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Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

KEVIN STITT
Governor

January 31, 2022

Scott E. Stewart
Oxbow Calcining LLC
11826 N 30th St.
Kremlin, OK 73753

Subject: Additional clarifications on Oxbow's 4-factor analysis on control scenarios under the Clean Air Act Regional Haze Program

Dear Mr. Stewart:

In a letter dated July 1, 2020, the Oklahoma Department of Environmental Quality (DEQ) identified the Kremlin Calcining Plant located in Garfield County, Oklahoma, as subject to a four-factor reasonable progress analysis under the Regional Haze Rule as part of DEQ's development process for the state implementation plan covering the second planning period (Round 2) of 2021 – 2028.

On October 1, 2020, Oxbow submitted its four-factor analysis to DEQ. Oxbow included in its response that there were no cost-effective sulfur dioxide (SO₂) control measures available for Kilns 1, 2, or 3. DEQ included these conclusions in its draft Regional Haze SIP for Planning Period 2 that was shared with the Federal Land Managers and the U.S. Environmental Protection Agency (EPA) for their review and comment. DEQ requests that Oxbow review its four-factor analysis for potential SO₂ control measures and respond to the following questions, which are based on EPA's review of Oklahoma's draft SIP. We understand that some of the requested data/analysis may be gleaned or explained from DEQ's permitting and compliance files, and/or Oxbow's full unredacted submittal. However, your response will allow Oxbow to document the information that best explains and supports the conclusions of your four-factor analysis. DEQ intends to continue its analysis in parallel.

1. The assumption of a 20-year remaining useful life in the cost evaluation of controls is not sufficiently supported with documentation. As discussed in EPA's August 2019 Guidance¹, "Annualized compliance costs are typically based on the useful life of the control equipment rather than the life of the source, unless the source is under an enforceable requirement to cease operation." (See August 2019 Guidance at 33.) Based on what EPA has historically observed and available literature, an assumption of 30 years for the equipment life of scrubbers and dry sorbent injection (DSI) is reasonable and consistent with EPA's Control Cost Manual².

¹ https://www.epa.gov/sites/default/files/2019-08/documents/8-20-2019_-_regional_haze_guidance_final_guidance.pdf

² https://www.epa.gov/sites/default/files/2017-12/documents/epaccmcostestimationmethodchapter_7thedition_2017.pdf



2. A 10% interest rate is used in the cost analysis and it is explained that this is “based [on] confidential company-specific capital market information.” The redacted version of the four-factor analysis that is publicly available must specify whether this is a company-specific interest rate. The cost analysis should be based on either the bank prime rate or a company-specific interest rate for consistency with the Control Cost Manual.³ If a company-specific interest rate is used to estimate the cost of controls, adequate documentation supporting that interest rate should be provided with the cost analysis. A letter from a chief financial officer for an institution that lends to the company, or another official with the company that is in a position to know the company’s debt and equity, that documents the institution’s commitment to lend at the specified interest rate would be considered sufficient documentation.

3. The four-factor analysis explains that average hourly SO₂ emission rates (measured at each kiln during the January 2015 to December 2019 period) and annual average SO₂ emission rates (during the January 2018 to December 2019 period) were used to determine annual capacity factors for the kilns for 2018 and 2019, and these in turn were used to estimate operation and maintenance cost of controls for 2020 and future years. The four-factor analysis also states that “capacity factors are based on historical operation and may not represent future operation.” Please explain why the range of years used for the average hourly SO₂ emission rates and annual average SO₂ emission rates are not the same. For greater clarity, the four-factor analysis should also provide the calculations for the capacity factors, with redactions in the publicly available version if necessary. The four-factor analysis should provide further discussion related to the statement that the capacity factors may not represent future operation. For instance, please explain whether there are any recent enforceable requirements that are expected to cause the capacity factors to change in the future.

DEQ respectfully requests that Oxbow respond to EPA's questions no later than February 28, 2022. Thank you for your assistance with this matter. Please contact Melanie Foster at 405-702-4218 for any questions or clarification.

Sincerely,



Kendal Stiegmann
Director, Air Quality Division

³ See EPA Control Cost Manual at 15-17. The Control Cost Manual can be found at https://www.epa.gov/sites/production/files/2017-12/documents/epacmcostestimationmethodchapter_7thedition_2017.pdf.