

ANNUAL CCR FUGITIVE DUST CONTROL REPORT

ROSEBUD POWER PLANT

COLSTRIP, MT

January 09, 2023

Introduction

Colstrip Energy Limited Partnership (CELP) disposes of boiler fly ash and bottom ash generated by the Rosebud Power Plant in an on-site ash landfill. The active ash disposal site was first established to the west of the Rosebud Power Plant in 2005 and remains in operation.

The Coal Combustion Residual (CCR) Rule was published in the *Federal Register* on April 17, 2015. The CCR Rule includes requirements for existing and new coal ash landfills and surface impoundments. CELP has an existing CCR landfill and is subject to a variety of requirements, including a Fugitive Dust Control Plan (issued on October 2, 2015) and its associated Annual CCR Fugitive Dust Control Reports. This document fulfills the requirements of the Annual CCR Fugitive Dust Control Report for 2022 pursuant to 40 CFR Part §257.80(c) Air Criteria. 40 CFR Part §257.80(c) states: “(c) Annual CCR fugitive dust control report. The owner or operator of a CCR unit must prepare an annual CCR fugitive dust control report that includes a description of the actions taken by the owner or operator to control CCR fugitive dust, a record of all citizen complaints, and a summary of any corrective measures taken.”

Fugitive Dust Control Efforts

Pursuant to the CCR Fugitive Dust Control Plan, CELP used the following practices over the past year to minimize fugitive particulate emissions:

- Applied water to the surface of the pile to hydrate the ash. Specifically, the ash is deposited in the pile from a belly dump trailer, pulled by a water tank truck. The belly dump trailer minimizes the fall distance from the trailer to the ground.
- Compacted the hydrated ash with the on-site ash handling equipment, and
- Applied water as needed to control dust on paved and unpaved surfaces leading to the landfill. The ash generated at the CELP facility is a pozzolanic material which contains both anhydrous calcium sulfate (CaSO_4) and unreacted calcium oxide (CaO), also known as quicklime or unslaked lime. Both compounds have a strong chemical affinity to absorb water, forming a mixture of hydrated calcium sulfate ($\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$, also known as gypsum) and hydrated lime ($\text{Ca}(\text{OH})_2$, also known as slaked lime). The result of adding water to the ash is that it cures and forms a solid mortar/concrete like compound.

Citizen Complaints

No citizen complaints have been received with respect to the landfill operations or CCR implementation since the Fugitive Dust Control Plan was issued on October 2, 2015.

Summary of Corrective Measures Taken

No corrective measures beyond those already listed in the “Fugitive Dust Control Efforts” section have been taken.

Conclusion

CELP routinely inspects the ash pit as required by the CCR Rule and the facility’s air quality permits. Once per year, concurrent with preparation of the Title V annual compliance certification (the annual compliance certification is due annually by February 15), citizen complaints and inspection records for the ash pit will be reviewed to identify possible plan deficiencies. If more than two fugitive dust incidents are identified during the review, a more careful assessment of the plan and plan implementation will be undertaken, and the results included as a revision to the plan. Should CELP employees or surrounding citizens observe excess fugitive dust emanating from the ash landfill, CELP will evaluate adding additional control measures, such as those identified in 40 CFR §257.80(b)(1). Based on the lack of citizen complaints and the current effectiveness of the Fugitive Dust Control Efforts, no additional control measures are needed at this time.