



Mosaic Fertilizer, LLC
13830 Circa Crossing Drive
Lithia, FL 33547

Via fedex and email

April 7, 2011

Trina L. Vielhauer, Chief
Bureau of Air Regulation, FDEP
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: New Wales Facility
SAP No. 1 2011 Turnaround Projects
BART Permit 1050059-061-AC

Dear Ms. Vielhauer:

Further to our letter dated February 9, 2011 and teleconference discussion of March 8, 2011 with your staff, Ms. Marilyn Koletzke and Mr. Jeff Koerner, on the referenced subject, I am pleased to provide you with the information outlined in Ms. Koletzke's letter dated March 8, 2011. The 1 to 5 numbered responses below address the five bullet points in Ms. Koletzke's letter.

1. None of the work as specified in Section 3 Emissions Unit Specific Conditions Subsection A (Scenario A) has been performed as of the date of this letter.
2. The projected timeline to accomplish the uncompleted work as described in the permit for Scenario A is as shown in the table below.

SAP No.	Work Activity	Target Date
1	Install Brownian diffusion-type candles or approved equivalent control technology to comply with SAM emission limits in final absorption tower	January, 2012
2	Install Brownian diffusion-type candles or approved equivalent control technology to comply with SAM emission limits in final absorption tower	June, 2011

3. The work that is proposed for the sulfuric acid plant, SAP No. 1, during the upcoming June outage is separately identified as: replacing the heat economizer 3B and superheater 0A, as well as replacement of the top portion of the final absorption tower as the replacing the Brinks demister pads with Brownian diffusion-type candles makes that necessary due to the larger volume occupied by the candles relative to the demister pads.

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4. An outline tabular account of the timeline for 'Scenario A' work conditions is as shown in 2 above with the added work elements described in 3.

5. There are no new work as detailed in 'Scenario A' and revisions are simply those that have been addressed and detailed in 'Scenario B' for which all necessary calculations, assumptions, or reference materials have been provided in the BART exemption permit application.

As discussed, I am providing below a tabular listing of the work activities enumerated under Scenario A and B to convey our request for the Department's concurrence on the normalization of the two scenarios to effectively realize the intent and purpose of the BART permit.

SAP No.	Scenario A Work Activities	Scenario B Work Activities
1	<ul style="list-style-type: none"> • Install Brownian diffusion-type candles in final absorption tower for SAM control. 	<ul style="list-style-type: none"> • Install Brownian diffusion-type candles in final absorption tower for SAM control. • Increase the catalyst loading ratio from approximately 147 liters per ton H₂SO₄ per day (L/TPD) at 3,400 TPD production rate to approximately 190 L/TPD at 3,200 TPD production rate {increases the current loading from approximately 498,400 liters to 610,000 liters} • Install a heat recovery system (HRS) to replace the interpass absorption (IPA) tower (If necessary, install/replace) • Replace the sulfur furnace (If necessary, install, replace) • Replace the drying tower (If necessary, install, replace)
2	<ul style="list-style-type: none"> • Install Brownian diffusion-type candles in final absorption tower for SAM control. 	<ul style="list-style-type: none"> • Install Brownian diffusion-type candles in final absorption tower for SAM control. • Increase the catalyst loading ratio from approximately 213 L/TPD) at 3,400 TPD production rate to approximately 190 L/TPD at 3,200 TPD production rate {increases the current loading from approximately 498,400 liters to 610,000 liters} • Install a heat recovery system (HRS) to replace the interpass absorption (IPA) tower (If necessary, install/replace) • Replace the sulfur furnace (If necessary, install, replace) • Replace the drying tower (If necessary,

		install, replace)
3		<ul style="list-style-type: none"> Increase the catalyst loading ratio from approximately 157 L/TPD at 3,400 TPD production rate to approximately 190 L/TPD at 3,200 TPD production rate {increases the current loading from approximately 535,200 liters to 610,000 liters}

We request that the Department include in Scenario A those work activities listed in Scenario B not already listed in Scenario A. We are also requesting that the Department broaden the intent and meaning of heat recovery system to include installation and replacement of economizers and superheaters so as to allow us to replace the economizer 3B and superheater 0A in SAP 1 during the upcoming June 2011 turnaround.

As heat recovery system upgrades and or optimization changes can take different forms that cannot be precisely identified and listed at any early stage, Mosaic will inform the Department of the exact activity for the forthcoming turnarounds when such activities become adequately defined via our ongoing engineering studies and projects.

A summary of planned turnaround activities to comply with the BART permit conditions along the lines explained above is shown below.

SAP No.	Work Activity	Target Turnaround Date
2	Install Brownian diffusion-type candles or approved equivalent control technology to comply with SAM emission limits in final absorption tower. Replace economizer 3B and superheater 0A.	June, 2011
1	Install Brownian diffusion-type candles or approved equivalent control technology to comply with SAM emission limits in final absorption tower. Replace economizer 3B and superheater 0A.	January, 2012
3	Replace HRS Tower internal distributor header and external piping, economizer 3B, superheater 0A and acid diluter vessel.	June, 2012

Please note that the SAP No. 3 HRS tower internals replacement is due to corrosion and is part of preventative maintenance. The economizer, superheater and acid diluter vessel are being replaced for similar preventative maintenance and performance reasons.

If you have any questions, please feel free to contact me at (813) 500-6478.

Sincerely,

A handwritten signature in black ink, appearing to read "Rama Iyer". The signature is fluid and cursive, written in a professional style.

Rama Iyer, P.E.
Senior Engineer
Environmental

cc: C. Zhang-Torres \ FDEP SW District Office
R. Yasurek, J. Dougherty, D. Turley, S. David \ Mosaic
M. Koletzke \ FDEP Tallahassee