANT CITY FACILITY

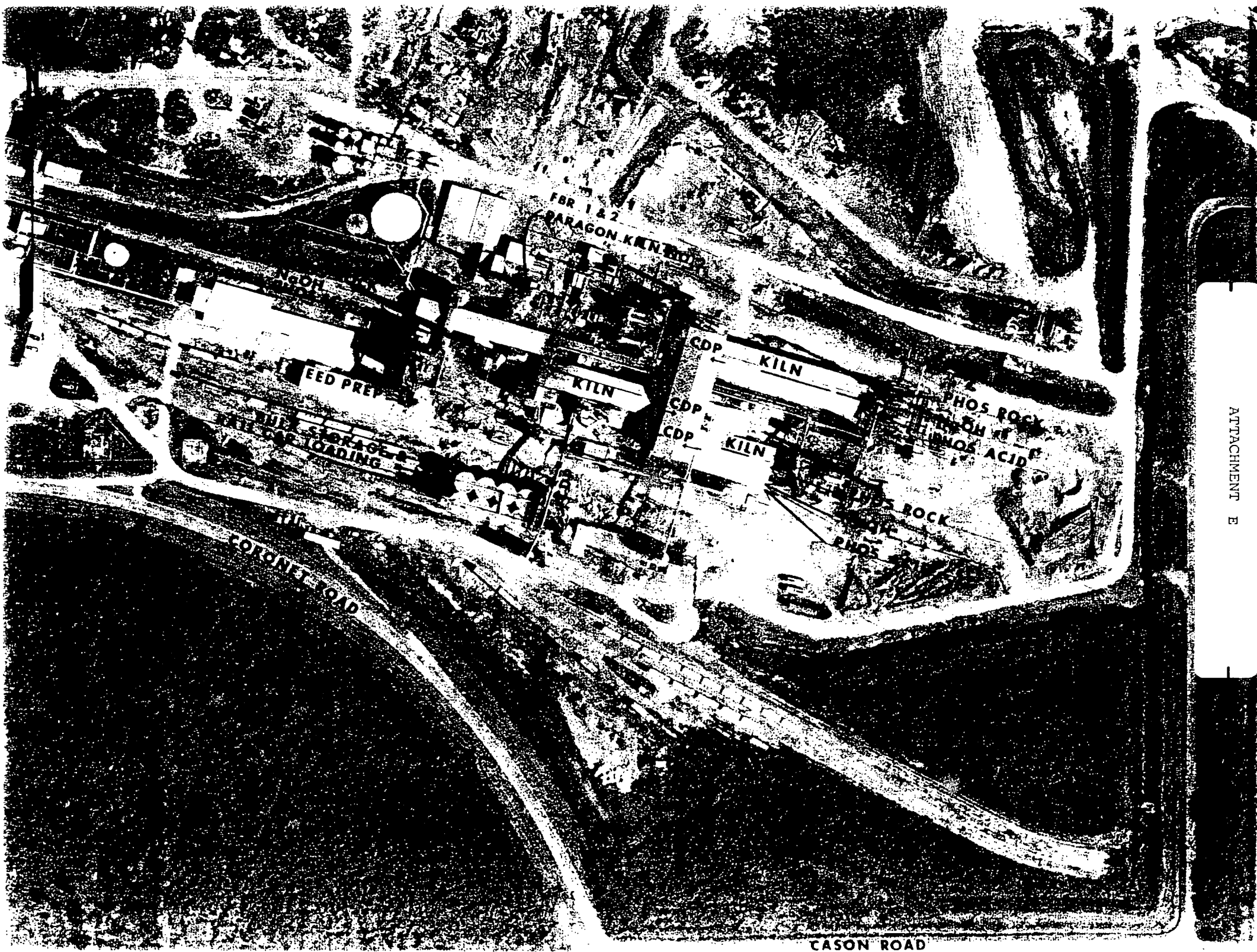
ATTACHMENT C-2

FLOW DIAGRAM



ATTACHMENT D





ATTACHMENT E

CMI
CONSOLIDATED MINERALS, INC.
FEED SUPPLEMENT DIVISION

June 27, 1989

D. E. R.

JUN 29 1989

SOUTHWEST DISTRICT
TAMPA

Mr. J. Harry Kerns, P.E.
District Air Engineer
Department of Environmental Regulation
Southwest District
4520 Oak Fair Blvd.
Tampa, FL 33610

Dear Mr. Kerns:

Please find attached four copies of an operation permit application for Consolidated Minerals Inc. Plant City Research and Development Fluid Bed Reactor with Scrubber.

Also attached is a check in the amount of \$200.00 to cover the application fee. A copy of this application and the appropriate application fee has been transmitted to the Hillsborough County Environmental Protection Commission.

If you have any questions concerning the contents of this application, please let me know.

Sincerely,

Robert L. Harrison, Jr.

Robert L. Harrison, Jr.
Environmental Supervisor

RLHjr:tc

cc: F. W. Cheesman

Attachments



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

April 16, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. F. W. Cheesman, President
Consolidated Minerals, Inc.
Post Office Box 790
Plant City, Florida 34289

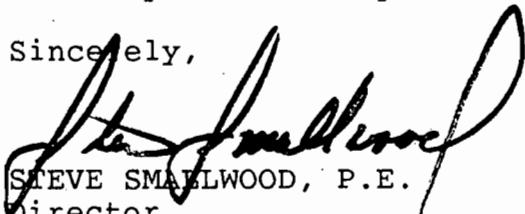
Dear Mr. Cheesman:

Re: Amendment of Permit No. AC 29-167251

The Department is in receipt of Mr. Robert Harrison's April 2, 1990, letter requesting your permit to construct a Potassium Fluoborate Product Preparation Plant be extended. The purpose of the extension is to allow time to correct problems with the process equipment so that the plant can operate at its permitted capacity. This request is acceptable and the expiration date of permit No. AC 29-167251 is changed from June 1, 1990, to December 2, 1990.

A copy of this letter must be filed with the referenced construction permit and shall become a part of the permit.

Sincerely,


STEVE SMALLWOOD, P.E.
Director
Division of Air Resources
Management

SS/WH/plm

Attachment:
CMI April 2, 1990 letter

c: Bill Thomas, SW District
Jerry Campbell, EPCHC

Best Available Copy

CMI

CONSOLIDATED MINERALS, INC.
FEED SUPPLEMENT DIVISION

RECEIVED

APR 05 1990

April 2, 1990

DER-BAQM

Mr. C. H. Fancy, P.E.
Deputy Chief Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Permit AC29-167251

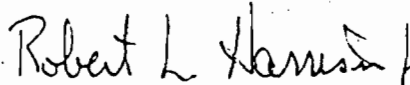
Dear Mr. Fancy:

Consolidated Minerals, Inc. is requesting that this construction permit, AC29-167251, be extended to December 2, 1990. The reason for this extension is that a rate of 2500 lbs/hr has yet to be achieved through the dryer. We believe that this rate will be achieved in the very near future.

I am enclosing a Method 9, V.E. test which was conducted on March 30, 1990. The operating rate was 1500 lbs/hr at that time.

Should you have any questions concerning this matter, please contact me.

Sincerely,



Robert L. Harris, Jr.
Environmental Supervisor

RLH:cr

Enclosure

cc: F. W. Cheesman
Bill Thomas/SW District
Jerry Campbell/HCEPC

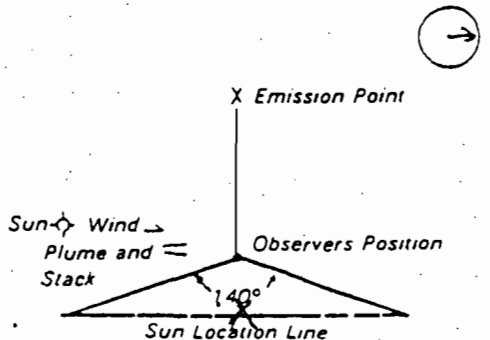
Sh. Harris
JERRY CAMPBELL

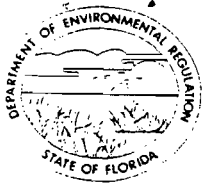
CONSOLIDATED MINERALS, INC. RECEIVED

APR 05 1990

| SOURCE NAME | | | OBSERVATION DATE | | | | START TIME | | STOP TIME | |
|---|------------------|---|------------------|------------------------------------|----|---------------------------------|------------|----|-----------|----|
| Potassium Fluoride Prod. Ph | | | 3/30/90 | | | | 8:30 | | 9:00 | |
| ADDRESS | | | MIN | | | | SEC | | | |
| Consolidated Minerals, Inc. | | | 0 | 15 | 30 | 45 | 0 | 15 | 30 | 45 |
| P.O. Box 780 | | | 1 | 0 | 0 | 0 | 31 | | | |
| CITY | STATE | ZIP | 2 | 0 | 0 | 0 | 32 | | | |
| Phat City | Fl | 33564 | 3 | 0 | 0 | 0 | 33 | | | |
| PHONE | SOURCE ID NUMBER | | 4 | 0 | 0 | 0 | 34 | | | |
| 813-752-1161 | AC29-167251 | | 5 | 0 | 0 | 0 | 35 | | | |
| PROCESS EQUIPMENT | | OPERATING MODE | 6 | 0 | 0 | 0 | 36 | | | |
| Fluid Bed Dryer | | Normal | 7 | 0 | 0 | 0 | 37 | | | |
| CONTROL EQUIPMENT | | OPERATING MODE | 8 | 0 | 0 | 0 | 38 | | | |
| Flex Kleen Dust Collector | | Normal | 9 | 0 | 0 | 0 | 39 | | | |
| DESCRIBE EMISSION POINT | | | 10 | 0 | 0 | 0 | 40 | | | |
| START Stack STOP | | | 11 | 0 | 0 | 0 | 41 | | | |
| HEIGHT ABOVE GROUND LEVEL | | HEIGHT RELATIVE TO OBSERVER | | 12 | 0 | 0 | 0 | 42 | | |
| START 30 ft STOP | | START 30 STOP | | 13 | 0 | 0 | 0 | 43 | | |
| DISTANCE FROM OBSERVER | | DIRECTION FROM OBSERVER | | 14 | 0 | 0 | 0 | 44 | | |
| START 50 STOP | | START W STOP | | 15 | 0 | 0 | 0 | 45 | | |
| DESCRIBE EMISSIONS | | | 16 | 0 | 0 | 0 | 46 | | | |
| START None STOP | | | 17 | 0 | 0 | 0 | 47 | | | |
| EMISSION COLOR | | PLUME TYPE: CONTINUOUS <input type="checkbox"/> | | 18 | 0 | 0 | 0 | 48 | | |
| START STOP | | FUGITIVE <input type="checkbox"/> INTERMITTENT <input type="checkbox"/> | | 19 | 0 | 0 | 0 | 49 | | |
| WATER DROPLETS PRESENT: | | IF WATER DROPLET PLUME: | | 20 | 0 | 0 | 0 | 50 | | |
| NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> | | ATTACHED <input type="checkbox"/> DETACHED <input type="checkbox"/> | | 21 | 0 | 0 | 0 | 51 | | |
| POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED | | | 22 | 0 | 0 | 0 | 52 | | | |
| START At Exit STOP | | | 23 | 0 | 0 | 0 | 53 | | | |
| DESCRIBE BACKGROUND | | | 24 | 0 | 0 | 0 | 54 | | | |
| START Sky STOP | | | 25 | 0 | 0 | 0 | 55 | | | |
| BACKGROUND COLOR | | SKY CONDITIONS | | 26 | 0 | 0 | 0 | 56 | | |
| START Blue STOP | | START Partly STOP | | 27 | 0 | 0 | 0 | 57 | | |
| WIND SPEED | | WIND DIRECTION | | 28 | 0 | 0 | 0 | 58 | | |
| START 0-3 STOP | | START W-NW STOP | | 29 | 0 | 0 | 0 | 59 | | |
| AMBIENT TEMP. | | WET BULB TEMP | RH. percent | 30 | 0 | 0 | 0 | 60 | | |
| START 75 STOP | | | | AVERAGE OPACITY FOR HIGHEST PERIOD | | NUMBER OF READINGS ABOVE % WERE | | | | |
| | | | | 0 | | 20 | | | | |
| | | | | RANGE OF OPACITY READINGS | | 0 MINIMUM 0 MAXIMUM | | | | |
| | | | | OBSERVER'S NAME (PRINT) | | Robert L. Harrison Jr. | | | | |
| | | | | OBSERVER'S SIGNATURE | | DATE 3/30/90 | | | | |
| | | | | Robert L. Harrison Jr. | | | | | | |
| COMMENTS | | | | | | | | | | |

Source Layout Sketch Draw North Arrow






State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

| For Routing To Other Than The Addressee | |
|---|-----------------|
| To: _____ | Location: _____ |
| To: _____ | Location: _____ |
| To: _____ | Location: _____ |
| From: _____ | Date: _____ |

Interoffice Memorandum

TO: Steve Smallwood
FROM: Clair Fancy 
DATE: April 16, 1990
SUBJ: Amendment of Permit No. AC 29-167251

Attached for your approval and signature is a letter that will extend the expiration date of a permit to construct a KBF4 unit at CMI's Plant City, Hillsborough County, Facility. The extension is needed so that the permittee can correct a problem with a screw conveyor.

The request is not controversial.

I recommend your approval and signature.

CF/WH/plm

Attachment

P 938 762 874

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

PS Form 3800, June 1985

| | |
|---|----|
| Sent to F.W. Cheesman | |
| Street and No. CMI - P.O. Box 790 | |
| P.O., State and ZIP Code Plant City, FL | |
| 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 4-17-90 | |

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 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 additional service(s) requested.

1. Show to whom delivered, date, and addressee's address. (Extra charge) 2. Restricted Delivery (Extra charge)

| | |
|---|---|
| 3. Article Addressed to: Mr. F.W. Cheesman Consolidated Minerals, Inc. P.O. BOX 790 Plant City, FL 34289 | 4. Article Number P938 762 874 |
| Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise | |
| Always obtain signature of addressee or agent and <u>DATE DELIVERED</u> . | |
| 5. Signature - Address X <i>[Signature]</i> | 8. Addressee's Address (ONLY if requested and fee paid) |
| 6. Signature - Agent X | |
| 7. Date of Delivery 4-23-90 | |

CMI

CONSOLIDATED MINERALS, INC.
FEED SUPPLEMENT DIVISION

RECEIVED

APR 05 1990

DER-BAQM

April 2, 1990

Mr. C. H. Fancy, P.E.
Deputy Chief Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Permit AC29-167251

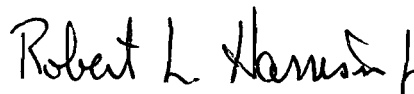
Dear Mr. Fancy:

Consolidated Minerals, Inc. is requesting that this construction permit, AC29-167251, be extended to December 2, 1990. The reason for this extension is that a rate of 2500 lbs/hr has yet to be achieved through the dryer. We believe that this rate will be achieved in the very near future.

I am enclosing a Method 9, V.E. test which was conducted on March 30, 1990. The operating rate was 1500 lbs/hr at that time.

Should you have any questions concerning this matter, please contact me.

Sincerely,



Robert L. Harrison, Jr.
Environmental Supervisor

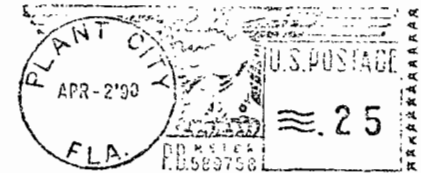
RLH:cr

Enclosure

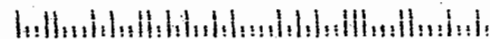
cc: F. W. Cheesman
Bill Thomas/SW District
Jerry Campbell/HCEPC
M. Harris
CHF/JK P/RT

**CMI CONSOLIDATED
MINERALS, INC.**

P. O. Box 790 • Plant City, Florida 33564-0790



Mr. C. H. Fancy, P.E.
Deputy Chief Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Fl 32399-2400



CONSOLIDATED MINERALS RECEIVED

APR 05 1990

| SOURCE NAME | | OBSERVATION DATE | | | | START TIME | | STOP TIME | | | |
|---|------------------|---|--|-------------|--|------------|--|-----------|--|--|--|
| Potassium Fluoride Prod. Ph | | 3/30/90 | | | | 8:30 | | 9:00 | | | |
| ADDRESS | | Consolidated Minerals, Inc | | | | | | | | | |
| P.O. Box 780 | | | | | | | | | | | |
| CITY | STATE | ZIP | | | | | | | | | |
| Plant City | FL | 33564 | | | | | | | | | |
| PHONE | SOURCE ID NUMBER | | | | | | | | | | |
| 813-752-1161 | AC29-167251 | | | | | | | | | | |
| PROCESS EQUIPMENT | | OPERATING MODE | | | | | | | | | |
| Fluid Bed Dryer | | Normal | | | | | | | | | |
| CONTROL EQUIPMENT | | OPERATING MODE | | | | | | | | | |
| Flex Kleen Dust Collector | | Normal | | | | | | | | | |
| DESCRIBE EMISSION POINT | | | | | | | | | | | |
| START Stack STOP | | | | | | | | | | | |
| HEIGHT ABOVE GROUND LEVEL | | HEIGHT RELATIVE TO OBSERVER | | | | | | | | | |
| START 30 ft STOP | | START 30 STOP | | | | | | | | | |
| DISTANCE FROM OBSERVER | | DIRECTION FROM OBSERVER | | | | | | | | | |
| START 50 STOP | | START W STOP | | | | | | | | | |
| DESCRIBE EMISSIONS | | | | | | | | | | | |
| START None STOP | | | | | | | | | | | |
| EMISSION COLOR | | PLUME TYPE: CONTINUOUS <input type="checkbox"/> | | | | | | | | | |
| START STOP | | FUGITIVE <input type="checkbox"/> INTERMITTENT <input type="checkbox"/> | | | | | | | | | |
| WATER DROPLETS PRESENT: | | IF WATER DROPLET PLUME: | | | | | | | | | |
| NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> | | ATTACHED <input type="checkbox"/> DETACHED <input type="checkbox"/> | | | | | | | | | |
| POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED | | | | | | | | | | | |
| START At Exit STOP | | | | | | | | | | | |
| DESCRIBE BACKGROUND | | | | | | | | | | | |
| START Sky STOP | | | | | | | | | | | |
| BACKGROUND COLOR | | SKY CONDITIONS | | | | | | | | | |
| START Blue STOP | | START Partly STOP | | | | | | | | | |
| WIND SPEED | | WIND DIRECTION | | | | | | | | | |
| START 0-3 STOP | | START W-NW STOP | | | | | | | | | |
| AMBIENT TEMP. | | WET BULB TEMP. | | RH. percent | | | | | | | |
| START 75 STOP | | | | | | | | | | | |
| Source Layout Sketch | | Draw North Arrow | | | | | | | | | |
| <p>The sketch shows an 'X' for the Emission Point. A line goes down to 'Observers Position'. A dashed line labeled 'Sun Location Line' is at an angle. A horizontal arrow labeled 'Sun -> Wind -> Plume and Stack' points to the right. A circled arrow labeled 'Draw North Arrow' points to the right. An angle of 140 degrees is marked between the Sun Location Line and the line to the Observers Position.</p> | | | | | | | | | | | |
| AVERAGE OPACITY FOR HIGHEST PERIOD | | NUMBER OF READINGS ABOVE | | | | | | | | | |
| 0 | | 20 % WERE 0 | | | | | | | | | |
| RANGE OF OPACITY READINGS | | MINIMUM | | MAXIMUM | | | | | | | |
| 0 | | 0 | | 0 | | | | | | | |
| OBSERVER'S NAME (PRINT) | | Robert L. Harrison Jr | | | | | | | | | |
| OBSERVER'S SIGNATURE | | DATE | | | | | | | | | |
| Robert L. Harrison Jr | | 3/30/90 | | | | | | | | | |
| COMMENTS | | | | | | | | | | | |



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

September 15, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. F. W. Cheesman, President
Consolidated Minerals, Inc.
Post Office Box 790
Plant City, Florida 34289

Dear Mr. Cheesman:

Re: File No. AC 29-167251, KBF4 Plant

The Bureau has reviewed the changes to the application and proposed permit for the referenced plant requested by Mr. Robert Harrison, Environmental Supervisor. It is our conclusion that the source will comply with the regulations at the longer operating time requested.

Please substitute the attached sheets for those in the August 29, 1989, Technical Evaluation and Preliminary Determination and publish the revised Notice of Intent to Issue.

If you have any questions on this matter, please write to me or call Willard Hanks at (904)488-1344.

Sincerely,

for *W. H. Thomas*

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

CHF/WH/t

enclosure

cc: B. Thomas, SW District
J. Campbell, EPCHC
A. Lenki, P.E.



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

PERMITTEE:
Consolidated Minerals, Inc.
P. O. Box 790
Plant City, FL 34289

Permit Number: 29-167251
Expiration Date: June 1, 1990
County: Hillsborough
Latitude/Longitude: 27°59'21
82°04'48"
Project: Potassium Fluoborate
Product Preparation Plant

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

Construction of a 2,500 lbs/hr potassium fluoborate product preparation plant consisting of a wet product conveyor, 20 ton wet product bin, dryer feeder, vibrating fluid bed dryer, grinder, two spiral conveyors, 10 ton dry product bin, load-out section, Flex-Kleen Model 84-BVBS-36IIIG dust collector, 1800 acfm fan, and a 9 inch diameter x 10 foot high stack. The plant will be located at CMI's feed supplement facility (SIC 2048) on Coronet Road, Plant City, Hillsborough County, Florida. The UTM coordinates of this plant are Zone 17, 393.8 km E and 3096.3 km N.

The source shall be in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Application received June 30, 1989.
2. CMI letter dated July 18, 1989.
3. CMI letter dated September 1, 1989.

PERMITTEE:
Consolidated Minerals, Inc.

Permit Number: AC 29-167251
Expiration Date: June 1, 1990

GENERAL CONDITIONS:

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. Production of the potassium fluoborate product preparation plant shall not exceed 2,500 lbs/hr.
2. Operation of this plant shall not exceed 24 hrs/day, 7 days/week, and 52 weeks/year but not more than 4,000 hours in any 12 month period. The permittee shall maintain a log to show compliance with the condition.
3. Only natural gas shall be used as fuel in this dryer. Heat input shall not exceed 0.4 MMBtu/hr (approximately 400 CFH natural gas).
5. Particulate matter emissions from this plant shall not exceed 0.03 grains/dscf and 0.46 lbs/hr (0.9 TPY).
6. Visible emissions from any part of this plant shall not exceed 5% opacity.
7. Compliance with the emission standards in Specific Conditions Nos. 5 and 6 shall be determined by EPA Methods Nos. 5 and 9 described in 40 CFR 60, Appendix A (July 1, 1988) while the plant is operating at its permitted capacity. The method 5 test will be waived if visible emissions are less than 5% opacity.
8. The Environmental Protection Commission of Hillsborough County shall be notified at least 15 days prior to any compliance test.

State of Florida
Department of Environmental Regulation
Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue permits to Consolidated Minerals, Inc., P. O. Box 790, Plant City, Florida 34289, to construct a potassium fluoborate product preparation plant controlled by a dust collector and a rotary kiln/fluid bed reactor R & D (research and development) facility controlled by a packed crossflow wet scrubber. This equipment will be installed at their phosphate feed preparation plant located on Coronet Road, Plant City, Hillsborough County, Florida. Construction and operation of the proposed equipment will emit 1.2 TPY particulate matter and 0.7 TPY fluoride. The impact of these emissions on the ambient air quality will be insignificant. A determination of Best Available Control Technology (BACT) was not required. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

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. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. 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.

The Petition shall contain the following information;

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

P 938 762 679

RECEIPT FOR CERTIFIED MAIL

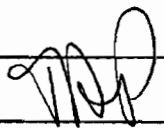
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

PS Form 3800, June 1985

| | |
|---|---|
| Sent to Mr. F. W. Cheesman, Consolidated | |
| Street and No. P. O. Box 790 Minerals | |
| P.O., State and ZIP Code Plant City, FL 34289 | |
| Postage | S |
| 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 | S |
| Postmark or Date Mailed: 9-15-89 Permit: AC 29-167251 | |

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 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 additional service(s) requested.

1. Show to whom delivered, date, and addressee's address. (Extra charge) 2. Restricted Delivery (Extra charge)

| | |
|---|---|
| 3. Article Addressed to: Mr. F. W. Cheesman, President Consolidated Minerals, Inc. P. O. Box 790 Plant City, FL 34289 | 4. Article Number P 938 762 679 Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise |
| 5. Signature - Address X | Always obtain signature of addressee or agent and DATE DELIVERED. |
| 6. Signature - Agent X  | 8. Addressee's Address (ONLY if requested and fee paid) |
| 7. Date of Delivery 9-12-89 | |

CMI
CONSOLIDATED MINERALS, INC.
FEED SUPPLEMENT DIVISION

RECEIVED
SEP 5 1989
DER-BAQM

September 1, 1989

Mr. Willard M. Hanks
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399

Re: Application for KBF_4 Dryer Dust Collector

Dear Mr. Hanks:

As per our conversation on September 1, Consolidated Minerals, Inc. is requesting the following change be made in our permit application for the KBF_4 Dryer Dust Collector.

On page 3, part E, we are requesting that the operating time be changed from 8 hours/day; 5 days/week; 52 weeks/year to 24 hours/day; 7 days/week; 52 weeks/year or no more than 4,000 hours. This will also change some figures on page 4, part C with the emissions actual tons/year from .006 tons/year to .011 tons/year.

I am enclosing the corrected pages that concern these changes. If I can be of further help in this matter, please contact me.

Sincerely,

Robert L. Harrison Jr.

Robert L. Harrison, Jr.
Environmental Supervisor

RLH:cr

Enclosure

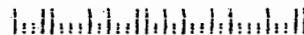
cc: W. Hanks
CHF/IST

**CMI CONSOLIDATED
MINERALS, INC.**

P. O. Box 790 • Plant City, Florida 34289-0790



Mr. Willard M. Hanks
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399



E. Requested permitted equipment operating time: hrs/day 24; days/wk 7; wks/yr 52; if power plant, hrs/yr _____; if seasonal, describe: These hours may vary due to market demand, but no more that 4,000 operating hours during a year.

F. If this is a new source or major modification, answer the following questions. (Yes or No)

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

- H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? NO
 - a. If yes, for what pollutants? _____
 - b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

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

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

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

| Description | Contaminants | | Utilization Rate - lbs/hr | Relate to Flow Diagram |
|-----------------------------|--------------|------|---------------------------|------------------------|
| | Type | % wt | | |
| Potassium Fluoborate (KBF4) | Particulate | 100% | 2,500 | See Attachment C-1 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

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

1. Total Process Input Rate (lbs/hr): 2,500
2. Product Weight (lbs/hr): 2,500

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

| Name of Contaminant | Emission ¹ | | Allowed Emission Rate per Rule 17-2 | Allowable ³ Emission lbs/hr | Potential ⁴ Emission | | Relate to Flow Diagram |
|---------------------|-----------------------|-------------|-------------------------------------|--|---------------------------------|-------|------------------------|
| | Maximum lbs/hr | Actual T/yr | | | lbs/yr | T/yr | |
| Particulate | .006 | .011 | 17-2.650(2)(b)(2) | .046 | 28.0 | 122.6 | See Attachment C- |
| Opacity | | | 17-2.610(2)(a) | 5% | | | |
| | | | | | | | |
| | | | | | | | |

¹See Section V, item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2, Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

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



CONSOLIDATED MINERALS, INC.

025971

63-8403
2637

PO BOX 300
LEESBURG FLORIDA 32749-0300

CHECK DATE: NUMBER

6/23/89 14810

TWO HUNDRED AND 00/100 DOLLARS

PAY

30 DE149

CHECK AMOUNT
*****200.00

TO
THE
ORDER
OF

DEPARTMENT OF ENVIRONMENTAL
REGULATION
7601 HIGHWAY 301 NORTH
TAMPA FL 33610

CONSOLIDATED MINERALS, INC.

Neil Samell

*Send to
Patty Adams*

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

RECEIVED
DER - MAIL ROOM

1. TO: (NAME, OFFICE, LOCATION) *JOE*

Bill Thomas, P.E. - Patty Adams

Initial

1989 JUL 11 AM 10:40

Date

2. *DER - Tallahassee*

Bureau of Air Quality Management

Initial

Date

3. *Twin Towers Office Building*

Initial

Date

4.

Initial

Date

Mr. J.
Distri.
Depart.
Southw.
4520 O.
Tampa,

Dear M:

Please
for tl
Collec:

Also a
applic
applic
Environ

If you
please

REMARKS:

Bill

This is for a new dryer controlled by a baghouse.

The flow diagrams attached do not show the new dryer. Therefore an incompleteness letter representing the diagrams is at least warranted.

INFORMATION

Review & Return

Review & File

Initial & Forward

DISPOSITION

Review & Respond

Prepare Response

For My Signature

For Your Signature

Let's Discuss

Set Up Meeting

Investigate & Report

Initial & Forward

Distribute

Concurrence

For Processing

Initial & Return

RLHjr:t

cc: F.

Attach

FROM:

Jim McDonald

DATE

7-7-89

PHONE

1031



CONSOLIDATED MINERALS, INC.

025971

63-82
263

P.O. BOX 300
LEESBURG, FLORIDA 32749-0300

CHECK DATE: NUMBE

6/23/89 148

CHECK-AMOUNT
*****200.00

TWO HUNDRED AND 00/100 DOLLARS

PAY 30 DE 149

DEPARTMENT OF ENVIRONMENTAL
REGULATION
7601 HIGHWAY 301 NORTH
TAMPA FL 33610

CONSOLIDATED MINERALS, INC.

W. Neil Danell

TO THE ORDER OF

Best Available Copy

Dear Mr.

Please for the Collec

Also applic applic Enviro

If you please

This is for a new dryer controlled by a loghouse. The flow diagrams attached do not show the new dryer. Like your or incompleteness letter requesting the diagrams is at least warranted.

RLHjr:1

cc: F.

Attach

FROM:

Jim McDonald

| |
|----------------------|
| Review & File |
| Initial & Forward |
| DISPOSITION |
| Review & Respond |
| Prepare Response |
| For My Signature |
| For Your Signature |
| Let's Discuss |
| Set Up Meeting |
| Investigate & Report |
| Initial & Forward |
| Distribute |
| Concurrence |
| For Processing |
| Initial & Return |

DATE

7-7-89

PHONE

1031

→ P4/11

Check Sheet

Company Name: *Consolidated Municipal*
Permit Number: *AC29-166885, AC29-167251*
PSD Number:
County: *Hillsborough*
Permit Engineer:
Others involved:

Application:

- Initial Application
- Incompleteness Letters
- Responses
- Final Application (if applicable)
- Waiver of Department Action
- Department Response

Intent:

- Intent to Issue
- Notice to Public
- Technical Evaluation
- BACT Determination
- Unsigned Permit

Attachments:

-
-
-
- Correspondence with:
 - EPA
 - Park Services
 - County
 - Other
- Proof of Publication
- Petitions - (Related to extensions, hearings, etc.)

Final Determination:

- Final Determination
- Signed Permit
- BACT Determination

Post Permit Correspondence:

- Extensions
- Amendments/Modifications
- Response from EPA
- Response from County
- Response from Park Services