

## 6.0 Regulatory Review

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This section provides a regulatory review of the applicability of state and federal air quality permitting requirements for the BCM.

### 6.1 State of Utah Air Permitting Requirements

The State of Utah has been granted authority to implement and enforce the permitting requirements specified by the federal Clean Air Act. The general requirements for permits and permit revisions are codified under the state environmental protection regulations, UAC R307-401.

#### 6.1.1 Major Sources and Major Modifications (UAC R307-101-2)

Utah Administrative Code R307-101-2 defines a major stationary source, in pertinent part, as follows, with some parts underlined for emphasis:

To the extent provided by the federal Clean Air Act as applicable to R307:

- (1) any stationary source of air pollutants which emits, or has the potential to emit, one hundred tons per year or more of any pollutant subject to regulation under the Clean Air Act;
- (2) any physical change that would occur at a source not qualifying under subpart 1 as a major source, if the change would constitute a major source by itself;
- (3) the fugitive emissions and fugitive dust of a stationary source shall not be included in determining for any of the purposes of these R307 rules whether it is a major stationary source, unless the source belongs to one of the following categories of stationary sources:
  - (a) Coal cleaning plants (with thermal dryers);
  - (b) Kraft pulp mills;
  - (c) Portland cement plants;
  - (d) Primary zinc smelters;
  - (e) Iron and steel mills;
  - (f) Primary aluminum or reduction plants;
  - (g) Primary copper smelters;
  - (h) Municipal incinerators capable of charging more than 250 tons of refuse per day;
  - (i) Hydrofluoric, sulfuric, or nitric acid plants;
  - (j) Petroleum refineries;
  - (k) Lime plants;
  - (l) Phosphate rock processing plants;
  - (m) Coke oven batteries;
  - (n) Sulfur recovery plants;
  - (o) Carbon black plants (furnace process);
  - (p) Primary lead smelters;

- (q) Fuel conversion plants;
- (r) Sintering plants;
- (s) Secondary metal production plants;
- (t) Chemical process plants;
- (u) Fossil-fuel boilers (or combination thereof) totaling more than 250 million British Thermal Units per hour heat input;
- (v) Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
- (w) Taconite ore processing plants;
- (x) Glass fiber processing plants;
- (y) Charcoal production plants;
- (z) Fossil fuel-fired steam electric plants of more than 250 million British Thermal Units per hour heat input;
- (aa) Any other stationary source category which, as of August 7, 1980, is being regulated under section 111 or 112 of the federal Clean Air Act.

The BCM source is not a major stationary source.<sup>5</sup> The majority of emissions associated with this source are specifically exempt fugitive emissions (this source category is not among those listed under Subparagraph 3 of this definition) or emissions associated with exempt tailpipe emissions.

Similarly, most of the emissions increases associated with the proposed modification are also exempt fugitive and tailpipe emissions. Therefore, the production increase will not constitute a major source under Subparagraph 2 of the definition.

### **6.1.2 Notice of Intent and Approval Order (UAC R307-401)**

KUC is required by UAC R307-401-5 to submit this NOI application to UDAQ and obtain an AO issued by UDAQ before exceeding any limitations listed in the current AO (UDAQ, 2008). Utah Administrative Code R307-401-5 requires the NOI to include the following:

- A description of the project (provided in Section 1.0 of the NOI)
- Description and characteristics of emissions (provided in Sections 2.0 and 3.0 of the NOI)
- An analysis of BACT for the proposed source or modification (provided in Section 5.0 of the NOI)
- Location map (provided in Section 2.0 of the NOI)

### **6.1.3 Enforceable Offsets (UAC R307-403-5, UAC R307-420, and UAC R307-421)**

Utah Administrative Code R307-403-5(1)(b) states that enforceable offsets of 1.2:1 are required for new sources or modifications that would produce an emission increase greater than or equal to 50 tpy of any combination of PM<sub>10</sub>, SO<sub>2</sub>, and NO<sub>x</sub>.

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<sup>5</sup> UDAQ (2008) Engineering Review for AO (DAQE-AN0105710023-08) authorizing relocation/expansion of SX/EW plant.

Utah Administrative Code R307-403-5(1)(c) states that enforceable offsets of 1.1:1 are required for new sources or modifications that would produce an emissions increase greater than or equal to 25 tpy but less than 50 tpy of any combination of PM<sub>10</sub>, SO<sub>2</sub>, and NO<sub>x</sub>.

Utah Administrative Code R307-403-5(2) specifically states that for offset determinations, PM<sub>10</sub>, SO<sub>2</sub>, and NO<sub>x</sub> will be considered on an equal basis.

The net change in the combined total emissions of PM<sub>10</sub>, SO<sub>2</sub>, and NO<sub>x</sub> from stationary point source from the proposed modification, as indicated in Table 4-3, is less than 25 tpy. Therefore, this project will not require any offsets.

#### 6.1.4 Emissions Impact Analysis (UAC R307-410)

The BCM is not subject to UAC R307-410, which describes the emissions impact analysis requirements, since the emissions from point and fugitive sources are expected to be the same or decrease for pollutants that are in attainment for Salt Lake County. As a result, dispersion modeling is not required for the requested increase in material-moved limitation.

KUC has nonetheless performed AERMOD modeling to support the increase in material moved. The AERMOD model predicts ground-level concentrations of PM<sub>10</sub> and demonstrates that the changes at the BCM will not cause or contribute to an exceedance of the PM<sub>10</sub> NAAQS. The modeling report with this analysis and the results are included in Appendix C of this NOI.

As discussed in Appendix C, the results from the AERMOD analysis indicate that the total impacts from the emissions associated with peak year material movement of 260,000,000 tpy and background is 144.2 micrograms per cubic meter (µg/m<sup>3</sup>). This is less than the NAAQS of 150 µg/m<sup>3</sup>.

#### 6.1.5 Monitoring and Reporting

After an AO is issued by UDAQ, KUC will be required to submit emission reports and conduct other activities as UDAQ requests. Some of these requirements include the following:

- Meet the reporting requirements specified in UAC R307-107-2 in the event of an unavoidable breakdown
- Submit and retain an air emission inventory as required in UAC R307-150-6, based on its applicability under UAC R307-150-3(3)

## 6.2 Federal Air Quality Permitting Requirements

The BCM is currently operating under the conditions of the 2008 AO and meets all applicable federal air quality permitting requirements. The BCM is not subject to any additional federal air quality permitting requirements as a result of the requested increase in material moved.

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