

Coal Combustion Residuals

Fugitive Dust Control Plan

Revision 2

Date: September 21, 2016

Hoot Lake Plant

Fergus Falls, Minnesota

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 Otter Tail Power Company's Hoot Lake Plant in Fergus Falls, Minnesota; (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.

Hoot Lake 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

Otter Tail Power Company
Hoot Lake Plant
1012 Water Plant Road
Fergus Falls, MN 56537
(218) 739-8100
46°17'14.40"N, 96° 1'56.48"W

PROCESS INFORMATION

Hoot Lake Plant burns subbituminous coal to generate electricity in its two generating units with a combined capacity of 140.5 megawatts. Two coal ash products are produced: bottom ash and fly ash. Both of these products are pneumatically transported from the operating units to ash silos. No product is conveyed by water, or sluiced, at the facility. Fly ash is conditioned with water as it leaves the silo to help prevent CCR fugitive dust. The conditioned fly ash is transported by mobile equipment to the active CCR disposal facility (landfill) - permitted by the Minnesota Pollution Control Agency (MPCA), permit number SW-211. Bottom ash is not conditioned with water as it does not exhibit the same characteristics as the fly ash. There is a small amount of paved area that the transport

vehicles travel on from the bottom ash silo, but a majority of the travel from silos to landfill is on an unpaved road with an approximate travel distance of one-half mile.

POTENTIAL CCR FUGITIVE DUST SOURCES

Potential sources of CCR fugitive dust include: (1) loading vehicles from the bottom ash and fly ash silos; (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) Operations Supervisor; (4) Plant Engineer; (5) Environmental Services Department employees; or (6) other trained Hoot Lake Plant personnel. Transport vehicles will be observed on the days that they are actively transporting CCR from the ash silos 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 unpaved haul road.

2 Chemical Dust Suppressant

Hoot Lake Plant is permitted to use magnesium chloride under its National Pollutant Discharge Elimination System permit as a dust suppressant if conditions warrant its use instead of or in addition to water.

3 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 20 miles per hour when traveling to and from the ash disposal site

4 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.

5 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.

6 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. At a minimum, 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

See the attached letter for PE certification of this Coal Combustion Residuals Fugitive Dust Control Plan, as required under §40 CFR 257.80.

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October 3, 2016

Josh Hollen
Otter Tail Power Company
215 South Cascade Street
Fergus Falls, MN 56538

Re: Hooft Lake Plant, CCR Fugitive Dust Control Plan Certification

Dear Mr. Hollen:

The Coal Combustion Residuals Fugitive Dust Control Plan, Revision 2 (September 21, 2016) to which this letter is attached was reviewed by me or under my direct supervision. It is my opinion that this plan meets the requirements of the federal regulations §40 CFR 257.80.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.

Paul T. Swenson
2016.10.03 18:01:09
-05'00'

Signature: 

Typed or Printed Name: Paul T. Swenson

Date: Oct. 3, 2016 License Number: 20533