

Action: May 9, 2011, Regional Haze SIP Supplemental Information

Number
of file
folders: 1

Folder	Documents	Paper File	Electronic File
1	Other Documents		
"	EPA Approval		
"	Final EPA transmittal letter	X	X
"	Final Public Notice for Regulation Adoption	N.A.	
"	Secretary of State form for final filing of adopted regulations	N.A.	
"	Commission order for SIP and/or Regulation adoption	N.A.	
"	Final Regional Haze SIP Supplemental Information.	X	X
"	Commission agenda with SIP and/or Regulation action item	N.A.	
"	EPA Comment Letter	X*	
"	Other Comment Letters	None	
"	Public Hearing Transcript	N.A.	
"	Letter to EPA-Proposed SIP and/or Regulation	X	
"	Public Notice to Mailing List	X	
"	Letters and/or Receipts for Libraries	X	
"	Proof of Publication to Newspapers/Letters	X	
"	Secretary of State Form	N.A.	
"	Proposed SIP Revision and/or Proposed Regulations	X	
"	Notice of Public Hearing	X	
"	Federal Register Notice Relevant to Action/Development Documents		

Notes: *EPA submitted comment letter stating they had no comments.

N.A. = Not applicable



STATE OF MISSISSIPPI

HALEY BARBOUR

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

TRUDY D. FISHER, EXECUTIVE DIRECTOR

May 9, 2011

Ms. Gwendolyn Keyes Fleming
Regional Administrator
U.S. Environmental Protection Agency
61 Forsyth Street
Atlanta, Georgia 30303-8960

Dear Ms. Fleming:

Re: State Implementation Plan (SIP) Revision

Enclosed is the State Implementation Plan (SIP) Supplemental Information Document concerning federal regional haze requirements. The original SIP revision document was submitted September 22, 2008. We are transmitting, under separate cover, additional copies to Dick Schutt of your agency.

We certify that this SIP revision has been completed in accordance with the Mississippi Administrative Procedures Act and the Mississippi Pollution Control Law. We further certify that this information went to public notice. The only comments received were from the U.S. Fish and Wildlife Service. A copy of these comments and our response is included.

We feel that this completes our SIP addressing Regional Haze. We understand that the CAIR rule is being replaced with the Transport Rule and that Mississippi is not subject to the Annual NOx or SO2 provisions in the proposed Transport Rule. Several Electric Generating Units in Mississippi relied upon the provisions in the CAIR to meet the BART requirements in the rule and their BART determinations may have to be reevaluated when the Transport Rule is final. We have notified the subject facilities of this and are currently working with them to set a timeline for submittal of the screening modeling and the engineering analysis required by the BART provisions.

If you have any questions, please advise.

Very truly yours,

A handwritten signature in cursive script that reads "Maya Rao".

Maya Rao, P.E., BCEE
Chief, Air Division

Enclosure

OFFICE OF POLLUTION CONTROL

POST OFFICE BOX 2261 • JACKSON, MISSISSIPPI 39225-2261 • TEL: (601) 961-5171 • FAX: (601) 354-6612 • www.deq.state.ms.us

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Regional Haze Supplemental SIP Documentation

The purpose of this document is to finalize the BART determination for Mississippi Phosphates, Pascagoula, MS and the reasonable progress determination for E. I. DuPont Plant, DeLisle, MS. This supplemental information is to augment the State Implementation Plan (SIP) Revision Regarding Federal Regional Haze Program Requirements originally adopted by the Mississippi Commission on Environmental Quality on August 28, 2008 and submitted to the U.S. Environmental Protection Agency on September 22, 2008.

MDEQ published a public notice on February 1, 2011, allowing for a 30-day public comment period concerning the supplemental information. Addendum 4 contains the notice and proof of publication. Addendum 5 contains MDEQ's response to the comments received and a copy of the comments.

Addendum 1:

Add the following paragraph to the end of Section 7.3.3 on page 49 of the SIP Narrative Addressing Visibility Improvement in Federal Class I Areas (SIP Narrative).

On November 9, 2010 Mississippi Phosphates was issued a Permit to Construct Air Emissions Equipment that included Best Available Control Technology (BACT) limits for Sulfur Dioxide (SO₂) and Sulfuric Acid Mist (H₂SO₄). Emissions of Sulfur Dioxide are limited to 3.0 lb SO₂ per ton of acid produced, not to exceed 225 lb/hr and 1700 tons/yr. Emissions of sulfuric acid mist are limited to 0.1 lb H₂SO₄ mist per ton of acid produced, not to exceed 7.5 lb/hr and 32.85 tons/yr. These limits have been determined to be BACT; therefore, Mississippi considers these limits adequate to meet BART requirements. The Final Determination document which includes the Permit to Construct is in Appendix L11.10.

Addendum 2:

Add the following paragraph to the end of Section 7.6 on page 65 of the SIP narrative.

Using the methodology developed by VISTAS, DuPont was initially considered for controls to help meet the reasonable progress goals for the Breton National Wildlife Refuge in Louisiana. Since the time of the original SIP submittal, Louisiana has completed and submitted the SIP to address visibility at Breton and the DuPont DeLisle facility was not identified in the SIP as part of the control strategy needed for the reasonable progress goals for Breton. Consequently, no further control analysis is necessary and no controls are being proposed for the DuPont DeLisle facility during this planning period.

Addendum 3:

Add the following paragraphs to the end of Appendix L11.1 of the SIP narrative.

On November 9, 2010 Mississippi Phosphates (MPC) was issued a Permit to Construct Air Emissions Equipment that included Best Available Control Technology limits for Sulfur Dioxide

(SO₂) and Sulfuric Acid Mist (H₂SO₄). With this project, MPC is making many upgrades, including replacing the absorption towers, installing new economizers and new superheaters, replacing duct work and piping, relocating new or refurbished acid coolers (i.e., heat exchangers), repairing the cooling tower, and replacing the vanadium catalyst with cesium catalyst in the third and fourth converter passes. These upgrades will not result in increased sulfuric acid production capacity, which is currently permitted at 1800 tons per day per plant, but should allow for significant decreases in down-time due to more reliable operation of the plants. This will result in an actual-to-potential increase in tons SO₂ per year; however, the project will result in greater emission controls and lower permitted short-term and annual emissions for both pollutants.

BACT for SO₂ was determined to be the replacement of vanadium catalyst with cesium catalyst in the third and fourth converter passes. The permitted sulfur dioxide limit is 3.0 lb of SO₂ per ton of sulfuric acid produced, not to exceed 225 lb/hr and 1700 tons/yr. MDEQ considers this limit appropriate and meets BART for this source.

BACT for H₂SO₄ was determined to be the installation of vertical tube mist eliminators in the interpass absorption tower. The final absorption tower already has these mist eliminators installed. MPC is also replacing the economizer prior to the final absorption tower with a larger one which will have the effect of lowering the exhaust gas temperature thus reducing sulfuric acid mist emissions. The permitted sulfuric acid mist limit is 0.10 lb H₂SO₄ per ton of sulfuric acid produced, not to exceed 7.5 lb/hr and 32.85 tons/yr. MDEQ considers this limit appropriate and meets BART for this source.

Addendum 4:

Notice of public comment period concerning the supplemental information along with copy of the proof of publication. The public notice and the proof of publication follows this page. The notice was also posted on the department's website.

Public Notice
Mississippi Commission on Environmental Quality
P. O. Box 2261
Jackson, MS 39225
Telephone No. (601) 961-5171

Public Notice Start Date: February 1, 2011
Deadline for Comment: March 3, 2011

MDEQ Contact: Elliott Bickerstaff

Please take note that the Mississippi Commission on Environmental Quality (“Commission”) is providing supplemental information for comment regarding a revision to the State Implementation Plan for Air Pollution Control (SIP Revision) adopted on August 28, 2008, which involves the implementation of federal regional haze regulations as promulgated by the U.S. Environmental Protection Agency (EPA).

The information provided in this public notice is supplemental and clarifying information regarding reasonable progress goals for visibility improvement in nearby Federal Class I areas and Best Available Retrofit Technology (BART) determinations for emission sources located in the State of Mississippi. Specifically, the information provides the BART determination for Mississippi Phosphates Corporation in Pascagoula, MS and the Reasonable Progress determination for the E. I. DuPont de Nemours & Company Inc, DeLisle Plant in DeLisle, MS. The supplemental and clarifying information does not involve any changes to the SIP Revision previously adopted by the Commission and submitted to EPA.

Persons wishing to comment on the proposed determinations are invited to submit comments in writing to Elliott Bickerstaff at the Commission’s address shown above, no later than March 3, 2011. All comments received by this date will be considered in preparation of the final submission of the supplemental information for the SIP Revision to EPA. A public hearing will be held if the Commission finds a significant degree of public interest in the supplemental information.

Copies of the supplemental information may be obtained by writing or calling Edna Banks at the address and telephone number listed above. The supplemental information is also available for public review at the main branch of public libraries in cities of Gulfport, Jackson, and Tupelo. For those persons with internet access, the supplemental information may be found on the Mississippi Department of Environmental Quality’s website at <http://www.deq.state.ms.us>

Please bring the foregoing to the attention of persons whom you know will be interested.

PROOF OF PUBLICATION
THE STATE OF MISSISSIPPI
HINDS COUNTY

PERSONALLY appeared before me, the undersigned notary public in and for Hinds County, Mississippi,

GLORIA JOINER

an authorized clerk of THE CLARION-LEDGER, a newspaper as defined and prescribed in Sections 13-3-31 and 13-3-32, of the Mississippi Code of 1972, as amended, who, being duly sworn, states that the notice, a true copy of which is hereto attached, appeared in the issues of said newspaper as follows:

2/1/2011

Size: 389 words / 2.00 col. x 58.00 lines
Published: 1 time(s)
Total: \$55.18

Signed Gloria Joiner
Authorized Clerk of
The Clarion-Ledger

SWORN to and subscribed before me on 2/1/2011.

Rick Tyler
Notary Public
RICK TYLER

Notary Public State of Mississippi at Large. Bonded thru
Notary Public Underwriters

(SEAL)



PASTE PROOF HERE

C58849
MS DEPT. OF ENV. QUALITY,
0200344422
Regional Haze Supplemental Public Notice

Public Notice
Mississippi Commission on Environmental Quality
P. O. Box 2281
Jackson, MS 39225
Telephone No. (601) 961-6171

Public Notice Start Date: February 1, 2011
MDEQ Contact: Elliott Bickerstaff
Deadline for Comment: March 3, 2011

Please take note that the Mississippi Commission on Environmental Quality ("Commission") is providing supplemental information for comment regarding a revision to the State Implementation Plan for Air Pollution Control (SIP Revision) adopted on August 28, 2008, which involves the implementation of federal regional haze regulations as promulgated by the U.S. Environmental Protection Agency (EPA).

The information provided in this public notice is supplemental and clarifying information regarding reasonable progress goals for visibility improvement in nearby Federal Class I areas and Best Available Retrofit Technology (BART) determinations for emission sources located in the State of Mississippi. Specifically, the information provides the BART determination for Mississippi Phosphates Corporation in Passagoula, MS and the Reasonable Progress determination for the E. I. DuPont de Nemours & Company Inc. DeLisle Plant in DeLisle, MS. The supplemental and clarifying information does not involve any changes to the SIP Revision previously adopted by the Commission and submitted to EPA.

Persons wishing to comment on the proposed determinations are invited to submit comments in writing to Elliott Bickerstaff at the Commission's address shown above, no later than March 3, 2011. All comments received by this date will be considered in preparation of the final submission of the supplemental information for the SIP Revision to EPA. A public hearing will be held if the Commission finds a significant degree of public interest in the supplemental information.

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Please bring the foregoing to the attention of persons whom you know will be interested.

February 1, 2011

Addendum 5

Response to Comments regarding the Supplemental Information submitted on March 3, 2011 by the U.S. Fish and Wildlife Service. See next page for copies of comments received regarding the supplemental information.

Mississippi Phosphates Corporation

The comments questioned and requested further documentation of the 3.0 lb SO₂ per ton of H₂SO₄ produced. The SO₂ limit is the result of a BACT determination from a PSD permit that was issued November 9, 2010. Since this was a recent BACT determination, the BACT limit is adequate to meet BART. The justification for this limit is in the Permit's Final Determination document.

The comments also recommend limits for NO_x, particulate opacity and sulfuric acid mist. The Permit issue November 9, 2010 included a .10 lb Sulfuric Acid Mist per ton of Sulfuric Acid Produced which is lower than the recommended limit. The facility's current Title V permit has a 10% opacity limit which is what was recommended. While there is no NO_x limit, the analysis in PSD permit application finds that the future NO_x emissions from the Sulfuric Acid Plants to be below the significance thresholds and below the mass emissions rate that would result from the recommended limit.

DuPont DeLisle Plant

In response to the comments regarding the Dupont Delisle Plant, Mississippi will continue to consult with Louisiana to assess the impact of DuPont and other facilities in Mississippi to help meet the visibility goals for Breton.

Chevron Products Company

Finally, the comments stated that the BART determination for Chevron Pascagoula Refinery lacked rigorous cost analysis of control alternatives. The BART requirements for Chevron were largely met by controls required by a consent decree to rectify New Source Review violations. As such, the controls that were put in place were BACT and therefore were considered to meet BART requirements.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
National Wildlife Refuge System
Branch of Air Quality
7333 W. Jefferson Ave., Suite 375
Lakewood, CO 80235-2017

IN REPLY REFER TO:

FWS/ANWS-AR-AQ

March 3, 2011

Elliott Bickerstaff, P.E., DEE
Chief, Air Support Branch
Mississippi Department of Environmental Quality
101 W. Capital Street
Jackson, MS 39201

Subject: Regional Haze State Implementation Plan Supplemental Information Comments

Dear Mr. Bickerstaff:

On February 1, 2011, the State of Mississippi submitted, for public comment, proposed revisions to the Mississippi State Implementation Plan (SIP) for Air Pollution Control as adopted on August 28, 2008, describing its proposal to improve air quality regional haze impacts at mandatory Class I areas across your region.

We appreciate the opportunity to work closely with the State through the initial evaluation, development, and, now, subsequent review of this plan. Cooperative efforts such as these ensure that, together, we continue to make progress toward the Clean Air Act's goal of natural visibility conditions at all of our most pristine National Parks and Wilderness Areas for future generations.

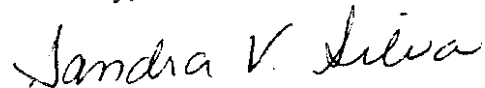
The U. S. Fish and Wildlife Service (FWS) is providing comments on the Best Available Retrofit Technology (BART) Supplemental Information for Mississippi Phosphates Corporation and the DuPont DeLisle Plant as they relate to the Mississippi Regional Haze State Implementation Plan (SIP). The FWS provided comments to the Mississippi Department of Environmental Quality (MDEQ) on an earlier BART analyses in June 2008. In addition, FWS is restating comment previously made on the Chevron Products Company Pascagoula Refinery BART determination.

We are providing these comments to the State and ask that these be included in the official public record. We look forward to continuing to work with the Mississippi Department of Environmental Quality (MDEQ) staff towards resolving any of the issues discussed below. For further information, please contact Tim Allen with FWS at (303) 914-3802.

**TAKE PRIDE
IN AMERICA** 

Again, we appreciate the opportunity to work closely with the State of Mississippi and compliment you on your hard work and dedication to significant improvement in our nation's air quality values and visibility.

Sincerely,



Sandra V. Silva, Chief
FWS Branch of Air Quality

Enclosure

cc:

Kay Prince, Chief Air Planning Branch
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Brian McManus, Deputy Chief Branch of
Fire Management
National Interagency Fire Center
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Boise, Idaho 83705

Chief, Southeast Region
National Wildlife Refuge System
1875 Century Center
Atlanta, Georgia 30345

**U.S. Fish and Wildlife Service Comments Regarding
Mississippi Regional Haze Rule State Implementation Plan
Supplemental Information**

March 3, 2011

Best Available Retrofit Technology

The following are comments regarding the Best Available Retrofit Technology (BART) determinations for two facilities.

Mississippi Phosphates Corporation – Pascagoula Facility

Mississippi Phosphates Corporation and Mississippi Department of Environmental Quality (MDEQ) agreed to replace the absorption towers, install new economizers and new superheaters, replace duct work and refurbish acid coolers, repair the cooling tower and replace the vanadium catalyst with a cesium catalyst in the third and fourth converter passes. This will result in a permitted sulfur dioxide limit (SO₂) of 3.0 lb of SO₂ per ton of sulfuric acid produced, not to exceed 225 lb/hr and 1700 tons/year. This is consistent with the recommendation made by the FWS in previous comments on the initial BART determinations.

EPA, Region 4 requested MDEQ justify why the proposed configuration cannot reach a greater control efficiency than 3.0 lb of SO₂ per ton of sulfuric acid produced. The current explanation is not as robust as it should be and does not provide documented comparative control levels or vendor guarantees; however, it does attempt to qualitatively justify the 3.0 lb control level.

FWS previously provided the following comment on the on nitrogen oxides (NO_x) emission limit. The current SIP revision does not discuss enforceable limits for NO_x, particulates or sulfuric acid mist. Other phosphate facilities have reasonably meet a NO_x limit of 0.11 – 0.12 lb/ton of H₂SO₄ product. Likewise, a 10% particulate matter opacity limit often is achievable. The sulfuric acid mist limit for diammonium phosphate/ monoammonium phosphate (DAP/MAP) units should be about 0.18 lb/ton of H₂SO₄. These limits can usually be attained without installation of additional pollution control equipment. Emission limits should be enforced using continuous emission monitoring systems. Such limits should be addressed in the facility's permit.

DuPont DeLisle Plant -- Titanium Dioxide Pigment Plant

The DuPont DeLisle Plant has two coal-fired boilers that have been shown to contribute 1.2% of the visibility impairment at the Breton National Wildlife Refuge (Breton), which is about 45 km from the plant. Of all Mississippi industrial facilities, the DuPont DeLisle Plant's air emissions result in the second-highest visibility impact at Breton. The location of the Breton Wilderness

Area suggests that several States and Gulf emissions sources are likely to contribute the visibility impairment. It is for this reason that a review of DuPont DeLisle Plant's control measures is being performed. This plant is not BART-eligible so the analysis is based on the "Reasonable Progress" four-factors outlined in the Regional Haze Rule (40 CFR 51.308(d)(1)(i)(A)), rather than the five-factor BART determination protocol.

In the supplemental information submittal, MDEQ announced its decision to not require controls at the DuPont DeLisle Plant, because Louisiana Department of Environmental Quality did not request such controls from Mississippi in its Regional Haze SIP. However, FWS expressed significant concerns with Louisiana's SIP, specifically with the lack of area of influence analyses and discussion of attribution of haze impacts from sources outside of Louisiana.¹ Thus, even though the Louisiana Regional Haze SIP did not specifically cite DuPont DeLisle in the control strategy for Breton, FWS continues to encourage MDEQ to consider some level of emission control. In the previous FWS comments sent to MDEQ,² several reasonably priced control options were identified. These options included: fuel switching and/or a spray dry absorber for SO₂ control and low NO_x burners for NO_x control. FWS bases this recommendation on the emission contributions of DuPont DeLisle Plant and the proximity to Breton. These emission controls will help to minimize haze causing pollutants, reach reasonable progress goals and assist in the long-term strategy implementation and thereby reduce the visibility impairment at Breton.

The supplemental information only covered MPC and DuPont DeLisle, however FWS had previously commented on Chevron. The following comment remains to be addressed.

Chevron Products Company – Pascagoula Refinery

The original MDEQ BART determination for the Chevron Products Company lacked rigorous cost analysis of control alternatives. MDEQ believed that significant visibility improvement could not be gained at reasonable cost over the improvements already attained through the refinery consent decree. A more robust cost analysis continues to be lacking in the SIP.

¹ See Department of the Interior comments sent to Louisiana Department of Environmental Quality on January 22, 2008, available at http://www.fws.gov/refuges/AirQuality/SIP_Review_Comments_Page.html

² See Department of the Interior comments sent to MDEQ on June 30, 2008, available at http://www.fws.gov/refuges/AirQuality/SIP_Review_Comments_Page.html

Addendum 6:

Add Appendix L.11.10 (Attached) which contains the Final Determination document which includes the Permit to Construct for Mississippi Phosphates Corporation to the SIP Narrative.

Appendix L11.10:

**Final Determination on the Approval of
Mississippi Phosphates Corporation**

“Sulfuric Acid Plant Reliability and Upgrade Project”

Final Determination

On the Approval of

Mississippi Phosphates Corporation

“Sulfuric Acid Plant Reliability and Upgrade Project”

*To Modify Air Emissions Equipment
at Pascagoula, Mississippi
(Jackson County)*

Air Reference No. 1280-00044

November 2010

*Technical Review by
Carla Brown*

*Air Quality Analysis by
Bruce Ferguson*

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SECTION 1

FINAL DETERMINATION

I. General Information

Mississippi Phosphates Corporation (MPC), located at 601 Highway 611, Pascagoula, Mississippi, (228) 762-3210, owns and operates a fertilizer plant in the Bayou Casotte Industrial Park in Jackson County. The approximate Universal Transverse Mercator (UTM) coordinates for the fertilizer plant and proposed modifications are 356.79 km East and 3357.41 km North in UTM Zone 16. MPC manufactures diammonium phosphate (DAP) by reacting sulfuric acid made on-site with phosphate rock to produce phosphoric acid. The phosphoric acid is then reacted with ammonia to produce DAP.

MPC submitted an air permit application deemed complete on May 7, 2010, for a Prevention of Significant Deterioration (PSD) Construction Permit to modify their two sulfuric acid plants. The proposed project will result in significant net emissions increases of sulfur dioxide (SO₂) and sulfuric acid mist (H₂SO₄) above the significant thresholds established in the PSD regulations. (See Table 1 on the following page.) Therefore, the proposed project is subject to review under the provisions of 40 CFR 52.21. At a minimum, an application for a PSD construction permit must include a Best Available Control Technology (BACT) Analysis, a Source Impact Analysis, and an Air Quality Analysis.

II. Project Description

MPC is proposing extensive upgrades and non-routine repairs and maintenance to the two sulfuric acid plants which may extend over a period of five or more years. These plants burn sulfur in dry air to form SO₂, and the SO₂ gas stream then makes two passes through the vanadium catalyst converter to form SO₃. The SO₃ is absorbed by a sulfuric acid stream in the interstage absorber to make a concentrated sulfuric acid product leaving the bottom of the absorber, while the exhaust gas exiting the top of the absorber makes two more passes through the vanadium catalyst converter before entering a second and final absorber. This process is referred to as a dual absorption system (DAS) with a 2/2 converter design.

With this project, MPC is considering many upgrades, including replacing the absorption towers, installing new economizers and new superheaters, replacing duct work and piping, relocating new or refurbished acid coolers (i.e., heat exchangers), repairing the cooling tower, and replacing the vanadium catalyst with cesium catalyst in the third and fourth converter passes. These upgrades will not result in increased sulfuric acid production capacity, which is currently permitted at 1800 tons per day per plant, but should allow for significant decreases in down-time due to more reliable operation of the plants. Since PSD applicability is evaluated on an annual basis, there is an increase in potential emissions as compared to past years due to less downtime. This is reflected in the emissions changes associated with the project, which were evaluated on a baseline actual-to-potential basis. Although the actual-to-potential emissions changes show an increase for SO₂ and H₂SO₄, MPC is proposing lower potential,

permitted short-term and annual emission for both pollutants, as shown in Table 2.

Table 1. PSD Applicability

Pollutant	Project-Related Increases (tpy)	PSD Significance Threshold (tpy)	Netting Analysis Required?	Contemporaneous Emissions (tpy)	Net Emissions (tpy)	PSD Review Required?
CO	27.1	100	No	N/A	N/A	No
NO _x ²	28.4	40	No	N/A	N/A	No
PM/PM ₁₀ /PM _{2.5} ¹	---	25/15	No	N/A	N/A	No
SO ₂	188	40	Yes	0.4	188.4	Yes
VOC	---	40	No	N/A	N/A	No
H ₂ SO ₄	19.3	7	Yes	0	19.3	Yes

¹ As directed in the PM_{2.5} final NSR implementation rule, MDEQ is allowing sources to not include the condensable fraction of PM during the “transition period”, during which EPA will promulgate a test method for accurately measuring this portion of PM. EPA has yet to finalize a more accurate test method.

² Both NO_x and VOC are considered precursors for ozone with a significant emission rate of 40 TPY each.

Table 2. Previous and Proposed Permitted Limits¹

Pollutant	Units	Previous Limit	Proposed Limit
SO ₂	lb/hr	---	225
	lb/ton	4.0	3.0
	TPY	1992	1700
H ₂ SO ₄	lb/hr	11.16	7.5
	lb/ton	0.15	0.10
	TPY	48.88	32.85

¹ Limits are for each sulfuric acid plant with the exception of the TPY limit, which is a combined limit for emissions from both plants.

III. Best Available Control Technology (BACT) Analysis

The applicant is required to perform a BACT analysis for all pollutants that have a significant net emissions increase. Utilizing the “top-down” approach detailed in EPA’s *New Source Review Workshop Manual* (Draft 1990), the PSD applicant goes through a five-step process to determine BACT: (1) Identify all control technologies; (2) Eliminate technically infeasible control options; (3) Rank the remaining control technologies by control effectiveness; (4) Evaluate the most effective controls taking into consideration economic, energy, and environmental impacts; and (5) Select BACT. BACT is an emission limitation based on the maximum degree of pollutant reduction determined on a case-by-case basis, taking into account energy, environmental, and economic impacts, that is

determined to be achievable for a source. A BACT analysis must be performed for each emission unit undergoing a physical change or change in the method of operation and that emits a pollutant that is undergoing a significant net emissions increase.

For this project, there is a significant net emissions increase for SO₂ and H₂SO₄. Therefore, MPC must evaluate BACT for both sulfuric acid plants.

A. SO₂ Analysis

MPC identified a variety of control technologies for reducing SO₂ emissions, including ammonia scrubbing, sodium sulfite-bisulfite scrubbing, lime slurry injection, molecular sieves, and hydrogen peroxide scrubbing. Molecular sieves were shown to be technically infeasible due to the exhaust gas characteristics. Hydrogen peroxide scrubbing has not been demonstrated as a viable control technology for sulfuric acid plants and would change the scope of the project were an attempt made to transfer this technology to the sulfuric acid plants. All forms of wet scrubbing were determined to be infeasible from an environmental standpoint, as they would result in a process wastewater discharge. The federal effluent guidelines for phosphate fertilizer manufacturing, found in 40 CFR Part 418, prohibit the discharge of process wastewater, either directly to waters of the state or indirectly to a POTW. Therefore, MPC's only option would be to reuse such water. However, MPC already has excess water in the existing water balance and can not accommodate additional water.

MPC also identified process changes that could potentially improve the SO₂ to SO₃ conversion, including replacement of vanadium catalyst with cesium catalyst, changing the catalyst loading rate to the converter, and operating at a higher O₂/SO₂ ratio prior to the passes through the converter. MPC determined that they already operate at the optimum catalyst loading rate, and increasing the rate would only be possible by constructing a larger converter which is not within the scope of the project. MPC also determined that they are running at the appropriate O₂/SO₂ ratio for the sulfuric acid plants and that any higher ratio would result in temperatures in excess of what the converter equipment could safely handle. However, MPC did determine that replacing the vanadium catalyst with cesium catalyst in the 3rd and 4th converter passes was feasible and would result in a significant reduction of SO₂ emissions by resulting in higher conversion of SO₂ to SO₃ in the 3rd and 4th passes.

Therefore, MPC proposed BACT to be the existing dual absorption system and replacement of vanadium catalyst with cesium catalyst in the 3rd and 4th converter passes, yielding emissions of 3.0 lb of SO₂ per ton of sulfuric acid produced. MDEQ believes that this BACT determination is sufficient for the following reasons: (1) MPC is retrofitting two older sulfuric acid plants with new pieces of equipment, as needed to improve the safety and reliability of these plants, as opposed to building new plants that could be designed differently to minimize emissions. (2) Sulfuric acid plants with more stringent limits had a 3/1 converter design as compared to MPC's current 2/2 converter

design that will not be modified within the scope of this project. The 2/2 converter design has only two catalyst passes through the converter to achieve the SO₂ to SO₃ conversion; whereas, the 3/1 converter design allows for three catalyst passes - two passes before the first (or intermediate) absorption tower and one pass before the final absorption tower. Therefore, the 3/1 design achieves a higher conversion rate resulting in approximately a 50% reduction of SO₂ in the exhaust compared to the exhaust from a 2/2 converter design. A new 3/1 converter can achieve SO₂ emission rates below 2.0 lb/ton; whereas, MPC was quoted an emission rate of 3.1-3.2 lb/ton. In order for MPC to go from 2/2 to a 3/1 converter design, MPC would have to replace/modify their integrated steam equipment which is beyond the scope of this project.

B. Sulfuric Acid Mist (H₂SO₄) Analysis

MPC identified mist eliminators as the most effective sulfuric acid mist control technology. Two different design types were discussed – mesh pads and candles (or vertical tube mist eliminators). MPC has proposed to put vertical tube mist eliminators in the interpass absorption tower. The final absorption tower already has these mist eliminators installed. MPC is also proposing to replace the economizer prior to the final absorption tower with a larger one which will have the effect of lower the exhaust gas temperature thus reducing sulfuric acid mist emissions. Since the vertical tube mist eliminators are the most efficient add-on control technology, no additional control technologies were considered.

MPC has proposed a sulfuric acid mist limit of 0.10 lb sulfuric acid mist per ton of sulfuric acid produced. MDEQ considers this limit consistent with recent BACT determinations, since it is among the most stringent achieved in practice.

IV. Source Impact Analysis

The owner or operator of a proposed source or modification is required to demonstrate that allowable emission increases from the proposed source or modification, in conjunction with all other applicable emissions increases or reductions (including secondary emissions), will not cause or contribute to air pollution in violation of: 1) any national ambient air quality standard in any air quality control region; or 2) any applicable maximum allowable increase over the baseline concentration in any area.

The modeled concentrations used to determine compliance with any NAAQS and PSD increment depend on 1) the type of standard, i.e., deterministic or statistical, 2) the available length of record of meteorological data, and 3) the averaging time of the standard being analyzed. When the analysis is based on 5 years of National Weather Service meteorological data, the following estimates are used:

- For deterministically based standards (e.g., SO₂), the highest, second-highest short term estimate and the highest annual estimate; and

- For statistically based standards (e.g., PM₁₀), the highest, sixth-highest estimate and highest 5-year average estimate.

A. Existing Air Quality

Any application for a permit under the Prevention of Significant Deterioration program is required to contain an analysis of ambient air quality in the area that the major stationary source or major modification would affect for each of the following pollutants: a) for the source, each pollutant that it would have the potential to omit in a significant amount; b) for the modification, each pollutant for which it would result in a significant net emissions increase.

The existing air quality is defined by the natural and human-generated sources of air pollution. The area surrounding the Jackson County facility is considered rural and in attainment for all regulated pollutants. The pollutant under consideration in the analysis is sulfur dioxide (SO₂).

B. Modeling Procedure

All estimates of ambient concentrations are to be based upon applicable air quality models, data bases and other requirements specified in appendix W of 40 CFR Part 51 (Guideline on Air Quality Models).

The AMS/EPA Regulatory Model (AERMOD) version 07026 was used to estimate impacts from all pollutants. The modeling analysis was conducted using the regulatory default options, with the exception that the option for horizontal emissions was used for the emergency generator. Building wake and downwash effects were accounted for using the Building Profile Input Program (BPIP) version 04274.

Three point sources related to the project were considered in the analysis. These sources and the modeled emissions are presented in Table 4. The decrease in short term emissions is based upon the maximum short term emission rate over the past two years and the short term limit which is included in the permit. The preliminary analysis resulted in predicted concentrations below the modeling significance levels; therefore, no off-site sources were modeled.

Table 3 - Project related sources

Source Name	Source Description	Modeled Emissions	
		PPH	TPY
AA001	#2 Sulfuric Acid	-17.48	187.83
AA017	#3 Sulfuric Acid	-7.49	187.83
AA031	Emergency Generator	0.35	0.41

The hourly meteorological database used in the preliminary and full impact analysis consisted of five years (1991 to 1995) of Mobile, AL surface data and Slidell, LA upper air combined. The meteorological data was processed with the surface characteristics of the Mobile, AL surface station and was also

processed using the surface characteristics of the project site. The latest year of meteorological data from each set was used to determine impacts for the project. The meteorological dataset which predicted the most conservative concentrations was used for the compliance demonstration. The met data processed with the site surface characteristics was used for the short term averaging periods and the met data processed with the Mobile surface characteristics was used for the annual averaging period.

A Cartesian receptor grid was used for the Screen modeling runs, including receptors spaced at 100 meter intervals along the fence line/patrolled property line and out to a distance of 2 kilometers, 250 meter intervals from 2 kilometers to 5 kilometers, 500 meter intervals from 5 kilometers to 10 kilometers and and 1000 meter intervals from 10 to 50 kilometers. Discrete receptors were placed along the fenceline at 50-meter spacing. Receptor coordinates, elevations, height above ground, and hill height scales were produced the AERMAP terrain preprocessor version 04300 for input to AERMOD.

C. Air Quality Monitoring Requirements

The ambient air quality analysis is required to contain continuous air quality monitoring data gathered for purposes of determining whether emissions of that pollutant would cause or contribute to a violation of the standard or any maximum allowable increase. The source may be exempt from the preconstruction monitoring requirements if the air quality impacts are less than the monitoring de minimis concentrations.

Table 4 - Preconstruction de minimis levels.

Pollutant	Averaging Period	Monitoring de minimis Concentration ($\mu\text{g}/\text{m}^3$)	Modeled Concentration ($\mu\text{g}/\text{m}^3$)
PM ₁₀	24-hour	10	N/A
SO ₂	24-hour	13	1.5
NO ₂	Annual	14	N/A
Ozone		VOC or NOx emission increase < 100 TPY	N/A
CO	8-hour	575	N/A
Lead	3-month avg	0.1	N/A

Preliminary analysis results show the impact of SO₂ to be below the monitoring de minimis concentrations. The preconstruction monitoring requirement for these pollutants is, therefore, waived.

D. PSD Preliminary Analysis Modeling Impacts

In the preliminary analysis, only the significant increase in potential emissions of a pollutant from a proposed new source, or the significant net emission increase of a pollutant from a proposed modification is modeled. A full impact analysis for a particular pollutant is not required when emissions of that pollutant from a proposed source or modification would not increase

ambient concentrations by more than prescribed significant ambient impact levels.

Table 5 summarizes the results of the preliminary analysis. The modeled results presented are the highest estimated concentration for averaging times of 24-hours or less and the highest annual average of the individual years for the annual averaging period.

Table 5 - Significant Impact Modeling Results

Pollutant	Averaging Period	Significant Impact Level ($\mu\text{g}/\text{m}^3$)	Modeled Results ($\mu\text{g}/\text{m}^3$)	UTM X (KM)	UTM Y (KM)	Event (YYMMDDHH)
SO ₂	Annual	1	0.92057	355509.31	3359071.50	1991
	24-hour	5	1.45624	357437.31	3360897.50	94030224
	3-hour	25	4.52438	357431.81	3361091.50	92031903

Modeled results for all averaging periods were below the modeling significance levels, therefore, no further analysis is required.

The new SO₂ 1-hr NAAQS became effective prior to the issuance of the permit, therefore, this standard must be addressed. With the exception of the emergency generator, the short-term SO₂ emissions are decreasing. The increase in the project is due to increased utilization. Since the short-term emission rates are decreasing the project is considered insignificant with respect to the short-term averaging periods. Additionally, the maximum 1-hr impact was determined for the 1992 year (produced highest 3-hr average) and was determined to be 5.41550 $\mu\text{g}/\text{m}^3$ which is below 4% of the standard. The 4% mark has historically been used in developing SILs.

E. Vegetation and Soils Impact

The owner or operator is required to provide an analysis of the impairment to visibility, soils and vegetation that would occur as a result of the source or modification. The owner or operator need not provide an analysis of the impact on vegetation having no significant commercial or recreational value.

The modeled results were below the modeling significance levels and, therefore, no adverse impact on soils and vegetation is anticipated.

F. Associated Growth Impact

The owner or operator is required to provide an analysis of the air quality impact projected for the area as a result of general commercial, residential, industrial and other growth associated with the source or modification.

The project will not result in a population shift or increase and therefore, no impact is anticipated due to associated growth.

G. Class I Impact and Visibility

The proposed facility is located approximately 50 km from the Breton Wilderness Area. There will be a decrease in the short term emissions due to limits contained in the permit. The Class 1 significance level for the SO₂ annual averaging period is 0.1 ug/m³ as proposed by the EPA. This level was reached at approximately 5.4 kilometers from the project site, which is well short of the distance to the Class 1 area. A Class 1 increment analysis was not required, based upon this result. The applicant conducted a VISCREEN analysis at the request of the Federal Land Manager. The Level 2 analysis indicated that visibility would not be impacted above screening levels. Due to the distance and the proposed emission rates, no adverse impacts at the Class 1 areas are anticipated.

V. BART and Other Requirements

A. BART

MPC is proposing that the approved BACT and corresponding SO₂ emission limit be accepted as the Best Available Retrofit Technology (BART). BART is required for SO₂ emissions from MPC's sulfuric acid plants, since such emissions can contribute to visibility impairment at the nearby Class I area – Breton National Wildlife Refuge. MPC must comply with the permitted BART limit no later than five years from approval of Mississippi's SIP implementing the regional haze plan required under 40 CFR Part 51, Subpart P – Protection of Visibility. DEQ considers the BACT determination sufficient to meet the requirements of the BART determination. A 24-hr rolling average SO₂ limit has been placed in the permit to protect visibility.

B. Monitoring Requirements

The permit requires a CEMS to be installed to demonstrate compliance with the SO₂ emission limits for each sulfuric acid plant. A SO₂ CEMS is already required under NSPS Subpart H. However, the proposed monitoring should more accurately reflect emissions because the MPC will directly monitor exhaust flow and hourly production and will not rely on the empirical equation from NSPS Subpart H for emission rate determinations. For sulfuric acid mist, an initial stack test is required. The Title V Operating Permit currently contains a detailed Compliance Assurance Monitoring (CAM) plan, per 40 CFR Part 64, to ensure that the H₂SO₄ control equipment is properly working. This will be modified as necessary to reflect any new H₂SO₄ control equipment installed as part of this project.

C. NSPS Subpart H

The sulfuric acid plants are already subject to this NSPS, which has SO₂, H₂SO₄, and opacity emission standards. The SO₂ and H₂SO₄ BACT emission limits are more stringent than the NSPS limits.

D. Other State Requirements

APC-S-1, Section 4.2 contains emission standards for acid mist of 0.5 lb/ton of acid produced and for sulfur trioxide of 0.2 lb/ton of acid produced. The NSPS standard is much lower for sulfuric acid mist, and because MPC utilizes a dual absorption system, there are negligible amounts of sulfur trioxide.

VI. Recommendation

The impact of the emission of air contaminants from the project has been evaluated and the staff believes that, with proper constraints and limitations, this project will operate within all State and Federal air pollution control laws and standards and will protect public health and welfare. The staff also believes that this project is necessary to bring these sulfuric acid plants back to a reliable state of operation given the excessive shutdowns, and hence, startups MPC has been experiencing over the past years, which produce excessive SO₂ emissions. Therefore, the staff of the Board has decided, based on available information, to recommend to the Board that a permit be issued for the construction of these various projects.

SECTION 2

COPY OF THE CONSTRUCTION PERMIT

STATE OF MISSISSIPPI AIR POLLUTION CONTROL PERMIT

AND PREVENTION OF SIGNIFICANT
DETERIORATION AUTHORITY
TO CONSTRUCT AIR EMISSIONS EQUIPMENT
THIS CERTIFIES THAT

**Mississippi Phosphates Corporation
601 Highway 611
Pascagoula, Mississippi
Jackson County**

“Sulfuric Acid Plant Reliability and Upgrade Project”

has been granted permission to construct air emissions equipment to comply with emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder and under authority granted by the Environmental Protection Agency under 40 CFR 52.01 and 52.21.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD



AUTHORIZED SIGNATURE

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Issued: NOV 09 2010

Permit No.: 1280-00044

Part I

A. GENERAL CONDITIONS

1. This permit is for air pollution control purposes only. (Ref.: APC-S-2, Section I.D)
2. Any activities not identified in the application are not authorized by this permit. (Ref.: Miss. Code Ann. 49-17-29 1.b)
3. The knowing submittal of a permit application with false information may serve as the basis for the Permit Board to void the permit issued pursuant thereto or subject the applicant to penalties for operating without a valid permit pursuant to State Law. (Ref.: APC-S-2, Section II.B.5)
4. It is the responsibility of the applicant/permittee to obtain all other approvals, permits, clearances, easements, agreements, etc., which may be required including, but not limited to, all required local government zoning approvals or permits. (Ref.: APC-S-2, Section I.D.6)
5. The issuance of a permit does not release the permittee from liability for constructing or operating air emissions equipment in violation of any applicable statute, rule, or regulation of state or federal environmental authorities. (Ref.: APC-S-2, Section II.B.7)
6. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit, unless halting or reducing activity would create an imminent and substantial endangerment threatening the public health and safety of the lives and property of the people of this state. (Ref.: APC-S-2, Section II.B.15(a))
7. The permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. Sufficient cause for a permit to be reopened shall exist when an air emissions stationary source becomes subject to Title V. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. (Ref.: APC-S-2, Section II.B.15(b))
8. The permit does not convey any property rights of any sort, or any exclusive privilege. (Ref.: APC-S-2, Section II.B.15(c))
9. The permittee shall furnish to the DEQ within a reasonable time any information the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee shall furnish such records to the DEQ along with a claim of confidentiality.

The permittee may furnish such records directly to the Administrator along with a claim of confidentiality. (Ref.: APC-S-2, Section II.B.15(d))

10. Design and Construction Requirements: The stationary source shall be designed and constructed so as to operate without causing a violation of an Applicable Rules and Regulations, without interfering with the attainment and maintenance of State and National Ambient Air Quality Standards, and such that the emission of air toxics does not result in an ambient concentration sufficient to adversely affect human health and well-being or unreasonably and adversely affect plant or animal life beyond the stationary source boundaries. (Ref.: APC-S-2, Section V.A)
11. Solids Removal: The necessary facilities shall be constructed so that solids removed in the course of control of air emissions may be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering State waters without the proper environmental permits. (Ref.: Miss. Code Ann. 49-17-29)
12. Diversion and Bypass of Air Pollution Controls: The air pollution control facilities shall be constructed such that diversion from or bypass of collection and control facilities is not needed except as provided for in Regulation APC-S-1, "Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants", Section 10. (Ref.: APC-S-1, Section 10)
13. Fugitive Dust Emissions from Construction Activities: The construction of the stationary source shall be performed in such a manner so as to reduce fugitive dust emissions from construction activities to a minimum. (Ref.: APC-S-2, Section V.A.4)
14. Right of Entry: The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their representatives upon presentation of credentials:
 - a) To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit; and
 - b) At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emissions. (Ref.: Miss. Code Ann. 49-17-21)
15. Permit Modification or Revocation: After notice and opportunity for a hearing, the Permit Board may modify the permit or revoke it in whole or in part for good cause shown including, but not limited to:
 - a) Persistent violation of any of the terms or conditions of this permit;

- b) Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
- c) A change in federal, state, or local laws or regulations that require either a temporary or permanent reduction or elimination of previously authorized air emission.

(Ref.: APC-S-2, Section II.C)

16. **Public Record and Confidential Information:** Except for data determined to be confidential under the Mississippi Air & Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality, Office of Pollution Control. (Ref.: Miss. Code Ann. 49-17-39)
17. **Permit Transfer:** This permit shall not be transferred except upon approval of the Permit Board. (Ref.: APC-S-2, Section XVI.B)
18. **Severability:** The provisions of this permit are severable. If any provision of the permit, or the application of any provision of the permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby. (Ref. APC-S-2, Section I.D.7)
19. **Permit Expiration:** The permit to construct will expire if construction does not begin within eighteen (18) months from the date of issuance or if construction is suspended for eighteen (18) months or more. (Ref.: APC-S-2, Section V.C.1)
20. **Certification of Construction:** A new stationary source issued a Permit to Construct cannot begin operation until certification of construction by the permittee. (Ref.: APC-S-2, Section V.D.3)
21. **Beginning Operation:** Except as prohibited in Part I, Condition 24 of this permit, after certification of construction by the permittee, the Permit to Construct shall be deemed to satisfy the requirement for a permit to operate until the date the application for issuance or modification of the Title V Permit or the application for issuance or modification of the State Permit to Operate, whichever is applicable, is due. This provision is not applicable to a source excluded from the requirement for a permit to operate as provided by APC-S-2, Section XIII.G. (Ref.: APC-S-2, Section V.D.4)
22. **Application for a Permit to Operate:** Except as otherwise specified in Part I, Condition 24 of this permit, the application for issuance or modification of the State Permit to Operate or the Title V Permit, whichever is applicable, is due twelve (12) months after beginning operation or such earlier date or time as specified in the Permit to Construct. The Permit Board may specify an earlier date or time for submittal of the application. Beginning operation will be assumed to occur upon

certification of construction, unless the permittee specifies differently in writing. (Ref.: APC-S-2, Section V.D.5)

23. Operating Under a Permit to Construct: Except as otherwise specified in Part I, Condition 24 of this permit, upon submittal of a timely and complete application for issuance or modification of a State Permit to Operate or a Title V Permit, whichever is applicable, the applicant may continue to operate under the terms and conditions of the Permit to Construct and in compliance with the submitted application until the Permit Board issues, modifies, or denies the Permit to Operate. (Ref.: APC-S-2, Section V.D.6)
 24. Application Requirements for a Permit to Operate for Moderate Modifications: For moderate modifications that require contemporaneous enforceable emissions reductions from more than one emission point in order to “net” out of PSD/NSR, the applicable Title V Permit to Operate or State Permit to Operate must be modified prior to beginning operation of the modified facilities. (Ref.: APC-S-2, Section V.D.7)
 25. Compliance Testing: Regarding compliance testing:
 - a) The results of any emissions sampling and analysis shall be expressed both in units consistent with the standards set forth in any Applicable Rules and Regulations or this permit and in units of mass per time.
 - b) Compliance testing will be performed at the expense of the permittee.
 - c) Each emission sampling and analysis report shall include but not be limited to the following:
 - (1) detailed description of testing procedures;
 - (2) sample calculation(s);
 - (3) results; and
 - (4) comparison of results to all Applicable Rules and Regulations and to emission limitations in the permit.
- (Ref.: APC-S-2, Section VI.B.3, 4, and 6)

B. GENERAL NOTIFICATION REQUIREMENTS

1. Within fifteen (15) days of beginning actual construction, the permittee must notify DEQ in writing that construction has begun. (Ref.: APC-S-2, Section V.C.2)
2. The permittee must notify DEQ in writing when construction does not begin within eighteen (18) months of issuance or if construction is suspended for eighteen (18) months or more. (Ref.: APC-S-2, Section V.C.3)
3. Upon the completion of construction or installation of an approved stationary source or modification, the applicant shall notify the Permit Board that construction or installation was performed in accordance with the approved plans and specifications on file with the Permit Board. (Ref.: APC-S-2, Section V.D.1)
4. The Permit Board shall be promptly notified in writing of any change in construction from the previously approved plans and specifications or permit. If the Permit Board determines the changes are substantial, it may require the submission of a new application to construct with “as built” plans and specifications. Notwithstanding any provision herein to the contrary, the acceptance of an “as built” application shall not constitute a waiver of the right to seek compliance penalties pursuant to State Law. (Ref.: APC-S-2, Section V.D.2)

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning upon permit issuance, the permittee is authorized to modify air emissions equipment for the emission of air contaminants from Emission Points AA-001 and AA-017, the No. 2 and No. 3 Sulfuric Acid Plants, respectively. The sulfuric acid plants currently have dual absorption systems for control of SO₂ emissions and are equipped with Brinks Demisters in the final absorption towers and other mist eliminators throughout the process to control sulfuric acid mist. Modifications to reduce SO₂ emission will include replacement of the vanadium catalyst with cesium catalyst in the 3rd and 4th converter passes. To reduce sulfuric acid mist, additional vertical tube mist eliminators, or candles, will be installed, and the economizer prior to each final absorption tower will be replaced. Other modifications may include replacement of the drying towers, interpass absorption towers, final absorption towers, acid coolers, and heat exchangers.

The air emissions equipment shall be modified to comply with the emission limitations and monitoring requirements specified below. **These emission limitations shall become effective as specified below but no later than five years from the date Mississippi's Regional Haze SIP is approved by EPA.**

EMISSION LIMITATIONS^{1,2}

Sulfur Dioxide (SO ₂) ³	3.0 lb SO ₂ /ton of 100% H ₂ SO ₄ produced (3-hr rolling average, determined hourly – BACT limit), not to exceed 225 lb/hr (24-hr rolling average, determined hourly – BART limit) and 1700 TPY (365-day rolling total, determined daily)
Sulfuric Acid (H ₂ SO ₄) ⁴	0.10 lb H ₂ SO ₄ /ton of 100% H ₂ SO ₄ produced (3-hr block average – BACT limit), not to exceed 7.5 lb/hr (3-hr block average) and 32.85 TPY

¹ The emission limitations shall apply at all times, except as provided for in APC-S-1, Section 10. All emissions, including those during startups, shutdowns, and malfunctions, shall be used to determine compliance with the TPY emission limitations.

² The SO₂ TPY limit is a combined limit for both sulfuric acid plants (Emission Point AA-001 and AA-017). All other emission limits are individual limits for each sulfuric acid plant.

³ The permittee shall comply with the short-term SO₂ emission limitations above for each plant upon certification of construction and startup of the modified converter, including the replacement of vanadium catalyst with cesium catalyst in both the 3rd and 4th passes. The permittee shall comply with the combined TPY SO₂ emission limit above upon certification and startup of the converters in both sulfuric acid plants.

⁴ The permittee shall comply with the H₂SO₄ emission limitations above for each plant upon certification of construction and startup of the modified/replaced interpass absorption tower and replacement of the economizer prior to the final absorption tower.

NSPS Subpart H - SULFURIC ACID PLANTS

For Emission Points AA-001 and AA-017, the permittee is subject to and shall comply with the *New Source Performance Standards for Sulfuric Acid Plants* (40 CFR Part 60, Subpart H) and the applicable requirements of the *General Provisions* (40 CFR Part 60, Subpart A).

Sulfur Dioxide:

The permittee shall not discharge into the atmosphere any gases which contain sulfur dioxide in excess of 4 lb per ton of acid produced, the production being expressed as 100 percent H₂SO₄. (Ref.: 40 CFR 60.82(a))

Sulfuric Acid Mist:

The permittee shall not discharge into the atmosphere any gases which contain acid mist, expressed as H₂SO₄, in excess of 0.15 lb per ton of acid produced, the production being expressed as 100 percent H₂SO₄. (Ref.: 40 CFR 60.83(a)(1))

Opacity:

The permittee shall not discharge into the atmosphere any gases which exhibit 10 percent opacity, or greater. (Ref.: 40 CFR 60.83(a)(2))

INITIAL COMPLIANCE DEMONSTRATION

For each sulfuric acid plant, within 60 days after achieving the maximum production rate at which the plant will be operated, but not later than 180 days after completion of modification/replacement of the interpass absorption tower and replacement of the economizer prior to the final absorption tower, the permittee shall demonstrate initial compliance with the emission limits and standards for the following pollutant by stack testing in accordance with the specified method(s).

Sulfuric Acid Mist

EPA Test Methods 8
(40 CFR Part 60, Subpart A)

All test methods specified above shall be those versions, or their approved equivalents, which are in effect upon permit issuance. For the purpose of demonstrating compliance, the permittee shall operate the sulfuric acid plant as close to its maximum rated capacity as operating conditions allow.

The permittee shall use the procedures in 40 CFR 60.85(d) to determine the lb H₂SO₄/ton of 100% H₂SO₄ produced.

The permittee shall submit a test protocol at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to the DEQ. The DEQ must be notified at least ten (10) days prior to the scheduled test date so that an observer may be scheduled to witness the test(s). A stack test report containing the results of the test(s) shall be submitted within sixty (60) days of completion of the required test(s).

MONITORING REQUIREMENTS

Sulfur Dioxide:

To demonstrate compliance with the SO₂ emission limits expressed as lb/ton, lb/hr, and TPY, the permittee shall develop a comprehensive monitoring plan containing the following information:

- (1) The use of a continuous emissions monitoring system for measuring and recording the concentration of SO₂ emissions from each sulfuric acid plant, including the frequency of measurement, performance specifications, and quality assurance procedures;
- (2) The use of an instrument for continuously measuring and recording the exhaust flow from each sulfuric acid plant, including performance specifications and quality assurance procedures;
- (3) The procedures the permittee will use to determine the hourly production rate of 100% sulfuric acid at each sulfuric acid plant;
- (4) The methods and/or calculations the permittee will use to determine the lb/hr and lb/ton SO₂ emission rate on an hourly basis and the ton/day SO₂ emission rate on a daily basis; and
- (5) The use of an automated data acquisition and handling system, including a description of the data acquired, the method by which data will be reduced to the units and averaging periods of the applicable emission limitations, and the procedures for addressing missing or invalid data.

The comprehensive monitoring plan shall be submitted to both the Environmental Permits Division and the Environmental Compliance and Enforcement Division of DEQ for approval within two years of permit issuance or 120 days prior to the effective date of the SO₂ limits for either sulfuric acid plant, whichever date comes first.

RECORDKEEPING REQUIREMENTS

In accordance with Part III, Condition 1, the permittee shall maintain electronic records of all CEMS data required to be monitored and recorded in a data acquisition and handling system and production data used to convert SO₂ emissions to units of lb/ton. The permittee shall maintain electronic records of the average hourly SO₂ emission rates in lb/ton, the average hourly SO₂ emission rate in lb/hr, and the calculated 3-hr rolling average SO₂ emission rates in lb/ton and lb/hr. The permittee shall calculate and record the daily SO₂ emissions in ton/day and the rolling 365-day total SO₂ emissions in TPY.

NOTIFICATION AND REPORTING REQUIREMENTS

In addition to the reporting requirements of 40 CFR 60.7, the permittee shall report all deviations from the permitting requirements specified herein in accordance with Part III, Condition 3.

Within sixty (60) days of permit issuance, the permittee shall submit a schedule of proposed construction activities and modifications to take place at the No. 2 and No. 3 Sulfuric Acid Plants. The schedule shall be updated annually thereafter to reflect completed construction, on-going construction, and planned construction.

The permittee shall promptly notify DEQ of any delay(s) in construction in accordance with Part I.B.2. of this permit. In accordance with Part I.B.3, the permittee shall also certify construction for each significant modification to the sulfuric acid plants, including but not limited to any modification that will trigger the emission limits established herein and replacement of any absorption or drying tower.

**PART III
OTHER REQUIREMENTS**

Records:

- (1) The permittee shall maintain on-site records of all required monitoring data and support information required by this permit for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. These records shall be made available for review upon request from DEQ personnel.

Reporting Deviations:

- (2) The permittee shall report any deviations from the permit requirements, including deviations attributable to upsets, within five (5) working days of such deviation. The report shall also include the cause of the deviation(s) and any corrective action(s) or preventive measure(s) taken. A copy of the report shall be maintained in accordance with Part III, Condition 1.

Semiannual Reports:

- (3) The permittee shall submit semiannual reports of the information specified in herein by July 30 and January 30 for the preceding six-month period. All instances of deviations from permit requirements must be clearly identified in such reports and a responsible official must certify all required reports.

SECTION 3

PUBLIC NOTICE AND PROOF OF PUBLICATION

Public Notice
Mississippi Environmental Quality Permit Board
P. O. Box 2261
Jackson, MS 39225
Telephone No. (601) 961-5171

Public Notice Start Date: June 16, 2010
Deadline For Comment: July 15, 2010

MDEQ Contact: Carla Brown

Mississippi Phosphates Corporation (MPC), located at 601 Highway 611 in Pascagoula, MS, (228) 762-3210, has applied to the Mississippi Department of Environmental Quality for the following permitting action: issuance of a Prevention of Significant Deterioration (PSD) Permit to Construct, Air Ref. No. 1280-00044. The applicant's operations fall within SIC Code 2874 for Phosphatic Fertilizers.

MPC manufactures diammonium phosphate (DAP) fertilizer by reacting sulfuric acid made on-site with phosphate rock to produce phosphoric acid. The phosphoric acid is then reacted with ammonia to produce DAP. MPC is proposing extensive upgrades and non-routine repairs and maintenance to the two sulfuric acid plants. These modifications will not result in an increased capacity at the sulfuric acid plants but will allow for more reliable operation of the plants. MPC evaluated the potential emissions increases from these modifications to the sulfuric acid plants and determined that increases of sulfur dioxide and sulfuric acid mist would be above the PSD significant thresholds of 40 tons per year for sulfur dioxide and 7 tons per year for sulfuric acid mist. Therefore, MPC performed a Best Available Control Technology (BACT) analysis to determine the appropriate control technology(ies) and emission limitations for the project. MPC also submitted a Source Impact Analysis showing that the project would not have an adverse impact on air quality, vegetation and soils, and visibility.

The PSD regulations set certain requirements on the permissible incremental impact on air quality and the degree of control of air contaminants, which have been reviewed for compliance with those regulations. The project will be located in a PSD Class II area and the following consumption of air quality increments is predicted to occur:

Sulfur Dioxide

Annual	0.92 micrograms per cubic meter or 4.6% of the 20 micrograms per cubic meter increment.
24-hour	1.46 micrograms per cubic meter or 1.6% of the 91 micrograms per cubic meter increment.
3-hour	4.52 micrograms per cubic meter or 0.88% of the 512 micrograms per cubic increment.

The staff of the Permit Board has developed this draft permit based on information submitted to the Permit Board by the applicant, appropriate State and Federal agencies and other interested parties. The staff of the Permit Board is soliciting all relative information pertaining to the proposed activity, including public comment, to ensure that the final staff recommendation on the draft permit complies with all State and Federal regulations. Public review and comment on the draft permit and supporting documentation is an important element in the staff evaluation and resulting recommendation to the Permit Board. The draft permit conditions have been developed to ensure compliance with all State and Federal regulations but are subject to change based on information received as a result of public participation.

Persons wishing to comment upon or object to the proposed determinations are invited to submit comments in writing to Carla Brown at the Permit Board's address shown above, no later than July 15, 2010. All comments received by this date will be considered in the formulation of final determinations regarding the application(s). A public hearing will be held if the Permit Board finds a significant degree of public interest in the proposed permit(s). The Permit Board is limited in the scope of its analysis to environmental impact. Any comments relative to zoning or economic and social impacts are within the jurisdiction of local zoning and planning authorities and should be addressed to them.

Additional details about the application(s), including a copy of the draft permit(s), are available by writing or calling Edna Banks at the above Permit Board address and telephone number. Additionally, as a courtesy, for those with Internet access, a copy of the proposed draft permit(s) may be found on the Mississippi Department of

Environmental Quality's website at: http://opc.deq.state.ms.us/report_public_notice.aspx. This information is also available for review at the following location(s) during normal business hours:

Mississippi Department of Environmental Quality
Office of Pollution Control
MDEQ 515 E. Amite St
Jackson, MS 39201

Pascagoula Public Library
3214 Pascagoula Street
Pascagoula, MS 39567

Please bring the foregoing to the attention of persons whom you know will be interested.

PROOF OF PUBLICATION RECEIVED

JUN 21 2010

STATE OF MISSISSIPPI
COUNTY OF HARRISON

Dept. of Environmental Quality
Office of Pollution Control

Before me, the undersigned Notary of Harrison County, Mississippi personally appeared CRISTA LAUX who, being by me first duly sworn, did depose and say that she is a clerk of The Sun Herald, a newspaper published in the city Gulfport, in Harrison County, Mississippi, and the publication of the notice, a copy of which is hereto attached, has been made in said paper 1 times in the following numbers and on the following dates of such paper, viz:

- Vol. 126 No., 256 dated 16 day of June, 20 10
- Vol. _____ No., _____ dated _____ day of _____, 20 _____
- Vol. _____ No., _____ dated _____ day of _____, 20 _____
- Vol. _____ No., _____ dated _____ day of _____, 20 _____
- Vol. _____ No., _____ dated _____ day of _____, 20 _____
- Vol. _____ No., _____ dated _____ day of _____, 20 _____
- Vol. _____ No., _____ dated _____ day of _____, 20 _____
- Vol. _____ No., _____ dated _____ day of _____, 20 _____

Affiant further states on oath that said newspaper has been established and published continuously in said country for a period of more than twelve months next prior to the first publication of said notice.

JUN 14 2010

Crista Laux

Clerk

Sworn to and subscribed before me this 16 day of

June, A.D., 20 10



Kandi A. Berkley
Notary Public

Public Notice Environmental Quality Permit Board P. O. Box 2261 Jackson, MS 39225 Telephone No. (601) 961-5171 Public Notice Start Date: June 16, 2010 MDEQ Contact: Carla Brown Deadline For Comment: July 15, 2010 Mississippi Phosphates Corporation (MPC), located at 601 Highway 611 in Pascagoula, MS, (228) 762-3210, has applied to the Mississippi Department of Environmental Quality for the following permitting action: issuance of a Prevention of Significant Deterioration (PSD) Permit to Construct, Air Ref. No. 1280-00044. The applicant's operations fall within SIC Code 2874 for Phosphatic Fertilizers. MPC manufactures diammonium phosphate (DAP) fertilizer by reacting sulfuric acid made on-site with phosphate rock to produce phosphoric acid. The phosphoric acid is then reacted with ammonia to produce DAP. MPC is proposing extensive upgrades and non-routine repairs and maintenance to the two sulfuric acid plants. These modifications will not result in an increased capacity at the sulfuric acid plants but will allow for more reliable operation of the plants. MPC evaluated the potential emissions increases from these modifications to the sulfuric acid plants and determined that increases of sulfur dioxide and sulfuric acid mist would be above the PSD significant thresholds of 40 tons per year for sulfur dioxide and 7 tons per year for sulfuric acid mist. Therefore, MPC performed a Best Available Control Technology (BACT) analysis to determine the appropriate control technology(ies) and emission limitations for the project. MPC also submitted a Source Impact Analysis showing that the project would not have an adverse impact on air quality, vegetation and soils, and visibility. The PSD regulations set certain requirements on the permissible incremental impact on air quality and the degree of control of air contaminants, which have been reviewed for compliance with those regulations. The project will be located in a PSD Class II area and the following consumption of air quality increments is predicted to occur:

Sulfur Dioxide Annual
0.92 micrograms per cubic meter or
4.6% of the 20 micrograms per cubic meter increment.
24-hour
1.46 micrograms per cubic meter or
1.6% of the 91 micrograms per cubic meter increment.
3-hour

4.52 micrograms per cubic meter or
0.88% of the 512 micrograms per cubic meter increment.
The staff of the Permit Board has developed this draft permit based on information submitted to the Permit Board by the applicant, appropriate State and Federal agencies and other interested parties. The staff of the Permit Board is soliciting all relative information pertaining to the proposed activity, including public comment, to ensure that the final staff recommendation on the draft permit complies with all State and Federal regulations. Public review and comment on the draft permit and supporting documentation is an important element in the staff evaluation and resulting recommendation to the Permit Board. The draft permit conditions have been developed to ensure compliance with all State and Federal regulations but are subject to change based on information received as a result of public participation. Persons wishing to comment upon or object to the proposed determinations are invited to submit comments in writing to Carla Brown at the Permit Board's address shown above, no later than July 15, 2010. All comments received by this date will be considered in the formulation of final determinations regarding the application(s). A public hearing will be held if the Permit Board finds a significant degree of public interest in the proposed permit(s). The Permit Board is limited in the scope of its analysis to environmental impact. Any comments relative to zoning or economic and social impacts are within the jurisdiction of local zoning and planning authorities and should be addressed to them. Additional details about the application(s), including a copy of the draft permit(s), are available by writing or calling Edna Banks at the above Permit Board address and telephone number. Additionally, as a courtesy, for those with Internet access, a copy of the proposed draft permit(s) may be found on the Mississippi Department of Environmental Quality's website at: http://op-c.deq.state.ms.us/report_public_notice.aspx. This information is also available for review at the following location(s) during normal business hours: Mississippi Department of Environmental Quality Office of Pollution Control MDEQ 515 E. Arnie St Jackson, MS 39201 Pascagoula Public Library 3214 Pascagoula Street Pascagoula, MS 39567 Please bring the foregoing to the attention of persons whom you know will be interested. ADV16,1WED 1409232

PRESS-REGISTER

LEGAL AFFIDAVIT

Account Number: 1007381
Ad Number: 0001643808
Period Ending: 6/16/2010 12:00:01AM

Name: MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL
Sales Rep: Christine Bevins
251-219-5000

RECEIVED
JUL 21 2010
Dept of Environmental Quality
Office of Pollution Control

V1 74962

Billing Inquiries Please Call: (251) 219-5424

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
ATTN: INVOICES/LINDA STANFORD
P. O. BOX 2369
JACKSON, MS 39225

• Press - Register
Lock Box 1712
Mobile, AL 36633-1712

Date	Position	Description	P.O. Number	Ad Size	Total Cost
06/16/2010	Legals-Mississippi	Public Notice Mississippi Environmental		715 WDS	85.80

Mecia Carlson being sworn, says that she is bookkeeper of Press-Register which publishes a daily newspaper in the City of Pascagoula and County of Jackson, State of Mississippi; and attached notice appeared in the issue of Mississippi Press 06/16/2010

Public Notice
Mississippi Environmental Quality Permit Board
P. O. Box 2261
Jackson, MS 39225
Telephone No. (601) 961-5171

Public Notice Start Date: June 16, 2010
MDEQ Contact: Carla Brown
Deadline For Comment: July 15, 2010

Mississippi Phosphates Corporation (MPC), located at 601 Highway 611 in Pascagoula, MS, (228) 762-3210, has applied to the Mississippi Department of Environmental Quality for the following permitting action: issuance of a Prevention of Significant Deterioration (PSD) Permit to Construct, Air Ref. No. 1280-00044. The applicant's operations fall within SIC Code 2874 for Phosphatic Fertilizers.

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The staff of the Permit Board has developed this draft permit based on information submitted to the Permit Board by the applicant, appropriate State and Federal agencies and other interested parties. The staff of the Permit

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Mississippi Department of Environmental Quality
Office of Pollution Control
MDEQ 515 E. Amite St
Jackson, MS 39201
Pascagoula Public Library
3214 Pascagoula Street
Pascagoula, MS 39567

Please bring the foregoing to the attention of persons whom you know will be interested.

THE MISSISSIPPI PRESS
JUNE 16, 2010

Sworn to and subscribed before me this 16th day of June 2010

Mecia Carlson

Karen S. Crawford
NOTARY PUBLIC

FOR QUESTIONS CONCERNING THIS AFFIDAVIT, PLEASE CALL MECIA CARLSON AT (251) 219-5418. YOU CAN PLACE A LEGAL NOTICE BY EMAIL OR FAX: MSLEGALS@PRESS-REGISTER.COM OR FAX# (251) 219-5037





STATE OF MISSISSIPPI
 HALEY BARBOUR
 GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
 TRUDY D. FISHER, EXECUTIVE DIRECTOR

RECEIVED
JUN 23 2010
 Dept. of Environmental Quality
 Office of Pollution Control

June 11, 2010

Pascagoula Public Library
 3214 Pascagoula Street
 Pascagoula, MS 39567

Dear Librarian:

Re: Mississippi Phosphates Corporation (MPC)
 Draft PSD Permit Public Notice
 Sulfuric Acid Plants Project
 Air Ref. No. 1280-00044
 Jackson County

Enclosed is a copy of the public notice for comment on the above referenced environmental permit. Please post this notice in your library.

Also, enclosed is a copy of information pertinent to the permit. This information should be kept on hand for review by the public until July 15, 2010, after which it may be discarded. The public may photocopy all or any portion of this information, but it should not leave the library.

Finally, enclosed please find a duplication of this letter with a place for your signature and the date acknowledging your receipt of the package and your agreement to carry out our request. A self-addressed stamped envelope is enclosed for your convenience.

We are attempting to better keep the public informed of and involved in this Office's actions regarding environmental permits. Since access to the public library is so convenient for so many we hope to use these facilities as often as possible. Your cooperation in this matter is greatly appreciated.

If you have any questions, please let me know at (601) 961-5235.

Sincerely,

Carla Brown, P.E.
 Chemical Branch
 Environmental Permits Division

Enclosures

Received and
 Agreed to By:

Title: ASSISTANT
 DIRECTOR

Date: 6-22-10

2068 PER20090002

PSD

SECTION 4

TRANSMITTAL LETTERS TO EPA AND JURISDICTIONAL BODIES



STATE OF MISSISSIPPI

HALEY BARBOUR

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

TRUDY D. FISHER, EXECUTIVE DIRECTOR

June 11, 2010

Mr. Thomas McKiernon
Vice President
Mississippi Phosphates Corporation
PO Box 848
Pascagoula, MS 39568-0848

Dear Mr. McKiernon:

Re: Mississippi Phosphates Corporation (MPC)
Draft PSD Permit Public Notice
Sulfuric Acid Plants Project
Air Ref. No. 1280-00044
Jackson County

Enclosed are the public notice, draft permit and rationale for the above referenced permit. If you have not already done so, you are invited to submit written comments by no later than July 15, 2010. A decision regarding the proposed permit(s) will be made after all public comments have been duly considered.

If you have any questions, please contact me at (601) 961-5235.

Sincerely,

A handwritten signature in cursive script that reads "Carla Brown".

Carla Brown, P.E.
Chemical Branch
Environmental Permits Division

Enclosures

cc: Samuel Cunningham, MPC
Michael Caples, Butler Snow (via e-mail)
Dwight Wylie, Eco-Systems (via e-mail)

2068 PER20090002

PSD

OFFICE OF POLLUTION CONTROL

POST OFFICE BOX 2261 • JACKSON, MISSISSIPPI 39225-2261 • TEL: (601) 961-5171 • FAX: (601) 354-6612 • www.deq.state.ms.us



STATE OF MISSISSIPPI

HALEY BARBOUR

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

TRUDY D. FISHER, EXECUTIVE DIRECTOR

June 11, 2010

Jackson County Chancery Clerk
PO Box 998
Pascagoula, MS 39567

Dear Sir:

Re: Mississippi Phosphates Corporation (MPC)
Draft PSD Permit Public Notice
Sulfuric Acid Plants Project
Air Ref. No. 1280-00044
Jackson County

Please post the enclosed public notice in your courthouse on or before June 16, 2010.

If you are unable to do so or if you have any questions, please contact me at (601) 961-5235.

Sincerely,

A handwritten signature in cursive script that reads "Carla Brown".

Carla Brown, P.E.
Chemical Branch
Environmental Permits Division

Enclosure

2068 PER20090002

PSD

OFFICE OF POLLUTION CONTROL

POST OFFICE BOX 2261 • JACKSON, MISSISSIPPI 39225-2261 • TEL: (601) 961-5171 • FAX: (601) 354-6612 • www.deq.state.ms.us



STATE OF MISSISSIPPI

HALEY BARBOUR

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

TRUDY D. FISHER, EXECUTIVE DIRECTOR

June 11, 2010

Pascagoula Public Library
3214 Pascagoula Street
Pascagoula, MS 39567

Dear Librarian:

Re: Mississippi Phosphates Corporation (MPC)
Draft PSD Permit Public Notice
Sulfuric Acid Plants Project
Air Ref. No. 1280-00044
Jackson County

Enclosed is a copy of the public notice for comment on the above referenced environmental permit. Please post this notice in your library.

Also, enclosed is a copy of information pertinent to the permit. This information should be kept on hand for review by the public until July 15, 2010, after which it may be discarded. The public may photocopy all or any portion of this information, but it should not leave the library.

Finally, enclosed please find a duplication of this letter with a place for your signature and the date acknowledging your receipt of the package and your agreement to carry out our request. A self-addressed stamped envelope is enclosed for your convenience.

We are attempting to better keep the public informed of and involved in this Office's actions regarding environmental permits. Since access to the public library is so convenient for so many we hope to use these facilities as often as possible. Your cooperation in this matter is greatly appreciated.

If you have any questions, please let me know at (601) 961-5235.

Sincerely,

A handwritten signature in cursive script that reads "Carla Brown".

Carla Brown, P.E.
Chemical Branch
Environmental Permits Division

Enclosures

2068 PER20090002

PSD



STATE OF MISSISSIPPI

HALEY BARBOUR

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

TRUDY D. FISHER, EXECUTIVE DIRECTOR

June 11, 2010

Postmaster
Pascagoula, Mississippi 39567

Dear Postmaster:

Re: Mississippi Phosphates Corporation (MPC)
Draft PSD Permit Public Notice
Sulfuric Acid Plants Project
Air Ref. No. 1280-00044
Jackson County

Please post the attached public notice in your post office on or before June 16, 2010.

If you are unable to do so or if you have any questions, please contact me at (601) 961-5235.

Sincerely,

A handwritten signature in cursive script that reads "Carla Brown".

Carla Brown, P.E.
Chemical Branch
Environmental Permits Division

Enclosure

2068 PER20090002

PSD

OFFICE OF POLLUTION CONTROL

POST OFFICE BOX 2261 • JACKSON, MISSISSIPPI 39225-2261 • TEL: (601) 961-5171 • FAX: (601) 354-6612 • www.deq.state.ms.us



STATE OF MISSISSIPPI

HALEY BARBOUR

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

TRUDY D. FISHER, EXECUTIVE DIRECTOR

June 11, 2010

City of Pascagoula
PO Drawer 908
Pascagoula, MS 395680908

Honorable Mayor:

Re: Mississippi Phosphates Corporation (MPC)
Draft PSD Permit Public Notice
Sulfuric Acid Plants Project
Air Ref. No. 1280-00044
Jackson County

Enclosed is a copy of the public notice for comment for a Prevention of Significant Deterioration Construction Permit requested by the above reference facility.

If you have any comments concerning the contents of the draft permit, please notify this office in writing no later than July 15, 2010. If you would like to contact me to discuss any of these concerns, please call me at (601) 961-5235.

Sincerely,

A handwritten signature in cursive script that reads "Carla Brown".

Carla Brown, P.E.
Chemical Branch
Environmental Permits Division

Enclosure

2068 PER20090002

PSD

OFFICE OF POLLUTION CONTROL

POST OFFICE BOX 2261 • JACKSON, MISSISSIPPI 39225-2261 • TEL: (601) 961-5171 • FAX: (601) 354-6612 • www.deq.state.ms.us



STATE OF MISSISSIPPI

HALEY BARBOUR

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

TRUDY D. FISHER, EXECUTIVE DIRECTOR

June 11, 2010

Jackson County Board of Supervisors
PO Box 998
Pascagoula, MS 39568

Dear Sirs:

Re: Mississippi Phosphates Corporation (MPC)
Draft PSD Permit Public Notice
Sulfuric Acid Plants Project
Air Ref. No. 1280-00044
Jackson County

Enclosed is a copy of the public notice for comment for a Prevention of Significant Deterioration Construction Permit requested by the above reference facility.

If there are any questions regarding this matter, please contact me at (601) 961-5235.

Sincerely,

A handwritten signature in cursive script that reads "Carla Brown".

Carla Brown, P.E.
Chemical Branch
Environmental Permits Division

Enclosure



Carla
Brown/EPD/OPC/DEQ
06/11/2010 12:02 PM

To shlegals@sunherald.com,
mslegals@themiississippipress.com
cc Linda Stanford/OPC/DEQ@DEQ, Carla
Brown/EPD/OPC/DEQ@DEQ
bcc

Subject notice for legals section

Please publish the attached notice in the legals section of your newspaper on or before June 16, 2010. Please provide a statement and proof of publication and also a cover invoice indicating the following information:

- * your newspaper's name and mailing address,
- * the date the public notice was actually published,
- * the referenced facility name, and
- * the amount charged for the ad.

The invoice and proof of publication should be sent to MDEQ, PO Box 2369, Jackson, MS 39225. If you have any questions or any problems with the attachment, please let me know.

Thank you!
Carla Brown, P.E.
Environmental Permits Division
Office of Pollution Control
Mississippi Department of Environmental Quality
P.O. Box 2261
Jackson, MS 39225
(601) 961-5235



Mississippi Phosphates Public Notice.doc



Carla_Brown@deq.state.ms.us

06/11/2010 07:38 PM

Please respond to
Carla_Brown@deq.state.ms.us

To Carla_Brown@deq.state.ms.us

cc

bcc

Subject EPA/MDEQ PSD Draft Permit enReview (Mississippi Phosphates Corporation)

PSD Notice

The Mississippi Department of Environmental Quality has prepared a draft PSD permit for the facility identified below. A copy of this draft permit and other relevant documents can be viewed using the following link.

Permit No. 1280-00044.

Additional facility information can be viewed at: Mississippi Phosphates Corporation.

A summary of all PSD applications under review in Mississippi can be viewed at: MDEQ PSD enReview.

Facility Name: Mississippi Phosphates Corporation

City: Pascagoula

County: Jackson

Please contact the permit writer, Carla Brown ((601) 961-5235 / Carla_Brown@deq.state.ms.us), or the branch manager, Toby Cook ((601) 961-5067 / Toby_Cook@deq.state.ms.us), for additional information or if any of the associated documents are not available.

Recipients: Carla_Brown@deq.state.ms.us, Toby_Cook@deq.state.ms.us, bruce_ferguson@deq.state.ms.us, Krivo.Stanley@epa.gov, adams.yolanda@epa.gov, abrams.heather@epa.gov, forney.kathleen@epa.gov, Jill_Webster@fws.gov, chuber@fs.fed.us.

This email was electronically generated on Fri 11-Jun-2010 19:00:24 and is intended to complete the notification requirements under 40 CFR 52.21(p)(1) adopted by reference in Mississippi Commission on Environmental Quality Regulation APC-S-5.

SECTION 5

ACKNOWLEDGEMENTS RECEIVED
(Comments from only EPA were received.)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

July 15, 2010

Carla Brown, P.E.
Environmental Permits Division
Office of Pollution Control
Mississippi Department of Environmental Quality
P.O. Box 2261
Jackson, Mississippi 39225

Dear Ms Brown:

Thank you for sending the preliminary determination of a Prevention of Significant Deterioration (PSD) permit application for a proposed project at Mississippi Phosphates Corporation (MPC), located at 601 Highway 611 in Pascagoula, MS. The facility has applied to the Mississippi Department of Environmental Quality for a PSD permit to modify their two sulfuric acid plants. The proposed project will result in significant net emissions increases of sulfur dioxide (SO₂) and sulfuric acid mist (H₂SO₄), above the significant thresholds established in the PSD regulations. The permit application is identified as Air Ref. No. 1280-00044.

The Region 4 office of the U.S. Environmental Protection Agency (EPA) has reviewed the permit application, and has the following comments:

1. BACT/BART Determination:

MPC proposes best available control technology (BACT) and best available retrofit technology (BART) to be the existing dual absorption system and replacement of vanadium catalyst with cesium catalyst in the 3rd and 4th converter passes, yielding emissions of 3.0 lb SO₂/ton of 100% H₂SO₄ produced (3-hr rolling average, determined hourly), not to exceed 225 lb/hr (24-hr rolling average, determined hourly) and 1700 TPY (365-day rolling total, determined daily). The Mississippi Department of Environmental Quality believes that these BACT/BART limits are consistent with BACT determinations for other sulfuric acid plants, taking into account the current design of the MPC sulfuric acid plants.

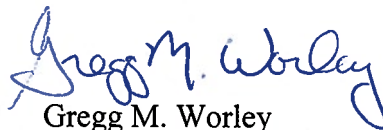
EPA notes that there are numerous recently permitted Sulfuric Acid plants recently permitted in the 1.5 to 2.5 lb SO₂/ton of 100% H₂SO₄ produced (3-hr rolling average, determined hourly) range. What appears to distinguish this plant from these others is the 2/2 pass configuration in the design of this facility. We recommend strengthening the record for this by providing additional documentation, such as engineering technical analyses or operations modeling analyses, to support that this facility is limited to being able to meet 3.0 lb SO₂/ton of 100% H₂SO₄ produced (3-hr rolling average, determined hourly).

2. Monitoring and recordkeeping requirements:

We note that the permit requires the permittee to use the continuous emissions monitoring system (CEMS) consistent with the requirements of the new source performance standards (NSPS), and to maintain electronic records of all CEMS data and data used to convert SO₂ emissions to units of lb/ton, electronic records of the average hourly SO₂ emission rates in lb/ton, the total hourly SO₂ emission rate in lb/hr, and the calculated 3-hr rolling average SO₂ emission rates in lb/ton and lb/hr. The permittee is also required to calculate and record the daily SO₂ emissions in ton/day and the rolling 365-day total SO₂ emissions in TPY. Unfortunately the NSPS provisions for monitoring for sulfuric acid plants date back to 1980. They do not reflect improvements made in specifying how to best monitor and maintain records and do not include adequate procedures for performing annual and daily tons calculations. We suggest you update the requirements to better reflect today's technology and address the methodology for calculating compliance with a ton/day and the rolling 365-day total SO₂ emission limit. As examples of more recent monitoring and recordkeeping provisions which would we believe would be more appropriate for this facility, we suggest you consider relevant provisions of EPA's acid rain rules 40 CFR part 75 – particularly, the requirements for installation, certification, operation, and maintenance of SO₂ CEMS and continuous flow rate monitoring systems in §75.10(a)(1); the performance, quality assurance, and quality control requirements in §75.10(b); the hourly operating requirements in §75.10(d); the measurement requirements in §75.10(f); the recordkeeping and reporting requirements in §75.10(g); and the monitoring plan requirements in §75.53(a)(2); §75.53(b); §75.53(e)(1)(i)(A) and (E); §75.53(e)(1)(iv)(A), (C), (F), and (G); §75.53(e)(1)(x); §75.53(e)(1)(xiv); and §75.53(e)(2).

If you have any questions about these comments or require additional information, please contact John Calcagni at (919) 541-9775 or Heather Abrams at (404) 562-9185.

Sincerely,



Gregg M. Worley

Chief

Air Permits Section

SECTION 6

RESPONSE TO EPA's COMMENTS

August 26, 2010

Mr. Gregg Worley
Air Permits Section
U.S. EPA, Region 4
Atlanta Federal Center
61 Forsyth Street SW
Atlanta, Georgia 30303-3104

Dear Mr. Worley:

Re: Mississippi Phosphates Corporation
Response to EPA Comments on MPC PSD
Air Ref. No.1280-00044
Jackson County

Thank you for providing comments dated July 15, 2010, on the proposed PSD permit for Mississippi Phosphates Corporation (MPC). We have taken these comments into consideration and made changes to both the explanation of the BACT/BART determination and the monitoring requirements of the permit. The BACT/BART determination was revised to better justify the emission limits in the permit by adding more detailed information regarding the difference in MPC's sulfuric acid plant configuration and the configuration of most other plants such that these plants are able to achieve lower SO₂ emission rates.

The PSD permit was initially revised to incorporate extensive language regarding SO₂ CEMS, continuous measurement of exhaust gas flow, and requirements for a monitoring plan. The proposed language was emailed to both Heather Abrams and John Calcagni, as well as to MPC, for their review and comment a few weeks ago. After conversations with MPC, MDEQ has decided to revise the language yet again to require continuous monitors for both SO₂ emissions and exhaust flow and to require hourly determinations of sulfuric acid production. However, instead of going into great detail about the requirements for these monitoring systems, the permit requires that MPC submit an extensive monitoring plan for MDEQ's approval prior to completing the permitted construction activities. MDEQ believes this is the best approach given the extent of uncertainty surrounding the exact specifications for installing, operating, and maintaining a continuous monitoring system and the likelihood that providing a great level of detail at this time would warrant future modifications to the PSD permit. This revised language was also provided to Heather Abrams and will appear in the final permit which should be received by your office shortly.

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Again, we do appreciate the technical oversight and input EPA has provided during this permitting process. If you have any questions regarding the responses above, please contact me at (601) 961-5235.

Sincerely,

Carla Brown, P.E.
Chemical Branch
Environmental Permits Division

cc: Ms. Heather Abrams, EPA Region 4