



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

May 8, 2007

ELECTRONIC MAIL - RECEIVED RECEIPT REQUESTED

Tom.Fuchs@mosaicco.com

Mr. Thomas W. Fuchs,
Plant Manager – New Wales
Mosaic Fertilizer, LLC.
Post Office Box 2000
Mulberry, Florida 33860

Re: Request for Additional Information – 30-Day Extension
Best Available Retrofit Technology (BART) Application No. 1050059-055-AC
Mosaic – New Wales Plant

Dear Mr. Fuchs:

On February 2, 2007, we received your application for BART for the identified BART-eligible units in accordance with Rule 62-296.340, Florida Administrative Code (F.A.C.). These units are installed at the existing facility, which is located in Polk County at 3095 Highway 640, Mulberry. The application was deemed incomplete and the Department requested additional information on February 28, 2007 that would allow continued processing of your application. To date, we have not received the requested additional information. Rule 62-4.055(1) of the Florida Administrative Code requires the following:

“The applicant shall have ninety days after the Department mails a timely request for additional information to submit that information to the Department. If an applicant requires more than ninety days in which to respond to a request for additional information, the applicant may notify the Department in writing of the circumstances, at which time the application shall be held in active status for one additional period of up to ninety days. Additional extensions shall be granted for good cause shown by the applicant. A showing that the applicant is making a diligent effort to obtain the requested additional information shall constitute good cause. Failure of an applicant to provide the timely requested information by the applicable deadline shall result in denial of the application.”

It has been around 70 days since our request for additional information (copy attached). You are reminded that the permit processing time clock has stopped for this project. Because of the timing of the rule and submittal of the applications, you are being granted an additional 30 days to submit the requested information. If you fail to provide the additional information by June 28, 2007, your

Mr. Thomas W. Fuchs
May 8, 2007
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application will be processed based on other information available to the Department. If you have any questions regarding this matter, please call me at 850/921-9528.

Sincerely,

A handwritten signature in black ink that reads "Syed Arif". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Syed Arif, P.E.
Air Permitting North Program

/sa

cc: G. Worley, EPA (worley.gregg@epa.gov)
D. Morse, NPS (dee_morse@nps.gov)
D. Turley, Mosaic Fertilizer (david.turley@mosaicco.com)
C. Zhang-Torres, DEP-SWD (cindy.zhang-torres@dep.state.fl.us)
D. Buff, P.E., Golder Associates, Inc. (dbuff@golder.com)



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February 28, 2007

ELECTRONIC MAIL - RECEIVED RECEIPT REQUESTED

Tom.Fuchs@mosaico.com

Mr. Thomas W. Fuchs
Plant Manager – New Wales
Mosaic Fertilizer, LLC.
Post Office Box 2000
Mulberry, Florida 33860

Re: DEP File No. 1050059-055-AC
Best Achievable Retrofit Technology Application
Mosaic – New Wales Plant

Dear Mr. Fuchs:

On February 2, 2007 we received your application for an air construction permit to incorporate Best Achievable Retrofit Technology (BART) requirements for several emissions units at the New Wales Plant in Polk County.

Pursuant to Rules 62.296.340, 62-4.055, and 62-4.070 F.A.C., Permit Processing, the Department requests submittal of additional information prior to processing the application. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

Sulfuric Acid Plants (SAPs) 1, 2 and 3

1. As indicated in your BART application, Table 5-1 provides previous SO₂ Best Available Control Technology (BACT) determinations for other SAPs. Based on the table, the most stringent SO₂ BACT determination was done for CF Industries in Plant City. An emission limit of 3.5 lb/ton (3-hr rolling average) of 100% sulfuric acid (H₂SO₄) was established. The method of compliance was Continuous Emission Monitors (CEMs). Please provide the following information for SAPs 1, 2 and 3 at New Wales:
 - Provide a graphical representation against time of CEMs SO₂ emissions data in lb/ton of 100% H₂SO₄ for the last year. The averaging time should be 24 hours as well as 3 hours. The two averaging times should be depicted in different colors. In providing this data, please present it in a graphical representation against time. On the same graph indicate the production rates for the plants and indicate the turnaround date, if any, for the SAPs on the time axis. A different graph should be made for each of the three SAPs.

- The application states that the previous production increase for the three SAPs were done by replacing an interpass tower and converter modifications. What exactly was done to the converter? If catalyst was replaced in any of the converter passes, please provide information as to how that was accomplished. Was the same catalyst used or a different catalyst. Was there an increase in the amount of catalyst replaced?
2. The application presents different available SO₂ abatement methods. One of the methods is tail-gas scrubbing in conjunction with double absorption. Hydrogen peroxide scrubbing has been employed at SAPs. In research done by the Department, Outokumpu Technology (www.outokumputechnology.com) provides a similar process called Peracidox process, which they claim to have low investment costs. Please provide cost analysis in using that system for further abatement of SO₂ emissions.
 3. Submit a copy of the bid specifications and vendor quote used in the cost analysis for ammonia tail-gas scrubbing.
 4. Provide pages of the OAQPS Cost Manual that were used in Table 5-3 and denoted under Footnote 'a'.
 5. Provide sulfur dioxide (SO₂) and nitrogen oxides (NO_x) stack emissions tests for 2005-2006 for all SAP plants.

Diammonium Phosphate Plant (DAP) Plant No. 1/ Monoammonium Phosphate Plant (MAP) Plant

6. For each DAP/MAP plants subject to BART, you are required by Rule 62-296.340, F.A.C., to conduct an analysis of emissions control alternatives. This step includes the identification of available, technically feasible retrofit technologies, and for each technology identified an analysis of the cost of compliance, the energy and non-air quality environmental impacts, and the degree of visibility improvement in affected Class I areas, resulting from the use of the control technology. Please provide this information to the Department for each affected pollutant for the DAP Plant No. 1 and the MAP Plant.
7. The permit for DAP Plant No. 1 has a particulate matter (PM) limit to exempt the plant from RACT regulations. Please submit PM emission data for the last 2 years of operation for the plant. Resubmit a proposed BART PM emission limit (lb/ton P₂O₅ input) for the plant and specify the control technology chosen based on the top-down technology review as described above.
8. Provide emissions data for the last two years of operation for NO_x emissions from the DAP Plant No. 1. What emission limit is being proposed for NO_x?
9. Provide PM emissions data for the MAP Plant for the last two years of operation for the plant.
10. Submit a flow diagram of each plant showing the current control equipments in use.

AFI Granulation Plant

11. For each plant subject to BART, you are required by Rule 62-296.340, F.A.C., to conduct an analysis of emissions control alternatives. This step includes the identification of available, technically feasible retrofit technologies, and for each technology identified an analysis of the cost of compliance, the energy and non-air quality environmental impacts, and the degree of visibility improvement in affected Class I areas, resulting from the use of the control technology. Please provide this information to the Department for each affected pollutant for the AFI Granulation Plant.
12. The permit for the AFI Granulation Plant has a PM limit to exempt the plant from RACT regulations. Please submit PM emission data for the last two years of operation for the plant. Resubmit a proposed BART PM emission limit (lb/ton P₂O₅ input) for the plant and specify the control technology chosen based on the top-down technology review as described above.

13. Submit a flow diagram of the AFI Granulation Plant showing the current control equipments in use.

Multifos Kilns "A" and "B", Dwyer, and Blending Operations

14. Provide detailed information on the current caustic scrubber being used on the "C" kiln for SO₂ control. The information should include the following:
 - Manufacturer's name and address.
 - The exact cost of installing the caustic scrubber. Provide documentation to verify the cost of purchase and installation.
 - Using the exact cost and converting to 2006 dollars, determine the cost effectiveness of installing the same scrubber for "A" and "B" kilns.
 - Provide information on how the "C" kiln is complying with the permit requirement of not disposing the effluent from the caustic scrubbing to the existing pond water system or any other acidic waste water that can be recirculated to another scrubber. Is there a dedicated pond established for the caustic scrubber effluent?
15. In Table 5-4, footnote 'a' refers to factors and cost estimates using OAQPS Cost Manual, 4th Edition, Chapter 6. Provide the pages used in arriving at the cost estimates. What were the reasons for using the 4th Edition instead of the current 6th Edition? If the factors are different, redo the table using the current factors and cost estimates.
16. The Department considers \$1,800 per ton of SO₂ removed using the two caustic scrubbing systems for "A" and "B" kilns as reasonable for a BART determination. Provide the cost effectiveness for the next best alternative in controlling SO₂ emissions from the "A" and "B" kilns.
17. Provide NO_x emissions data for the "A" and "B" kilns and conduct an analysis of emissions control alternatives. The emissions control alternatives shall include the identification of available, technically feasible retrofit technologies, and for each technology identified an analysis of the cost of compliance, the energy and non-air quality environmental impacts, and the degree of visibility improvement in affected Class I areas, resulting from the use of the control technology. Please provide this information to the Department for NO_x for the "A" and "B" kilns.
18. Submit a flow diagram of the Multifos "A" and "B" kilns showing the current control equipments in use. Please submit the same for the "C" kiln.

BART for Other BART Eligible Units (EUs 15, 23-28, 29-35, 38, 52, 55, 63 & 66-68)

19. The permit for these BART-eligible emission units has a PM limit to exempt the emission units from RACT regulations. Please provide the permitted emission limits and the actual emissions for each one of the emission units for the last two years of operation. Resubmit a proposed BART PM emission limit (lb/ton P₂O₅ input) for each of the emission units and specify the control technology chosen based on the top-down technology review as described above. Additionally, provide the same information for SO₂ emissions for each BART-eligible emission units identified above.

Other

20. Please provide all the necessary application forms for all the BART-eligible emission units.


We will forward any comments received from other agencies as soon as we receive them. Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department

Mr. Thomas W. Fuchs
February 28, 2007
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requests for additional information of an engineering nature. Permit applicants are advised that Rule 62-4.055(1), F.A.C. requires applicants to respond to requests for information within 90 days.

We will be happy to meet and discuss the details with you and your staff. I may be contacted at 850/921-9528. You may discuss the modeling requirements with Mr. Cleve Holladay at 850/921-8986.

Sincerely,

A handwritten signature in black ink, appearing to read "Syed Arif". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Syed Arif, P.E.
North Permitting Section

/sa

cc: G. Worley, EPA (worley.gregg@epa.gov)
D. Morse, NPS (dee_morse@nps.gov)
D. Turley, Mosaic Fertilizer (david.turley@mosaicco.com)
C. Zhang-Torres, DEP-SWD (cindy.zhang-torres@dep.state.fl.us)
D. Buff, P.E., Golder Associates Inc. (dbuff@golder.com)