



OCCIDENTAL CHEMICAL COMPANY, FLORIDA OPERATIONS, Post Office Box 300, White Springs, Florida 32096, Telephone 904 397-8101.

April 16, 1986

Mr. Clair H. Fancy
Deputy Bureau Chief
Florida Department of
Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32301

DER
APR 16 1986
BAQM

Dear Clair:

The attached application and attachments cover use of prilled sulfur at Occidental's Swift Creek Chemical Complex in Hamilton County.

We would be glad to review this material with you and your group at your convenience.

Sincerely,

A handwritten signature in cursive script that reads "Wes Atwood".

W. W. Atwood
Manager, Environmental Control

WWA/jrh
Enclosures

cc: Mr. Bill Thomas
Mr. Gene McNeill

✓



WACHOVIA BANK AND TRUST COMPANY
WINSTON - SALEM

66-49
531

DATE: 4/15/86

PAY

PAY TO THE ORDER OF

***100.00**

TO THE ORDER OF

Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Rd.
Tallahassee, FL 32301-8241

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC.

NOT VALID AFTER 180 DAYS

BY

[Handwritten signature]

AS DISBURSING AGENT(S) FOR THE COMPANY

DETACH BEFORE DEPOSITING

DATE	THIS CHECK IS IN PAYMENT OF THE FOLLOWING	AMOUNT
8/15/86	Permit Application Co. 020200 <i>Regards W. Adams 4/17</i> <i>Yesterday</i> <i>(with attachments) I had allowed to clear</i> <i>Here is the check to cover the application</i> <i>Bill Thomas</i>	\$100.00

DEFERRED
APR 21 1986
BAOM

OCCIDENTAL CHEMICAL AGRICULTURAL PRODUCTS, INC. WHITE SPRINGS, FL 32096

CHECK NO. 050154

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

No 76120

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Occidental Chemical Agricultural Prod Date April 21, 1986

Address P.O. Box 300 White Springs FL 32096 Dollars \$ 100.00

Applicant Name & Address Same as above

Source of Revenue _____

Revenue Code 001031 Application Number AC 24-119008

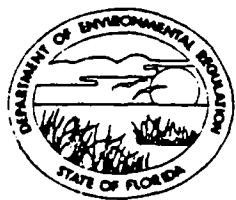
By Patricia G. Adams

AC 24-119008

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER
DISTRICT

3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

ALEX SENKEVICH
DISTRICT MANAGER

APPLICATION TO ~~OPERATE~~ CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Prilled Sulfur Storage Facility New¹ Existing¹.

APPLICATION TYPE: Construction Operation Modification

COMPANY NAME: Occidental Chemical Agricultural Products, Inc. COUNTY: Hamilton

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Swift Creek Prilled Sulfur Storage and Handling Facility

SOURCE LOCATION: Street U.S. Highway 41 City N.W. of White Springs

UTM: East (17) 321.30 km North 3369.83 km

Latitude 30° 26' 52" N Longitude 82° 51' 32" W

APPLICANT NAME AND TITLE: Hudson C. Smith, General Manager

APPLICANT ADDRESS: Post Office Box 300, White Springs, Florida, 32096

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Occidental Chemical Agricultural Products, 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: Hudson C. Smith
Hudson C. Smith, General Manager
Name and Title (Please Type)

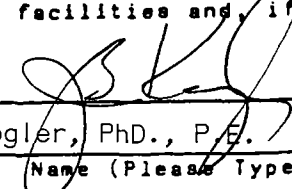
Date: _____ Telephone No. (904) 397-8300

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

¹ 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 
 John B. Koogler, PhD., P.E.
 (Name (Please Type))

SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS
 Company Name (Please Type)

1213 N.W. 6th Street, Gainesville, Florida 32601
 Mailing Address (Please Type)

Florida Registration No. 12925 Date: April 7, 1986 Telephone No. (904) 377-5822

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.
 A facility will be constructed at the Swift Creek Chemical Complex (SCCC) adjacent to the vatted sulfur storage facility (AC24-61435) to unload, store and recover prilled sulfur for use in existing sulfuric acid plants at the SCCC. The prilled sulfur storage capacity will be 150,000 tons and the annual throughput will be 300,000 tons. The facility will operate in compliance with all applicable regulations. Further description is contained in the attachment package to this application.

B. Schedule of project covered in this application (Construction Permit Application Only)
 Start of Construction July 1986 Completion of Construction July 1991

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>Scrubber system for receiving building</u>	<u>- \$210,000</u>
<u>Conveyor covers, transfer hoods, drop chute</u>	<u>- 235,000</u>
<u>Water spray system for storage area</u>	<u>- 50,000</u>
<u>Total</u>	<u>- \$485,000</u>

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.
None

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; 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) Minor modification to a major emitting facility

1. Is this source in a non-attainment area for a particular pollutant? NO
a. If yes, has "offset" been applied? --
b. If yes, has "Lowest Achievable Emission Rate" been applied? --
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		
Prilled Sulfur	Part. Matter	3	1.2-2.0 million;	Max. Rate to Storage-Point 1
			0.14 million;	Max. Recovery Rate-Point 8

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

- Total Process Input Rate (lbs/hr): Not Applicable - Prilled Sulfur Storage
- Product Weight (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/yr	T/yr	
Part. Matter	12.36	4.65	17-2.540(2)	12.36	13.92	7.32	(1)
(1) See attached application package for emissions from individual sources.							

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).

D. 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)
Scrubber (Receiving building)	Part. Matter	85%	0-30 um	Estimate
Water Sprays (Vehicle Travel)	Part. Matter	50%	0-30 um	Estimate
Work Practices	Part. Matter	Variable	0-30 um	Estimate

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
NOT APPLICABLE			

*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 NOT APPLICABLE Maximum _____

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

Scrubber water will be circulated through the SCCC process water ponds.
Run-off from prilled sulfur storage area will be collected in a sump and sprayed
on pile for dust control. Excess run-off will be discharged into process water
ponds.

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

Stack Height: 40 ft. Stack Diameter: 4.0 ft.
 Gas Flow Rate: 30,000 ACFM 28,600 DSCFM Gas Exit Temperature: Ambient °F.
 Water Vapor Content: 2-3 % Velocity: 39.8 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

(SEE ATTACHMENT PACKAGE)

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.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
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.)
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).
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.
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).
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.

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

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source? ^(NOT APPLICABLE)

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:
- 7. Energy:
- 9. Emissions:

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

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:

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:

¹Explain method of determining efficiency.

²Energy 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

(NOT APPLICABLE)

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).

