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AUG 16 1983

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION Dept. of Environmental Regulation
Office of General Counsel

AGRICO CHEMICAL COMPANY,)
Petitioner,)
vs.) DER NO. AC 53-55780
DEPARTMENT OF ENVIRONMENTAL REGULA-)
TION,) DOAH NO. _____
Respondent.)
_____)

PETITION FOR FORMAL PROCEEDINGS

Petitioner, AGRICO CHEMICAL COMPANY, by and through its undersigned attorneys and pursuant to Sections 120.57(1) and 120.60(1), Florida Statutes, and Florida Administrative Code Rules 17-1.19 and 28-5.201 request a formal hearing and in support alleges:

Identification of Parties

1. Petitioner, AGRICO CHEMICAL COMPANY ("AGRICO"), is a foreign corporation authorized to do business in the State of Florida. For purposes of the instant case, its address is P. O. Box 1969, S.P.C.W., Bartow, FL. 33830.

2. Respondent is the DEPARTMENT OF ENVIRONMENTAL REGULATION ("DER"), Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, Fl. The identification number for AGRICO's permit application is AC 53-55780. The names and numbers of the relevant DER files are unknown.

Background

3. AGRICO manufactures fertilizer in Florida. Sulphur is used to produce sulphuric acid, which is used to convert phosphate rock into a form which can readily be consumed as a plant nutrient. [Sulphur constitutes approximately 50% of the manufacturing costs.]

4. AGRICO buys 300,000 to 650,000 tons of sulphur yearly. Most of it is purchased from producers in Texas and Louisiana, who ship the material to Tampa in specially designed ships. When it arrives in Tampa, the sulphur is stored at the producers' ship terminal and later transported by truck to AGRI-

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

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ACTION DUE DATE

1 TO (NAME OFFICE, LOCATION)

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REMARKS:

INFORMATION

REVIEW & RETURN

REVIEW & FILE

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DISPOSITION

REVIEW & RESPOND

PREPARE RESPONSE

FOR MY SIGNATURE

FOR YOUR SIGNATURE

LET'S DISCUSS

SET UP MEETING

INVESTIGATE & REPT

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CONCURRENCE

FOR PROCESSING

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CO's South Pierce Chemical Works in Polk County. All sulphur presently imported into Tampa is produced, transported and stored in a molten state.

5. Recently, a new form of sulphur called "wet formed prilled" sulphur became available. This form is produced in a molten state, but stored and transported in solid form. It is formed by injecting a stream of molten sulphur into water, where the sulphur droplets solidify into pellets called "wet formed prills". It is cheaper than the molten sulphur currently being used, since it eliminates the cost of keeping and transporting the sulphur in a liquid state.

6. In 1982, AGRICO purchased \$66,000,000 worth of molten sulphur. AGRICO estimates that, at a minimum, it would have saved several million dollars that year if it had been able to use wet formed prilled sulphur. Obviously, any cost reduction is significant not only to AGRICO, but also the entire Florida fertilizer and chemical industry. In fact, AGRICO estimates that for every one dollar difference between the price of molten sulphur and wet formed prilled sulphur, there could be a savings of more than \$4,000,000 to Florida phosphate manufacturers.

7. In order to utilize wet formed prilled sulphur in place of molten sulphur, AGRICO, in 1977, proposed to construct a terminal facility in Tampa and a receiving facility at the South Pierce Chemical Works. As a precondition to construction, AGRICO was required to apply to DER for air construction permits.¹ §403.087, Fla. Stat. and Fla. Admin. Code Ch. 17-4.

8. On February 5, 1982, after five years of extensive litigation DER issued air construction permit No. AC 29-5945 for the proposed Tampa terminal. A copy of the permit is attached as Exhibit "A". Relying on studies prepared by AGRICO's consultant, Dr. Lundgren, DER found that wet formed prilled sulphur would not emit particulate matter in excess of DER standards as long as the material is maintained in a wet condition. Furthermore, DER

1. Once the facilities are constructed and tested for compliance with DER's standards, AGRICO will have to obtain a further permit in order to actually operate them. Fla. Admin. Code Rules 17-4.21(3) and 17-4.23.

found that keeping wet formed prilled sulphur moist constitutes reasonable precautions to prevent the emission of unconfined particulate matter. Fla. Admin. Code Rule 17-2.610(3). The permit prohibits particulate matter emissions in excess of five pounds per hour and prohibits any visible particulate matter. Also, the permit requires AGRICO to comply (after a reasonable time) with any applicable changes in DER rules or statutes.

9. On or about May 6, 1982, AGRICO applied to DER for an air construction permit for the proposed wet formed prilled sulphur receiving facility at its South Pierce Chemical Works. A copy of the application and all accompanying material is attached as Exhibit "B".

10. As contemplated in the application, the facility would receive the sulphur and transfer it to melting pits for eventual conversion to sulphuric acid. The sulphur would be received either by rail or truck and is discharged into a hopper at an open unloading shed. From this hopper, the sulphur would be discharged into an enclosed conveyor. The conveyor transfers the sulphur into a 100 long ton surge hopper which is covered, but designed so that displaced air escapes out of the top of each side of the unit. This hopper discharges into enclosed vibrating feeders, which transfer the sulphur to three 900 long ton per day melters. One of these melters will act as a back-up unit. The process rate for the facility will not exceed 1,800 long tons per day. Also, no wet formed prilled sulphur will be stored at the facility.

11. In the application, AGRICO calculated that the facility would emit no more than 1.14 pounds per hour and 4.57 long tons per year of particulate matter. These estimates were almost one-fourth of the five pounds per hour permitted by DER on February 5, 1982 in AGRICO's Big Bend permit. In making the particulate matter emission estimate for the present permit application, AGRICO relied on the same Lundgren studies previously approved by DER. Also, AGRICO calculated that the facility would produce 1.9 pounds per hour and 8.4 tons per year of hydrogen sulphide as the sulphur was melted.

12. On June 9, 1982, DER wrote AGRICO a letter requesting additional information in order to complete its review. A copy of the letter is attached as Exhibit "C". On September 22, 1982, AGRICO responded with the requested information. A copy of the letter and accompanying information is attached as Exhibit "D".

13. On or about October 29, 1982, DER prepared a technical evaluation, which found that the proposed facility would not emit air pollutants in excess of the applicable DER rules and statutes. Also, DER prepared a draft permit and conditions. A copy of the evaluation and permit is attached as Exhibit "E".

14. On November 22, 1982, DER advised AGRICO that it failed to furnish reasonable assurances that actual particulate matter emissions would not exceed the rates estimated in the application. A copy of DER's letter is attached as Exhibit "F". More specifically, DER stated that the Lundgren emission factor, accepted by it in connection with the Tampa wet formed prilled sulphur terminal and in its own staff evaluation, was inaccurate since it was based on only three test runs. However, the letter concluded that, "when more data is collected and a sounder factor can be demonstrated, a permit application can be reassessed."

15. Consequently, AGRICO sought and was granted an extension of the deadline for requesting a formal hearing to March 31, 1983. A copy of DER's order is attached as Exhibit "G". Thereafter, Dr. Lundgren made 80 test runs. Dr. Lundgren's work was submitted to DER in February, 1983. A copy of his submittals are attached as Exhibit "H".

16. On March 17, 1983, DER responded to Dr. Lundgren's new material with a letter posing additional questions about his emission factor. A copy of this letter is attached as Exhibit "I". In order to respond to these questions, Agrico sought and was granted extensions of the filing deadline, first to May 16, 1983 and later to July 15, 1983. Copies of DER's orders are attached as Exhibits "J" and "K".

17. On May 13, 1983, AGRICO proposed several modifications to the Facility in response to some of these questions, even though AGRICO felt the modifications to be superfluous. A copy of AGRICO's submittal is attached as Exhibit "L". Proposed were

installation of a mist spray system in the dumping hopper and a wet scrubber in the head house of the storage hopper. If any particulate matter was emitted at the only two open points in the facility, the new equipment would control and suppress it.

18. On June 13, 1983, DER accepted these modifications and determined they would not constitute a reapplication, thereby triggering the 90-day permit review time period in Section 120.60. A copy of DER's letter is attached as Exhibit "M".

19. On July 5, 1983, Dr. Lundgren responded to DER's March 17, 1983 letter. A copy of this letter is attached as Exhibit "N". This letter both answered the questions posed by DER and pointed out that some questions, such as those relating to the storage of sulphur in open piles, were inapplicable to this facility.

20. In order to allow DER ample time to review Dr. Lundgren's letter, AGRICO sought and was granted an extension of the filing deadline to August 16, 1983. A copy of DER's order is attached as Exhibit "O".

21. During various meetings beginning in the Fall of 1982, DER requested that AGRICO defer action on this permit application until DER could adopt regulations governing the permitting and operation of sulphur handling facilities. At one point, DER representatives indicated it was highly unlikely that the agency would issue the permit regardless of whatever new information was submitted. Consequently, since DER has refused to issue the permit despite the thoroughness of the application and the submission of additional information and modifications, AGRICO now petitions for formal hearing.

Facts Demonstrating Effects Upon Petitioner's
Substantial Interests

22. AGRICO has a substantial interest in reducing manufacturing costs. The importation and use of wet formed prilled sulphur, at a minimum, will save AGRICO several million dollars a year. In order to use wet formed prilled sulphur, AGRICO will have to construct a receiving and melting facility at its South Pierce Chemical Works. As a precondition to building this facility, AGRICO will have to obtain an air construction permit from

DER. DER's intent to deny the permit application materially and adversely affects AGRICO's substantial interests. Therefore, AGRICO is entitled to initiate this proceeding and to request a formal Section 120.57(1) hearing. See §120.52(10)(a) and (b), Fla. Stat.

Disputed Issues of Material Fact

23. Whether the proposed facility is a new source of unconfined particulate matter located over 5 kilometers from a non-attainment area?²

24. Whether the proposed facility will emit less than 25 tons of particulate matter and 10 tons of hydrogen sulfide a year?³

25. Whether the proposed facility will emit particulate matter, whose density is equal to or greater than that designated as Number 1 on the Ringelmann Chart, the opacity of which is equal to or greater than 20%? Fla. Admin. Code Rule 17-2.610(2).

26. Whether the proposed facility embodies reasonable precautions to prevent the emission of unconfined particulate matter? Fla. Admin. Code Rule 17-2.610(3).

Facts, Rules and Statutes Which Entitle
Petitioner to Relief

27. In order to estimate the amount of unconfined particulate matter released into the atmosphere from an industrial operation, the U.S. Environmental Protection Agency ("EPA") has developed a technique using emission factors. An emission factor is defined as the rate at which a pollutant is released into the atmosphere as a result of an industrial activity. To the extent possible, these emission factors are based upon actual measurements. However, when those measurements are not available, emission factors can only be estimated by comparing the properties of

2. Facilities which are a new source of unconfined particulate matter located over 5 kilometers from a non-attainment area are exempt from new source review requirements. Fla. Admin. Code Rule 17-2.510(2)(a)2.a.(i).

3. Facilities which emit less than 25 tons of particulate matter and 10 tons of hydrogen sulfide a year are not subject to DER's prevention of significant deterioration (PSD) and ambient air quality standards. Fla. Admin. Code Rules 17-2.300 and 17-2.500(2)(d)4.a.(ii).

the unknown material with materials possessing a measured factor. This is a scientifically valid and commonly accepted procedure.

28. Neither EPA nor DER has developed a particulate matter emission factor for wet formed prilled sulphur.⁴ Also, there are no operating wet formed prilled sulphur handling facilities in Florida. Consequently, AGRICO commissioned Dr. Dale Lundgren of the University of Florida to develop an emission factor using the comparison method. Dr. Lundgren has undertaken this kind of work for public agencies and private concerns for over 20 years.

29. After reviewing EPA reports, Dr. Lundgren concluded that the known particulate matter emission factor for phosphate rock was the most appropriate for comparison. He then tested samples of wet formed prilled sulphur and phosphate rock in a wind tunnel, test chamber of his own design. This chamber enabled him to measure the concentration of particulate matter emitted as the sample was dropped about 5 feet. A comparison of these concentrations enabled Dr. Lundgren to calculate a particulate matter emission factor for wet formed prilled sulphur of .0068 pound per ton when kept at 2% to 4% moisture. This calculation formed the basis of AGRICO's application to construct a prill sulphur terminal in Tampa, which DER granted in February, 1982.

30. Using this emission factor and a process rate of 1,800 long tons per day, AGRICO calculated a particulate matter emission rate for each of the two points of discharge. The combined emission rates for the proposed facility are 1.14 pounds per hour and 4.57 tons per year.⁵

4. In contrast, actual data exists as to the amount of hydrogen sulfide emitted when solid sulphur is melted. This data was used to calculate an emission rate of 8.4 tons per year. This calculation takes into account the pollution control effects of the proposed hydrogen sulfide scrubber.

5. This estimate did not take into account the effect of the mist spray system and the particulate matter wet scrubber proposed by AGRICO in its May 13, 1983 letter. These pollution control devices will further suppress the generation of particulate matter.

31. The proposed facility is located in an area designated as unclassifiable for pollutant particulate matter. Fla. Admin. Code Rule 17-2.430. The project is also in the area of influence of Hillsborough County particulate matter non-attainment area. However, since the proposed facility is a new source of fugitive particulate matter located over 5 kilometers from the non-attainment area, it is exempt from new source review requirements. Fla. Admin. Code Rule 17-2.510(2)(a)2.a.(i).

32. Since the net annual emissions increase of 4.57 tons of particulate matter and 8.4 tons of hydrogen sulfide are below the significance levels contained in Table 500-2 and, since the facility is approximately 115 kilometers from the nearest Class I area, the project is not subject to the prevention of significant deterioration (PSD) regulation, and will not violate the applicable ambient air quality standard. Fla. Admin. Code Rules 17-2.300 and 17-2.500(2)(d)4.a.(ii).

33. Any particulate matter emitted from the proposed facility will have a density less than that designated as Number 1 on the Ringelmann Chart.

34. The proposed facility embodies reasonable precautions to prevent the emission of unconfined particulate matter. The application states that the wet formed prilled sulphur to be used at the facility will be kept in a moist condition. This precaution will result in an imperceptibly low emission rate. Additionally, although AGRICO feels they will be unnecessary, a mist spray system and a wet scrubber will be provided for the only two points, where particulate matter might potentially escape into the atmosphere. Clearly, these precautions are reasonable.

35. The information submitted by AGRICO and the permit conditions drafted by DER constitute reasonable assurances that the facility will not violate applicable air pollution standards when operating. Fla. Admin. Code Rule 17-4.07.

36. Florida Administrative Code Rule 17-1.63 requires DER to approve or deny permit applications on a consistent and uniform basis. In AGRICO's Tampa permit, DER, although issuing the permit by Court order, took the position that it was satisfied

with the technical basis for that permit. It is inconsistent and non-uniform to approve a permit application to construct a wet formed prilled sulphur facility in Tampa, which is permitted to emit up to five pounds of particulate an hour, while denying the application to construct a facility which the application states will emit only 1.14 pounds per hour of particulate matter. In order to be consistent with its prior decision, DER must grant the instant permit application.

37. DER may not deny a permit application solely in an effort to delay the construction of a facility, until new regulations are adopted. A permit applicant has a legal right to have his application reviewed under existing rules. Consequently, DER may not deny AGRICO's application in order to delay construction, until after a new rule is adopted, particularly where no rule has yet been drafted.

WHEREFORE, Petitioner requests:

1. That DER refer this petition to the Division of Administrative Hearing ("DOAH") for the appointment of a hearing officer to conduct the formal proceeding; and

2. That formal proceedings be conducted in accordance with the provisions of Section 120.57(1), Florida Statutes, and Florida Administrative Code Ch. 28-5; and

3. That a Recommended Order be issued advising DER to grant AGRICO's instant permit application.

Respectfully submitted this 15th day of August, 1983.

de la PARTE & GILBERT, P.A.

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AGRICO CHEMICAL COMPANY

FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

IN RE:

AGRICO CHEMICAL CO. SOUTH PIERCE)
PLANT, PRILLED SULFUR HANDLING, AC 53-55780,)
POLK COUNTY)

MOTION FOR EXTENSION OF TIME

Pursuant to Rule 17-1.29, Florida Administrative Code, Agrico Chemical Company respectfully requests that the Secretary grant an extension of time to file a Petition for Administrative Hearing and Notice of Proposed Agency Action. As grounds therefore, Agrico states the following:

1. On November 22, 1982 Agrico received notice that the Department of Environmental Regulation intended to deny Agrico's Application for Permits at its South Pierce plant in Polk County;
2. By rule, Agrico has fourteen (14) days from November 22, 1982, in which to petition for an administrative hearing and publish a Notice of Proposed Agency Action in a newspaper of general circulation in Polk County;
3. Agrico believes that an adversarial administrative hearing can be avoided in this case through negotiation and continued communication with the Department. To that end, Agrico is presently seeking to provide clearer information regarding its Application for Permits to the Department. Agrico therefore believes that the chances of an amicable resolution of this matter would be enhanced by an extension of time ~~of approximately two weeks.~~

WHEREFORE, Agrico respectfully requests that it be permitted to file a Petition for Administrative Hearing and to publish a Notice of Proposed Agency Action on or before February 18, 1983.

Respectfully submitted

Donald H. Morrison
for Agrico Chemical Co.