



DESERET POWER
ELECTRIC COOPERATIVE

**BONANZA POWER PLANT
FUGITIVE EMISSIONS DUST CONTROL PLAN**

**Revised:
October 15, 2015**

**Deseret Generation and Transmission Co-operative
10714 S. Jordan Gateway St. 300
South Jordan, UT 84095**

I. Purpose

The Bonanza Power Plant Unit 1 (Bonanza) is located in a remote desert location approximately 35 miles southeast of Vernal, Utah. Deseret Generation and Transmission Co-operative (Deseret) is the owner and operator of this unit. Deseret recognizes the importance of minimizing fugitive dust to protect the public health and welfare. Plant personnel and contractors are responsible for implementing, following and documenting compliance with this Fugitive Emissions Dust Control Plan (Plan). All fugitive dust must not exceed 20% opacity, measured visually by EPA Method 9.

The purpose of this Plan is to establish operating procedures and work practices to minimize fugitive dust at Bonanza. The major and Coal Combustion Residual (CCR) sources of fugitive dust at Bonanza are addressed in this Plan. Deseret believes this Plan is feasible and economically reasonable to minimize fugitive dust emissions. The Plan fulfills the requirements pursuant to Permit Number V-UO-000004-00.00 and the Standards for the Disposal of Coal Combustion Residual in Landfills and Surface Impoundments (40 CFR 257.80).

II. Emission Source Information

Deseret Generation and Transmission Co-operative
Bonanza Power Plant Unit 1
12500 East 25500 South
Vernal, Utah 84078
Phone: 435-789-9000

III. Process Description

Bonanza is an approximate 500 megawatt gross, coal fired electrical generating unit (EGU). Coal is delivered to the site by train from Deseret's Deserado Mine near Rangely, Colorado. On occasion, coal is purchased on the open market and delivered by truck. Coal is stored on a 22-acre (footprint) storage pile. The active reclaim area of this pile must not exceed 11 acres, but the reclaim area may be moved to any location on the pile. The other 11 acres will be considered in long term storage. The long term storage area will be compacted and sealed with a surfactant initially as needed. Subsequent application of a sealing agent will be also applied as needed. The coal storage pile is maintained by mobile equipment. All of the coal conveyors are covered to minimize fugitive dust.

Limestone is used in the SO₂ scrubber and is stored on site in a pile(s). It is conveyed into the scrubber by a covered conveyor. The limestone storage pile(s) is maintained by mobile equipment to minimize fugitive dust.

The CCR from the plant are fly ash, bottom ash, and scrubber sludge. Fly ash and scrubber sludge are normally mixed together and transferred by covered conveyor with enclosed transfer points to the fly ash/sludge landfill. This product is moist, yet dry enough that it will not result in free liquids as it is transported to the fly ash/sludge landfill. Occasionally, this product is trucked to the fly ash/sludge landfill during an equipment malfunction either

from the unit itself and/or a containerized emergency fly ash/sludge pile. The fly ash/sludge landfill is maintained by mobile equipment and/or kept moist with water spays when in operation and non-freezing temperatures exist.

The bottom ash is trucked, typically in a moist condition yet dry enough it will not result in free liquids, from the containerized bottom ash pile to the bottom ash landfill. This landfill is also maintained by mobile equipment.

The scrubber sludge dewatering process has an emergency sludge tank that is occasionally used when there is a malfunction. There is the possibility that the sludge will be dewatered in the tank and transported to a CCR landfill by truck. This sludge is typically in a moist condition yet dry enough it will not result in free liquids and/or minimal, if any, fugitive emissions.

IV. Major & CCR Sources of Potential Fugitive Dust

Major sources of potential fugitive dust at Bonanza due to wind erosion and/or mobile equipment motion are:

1. Coal storage pile
2. Limestone storage pile(s)
3. Unpaved haul roads
4. Unpaved operational Areas
5. Fly ash/sludge landfill
6. Containerized emergency fly ash/sludge pile
7. Containerized emergency fly ash/sludge pile CCR relocation
8. Fly ash/sludge conveyors
9. Bottom ash landfill
10. Containerized bottom ash pile
11. Containerized bottom ash pile CCR relocation
12. Emergency sludge tank
13. Emergency sludge tank CCR relocation

V. Work Practices

Safety considerations must be addressed when determining how best to go about minimizing fugitive dust. Furthermore, Deseret recognizes that there are periods of unusual weather events such as strong winds or periods of extreme cold when reasonable methods to control fugitive dust would not be successful. Under normal or typical circumstances, Table 1 shows the work practices that will be implemented to minimize fugitive dust. If a chemical treatment is going to be used, it must be approved by EPA before application.

Table 1, Potential Sources & Control Measures

Potential Sources	Control Level	Control Measure
Coal Storage Pile	1	Apply water as a dust suppressant
	2	Compact material
	3	Minimize activity
	4	Apply a chemical dust suppressant, as needed
Limestone Storage Pile(s)	1	Apply water as a dust suppressant
	2	Compact material
	3	Minimize activity
	4	Apply a chemical dust suppressant, as needed
Unpaved Haul Roads	1	Apply water as a dust suppressant
	2	Compact material
	3	Minimize activity/reduce vehicle speed/cease use
	4	Apply a chemical dust suppressant, as needed
Unpaved Operational Areas	1	Apply water as a dust suppressant
	2	Compact material
	3	Minimize activity/reduce vehicle speed/cease use
	4	Apply a chemical dust suppressant, as needed
Fly Ash/Sludge Landfill	1	Maintain product's moisture content
	2	Spray active areas with water cannons to keep moist
	3	Spray active areas with the water truck to keep moist
	4	Compact, cover with topsoil and seed as soon as practicable
Containerized Emergency Fly Ash/Sludge Pile	1	Wind break (west side of pile)
	2	Relocate material to CCR landfill
	3	Apply water as a dust suppressant
	4	Minimize activity/cease use
Containerized Emergency Fly Ash/Sludge Pile CCR Relocation	1	Apply water as a dust suppressant
	2	Minimize activity/reduce vehicle speed
	3	Cease relocating material to CCR landfill
Fly Ash/Sludge Conveyors	1	Covered conveyors with enclosed transfer points
	2	Minimize activity
	3	Cease use

Table 1 (cont.), Potential Sources & Control Measures

Potential Sources	Control Level	Control Measure
Bottom Ash Landfill	1	Apply water as a dust suppressant
	2	Compact material
	3	Minimize activity/cease use
	4	Apply a chemical dust suppressant, as needed
Containerized Bottom Ash Pile	1	Wind breaks (north & west sides of pile)
	2	Relocate material to CCR landfill
	3	Apply water as a dust suppressant
	4	Minimize activity/cease use
Containerized Bottom Ash Pile CCR Relocation	1	Apply water as a dust suppressant
	2	Minimize activity/reduce vehicle speed
	3	Cease relocating material to CCR landfill
Emergency Sludge Tank	1	Wind break (all sides-tank walls)
	2	Relocate material to CCR landfill
	3	Apply water as a dust suppressant
	4	Minimize activity/cease use
Emergency Sludge Tank CCR Relocation	1	Apply water as a dust suppressant
	2	Minimize activity/reduce vehicle speed
	3	Cease relocating material to CCR landfill

Deseret personnel are responsible to insure the appropriate level of control measures. The first level of control (1) describes the minimum level of control for fugitive dust. The next levels (2 up to 4) describe control measures that are progressively more stringent. Control measures may be increased or decreased to reflect current conditions and activities.

VI. Monitoring

Deseret will visually monitor potential sources for fugitive dust during daylight conditions if the 20% opacity level is in jeopardy of being exceeded. Control levels will be increased by one level or degree if the 20% opacity level is exceeded for a period of at least three (3) consecutive six-minute intervals. Thereafter, and continuing until the opacity level less than 20% is sustained for at least two (2) consecutive six-minute increments, the control level will increase by one level (up to control level 4) if opacity of at least 20% persists for a period of at least five (5) consecutive six-minute intervals after the previous control level increase. Meteorological conditions such as wind, humidity, temperature, etc. should be considered during visual monitoring. Deseret maintains a group of employees who are EPA, Method 9 certified for measuring opacity visually. These employees are responsible for the continuous visual monitoring and for Plan compliance at Bonanza.

VII. Recordkeeping

Records will be maintained on site to demonstrate control measures in compliance with this Plan. The records will include the control level, general notes, location (if necessary), weather conditions, wind conditions, surface conditions, compacting material (yes/no), and if water was used as surfactant. When any kind of chemical treatment (stabilization work) is done, a record/log must be kept that includes the dates, type of agent applied, amount applied and area of application.

Bonanza will use these records to certify compliance with the fugitive dust requirement in the Permit Number V-UO-000004-00.00 and the Standards for the Disposal of Coal Combustion Residual in Landfills and Surface Impoundments (40 CFR 257.80).

VIII. Quality Control & Plan Effectiveness Review

The coal unloading track hoppers will be inspected monthly to ensure the dust suppression system is operational. This inspection will be performed only during months with above freezing temperatures. A record will be kept of these inspections. Any work orders on the system will be completed in a timely manner.

Those employees who are EPA, Method 9 certified will review this Plan annually. They will also maintain a current certification.

Deseret will conduct an annual review (completed before February 2) of this Plan and potential sources to maintain permit and CCR compliance. Any areas of deficiencies to maintain the Plan's purpose will be corrected. An *Annual CCR Fugitive Dust Control Report* will be compiled as required by 40 CFR 257.80(c). If revisions are made to this Plan, a revised copy will be submitted to the EPA within 90 days of the revision date.

IX. Procedures to Emplace CCR as Conditioned CCR

According to 40 CFR 257.80(b)(2), conditioned CCR means "wetting CCR with water to a moisture content that will prevent wind dispersal, but will not result in free liquids." All CCR at Bonanza is in compliance with this requirement as explained above. This is accomplished through the process (either fly ash being mixed with sludge and/or the Submerged Flight Conveyor making the bottom ash damp) and/or additional water that is sprayed onto the CCR material during non-freezing temperatures, as needed.

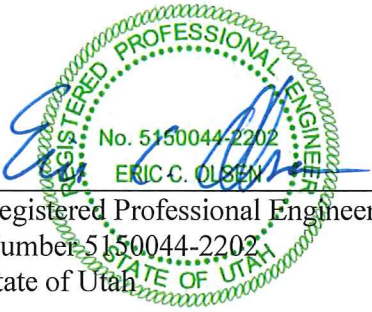
X. Procedures for Logging Citizen Complaints

Citizen complaints received by Deseret involving CCR fugitive dust events will be logged and stored in the operating record by Bonanza's Environmental Department. These complaints will be reviewed by Deseret's management and addressed according to regulation. Any issues that warrant a correction pursuant to regulation will be corrected as quickly as reasonably possible.

XI. Qualified Professional Engineer Certificate

I, Eric C. Olsen, a registered Professional Engineer in the State of Utah, certify that this Fugitive Emissions Dust Control Plan meets the requirements of Subpart D, Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments pursuant to 40 CFR 257.80.

Dated this 15th day of October 20 15



Registered Professional Engineer
Number 5150044-2202
State of Utah