



Air Quality Permitting Response to Public Comments

September 26, 2019

Tier II Operating Permit No. T2-2019.0027

Project No. 62246

**P4 Production LLC
Soda Springs, Idaho**

Facility ID No. 029-00001

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Final

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BACKGROUND

The Idaho Department of Environmental Quality (DEQ) provided for public comment on the proposed Tier 2 permit for P4 Production LLC from August 15, 2019 through September 16, 2019, in accordance with IDAPA 58.01.01.404. The purpose of the Tier 2 permit is to establish a Mercury Best Available Control Technology (MBACT) emission standard. During this period, comments were submitted in response to DEQ's proposed action. Each applicable comment and DEQ's response is provided in the following section.

PUBLIC COMMENTS AND RESPONSES

Public comments regarding the technical and regulatory analyses and the air quality aspects of the proposed permit are summarized below. Questions, comments, and/or suggestions received during the comment period that did not relate to the air quality aspects of the permit application, the Department's technical analysis, or the proposed permit are not addressed. For reference purposes, a copy of the Rules for the Control of Air Pollution in Idaho can be found at: <http://adminrules.idaho.gov/rules/current/58/0101.pdf>.

The following comments were received from the facility on September 13, 2019.

- Comment 1:** Statement of Basis, Application Scope section on pg. 7, beginning "The applicant has proposed to install this system", second bullet - this provision does not specify when the demonstration must commence. Also, "to determine" appears twice. We recommend revising this to read "Within 12 months of installation and startup, a full-scale demonstration shall be conducted to determine consistency with the pilot study performance;"
- Response 1:** The requested changes will be made to this section of the SOB.
- Comment 2:** Statement of Basis, Permit Conditions Review on pg. 10, discussion of changes to Existing Permit Condition 2.3 - GMCS is the control. We recommend revising the first sentence to read "... replace it with the installation of GMCS and a mercury emissions target control efficiency." In addition, emissions were previously controlled through a throughput limit. We recommend revising the second sentence to read "...contained in P4's phosphate ore, where previously a throughput limit was used to limit mercury emissions."
- Response 2:** The first requested change will be made to this section of the SOB. The second sentence will be modified to include "add-on" as this was the intention of the sentence.
- Comment 3:** Permit Condition 1.2, first bullet point, "operation" is on-going. We recommend revising this to "start-up" (i.e., "complete the installation and startup on one of the four exhaust streams").
- Response 3:** The requested change will be made to this permit condition.
- Comment 4:** Permit Condition 1.2, second bullet point, this provision does not specify when the demonstration must commence. Also, "to determine" appears twice. We recommend revising this to read "Within 12 months of installation and startup, a full-scale demonstration shall be conducted to determine consistency with the pilot study performance."
- Response 4:** The requested change will be made to this permit condition.
- Comment 5:** Permit Condition 2.3, the target control efficiency should take pilot performance into account, since pilot performance forms the basis of the MBACT determination and presents significantly more data than will be produced by the full-scale GMCS testing alone. We recommend revising this to read that the control efficiency shall be "based on pilot performance and the performance testing that is required after the installation of the full-scale GMCS..."
- Response 5:** The requested change will be made to this permit condition.

- Comment 6:** Permit Condition 2.4, changing “hourly flow rate” to “three-hour average flow rate” is necessary because the test is not instantaneous and the flow rate will change over the course of the test’s duration. Specifying that an average will be used and how the average will be calculated is important for clarity.
- Response 6:** The requested change will be made to this permit condition.
- Comment 7:** Permit Condition 2.5, third paragraph, “GMCS” is misspelled as “GCMS”. We recommend changing “GCMS” to “GMCS”.
- Response 7:** GMCS was listed therefore no change needs to be made to the permit condition.
- Comment 8:** Permit Condition 2.6, changing “hourly flow rate” to “three-hour average flow rate” is necessary because the test is not instantaneous and the flow rate will change over the course of the test’s duration. Specifying that an average will be used and how the average will be calculated is important for clarity.
- Response 8:** The requested change will be made to this permit condition.
- Comment 9:** Permit Condition 2.8, “GMCS” is misspelled as “GCMS”. We recommending changing “GCMS” to “GMCS” (appears four times). Also, the schedule is already specified as “at least annually.” We recommending deleting “on a specified schedule”.
- Response 9:** GMCS was listed therefore no change needs to be made to the permit condition. In addition, “...on a specified schedule...” will remain in the permit condition so that a schedule more frequent than annually can be specified in the O & M Plan.
- Comment 10:** Permit Condition 2.9, section heading, the reference to the “Short-Term” mercury testing requirement is unclear. Replace “Short-Term” with “Method 30B”.
- Response 10:** The requested change will not be made to this permit condition as this is the title to the permit condition. The specific testing method is listed in the permit condition itself.
- Comment 11:** Permit Condition 2.9, the reference to “short-term” performance testing is unclear. Replace “short-term” with “Method 30B”.
- Response 11:** The requested change will not be made to this permit condition as the specific testing method is listed in the permit condition itself.
- Comment 12:** Permit Condition 2.9, first bullet, mercury emission concentration can be measured wet or dry, and the method of reporting should be specified. We recommend changing this to require monitoring and recording “in micrograms per dry standard cubic meter (µg/dscm).”
- Response 12:** The requested change will be made to this permit condition.
- Comment 13:** Permit Condition 2.9, last bullet, “GMCS” is misspelled as “GCMS”. We recommending changing “GCMS” to “GMCS”.
- Response 13:** GMCS was listed therefore no change needs to be made to the permit condition.
- Comment 14:** Permit Condition 2.10, section heading - the reference to the “Long-Term” mercury testing requirement is unclear. Replace “Long-Term” with “Method D6784”. Also, delete “Source”, for consistency with the section heading for Section 2.9.
- Response 14:** The requested changes will not be made to this permit condition as this is the title to the permit condition. The specific testing method is listed in the permit condition itself.
- Comment 15:** Permit Condition 2.10, the reference to “long-term” performance testing is unclear. Replace “long-term with “Method D6784”.
- Response 15:** The requested change will not be made to this permit condition as the specific testing method is listed in the permit condition itself.

Comment 16: Permit Condition 2.10, fifth bullet, “GMCS” is misspelled as “GCMS”. We recommend changing “GCMS” to “GMCS”.

Response 16: GMCS was listed therefore no change needs to be made to the permit condition.

Comment 17: Permit Condition 2.14, the MBACT standard is defined elsewhere as GMCS with a mercury emissions target control efficiency. We recommend changing “mercury emissions target control efficiency requirement” to “Mercury Best Available Control Technology (MBACT) standard”.

Response 17: The requested change will not be made to this permit condition as the mercury emissions target control efficiency is what is required to be complied with as a result of determining MBACT for the Nodulizing Kiln in the Top Down MBACT Analysis.

Comment 18: Top Down MBACT Analysis, pg. 9, Step 2, last paragraph - the final sentence beginning “After which time” is not a complete sentence; “mercury emissions target control efficiency requirement” is inconsistent with the other references to “mercury emissions target control efficiency” throughout; and the reference to a “subsequent permitting action” is imprecise given that the target will be set by the O&M plan. We recommend revising this sentence to read as follows: “After that testing is complete, a mercury emissions target control efficiency can be set in the O&M plan with a high degree of confidence.”

Response 18: “After that testing is complete...” will be added to the MBACT analysis. As for setting the “mercury emissions target control efficiency” in a “subsequent permitting action” this statement is accurate since the mercury emissions target control efficiency is not known at this time and it will be set in a subsequent permitting action.

Comment 19: Top Down MBACT Analysis, pg. 9, Step 5, The target control efficiency will be determined once full-scale operation of the GMCS has commenced; the phrase “target control efficiency” should be used throughout for consistency; and “GMCS” is misspelled as “GCMS”. We recommend revising this sentence to read: “Therefore, BACT for mercury emissions (MBACT) from the nodulizing kiln at the P4 plant is the use of GMCS with a target mercury control efficiency to be determined once full-scale operation of the GMCS has commenced along with a shakedown period.”

Response 19: The words “mercury emissions target control efficiency” will be added to the MBACT analysis to make it consistent with the November 20, 2018 Agreement in Principle Regarding Approach to Establishing MBACT Emission Standard response to P4 Production, LLC.