Fugitive Dust Control Plan

For

Virginia Electric and Power Company

MT. STORM POWER STATION
MT. STORM, WEST VIRGINIA

Prepared: October 2015

Prepared by:
Mt. Storm Power Station

Under the Supervision of:
Civil Tech Engineering, Inc.

Virginia Electric and Power Company

Fugitive Dust Control Plan

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Virginia Electric and Power Company
MT. STORM POWER STATION

FUGITIVE DUST CONTROL PLAN

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1.0 PURPOSE

The purpose of this Fugitive Dust Control Plan is to identify control measures implemented at the station to control fugitive dust emissions from Coal Combustion Residuals (CCR). The Fugitive Dust Plan will identify dust control measures implemented in areas of the site that come into contact with CCR including landfills, low volume sedimentation ponds, haul roads, conveyor belts, pads, etc. The plan has been developed by Mt. Storm Power Station under the supervision of Civil Tech Engineering. The plan has been developed in accordance with Federal, State, and local regulations including the CCR rule outlined in 40 CFR 257.

1.1 Facility Information

The Mt. Storm Power Station is a coal fired, steam electric generating facility consisting of three pulverized coal tangiently fired steam utility boilers. The Standard Industrial Classification (SIC) Code is 4911 and the North American Industry Classification System (NAICS) Code is 221112. The station is located on the west shoreline of Mt. Storm Lake on West Virginia Route 93, in Grant County, West Virginia.

Mt. Storm Power Station consists of four major areas: 1) the Powerhouse; 2) the active Phase A Flue Gas Desulfurization (FGD) By-Product Disposal Facility; 3) the Closed Five Year Storage Disposal Facility site; 4) the active Phase B Ash Disposal Facility. The Phase A facility encompasses an approximate permitted area of 235 acres; the Phase B landfill contains approximately 426 acres. Both consist of disposal areas and auxiliary facilities. The Low Volume Sedimentation Ponds, fly ash and bottom ash hoppers, and FGD building are included in the Powerhouse area of the facility.

Fly ash, bottom ash, and FGD are designed to be transported via truck to the onsite Phase A or Phase B landfills. Bottom ash may either be transported to an on-site bottom ash screening operation for off-site beneficial reuse or to the Phase B Landfill for disposal. FGD material may either be transported off site for beneficial reuse or sent to the Phase A Landfill for disposal.

The Phase A and B landfill facilities consist of active waste disposal areas, two (2) primary haul roadways, perimeter roadways and ditches, sediment ponds, and leachate management areas.

The Station Low Volume Sedimentation Ponds receive a variety of Station wastewaters for treatment. Included in the wastewater streams received is bottom ash dewatering water, including bottom ash fines, which are settled out in the ponds. Periodically, the ponds are dredged of settled solids, which are then transported by truck to the Phase B Landfill for disposal.

1.2 Plan Implementation

The Plan will be implemented by the Station Ash Hauling Contractor under the

management of the Station's Environmental Supervisor. Daily operations will be supervised by the Station's Technical Specialist III or designee. Any deficiencies or problems will be immediately reported to the Supervisor for discussion and resolution.

2.0 DUST CONTROL MEASURES

2.1 Station

The coal fired boilers at the station are used to produce steam for electric power generation. CCRs, a by-product of the combustion of coal, are produced in the form of fly ash and bottom ash. Fly ash is pneumatically conveyed from the precipitator hoppers to the silos. It is then loaded by pug mill style mixers into trucks. Fly ash is transported by truck to the Phase B Landfill. Bottom ash is sluiced to the hydrobins which are then decanted. The bottom ash is then gravity fed into trucks and is transported to either the Bottom Ash Screening Area or to the Phase B Landfill. FGD produced at the station is either transported by truck to the Phase A Landfill or off-site for beneficial reuse.

The station maintains a series of five low volume sedimentation ponds to manage station wastewaters. The low volume sedimentation ponds are operated in a primary receiving pond and secondary polishing pond mode where one set of ponds is in operation while the second set is out of service in reserve or undergoing maintenance dredging. Solids settled in the ponds are periodically removed and transported to the Phase B Landfill for disposal.

2.1.1 Fly Ash Handling

The following dust control measures are implemented at the Station to minimize fugitive dust emissions during fly ash loading operations:

1) Trucks drive under the fly ash silos and are loaded by pugmill style mixers directly under the fly ash hoppers. The ash is wet conditioned in the pug-mill mixers, which minimizes the spillage of ash during loading and transporting.

2) Fly ash is wet conditioned during loading to minimize fugitive dust emissions during the loading and transport process. Wet conditioning the CCR also allows proper compaction of the material at the disposal sites.

3) Speed limits enforced at the Station further reduce potential for CCR fugitive dust emissions. Water trucks are maintained onsite by the contracted landfill operator. All CCR haul roads are watered daily, except in wet and freezing weather, to reduce potential for CCR fugitive dust emissions. The disposal areas may be watered as necessary during freezing weather.

2.1.1.1 Rationale for Selected Control Measures

The conditioning of CCRs, enforcement of speed limits, and the regular watering of haul

roads are industry accepted methods of controlling CCR fugitive dust emissions at loading areas.

2.1.2 Bottom Ash Handling

The following dust control measures are implemented at the Station to minimize fugitive dust emissions during bottom ash loading operations:

1) Trucks drive under the bottom ash hydrobins and are loaded by gravity directly under the bottom ash hoppers. The bottom ash is wet conditioned exiting the hydrobins, which minimizes the spillage of ash during loading and transporting.

2) The Bottom Ash system is a wet system and as a result the material contains sufficient moisture prior to loading to prevent fugitive dust emissions during loading, transportation and disposal. Wet conditioning the bottom ash also allows proper compaction of the material at the disposal sites.

3) Speed limits enforced at the Station further reduce potential for CCR fugitive dust emissions. Water trucks are maintained onsite by the contracted landfill operator. All CCR haul roads are watered daily, except in wet and freezing weather, to reduce potential for CCR fugitive dust emissions. The disposal areas may be watered as necessary during freezing weather.

2.1.2.1 Rationale for Selected Control Measures

The conditioning of CCRs, enforcement of speed limits, and the regular watering of haul roads are industry accepted methods of controlling CCR fugitive dust emissions at loading areas.

2.1.3 FGD Handling

FGD is generated as a by-product of air emissions control in the Station's scrubber. The FGD material is deposited and stored within the FGD Dewatering Building until it is ready for loading. Trucks are staged outside of the building and are loaded with FGD by front end loader and either taken offsite for beneficial reuse or to the Phase A Landfill for disposal. The FGD material is maintained at a sufficient moisture content so as to minimize fugitive dust emissions.

Trucks will be loaded in a manner to prevent spillage of the moist FGD material during transport. Tarps are to be used on the haul trucks to limit fugitive dust during transportation. The truck loading area outside of the FGD Dewatering Building is washed routinely to eliminate any spilled material creating fugitive dust.

Speed limits enforced at the Station further reduce potential for CCR fugitive dust emissions.

2.1.3.1 Rationale for Selected Control Measures

The conditioning of CCRs, enforcement of speed limits, and the regular watering of haul roads are industry accepted methods of controlling CCR fugitive dust emissions at loading areas.

2.1.4 Low Volume Sedimentation Ponds

The low volume sedimentation ponds are operated in a primary receiving pond and secondary polishing pond mode where one set of ponds is in operation while the second set is out of service in reserve or undergoing maintenance dredging. Solids settled in the ponds are periodically removed and transported to the Phase B Landfill for disposal. The following measures are taken during these cleaning operations:

1. The beds on the trucks used to transport the pond cleanings are maintained in good condition;

2. Trucks are equipped with sealed tailgates to prevent spillage of material during transport;

3. In the event that spillage occurs, the driver will notify the water truck operator so the material can be cleaned from the roadway promptly.

4. Upon completion of dredging of ponds, the perimeter roads are graded to remove any spillage that may have occurred

Water trucks are maintained onsite by the contracted landfill operator. All CCR haul roads are watered daily, except in wet and freezing weather, to reduce potential for CCR fugitive dust emissions. Roads around the ponds are watered during freezing weather as necessary.

2.1.4.1 Rationale for Selected Control Measures

Maintaining equipment in good working order, using trucks with seal tailgates, and prompt road cleaning are industry accepted methods of controlling CCR fugitive dust emissions at pond maintenance areas.

2.1.5 Bottom Ash Screening Operation

Bottom ash is processed onsite in preparation for offsite beneficial reuse. Bottom ash is sized through screening and staged for offsite transport. The following measures are implemented to minimize fugitive dust emissions during bottom ash screening

operations:

1) Processed or screened material is periodically wetted by use of water truck to keep the materials moist to prevent fugitive dust generation.
2) Trucks will be loaded with moistened, processed materials and covered with a tarp for transport.
3) Speed limits enforced on the premises further reduce potential for CCR fugitive dust emissions. Water trucks are maintained onsite by the contracted landfill operator.
4) All CCR haul roads are watered daily, except in wet and freezing weather, to reduce potential for CCR fugitive dust emissions. The screening operation area may be watered as necessary during freezing weather.

2.1.5.1 Rationale for Selected Control Measures

The watering of processed materials, enforcement of speed limits, and the regular watering of haul roads are industry accepted methods of controlling CCR fugitive dust emissions at loading areas.

2.2 Landfills

2.2.1 Phase A FGD Landfill

The inactive FGD by-product disposal area is to be permanently treated with soil and grass cover. Inactive areas of the site that are not completed will be covered with a thin layer of bottom ash or shale within 30 days. Other fugitive dust reduction activities include:

1) The disposal site will be managed in such a manner as to reduce the amount of exposed FGD surface area.

2) All areas of the disposal site that are completed will be covered as soon as possible.

3) All rough edges on the active lifts will be smoothed out and rolled prior to the end of each day.

2.2.1.1 Rationale for Selected Control Methods

Limiting areas of exposure and routine smoothing and compacting are industry accepted methods of controlling CCR fugitive dust emissions at disposal areas.

2.2.2 Phase B Landfill

The Phase B Landfill will be managed in such a manner as to limit the amount of exposed ash surface area. Inactive areas of the site that are not completed will be covered with a thin layer of bottom ash or shale within 30 days.

All areas of the disposal site that are completed will be covered as soon as weather and site conditions allow.

All rough edges on the active lifts will be smoothed out and rolled prior to the end of each day.

2.2.2.1 Rationale for Selected Control Methods

Limiting areas of exposure and routine smoothing and compacting are industry accepted methods of controlling CCR fugitive dust emissions at disposal areas.

2.3 CCR Hauling

Dust control measures will, at a minimum, include watering of any work areas or roads prior to their receiving traffic and during the work day. The roads will be watered more frequently during dry conditions. In addition to watering and/or cleaning, all vehicles and equipment will be required to observe the posted site speed limit to further minimize dust generation and for safety purposes. All haul roads are watered as needed to minimize fugitive dust emissions. All trucks will travel on designated routes while in the disposal areas. If the haul roads begin to dry, the haul truck operators will notify the water truck operator.

The following dust minimization methods will be implemented on all haul roads as specified:

1) The unpaved portion of the ash haul road will be treated with at least two (2) applications of calcium chloride during a minimum of the four (4) summer months (June, July, August, and September). Each application will be, at a minimum, at least sixty (60) days apart.

2) The Station will maintain a water truck on site and in good operating condition to apply water, or a mixture of water and an environmentally acceptable dust control additive, hereinafter referred to as solution, as often as is necessary in order to minimize the atmospheric entrainment of fugitive dust emissions that may be generated from haul roads (including the coal haul road) and other work areas where mobile equipment is used.

3) The spray bar will be equipped with commercially available spray nozzles, of sufficient size and number, to provide adequate coverage to the area being treated. The pump delivering the water, or solution, will be of sufficient size and capacity so as to be capable of delivering to the spray nozzles(s) an adequate quantity of water, or solution, and at a sufficient pressure, so as to assure that the treatment process will

minimize the atmospheric entrainment of fugitive particulate emissions generated from the haul roads and work areas where mobile equipment is used.

4) A high-pressure water stream will be used on all paved haul roads as often as is necessary, but no less than once per calendar month, to clean the paved roads of entrained dirt and dust that would contribute significantly to particulate matter emissions. The high-pressure water stream will be of sufficient strength to remove imbedded dirt and dust on the paved roads thereby lowering the dust loading of the paved roads. This requirement maybe waived during periods of prolonged sub-freezing weather.

3.0 EVALUATING THE EFFECTIVENESS OF THE PLAN

The Fugitive Dust Plan will be evaluated annually for effectiveness. This evaluation will be based on the number and type of citizen complaints received (if any), the effectiveness of the responses to those complaints, as well as any fugitive dust issues observed and recorded during regular weekly general inspections of the CCR facilities. In the event that provisions of the plan are not effective, corrective measures will be implemented and the Plan will be amended as necessary.

4.0 PROCEDURE FOR CITIZEN INQUIRIES

Mt. Storm Power Station will utilize the citizen complaint form found in Figure 2 to log any complaints related to CCR fugitive dust. When a complaint is received, Mt. Storm personnel will review and evaluate the details of the complaint. Any necessary action will be taken and documented.

5.0 ANNUAL CCR FUGITIVE DUST CONTROL REPORT

The Facility will compile an Annual CCR Fugitive Dust Control Report as required by 40 CFR 257, Subpart D. This report will include a description of methods taken to control fugitive CCR dust, as well as a record of all citizen complaints and any corrective measures taken. The West Virginia Department of Environmental Protection (DEP)will be notified about the completion of the annual CCR Fugitive Dust Control Report and the final report placed on Dominion's publicly accessible website in accordance with the Final CCR Rule.

6.0 PLAN AMENDMENTS

This Plan may be amended at any time and the revised Plan will be placed in the Facility's operating record. The Plan must be amended if there is a change in conditions that would substantially affect the written Plan in effect, such as construction and operation of a new CCR unit. Minor alterations to the Plan such as those that do not involve the addition or modification of new CCR sources or controls will not require

re-certification by a licensed professional engineer. A Plan Revision History for tracking revisions is included in Appendix C.

7.0 PROFESSIONAL ENGINEER'S PLAN CERTIFICATION

I hereby certify that I am familiar with the requirements of 40 CFR 257.80, that the Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and that the Plan meets the requirements of 40 CFR 257.80. This certification does not relieve the owner or operator of the Facility from preparing and fully implementing this Plan in accordance with the requirements 40 CRF 257.80.

CIVIL TECH ENGINEERING INC.

Mark E. Pennington, MS, PE
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Figure 1
CCR Flow Diagram

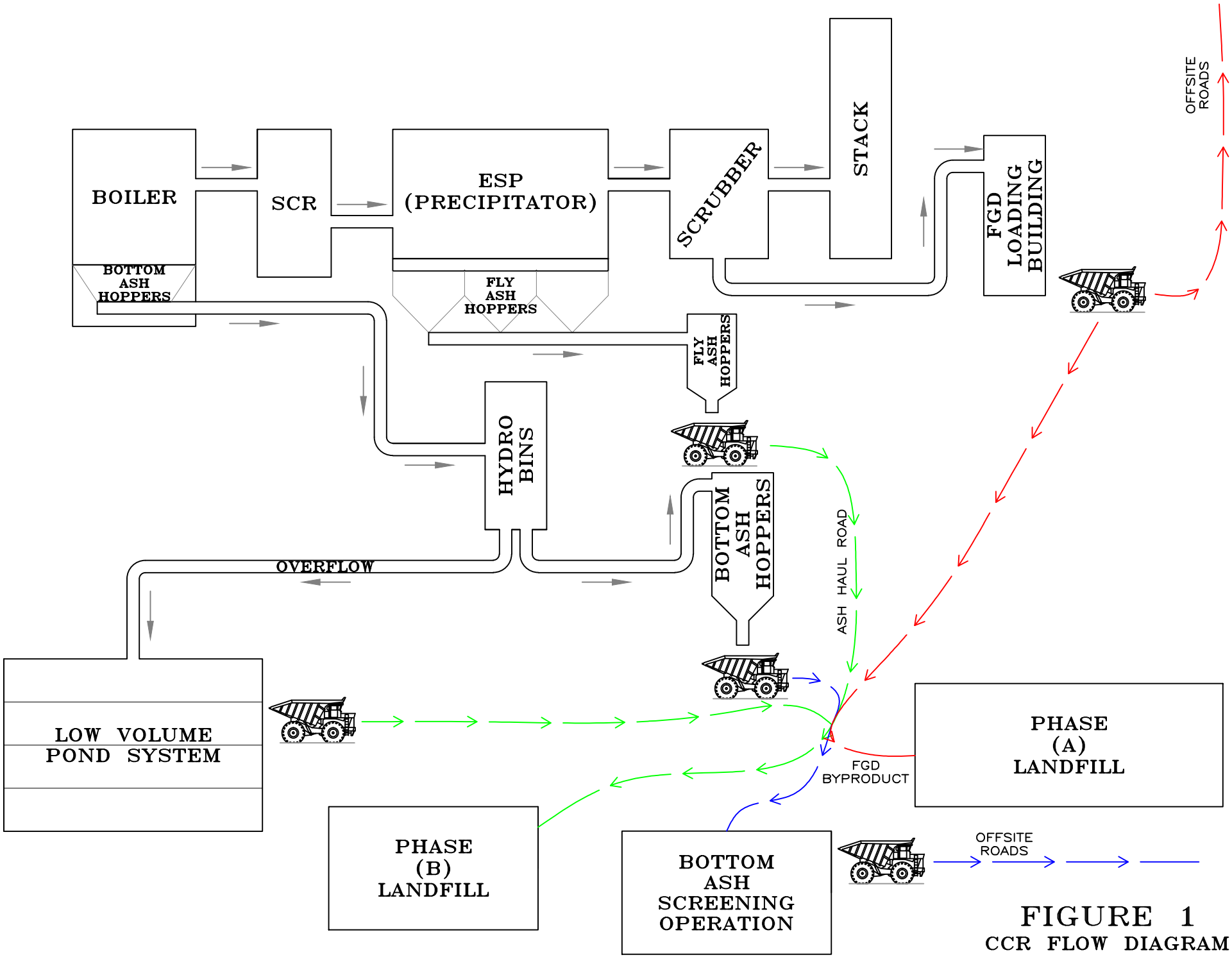

FIGURE 1
CCR FLOW DIAGRAM
9.25.2015 REV. 0

Figure 2
Citizen Complaint Form

Environmental Compliance: Citizen Complaint Form

To be used for noise, odor, or dust complaints

Name of Complainant _____

Phone /email of Complainant: _____

Date/Time of Complaint_____
Date/Time of Occurrence _____

Location or Source of Complaint (if known) _____

Type of Complaint (dust, odor, or noise) _____

Description of Complaint:
_____
_____
_____
_____
_____
_____
_____

Return to ECC mailbox in mailroom before leaving site

Printed Name: _____

Signature: _____

Figure 3
Revision History

Fugitive Dust Control Plan Revisions

September 2015: Development of CCR Fugitive Dust Control Plan.