

**Coal Combustion Residuals
Fugitive Dust Control Plan
Revision 3**

Date: November 1, 2023

**Big Stone Plant
Big Stone City, South Dakota**

INTRODUCTION

The purposes of this Coal Combustion Residuals (CCR) Fugitive Dust Control Plan (Plan) are to: (1) satisfy the requirements described in 40 CFR §257.80, Air Criteria, as they apply to CCR units, roads, and other CCR management and material handling activities; (2) identify the primary sources of CCR fugitive dust which result from ash-handling and storage activities at Big Stone Plant near Big Stone City, South Dakota; (3) establish operating and training procedures and work practices to minimize CCR fugitive dust; (4) establish recordkeeping and response procedures; and (5) establish quality assurance procedures for periodic review of the effectiveness of the Plan.

Big Stone Plant personnel and contractors are responsible for (1) implementing the procedures and practices contained in the Plan; and (2) documenting compliance with the Plan by periodic monitoring of its effectiveness and implementation. Records demonstrating Plan compliance will be maintained onsite. The records will include a log of citizen complaints regarding fugitive dust and will be available to inspectors at their request. This log will also be included as part of the annual report as required by 40 CFR §257.80 (b)(3).

FACILITY INFORMATION

Big Stone Plant
48450 144th St
Big Stone City, SD 57216
(605) 862-6300
45°18'15.31"N, 96°30'41.27"W

PROCESS INFORMATION

Big Stone Plant burns subbituminous coal to generate electricity in its generating unit with a capacity of 475 megawatts. Two main coal ash products are produced: boiler slag and a flue gas desulfurization product (FGD Product) that contains a mixture of fly ash and spent desulfurization material. The FGD Product is transported from the operating unit to the ash silo pneumatically. The conditioned FGD Product is then transported by mobile equipment to the active CCR disposal facility (landfill). Boiler slag is conveyed by a submerged flight conveyor to a contained area in the plant with a cement floor. Boiler slag is then transported to the on-site CCR disposal facility. The haul roads from the FGD Product silo

and the slag laydown area are paved and help reduce fugitive dust. The landfill is permitted by the State of South Dakota.

POTENTIAL CCR FUGITIVE DUST SOURCES

Potential sources of CCR fugitive dust include: (1) loading vehicles from the boiler slag stockpile and FGD Product silo; (2) CCR fugitive dust from transportation to landfill; (3) along the haul road; (4) unloading vehicles in the landfill; and (5) wind erosion of CCR placed at the landfill.

COMPLIANCE MONITORING

Periodic visual observations will be made by one or more of the following Otter Tail Power Company employee groups: (1) Yard Equipment Operators; (2) Plant Manager; (3) Supervisor - Fuel; (4) Plant Engineer; (5) Environmental Services Department employees; or (6) other trained Big Stone Plant personnel. Transport vehicles will be observed on the days that they are actively transporting CCR from the FGD Product silo or the plant to the landfill. Observations will be made of the vehicle loading, travel and disposal. In addition, a visual inspection of the in-place ash at the landfill will be conducted. If CCR fugitive dust is observed at any of the potential sources previously described a single BMP or multiple BMPs will be activated. Documentation of observations and BMP implementation will be made. See the BMP and RECORDKEEPING sections below.

CONTROL OF FUGITIVE DUST - BMPS

40 CFR §257.80 (b)(1) and (b)(2), Air Criteria, describe regulations applicable to emissions control strategies for this CCR FDCP. Relevant segments are cited below.

40 CFR §257.80 (b)(1) states, "The owner or operator must select, and include in the CCR fugitive dust control plan, the CCR fugitive dust control measures that are most appropriate for site conditions, along with an explanation of how the measures selected are applicable and appropriate for site conditions."

Additionally 40 CFR §257.80 (b)(2) states, "If the owner or operator operates a CCR landfill or any lateral expansion of a CCR landfill, the CCR fugitive dust control plan must include procedures to emplace CCR as conditioned CCR. Conditioned CCR means wetting CCR with water to a moisture content that will prevent wind dispersal, but will not result in free liquids."

The following Best Management Practices (BMPs) have been identified as CCR fugitive dust control measures that are most appropriate for the facility and will be used to minimize CCR fugitive dust from becoming airborne:

1 Water

Fugitive dust is largely controlled by the use of water. Water is used to condition the ash prior to its transfer from silos to transport vehicles, and is also used to wet the in-place ash as needed.

2 Vehicle Speed Control

CCR fugitive dust is more likely to be generated at high vehicle speeds. Vehicles traveling the haul road and within the landfill are restricted to 25 miles per hour when traveling to and from the ash disposal site

3 Minimize Open Working Area

The working face of the landfill will be as small as is practicable to prevent erosion of in-place ash. This will be accomplished by installing intermediate and final cover to reduce the active landfill site footprint.

4 Vehicle Covering

Occasionally other vehicles will be used to transport CCR from the silos. These vehicles shall be enclosed (tankers) or covered (e.g. with a tarp) prior to transport.

5 Curtailing Hauling Operations

In extreme weather events, transport of ash will be reduced or delayed until conditions improve.

TRAINING

Employees (including new employees and newly assigned employees and contractors) who operate equipment that has the potential to produce and/or control CCR fugitive dust will be trained on the BMPs of the Plan. Refresher training will occur annually for employees who have gone through their initial training.

Training will be conducted by qualified individuals familiar with the requirements of CCR Rule (40 CFR §257.80) and plant operations. The training will include all aspects of the Plan. The importance of controlling CCR fugitive dust facility-wide will be emphasized.

RECORDKEEPING

Records of all actions taken in adherence to the Plan will be maintained and shall include: (1) CCR Fugitive Dust Control Log Sheet; (2) Training Certification Records; (3) Citizen Complaint Log; and (4) Annual CCR Fugitive Dust Control Report.

1 CCR Fugitive Dust Control Log Sheet

This form will be used to document CCR fugitive dust control at the facility and CCR units. The form will be completed by a qualified individual and will include the following: date and time of observation; observer's name and title; documentation of any CCR fugitive dust observed; description of BMP(s) used; weather conditions A copy of the form shall be submitted to the facility's Environmental Services Department. The original completed form will be maintained in the plant files and will be retained for five years.

2 Training Certification Records

When training occurs (either initial training or refresher training) a log will be kept of those events. The log will include: the date and time of training; the name and title of the trainer; the name and titles of trainees; the status of the trainee (new employee/contractor or annual refresher); and a description of the training provided. Training records will be maintained in the

plant files and will be retained for five years. A copy of the training record will be submitted to the facility's Environmental Services Department.

3 Citizen Complaint Log

Any citizen complaint of CCR fugitive dust received will be promptly reported to the Plant Manager and Environmental Services Department staff. The Citizen Complaint Log will be used to record any citizen complaint of CCR fugitive dust received by the facility. A record of the complaint will be entered into the Plant Operating Record and will include the following: date and time of complaint; specific nature of complaint; name of the person receiving the complaint; name(s) of persons complaint was relayed to; assessment of complaint; and corrective measures implemented to address the complaint.

4 Annual CCR Fugitive Dust Control Report

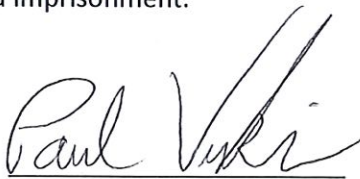
The first Annual CCR Fugitive Dust Control Report will be completed no later than December 16th 2016. Subsequent reports will be completed by December 15th of each year. The annual report will include descriptions of actions taken by the facility to control CCR fugitive dust, a record of all citizen complaints and subsequent investigations and corrective measures taken.

QUALITY ASSURANCE

The Plan is considered a "living" document that is subject to change based on changes in Plant operation. As the facilities or operations change that would substantially affect the Plan, the Plan will be reviewed and amended as necessary. Possible changes to the facility and its operations include, but are not limited to: construction or closure of landfill cells; additions or deletions of job categories related to CCR fugitive dust control; changes in operating procedures; and changes to plant infrastructure such as silo design and operation. The Plan will be reviewed annually; however, more frequent review and amendment may be required. If the plan is updated, the new version of Plan will be put in the operating record "as it becomes available" in accordance with 40 CFR §257.105 (g).

CERTIFICATION STATEMENT

As required by §40 CFR 257.80, I hereby certify under penalty of law that this report was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



Paul M. Vukonich, PE
License No. 13547

November 1, 2023

Date