

**Sheplak, Scott**

- file -

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**From:** Sheplak, Scott  
**Sent:** Wednesday, September 12, 2007 9:20 AM  
**To:** Nelson, Deborah; Linero, Alvaro  
**Subject:** FW: Mosaic Riverview BART RAI Response Letter  
**Attachments:** FDEP Modeling Files 091007.zip; RAI070907-643-reduced.pdf; R091007-643a.pdf

fyi

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**From:** Mohammad, Sal [mailto:Sal\_Mohammad@golder.com]  
**Sent:** Tuesday, September 11, 2007 5:48 PM  
**To:** Sheplak, Scott  
**Cc:** Buff, Dave; GNV- Document Production  
**Subject:** Mosaic Riverview BART RAI Response Letter

Hi Scott,  
Please find attached the BART RAI (dated August 9, 2007) response letter for Mosaic Riverview. Appendix B of the document is attached as a separate pdf document. The electronic modeling-related files are attached as a ZIP file. A paper copy of the entire document is sent to you via regular mail. Please call me or Dave Buff if you have any questions.

Thank you,

Sal Mohammad  
*Project Engineer*  
*Golder Associates Inc.*  
6241 NW 23rd Street, Ste. 500  
Gainesville, FL 32653  
352/336-5600  
[www.golder.com](http://www.golder.com)

9/12/2007

**Sheplak, Scott**

- 1/4 -

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**From:** Mohammad, Sal [Sal\_Mohammad@golder.com]  
**Sent:** Tuesday, September 11, 2007 5:48 PM  
**To:** Sheplak, Scott  
**Cc:** Buff, Dave; GNV- Document Production  
**Subject:** Mosaic Riverview BART RAI Response Letter  
**Attachments:** FDEP Modeling Files 091007.zip; RAI070907-643-reduced.pdf; R091007-643a.pdf

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9/12/2007

**Sheplak, Scott**

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**From:** Sheplak, Scott  
**Sent:** Tuesday, September 11, 2007 9:25 AM  
**To:** 'Mohammad, Sal'  
**Cc:** Buff, Dave; Linero, Alvaro  
**Subject:** RE: BART RAI For Mosaic Riverview (0570008-055-AC)

Mr. Mohammad:

That is fine with me.

Scott M. Sheplak, P.E.  
Air Permitting South Section

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**From:** Mohammad, Sal [mailto:Sal\_Mohammad@golder.com]  
**Sent:** Monday, September 10, 2007 5:26 PM  
**To:** Sheplak, Scott  
**Cc:** Buff, Dave  
**Subject:** BART RAI For Mosaic Riverview (0570008-055-AC)

Scott,  
We ran into some last minute document production problems while finalizing the BART RAI response letter for Mosaic Riverview (your letter dated August 9, 2007). Please give us until tomorrow - we should be able to send it to you before the end of day tomorrow.

Thank you,

Sal Mohammad  
*Project Engineer*  
*Golder Associates Inc.*  
6241 NW 23rd Street, Ste. 500  
Gainesville, FL 32653  
352/336-5600  
[www.golder.com](http://www.golder.com)

9/11/2007



# Florida Department of Environmental Protection

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

Charlie Crist  
Governor

Jeff Labropoulos  
Lt. Governor

Michael A. Sabo  
Secretary

August 9, 2007

*Electronic Mail – Received Receipt Requested*

[alan.luff@mosaicco.com](mailto:alan.luff@mosaicco.com)

Mr. Alan Luff  
Plant Manager  
Riverview Facility  
Mosaic Fertilizer, LLC  
8813 U.S. Highway 41 South  
Riverview, FL 33569

Re: Project Number 0570008-055-AC  
Best Available Retrofit Technology  
Riverview Facility

Dear Mr. Luff:

On July 11, 2007, the Department received responses to our request for additional information regarding the subject Best Available Retrofit Technology (BART) air construction permit application. This existing facility is located in Hillsborough County at 8813 U.S. Highway 41 South, Riverview.

After review of the responses, it has been determined that the application remains incomplete. In order to continue the processing of the permit application, the Department needs the following previously requested information or newly requested information. Previously requested information is so noted. For convenience, a copy of the original request dated March 1, 2007 is enclosed. Should a 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.

## **Additional Information Items on the Proposed BART**

1. In the Golder Associates Inc. response dated July 9, 2007 to item 1.a., the equation for calculating theoretical absorption (conversion) efficiency was provided. Theoretical absorption efficiencies were calculated using this equation for emission limitations of 3.5 and 4.0 lb SO<sub>2</sub>/ton H<sub>2</sub>SO<sub>4</sub>. Are actual absorption (conversion) efficiencies calculated by each sulfuric acid plant (SAP)? If so, please provide recent values.
2. In the Golder Associates Inc. response dated July 9, 2007 to item 1.d., waste heat at the SAPs is recovered to an extent to generate electricity. What are the nominal electrical generation rates in MW (megawatts) for the generators at each SAP? In the response it was indicated that waste heat recovery reduces plume visibility. Are there any other techniques to further improve waste heat recovery or reduce plume visibility?

**Request for Additional Information**

Project Number 0570008-055-AC

Best Available Retrofit Technology

Riverview Facility

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3. To follow up on the comment from the Golder Associates Inc. response dated July 9, 2007 to item 2.a., is the facility proposing to use the installed SO<sub>2</sub> continuous emission monitoring systems (CEMs) to demonstrate compliance with the SO<sub>2</sub> emission standards and limitations for each SAP?
4. In the Golder Associates Inc. response dated July 9, 2007 to item 2.b., Monsanto was referenced as submitting a cost quote in Appendix D. In Appendix D, a copy of a cost quote was submitted from MECS, Inc. Who is "MECS, Inc."? Please provide a copy of the signed cost quote.
5. When did the Nos. 3 & 4 MAP Plant and South Cooler, (Emission Unit Identification number (EU ID No.) -022, -023 & -024) shutdown?
6. The following are comments to item 10. in the letter from Golder Associates Inc. dated July 9, 2007. In the original BART application the cost effectiveness of installing an ammonia scrubbing system on SAP Nos. 7, 8, & 9 ranged from \$2,260 - \$2,560 per ton of SO<sub>2</sub> removed. The Department considers this to be very low for a typical BACT determination. In the additional information dated July 9, 2007, a revised cost quote was provided which caused an adjustment of the cost effectiveness to now range from \$4,440 - \$5,300 per ton of SO<sub>2</sub> removed. The revised range is within a typical BACT determination.

In the original and revised proposed BART, Golder Associates Inc. on Mosaic's behalf indicated that the addition of retrofit technology is "*not cost effective*" (too expensive) with "*minimal or insignificant visibility improvements.*" In addition, a reduction of the proposed SO<sub>2</sub> emissions 24-hour standard to a 3-hour standard for the SAPs would result in "*a reduction in production rate.*" Also, a reduction in the visible emissions limit for the SAPs from 10% to 5% would leave "*no room for operational flexibility.*"

In the original BART application it was noted that the cost of DAP/MAP would increase by \$1.50 per ton because of the installation of an ammonia scrubbing system under the "depressed" market. Market conditions for DAP appear to be very strong now having changed substantially the past 3 months. The price of DAP on the market has increased 37% or by \$91 per tonne, up from \$247 per tonne to \$338 per tonne according to the news release dated July 30, 2007 on Mosaic's web site. A cost increase of \$1.50 due to the installation of an ammonia scrubbing system appears to be a fraction of this market price increase.

- a. Are there any reconsiderations by Mosaic to the proposed BART because of these recent market conditions?

In response to item 10., it was indicated that the SAP Nos. 7, 8, & 9 began operations in 1961, 1965 and 1974 respectively. This means these plants are 46, 32 and 23 years old respectively. A remaining useful life of 20 years was used in calculating the annualized costs. A longer remaining useful life would result in a lower annualized cost thus lowering the cost effectiveness numbers, the \$ ton pollutant removed.

**Request for Additional Information**

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Riverview Facility

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- b. Is it realistic to use a longer "remaining useful life"?
7. Comment and response to item 11. in the letter from Golder Associates Inc. dated July 9, 2007. As part of the response a copy of the originally submitted Owner/Authorized Representative Statement [Page 4 of DEP Form No. 62-210.900(1) - Form] dated 01/31/07 and signed by Mr. Jeff Stewart, Environmental Superintendent was resubmitted. The Department requires the Statement for the subject application to be from either a corporate officer or the plant manager or an authorized person. Please submit either the new Statement signed by the plant manager or an authorization letter from the plant manager designating Mr. Stewart.
8. Comment and response to item 12. in the letter from Golder Associates Inc. dated July 9, 2007. Thank you for providing select emission unit information pages of the application form for the affected sulfuric acid plant (SAP) numbers (Nos.) 7, 8 and 9. As previously indicated, additional pages of the application form are required. The following additional pages of the DEP Form No. 62-210.900(1) need to be completed for these emissions units:
- a. Emissions Unit Control Equipment, Page 15;
  - b. Emissions Unit Capacity Information, Page 16;
  - c. Visible Emissions Information, Page 23; and,
  - d. Continuous Monitor Information, Page 24.

The General Facility Information page, Page 7, also needs to be submitted.

9. Comment and response to item 14. in the letter from Golder Associates Inc. dated July 9, 2007. Thank you for providing the application form (Appendix F) in quadruplicate. An additional 3 copies of Golder Associates Inc. letter dated July 9, 2007 and the supporting documentation specifically, Appendices A - E and Table 5-3 need to be provided.
10. The purpose of the federal BART regulations is to improve visibility in certain areas of the country. By making no actual air pollutant reductions and continuing current operations as they are there are no improvements to visibility from this facility's contributions.
- a. Are there any air pollutant reductions being proposed by the Mosaic-Riverview Facility? If so, please quantify the reductions in tons per year (TPY) and indicate whether they are potential or actual emission reductions.

**Air Dispersion Modeling Items**

11. Comment and response to item 16. in the letter from Golder Associates Inc. dated July 9, 2007 states that permitted emission limits rather than available CEMs data was used for the BART sulfur dioxide analysis. According to the modeling protocol, if CEMs data is

**Request for Additional Information**

Project Number 0570008-055-AC  
Best Available Retrofit Technology  
Riverview Facility  
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available, that is what should be used. Please use available CEMs data for your sulfur dioxide analysis.

12. Referring to the responses for items 17. and 18. in the letter from Golder Associates Inc. dated July 9, 2007, no electronic spreadsheets have been submitted. Please submit all electronic spreadsheets and any additional modeling files to the Department.

The Department has not received comments from the National Park Service, Fish & Wildlife Service and the EPA regarding the modeling analyses completed for this project. Any comments received will be forwarded to you.

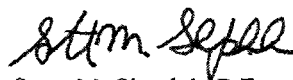
Submit additional responses, any additional updates to the application and supporting documentation in quadruplicate as required by Rule 62-4.050(2), F.A.C.

The Department will resume processing the application after receipt of the requested information. Rule 62-4.050(3), F.A.C. requires that all applications for a Department construction permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. For any material changes to the application, please include a new certification statement by the authorized representative.

*The processing of this application is under time constraints. The Department must submit a state implementation plan (SIP) to EPA by December 17, 2007 identifying all BART determinations. The Division of Air Resource Management has a goal to finalize all BART determinations by October 1, 2007. Please provide responses to these items no later than September 10, 2007.*

We would be glad to meet with you and your staff to discuss this project. If you should have any questions, please contact me at 850/921-9532 and Ms. Deborah Nelson regarding modeling items at 850/921-9537.

Sincerely,



Scott M. Sheplak, P.E.  
Air Permitting South Section  
Bureau of Air Regulation  
Mail Station #5505  
[Scott.Sheplak@dep.state.fl.us](mailto:Scott.Sheplak@dep.state.fl.us)

sms/dn  
Enclosure

copy to: Jeff Stewart, Mosaic Fertilizer, LLC, [jeff.stewart@mosaicco.com](mailto:jeff.stewart@mosaicco.com)  
David A. Buff, P.E., Golder Associates Inc.: [dbuff@golder.com](mailto:dbuff@golder.com)  
Sal Mohammad, Golder Associates Inc.: [smohammad@golder.com](mailto:smohammad@golder.com)  
Diana M. Lee, P.E., EPCHC: [lee@epchc.org](mailto:lee@epchc.org)  
Cindy Zhang-Torres, P.E., DEP SWD: [Zhang-Torres@dep.state.fl.us](mailto:Zhang-Torres@dep.state.fl.us)  
Jim Little, EPA, Region 4: [little.james@epa.gov](mailto:little.james@epa.gov)  
Dee Morse, National Park Service: [Dee\\_Morse@nps.gov](mailto:Dee_Morse@nps.gov)

## Sheplak, Scott

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**From:** Harvey, Mary  
**Sent:** Friday, August 10, 2007 2:49 PM  
**To:** Sheplak, Scott  
**Subject:** FW: Letter - Mr. Alan Luff - Riverview Facility -Mosaic Fertilizer - Project #0570008-055-AC

Scott this came back undeliverable. Alan name should be [alan.luff@mosaicco.com](mailto:alan.luff@mosaicco.com)  
I called and got the correct name spelling when it came back to me.

Thanks,  
Mary

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**From:** System Administrator  
**Sent:** Friday, August 10, 2007 2:18 PM  
**To:** Harvey, Mary  
**Subject:** Undeliverable:Letter - Mr. Alan Luff - Riverview Facility -Mosaic Fertilizer - Project +ACM-0570008-055-AC

Your message did not reach some or all of the intended recipients.

**Subject:** Letter - Mr. Alan Luff - Riverview Facility -Mosaic Fertilizer - Project #0570008-055-AC  
**Sent:** 8/10/2007 1:54 PM

The following recipient(s) could not be reached:

[alan.luff@mosaicco.com](mailto:alan.luff@mosaicco.com) on 8/10/2007 2:17 PM

There was a SMTP communication problem with the recipient's email server. Please contact your system administrator.  
<tlhexsprot2.floridadep.net #5.5.0 smtp;550 No such user - psmt>



**Sheplak, Scott**

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**From:** Harvey, Mary  
**Sent:** Friday, August 10, 2007 1:54 PM  
**To:** 'jeff.stewart@mosaicco.com'; 'Mr. David Buff, Golder Associates'; 'smohammad@golder.com'; 'Diana Lee, HCEPC'; Zhang-Torres; 'Mr. Jim Little, EPA Region 4'; 'Mr. Dee Morse, National Park Service'; 'alan.luff@mosaicco.com'  
**Cc:** Sheplak, Scott; Adams, Patty; Gibson, Victoria  
**Subject:** Letter - Mr. Alan Luff - Riverview Facility -Mosaic Fertilizer - Project #0570008-055-AC  
**Attachments:** Ltr. Riverview Facility-Alan Luff-w-atch.to Jeff Stewart-Project #0570008-055-AC.pdf

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html>.

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

DEP, Bureau of Air Regulation