

BEFORE THE NORTH CAROLINA
ENVIRONMENTAL MANAGEMENT COMMISSION

STATE OF NORTH CAROLINA)	
)	
COUNTY OF BEAUFORT)	SPECIAL ORDER BY CONSENT
)	
IN THE MATTER OF:)	SOC 2016- <u>004</u>
PCS PHOSPHATE COMPANY, INC.)	
PHOSPHORIC ACID PLANT)	

This SPECIAL ORDER BY CONSENT (“ORDER”) is made and entered into pursuant to North Carolina General Statute 143-215.110 by and between PCS PHOSPHATE COMPANY, INC. (“PCS” or the “COMPANY”) which operates a phosphoric acid manufacturing facility in Aurora, North Carolina (“FACILITY”), and the ENVIRONMENTAL MANAGEMENT COMMISSION, an agency of the State of North Carolina (the “COMMISSION”).

WITNESSETH:

- I. PCS and the COMMISSION do hereby stipulate and agree to the following:
 - A. As part of the FACILITY, PCS operates six (6) phosphate rock calciners (collectively, the “PCS calciners”) in Aurora, North Carolina. The PCS calciners are “existing sources” subject to Maximum Achievable Control Technology (“MACT”) requirements under 40 C.F.R. Part 63, Subpart AA. PCS operates the calciners (Emission Points 201 through 206) under Air Permit 04176T53.
 - B. On August 19, 2015, the U.S. Environmental Protection Agency (“EPA”) issued a final rule with the results of its Residual Risk and Technology Review of the Subpart AA source category (the “Final Rule”). 80 Fed. Reg. 50,386. In the Final Rule, EPA determined that more stringent standards were unnecessary for Subpart AA facilities under Section 112 of the Clean Air Act. EPA explained that “the current standards provide an ample margin of safety to protect public health, and prevent an adverse environmental effect.” *Id.* at 50,396. EPA also concluded, based on its technology review, that “there are no cost-effective developments in practices, processes, and control technologies that warrant revisions to the MACT standards for this source category.” *Id.* at 50,391.

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- C. For existing phosphate rock calciners, the Final Rule retained the pre-existing MACT floor standard of 0.181 grams per dry standard cubic meter (“dscm”) for total particulate emissions (the “Particulate Standard”). Prior to issuance of the Final Rule, the Particulate Standard served as a surrogate limit for emissions of all metal hazardous air pollutants, including mercury, from existing calciners. Subpart AA requires performance testing of particulate emissions from existing calciners once per calendar year. 40 C.F.R. § 63.606(b). PCS has consistently demonstrated compliance with the Particulate Standard, most recently through testing conducted at the PCS calciners in 2015 and early 2016. On average, the results of particulate emissions testing in 2015 and 2016 were less than six percent of the Particulate Standard.
- D. Although EPA’s Residual Risk and Technology Review demonstrated that more stringent requirements are unnecessary for Subpart AA facilities, EPA set a new MACT floor standard of 0.14 milligrams of mercury per dscm corrected to 3 percent oxygen (the “Mercury Standard”) for existing calciners in the Final Rule.
- E. Section 112(d)(3)(B) of the Clean Air Act defines a MACT floor standard as the “average emission limitation achieved by the best performing 5 sources” in a category or subcategory with fewer than 30 sources. Because the PCS calciners are the only existing phosphate rock calciners in the Subpart AA category, EPA set the Mercury Standard in the Final Rule at a level that was determined to be the average emission limitation already achieved by the PCS calciners. EPA calculated the Mercury Standard based on a total of twelve (12) individual emissions test runs collected from the PCS calciners in 2010 and 2014 (see Appendix A-1 of EPA Docket ID No. EPA-HQ-OAR-2012-0522-0075). EPA concluded: “We do not anticipate that any facilities will need to install a new control device to meet the existing phosphate rock calciner [mercury] . . . limit.” *See Phosphoric Acid Manufacturing and Phosphate Fertilizer Production RTR and Standards of Performance for Phosphate Processing – Summary of Public Comments and Responses*, p. 12-1, Docket ID No. EPA-HQ-OAR-2012-0522-0083.

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- F. The Final Rule required initial performance testing to demonstrate compliance with the new Mercury Standard by February 15, 2016. 80 Fed. Reg. at 50,441 (codified at 40 C.F.R. § 63.606(a)). PCS completed initial performance testing of mercury emissions from PCS Calciners No. 1 through No. 5 by the deadline specified in the Final Rule. For PCS Calciner No. 6, the North Carolina Division of Air Quality (“DAQ”) granted a two-week extension of the initial mercury performance testing deadline under 40 C.F.R. § 63.7(a)(4). PCS completed initial performance testing of mercury emissions from PCS Calciner No. 6 within the time period allowed by the DAQ extension.
- G. On February 17, 2016, PCS notified DAQ that the preliminary results of initial performance testing of mercury emissions from some PCS calciners exceeded the Mercury Standard on a three-run average. PCS also advised DAQ that further review of test data was necessary to confirm the results, and that PCS was initiating a preliminary study of mercury emissions variability for the calciners (“Preliminary Study”) to evaluate the cause of any final results in excess of the Mercury Standard.
- H. PCS submitted the final results of 2016 performance testing of the calciners under Subpart AA to DAQ and EPA on March 24, 2016.
- I. For mercury, the 2016 test results for Calciners No. 2, 5, and 6 were close to, but did not exceed, the Mercury Standard on a three-run average. However, the results of mercury testing for PCS Calciners No. 1, 3, and 4 exceeded the Mercury Standard on a three-run average. PCS explained in its 2016 test report that it would continue to work on the Preliminary Study of mercury emissions variability and would update DAQ promptly upon completion of that study.
- J. PCS completed the Preliminary Study of mercury emissions variability in May 2016 and presented the results to DAQ at a meeting on May 20, 2016. The results include data on the concentration of mercury in more than one hundred and seventy (170) samples of phosphate rock feed and fifty (50) additional test runs of calciner mercury emissions. Among other things, data collected during the Preliminary Study demonstrate significant variability in mercury emissions and

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the mercury concentration of phosphate rock feed to the PCS calciners. This data was not available when EPA promulgated the Mercury Standard in August 2015.

- K. Based on the results of the Preliminary Study and initial mercury performance testing, PCS has concluded that the Mercury Standard for existing phosphate rock calciners does not reflect the average emissions performance of the PCS calciners and, therefore, does not constitute a proper MACT floor standard for mercury emissions from existing calciners.
- L. On May 10, 2016, PCS submitted a letter to EPA requesting that EPA revise the MACT floor standard for mercury emissions from existing calciners through further rulemaking. On May 26, 2016, PCS met with EPA and presented the results of the Preliminary Study on mercury emissions variability as support for the PCS request to revise the Mercury Standard. On September 6, 2016, PCS supplemented its request to revise the Mercury Standard by submitting an Amended Petition for Reconsideration and Petition for Rulemaking (“Amended Petition”) to EPA. On September 20, 2016, PCS received a letter from EPA acknowledging that EPA received and is considering the Amended Petition. As of the date of this ORDER, EPA has not made any final determination in response to the PCS request for a revised mercury standard.
- M. In addition to seeking EPA revision of the Mercury Standard, PCS wishes to settle any and all compliance issues associated with mercury emissions from the PCS calciners in excess of the applicable mercury standard during the period of time from the effective date of the Final Rule on August 19, 2015 until termination of this ORDER. The compliance issues covered by this ORDER include, but are not limited to, the results of initial mercury performance testing of Calciners No. 1, 3, and 4, and any and all mercury emission test results in excess of the applicable mercury standard during the PCS Preliminary Study and the period of this ORDER.
- N. This ORDER sets out measures necessary to determine appropriate mercury performance testing protocols for the PCS calciners, understand mercury emissions variability during representative operating conditions, and determine a

strategy of compliance with the applicable mercury standard for existing calciners. PCS has determined that representative operating conditions for the calciners include significant variability in the mercury concentration of phosphate ore obtained from the PCS mine. As PCS will need to transition to new sections of its mine in the coming years, this ORDER establishes a schedule for extensive data collection and analysis that will include an assessment of mercury variability associated with future mining operations.

THEREFORE, PCS and the COMMISSION, desiring to resolve and settle the compliance issues between them, have agreed to enter into this ORDER with the following terms and conditions:

- II. PCS, desiring to operate in a safe and environmentally sound manner in accordance with applicable rules and regulations, does hereby agree to perform the following activities:
 - A. By no later than July 31, 2017, PCS shall complete an evaluation of Method 30B sorbent tube test duration at the PCS calciners and submit a mercury test plan for the PCS calciners (“Mercury Test Plan”) to DAQ. The Mercury Test Plan shall (i) explain the basis for determining a maximum sorbent tube duration for mercury performance testing and (ii) define appropriate operating conditions during mercury performance testing of the PCS calciners. PCS shall provide DAQ at least 60 calendar days to review and comment on the Mercury Test Plan before implementing it pursuant to Paragraph II.B of this ORDER.
 - B. Beginning in 2017, PCS shall conduct performance testing of mercury emissions from all PCS calciners once per calendar year in accordance with 40 C.F.R. Part 63, Subpart AA, and the Mercury Test Plan developed pursuant to Paragraph II.A of this Order. PCS shall report the results of each mercury performance test of the PCS calciners to DAQ as required by 40 C.F.R. § 63.627(b). In addition to supplying the information required by Subpart AA, performance test reports submitted pursuant to this ORDER shall include an update on mining progress.
 - C. By no later than May 31, 2019, PCS shall conduct a study of mercury variability in phosphate rock core samples collected from the PCS mine. In each performance test report submitted to DAQ pursuant to Paragraph II.B of this

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ORDER, PCS shall include a description of the phosphate rock core sampling conducted during the preceding calendar year.

- D. By no later than September 30, 2019, PCS shall submit to DAQ a report (“Data Collection Report”) that contains the following information: (1) a summary of the data collected pursuant to Paragraphs II.A through II.C of this ORDER; (2) a calculation of the confidence interval of compliance with the applicable mercury standard for the PCS calciners based on all available data; and (3) an evaluation of any mercury emission reductions necessary to comply with the applicable mercury standard under Subpart AA.
- E. Based on the information set out in the Data Collection Report, PCS shall design and conduct an evaluation (the “Feasibility Evaluation”) of potential compliance options to determine a strategy for achieving compliance with the Mercury Standard or other MACT requirements applicable to mercury emissions from existing calciners under Subpart AA. For each compliance option identified, PCS shall evaluate the feasibility, cost and required time period for implementing the option. PCS shall summarize the Feasibility Evaluation in a written report submitted to DAQ (“Feasibility Report”). The Feasibility Report shall identify the option selected by PCS for demonstrating compliance with the applicable mercury standard.
- F. If PCS determines in the Data Collection Report that the confidence interval of compliance with the applicable mercury standard equals or exceeds ninety-nine percent (or another confidence interval agreed to by both parties to this ORDER), PCS shall submit the Feasibility Report to DAQ by no later than March 31, 2020.
- G. If PCS determines in the Data Collection Report that the confidence interval of compliance with the applicable mercury standard is less than ninety-nine percent (or less than another confidence interval agreed to by both parties to this ORDER), the Feasibility Report is due by no later than September 30, 2021.
- H. If EPA undertakes a rulemaking to revise the Mercury Standard before September 30, 2021, PCS shall submit to DAQ a report (“SOC Update Report”) proposing whether any of the deadlines or requirements of this ORDER should be

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accelerated, eliminated or otherwise modified in response to EPA's rulemaking. The SOC Update Report shall be submitted to DAQ within 90 days following the effective date of any EPA final rule to revise the Mercury Standard. Any modifications of this ORDER must be agreed to in writing in accordance with Paragraph XV.

- III. If PCS must implement physical or operational changes as described in the Feasibility Report to comply with MACT requirements for mercury emissions from existing calciners, implementation of the chosen option in the Feasibility Report will be subject to a schedule to be prescribed in a new and separate Special Order by Consent ("SOC") between PCS and DAQ. If a separate SOC is required by this Paragraph, PCS shall negotiate with DAQ and sign the separate SOC within 90 days of receiving an initial draft from DAQ.
- IV. This ORDER authorizes the continued operation of the PCS calciners for the period of time necessary to comply with all applicable requirements of this ORDER.
- V. PCS agrees to pay a civil penalty in the amount of \$12,000. This amount shall be due and payable within thirty (30) days of the effective date of this ORDER.
- VI. The COMMISSION agrees that, except as provided in the terms and requirements of this ORDER, it shall not issue a separate Notice of Violation or pursue any additional enforcement action against the COMPANY related to the MACT requirements for mercury emissions from existing phosphate rock calciners. In the event that the COMPANY fails to comply with any deadline as set out in this ORDER or fails to achieve final compliance with any applicable requirement in this ORDER, the COMPANY agrees that, unless excused under Paragraph VII, the COMPANY shall pay stipulated penalties of \$500 per day for the first 5 days and \$1000 per day thereafter for each failure to meet any deadline or milestone required by this ORDER.

Stipulated Penalty:

Failure within thirty (30) days of receipt of the DAQ Director's written demand to pay the penalties will be grounds for a collection action, which the Attorney General is hereby authorized to initiate. The only issue in such an action will be whether thirty (30)

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days has elapsed since the COMPANY'S receipt of the DAQ Director's written demand to pay penalties.

- VII. The COMPANY'S obligation to comply with the requirements set forth in this ORDER for which a stipulated penalty may be assessed, may be delayed or excused only to the extent that noncompliance is caused by circumstances beyond the control of the COMPANY, as determined by the DAQ Director. Contractor delays or failure to obtain funding will not be considered events beyond the COMPANY'S control. If any such delaying event occurs, the COMPANY shall notify the DAQ in writing within ten (10) days of encountering or discovering the delaying event, describing in detail the event or delay, the precise causes(s) of the event or delay, the measure(s) taken and to be taken by the COMPANY to prevent or minimize the event or delay, and the schedule by which those measures will be implemented. If the COMPANY establishes good cause for its failure to comply with any part of this ORDER (i.e. noncompliance was caused by circumstances beyond the control of the COMPANY), the COMMISSION and the COMPANY jointly may stipulate and agree to a written modification of this ORDER. Extension of any compliance date pursuant to this Paragraph shall not extend any subsequent deadlines established in the ORDER unless the subsequent deadline necessarily is dependent upon completion of the earlier deadline.
- VIII. This ORDER shall pertain only to that equipment, sources, and operations described in Paragraph I of this ORDER. Any violation of Air Quality Standards resulting from these emission units or any other sources or equipment for which the COMPANY is responsible, shall subject the COMPANY to appropriate enforcement action pursuant to North Carolina General Statute 143-215.114.
- IX. The COMPANY agrees to waive any rights it may have to seek judicial review to challenge this ORDER or to seek a stay of enforcement of this ORDER in connection with any judicial review of the State Implementation Plan. The COMMISSION acknowledges that this waiver does not prohibit the COMPANY from seeking modification of this ORDER if any regulatory standards upon which this ORDER is

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based are changed subsequent to its execution. In such cases, the COMPANY may petition that the ORDER be modified to reflect those regulatory changes.

- X. In the event the COMMISSION or the DAQ find that reports, plans, or specifications, or permit applications required by Paragraph II are in any respect deficient or if additional information is necessary to comply with the requirements of North Carolina General Statutes 143-215.107 *et seq.*, any regulations promulgated thereunder, or any other applicable laws or regulations, the COMPANY shall be notified by the DAQ as soon as possible. The COMPANY shall be afforded an opportunity to modify, amend or supplement its submissions to make such submission complete and appropriate, and request any necessary amendments to this ORDER to effectuate its compliance.
- XI. All notices and reports required from the COMPANY by this ORDER shall be delivered to:

Robert Fisher, Regional Air Quality Supervisor
N.C. Dept. of Environment Quality
943 Washington Square Mall
Washington, NC 27889

All payments required from the COMPANY by this ORDER shall be mailed, first class postage prepaid, to the following address:

Enforcement Group – Payments
NCDEQ – DAQ
1641 Mail Service Center
Raleigh, North Carolina 27699-1641

- XII. This ORDER constitutes full and final settlement and satisfaction of all matters addressed herein and any and all claims or prospective claims that the COMMISSION has or may have for violations of regulations described in Paragraph I hereof, as of the date this ORDER is approved by the COMMISSION. This ORDER shall not affect the COMPANY'S obligation to comply with any Federal, State, or local laws or regulations.
- XIII. Final approval and entry into this ORDER are subject to the requirements that the COMMISSION give notice of proposed consent decrees to the public, and that the public have at least thirty (30) days within which to comment on the ORDER.

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- XIV. Should any provision of this ORDER be declared by a court of competent jurisdiction to be inconsistent with Federal or State law and therefore unenforceable, the remaining provisions hereof shall remain in full force and effect.
- XV. Any modifications of this ORDER must be agreed to in writing signed by both parties.
- XVI. Except as otherwise set forth herein, this ORDER is not and shall not be interpreted to be a permit or modification of an existing permit under Federal, State or local law, and shall not be construed to waive or relieve the COMPANY of its obligations to comply in the future with any permit.
- XVII. This ORDER is effective upon execution by the COMMISSION and shall terminate as follows:
- i. Upon submission by PCS of the Feasibility Report required by Paragraphs II.E through II.G, if a new and separate SOC is not required under Paragraph III; or
 - ii. Upon the effective date of a new and separate SOC between PCS and DAQ, if required under Paragraph III.

ATTESTED:

PCS PHOSPHATE COMPANY, INC.

By:



Mark D. Johnson, General Manager

DATE:

10/19/2016

APPROVED AND ACCEPTED:

BY:



Environmental Management Commission

DATE:

11/28/2016
