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UTAH DEPARTMENT OF
ENVIRONMENTAL QUALITY
AUG 15 2018
DIVISION OF AIR QUALITY

August 15, 2018

Public Comment Division of Air Quality
PO Box 144820
Salt Lake City, UT 84114-4820

Attn: Thomas Gunter

Re: Kennecott Utah Copper Comments
Proposed Rule Making: SIP Subsection IX. Part H: Emissions Limits and Operating Practices, R307-110-17

Dear Mr. Gunter:

Kennecott Utah Copper LLC (KUC) submits the enclosed comments on the July 1, 2018 proposed rulemaking to amend State Implementation Plan (SIP) Subsection IX, Part H: Emissions Limits and Operating Practices, R307-110-17, Section IX, Control Measures for Area and Point Sources, Part H Emissions Limits, and supporting information Utah Division of Air Quality has provided on the website.

Should you have any questions, please contact me or Cassady Kristensen at 801-204-2129.

Respectfully submitted,

Steve Schnoor
Manager – Environment, Land and Water

Enclosure

COMMENTS ON THE PM2.5 RULEMAKING, PART H EMISSION LIMITATIONS

August 15, 2018

Kennecott Utah Copper LLC (Kennecott or KUC) provides these comments on the proposed rulemaking, State Implementation Plan (SIP) Subsection IX, Part H: Emission Limits and Operating Practices, R307-110-17, Section IX, Control Measures for Area and Point Sources, Part H Emission Limits, and the supporting information that the Utah Division of Air Quality (UDAQ) has provided on its website.[1]

INTRODUCTION

On May 10, 2017, the U.S. Environmental Protection Agency (EPA) published a final rule in the Federal Register in which it reclassified the Salt Lake City PM2.5 nonattainment area (SLC NAA) to "serious."[2] By doing so, EPA triggered the Clean Air Act's (CAA) provisions that require Utah to evaluate and implement best available control technology (BACT) for major stationary sources located in the SLC NAA.[3] UDAQ's BACT determinations for the SLC NAA are codified in Part H of the Utah SIP, which is the subject of the current rulemaking action. KUC has significant interests in the proposed rulemaking as the company owns and operates multiple facilities that are directly regulated in Part H of the Utah SIP; KUC's Bingham Canyon Mine, Utah Power Plant, Smelter, and Refinery are all sources subject to specific provisions contained in Section IX, Part H.

KUC has a long history of regulation under Part H of the Utah SIP. Indeed, UDAQ first regulated KUC's operations in Part H in 1991, when the agency adopted a PM10 SIP covering Salt Lake County. While a complete SIP submittal must include both control strategies and an attainment demonstration, UDAQ opted to bifurcate the development of the Part H emission limitations from the remainder of the Serious PM2.5 SIP.

TOPIC 1: BACT ANALYSIS FOR UTAH POWER PLANT UNIT #4

Utah Power Plant (UPP) Unit #4 is capable of producing power by either combusting natural gas or coal. Since 1991, UDAQ has leveraged this operational flexibility to require KUC

[1] UDAQ published notice of the proposed revisions to Part H in the July 1, 2018 version of the Utah State Bulletin. 2018-13 Utah Bull. pp. 34-36 (July 1, 2018); *see also* Utah Air Quality Board, Final Agenda, Items VIII and IX (June 6, 2018); https://deq.utah.gov/legacy/pollutants/p/particulate-matter/pm25/serious-area-state-implementation-plans/control-strategies.htm.

[2] 80 Fed. Reg. 21711 (May 10, 2017).

[3] CAA § 189(b)(1)(B); *see also* 40 CFR § 51.1010(a). Sections 51.1000 to 51.1015 are the federal regulations that EPA promulgated for the implementation of the PM2.5 National Ambient Air Quality Standards (NAAQS). In these comments, KUC refers to these regulations as the "PM2.5 Implementation Rule." EPA published the PM2.5 Implementation Rule on August 24, 2016. 81 Fed. Reg. 58010. Included in that publication was a preamble to the PM2.5 Implementation Rule, wherein EPA provided an extensive discussion of its interpretation of certain issues associated with the rule. For clarity, these comments refer to EPA's discussion as the "preamble to the PM2.5 Implementation Rule."

to produce fewer emissions during northern Utah's wintertime inversion season by prohibiting KUC from burning coal between November 1 and the end of February.[4] Given the seasonal restrictions on coal, coupled with the fact that the SLC NAA's PM exceedances primarily occur during this four-month period, UDAQ has previously (and consistently) determined that an evaluation of controls for UPP for the PM SIPs would be limited to operations that occur between November 1 and the end of February.[5] In other words, UDAQ has strictly applied a seasonally-based RACT/BACT determination for UPP based on natural gas-based combustion limits during the wintertime inversion season combined with a prohibition on combusting coal during the inversion season.

Now, however, for the first time in the nearly three decades of regulating the UPP via the PM10/2.5 SIP, UDAQ dramatically changed its interpretation, proposing to require controls on coal burning outside of the wintertime inversion season.[6] In particular, UDAQ concluded that, for "Coal [combustion] during the period March 1 to October 31," "BACT requires that KUC install Over-fired Air (OFA) and Selective Catalytic Reduction (SCR). This will reduce the NOx emissions from 384 ppm to 80 ppm."[7]

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[4] *See* SIP Section IX Part H.2.h.i.D & E (December 7, 2016) ("During the period from November 1, to the last day in February inclusive, only natural gas shall be used as fuel . . . ."); *id.* Part H.12.k.i.D & E (same); SIP Section IX Part H.2.b.Z.2 & 3 (July 26, 1993) ("During the period from November 1 to the last day in February, inclusive, the following conditions shall apply: A. The four boilers shall use only natural gas as a fuel . . . ."); SIP Section IX, Appendix A, Part 2.2.Z.2 (June 28, 1991) (same).

[5] UDAQ's PM10 and PM2.5 SIP have consistently been focused on evaluating and reducing emissions during northern Utah's wintertime inversion season. Utah SIP, Section IX. Part A.21, PM2.5 SIP for the Salt Lake City, UT Nonattainment Area (December 4, 2014), p. 23 (identifying contributions to PM2.5 concentrations during the winter), pp. 30 (identifying how UDAQ selected "SIP episodes for modeling" and determining that all episodes selected would be from the wintertime inversion season), p. 57 (providing an inventory of "typical winter inversion weekday"), *see also* UDAQ Particulate Matter Overview, *available at* https://deq.utah.gov/legacy/pollutants/p/particulate-matter/index.htm ("Particulate Matter in Utah. Winter inversions are a common event in Utah, generally occurring between December and February. Prolonged inversions can lead to high levels of fine particulate pollution, or PM2.5."); Utah SIP, July 1993, Section IX. Part A.2 ("Table IX.A.1 below shows the number of exceedance measured in Utah and Salt Lake Counties since 1985. It also shows the months when the exceedance occurred. As can be seen, most of the exceedances occur during the winter months. During the winter, extremely strong temperature inversions develop which trap PM10 particles and all other pollutants in a layer near the ground.").

[6] *See* SIP Section IX. Part H.12.k.i.C. UDAQ's proposed revisions appear to authorize KUC to combust coal in Unit #4 throughout the year by seemingly proposing to eliminate the restriction on combusting coal between November 1 and the end of February. However, KUC is still precluded by other SIP conditions from combusting coal during the wintertime inversion season. *See* PM10 SIP, Part H.2.h.i.D & E (December 7, 2016; current). Additionally, wintertime coal burning would result in significantly higher direct PM2.5 emissions. *Compare* SIP Section IX. Part H.12.k.i.A (limiting Unit #4 emissions when combusting natural gas to 0.03 gr/dscf of PM2.5 and 20 ppmdv of NOx) *with* Part H.12.k.i.B (limiting Unit #4 emissions when combusting coal to 0.29 gr/dscf of PM2.5 and 80 ppmdv of NOx). Given that this provision would arguably allow KUC to emit greater emissions during the wintertime inversion period, KUC assumes that it was an oversight on UDAQ's part to propose to eliminate Part H.12.k.i.C. KUC requests that UDAQ confirm that this was an oversight.

[7] PM2.5 SIP Evaluation Report – Kennecott Utah Copper LLC – Power Plant, DAQ-2018-007701, p. 7 (July 1, 2018).

I. UPP Comment No. 1. UDAQ Misconstrued EPA's Explanation of BACT as Precluding Seasonally-Based Controls for UPP Unit #4

The only explanation offered by UDAQ for its shift away from a seasonal control strategy approach is premised on an isolated statement in the PM2.5 Implementation Rule preamble that BACT "is generally independent of attainment." UDAQ has indicated to KUC that it believes that EPA's "generally independent" statement requires BACT for coal firing outside of the wintertime inversion season. This rationale has been both articulated to KUC in conversations with UDAQ and alluded to in UDAQ's memorandum to the Board, which contains the following statement: "EPA's Fine Particulate Matter Implementation Rule explains that BACM/BACT is 'generally independent' of attainment, and is to be determined without regard to the specific attainment demonstration for the area. For this reason, the Division of Air Quality (DAQ) is presenting the Air Quality Board an opportunity to release the proposed revisions to Part H for public review and comment prior to the completion of the accompanying modeling and attainment demonstration."[8]

UDAQ has misconstrued EPA's discussion regarding the relationship of the attainment demonstration to BACM/BACT as precluding the common-sense, seasonal-control strategy that it has taken for almost 30 years. In fact, nothing in the PM2.5 Implementation Rule or its preamble precludes seasonal controls. To the contrary, designing a control strategy, including BACT controls, around the seasonal nature of the air quality circumstances that the SLC NAA area faces, is consistent with the CAA and its implementing regulations. Furthermore, addressing the seasonal nature of the problem is required pursuant to the Utah Air Conservation Act.

In the preamble, EPA explains the differences between the control requirements applicable in a Moderate nonattainment area (RACT/RACM) compared to those required for a Serious nonattainment area (BACT/BACM). In explaining the former, EPA states that, "the specific determination of RACM and RACT is to be made within the broader context of assessing control measures for all stationary, area and mobile sources of direct $PM_{2.5}$ and $PM_{2.5}$ precursors that would collectively contribute to meeting the Moderate area attainment date as expeditiously as practicable."[9] "Measures that are not necessary for attainment need not be considered as RACM/RACT."[10] Clearly then, in assessing RACM/RACT, consideration may be given to the air quality benefits that would result from control measures being evaluated.

Turning to controls for Serious NAAs, the agency states that, "EPA has decided to maintain the policy that BACM/BACT determinations are to be '***generally independent***' of

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[8] Memorandum from Bill Reiss, through Bryce Bird, to the Air Quality Board, regarding, "PROPOSE FOR PUBLIC COMMENT: Amend SIP Subsection IX. Part H: Emission Limits and Operating Practices. Specifically Proposed for Amendment are Requirements in Subparts H. 1, 2, 11, and 12." (May 24, 2018). The term "BACM" refers to Best Available Control Measure. BACT is a sub-category of BACM. 40 CFR § 51.1000. These comments also refer to the terms "RACM" and "RACT," which means Reasonably Available Control Measures and Reasonably Available Control Technology.

[9] 81 Fed. Reg. 58034/3.

[10] *Id.* at 58035/1.

attainment for purposes of implementing the PM2.5 NAAQS."[11] EPA explained that, "while RACM emphasizes the attainment needs of the area, BACM has a greater emphasis on identifying measures that are feasible to implement. Keeping in mind that the overall objective of the implementation of BACM and BACT and additional feasible measures is to bring a Serious $PM_{2.5}$ nonattainment area into attainment as expeditiously as practicable, . . . the test for BACM puts a greater emphasis on the merits of the measure or technology alone, rather than on flexibility in considering other factors, in contrast to the approach for determining RACM and RACT."[12]

This qualified "general independence"[13] is simply a recognition that compared to a RACT determination, there will be a "greater emphasis" on whether a particular control measure is technically and economically feasible compared to whether it is necessary for attainment. Nowhere in its discussion, however, does EPA suggest that there is an absolute prohibition on considering the relevance of the controls toward bringing an area into attainment; after all, that's the ultimate objective of the SIP planning process.

In the proposed rulemaking, EPA outlined an option for states to identify *de minimis* categories of sources that could be exempted from BACM/BACT. In the final rule, EPA declined to adopt such an option but noted that even without the exemption, "the final rule will nevertheless provide ***sufficient flexibility*** in the Serious area control measure analysis and attainment demonstration process, due to the availability of provisions ***enabling states to identify sources that should not be subject to control measures***, including the ability to develop precursor demonstrations to exclude certain precursors from control requirements, and to consider case-specific factors in determining technical and economic feasibility of potential control measures."[14]

So the statement that BACT "is generally independent of attainment" does not mean that no consideration be given to whether a control is appropriate or, more to the point, whether account may be given to seasonal prohibitions. The recognition that states have "flexibility" and can consider "case-specific factors" when making the BACT determinations is far from a prohibition on seasonal controls. The acknowledgment that states may conduct precursor demonstrations is perhaps the most obvious recognition that BACT is not an absolute requirement.[15]

While it is correct that, under EPA's interpretation of "general independence," UDAQ's determination of BACT for Unit #4 ***during the wintertime inversion season*** should place

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[11] *Id.* at 58081/2 (emphasis added).

[12] *Id.* at 58081/1 (omitting quotation marks and references to the General Preamble).

[13] EPA is careful through this discussion to always qualify the concept of independence by "generally."

[14] 81 Fed. Reg. 58082/3 (emphasis added).

[15] *See* 40 CFR § 51.1010(a)(ii) ("The state is not required to identify and evaluate potential control measures to reduce emissions of a particular PM2.5 precursor from any existing sources if the state has submitted a comprehensive precursor demonstration approved by EPA . . . ."); *see also id.* § 51.1010(a)(ii) (providing a similar exception for a "major stationary source precursor demonstration). A precursor demonstration is a demonstration that one or more precursors does not "significantly contribute" to PM2.5 levels. *See id.* § 51.1006.