

# Bonneville Borrow Plant (BBP) Fact Sheet

## Project Emissions

- The borrow pit is a support facility for the tailings impoundment. It is a minor source.
- Point source emissions are less than one ton per year (tpy).
- Site wide emissions are predominantly fugitive emissions from haul roads.
  - Fugitive emissions
    - PM10 (including PM2.5): 266.4 tpy
    - PM2.5: 32.47 tpy
  - Point Source emissions
    - PM10 (including PM2.5): 0.56 tpy
    - PM2.5: 0.16
- DAQ conducted a complete BACT analysis for all emission units and emission generating activities, including fugitive emissions from haul road traffic.

## Nonattainment Area Requirements

- The plant is located in the Salt Lake County nonattainment area for particulate matter (PM10, PM2.5) and sulfur dioxide (SO<sub>2</sub>) and a maintenance area for ozone. The permit will not adversely impact National Ambient Air Quality Standards (NAAQS).
- The Division of Air Quality (DAQ) is in the process of developing a PM2.5 State Implementation Plan (SIP) that will bring Salt Lake County and the surrounding area into compliance with the NAAQS. That process will evaluate and determine if additional control measures and/or reductions in allowable emissions may be necessary to show attainment of the PM2.5 NAAQS.
- The emissions from this project have been included in the modeling analysis to support PM<sub>2.5</sub> SIP development.

## Offsets

- KUC must provide offsets greater than its total combined emission increase at a ratio of 1.2:1. Kennecott has provided 320.35 tons per year (tpy) of offsets to account for 266.96 tpy of (primarily fugitive) PM10 emissions from the project.
- This project is a minor source and the non-fugitive PM2.5 emissions are below the threshold to require offsets, so offsets are not required for PM2.5.

## Fugitive Emissions

- Site operations will be subject to the conditions of the Fugitive Dust Control Plan (FDCP).

- Visible fugitive dust emissions from haul road traffic shall not exceed 20 percent opacity.
- DAQ determined that the application of chemical dust suppressants and watering on haul roads constitutes BACT for the project. The standard procedure for the control of fugitive dust for haul roads is water sprays.
- DAQ evaluated paving the haul roads to reduce fugitive emissions. High traffic volume and the size of the haul trucks traveling on the roads would seriously damage paved road surfaces. Dust from deteriorated paved roads is difficult to control and emissions from paved roads in disrepair are higher than properly treated unpaved roads.
- The BACT combination of chemical dust suppressants and water would achieve 85 percent fugitive emissions control and a paved road would achieve 95 percent control. This estimate of control for fugitive emissions is conservative, as Environmental Protection Agency (EPA) emission factor calculations show that watering alone can approach 95 percent control.

### **Specific Point Source Permit Requirements**

- Federal New Source Performance Standards (NSPS) will apply to the crushing operations and DAQ has established emission limits on the baghouse. All exhaust air from the primary, secondary, and tertiary crushers will be routed through the baghouse(s) before being vented to the atmosphere. KUC must conduct stack testing to verify compliance with the NSPS.
- KUC must submit a Title V application within 12 months of starting operations, and the modified Title V permit will have all necessary monitoring, recordkeeping, and reporting requirements. If monitoring demonstrates adverse impacts associated with the crushing plant, DAQ has the authority to take necessary measures to address the impacts.
- Based on the BACT analysis, KUC will install water sprays and chemical dust suppressant spray on the outer (quaternary) crusher and screen inlets and outlets to control fugitive emissions.