

1. Introduction

The purposes of this plan are to: (1) identify the primary sources of fugitive dust which result from various activities at Sunnyside's Cogeneration Facility, (2) establish operating/training procedures and work practices which minimize fugitive dust under normal operating conditions, abnormal operating conditions or other extreme or atypical weather events, (3) establish record keeping and training procedures and (4) establish quality assurance procedures to periodically assess the effectiveness of the control plan.

Sunnyside Cogeneration Facility Operating personnel and Contractors (material handling contractors, general contractors, etc.) are responsible for: (1) implementing the procedures and work practices summarized by this plan, and, (2) documenting compliance with this plan by periodic monitoring of its effectiveness and implementation. Records demonstrating that the fugitive dust control plan is being implemented will be maintained on site. These records will include a complete log of citizen complaints regarding fugitive dust, and will be made available to inspectors at their request.

The dust control plan is designed to meet the requirements of Utah Code Rules R307-309-3, 4, 5, and 7 using Best Available Control Technology (BACT). This plan must be approved by the Utah Division of Air Quality. Once approved the plan will be an attachment to Sunnyside's Approval Order (DAQE-0077-94). This fugitive dust control plan is also designed to meet the requirements of federal regulations 40CFR §257.80 specifying Air Criteria in the *Standards of Coal Combustion Residuals (CCR) in Landfills and Impoundments*, and corresponding Utah Code Rules (draft) R315-319-80.

1.1 Source Information

Sunnyside Cogeneration Associates
State Route 123, #1 Powerplant Road
Sunnyside, Utah 84539
(435) 888-4476

Universal Transverse Mercator (UTM) Coordinate System (Meters):
Plant/Coal Pile: Zone 12; 552,330 E; 4,377,540 N
SCA#1 Ash Landfill: Zone 12; 550,600 E; 4,376,900 N
SCA#2 Ash Landfill: Zone 12; 553,100 E; 4,376,800 N

Placement of CCR in SCA#1 Ash Landfill will be discontinued on or before October 15, 2015, at which time SCA#2 Ash Landfill will be fully operational.

1.2 Process Description

The Sunnyside Cogeneration facility, located in Carbon County, Utah uses waste coal from abandoned mining operations to fuel a fluidized bed combustion unit feeding a steam turbine capable of producing approximately 60 megawatts of electricity, all of which is sold to Rocky Mountain Power. The waste coal is transported by truck to the fuel processing system. The waste coal is then transported by covered conveyor to a primary screen and then to a vertical impact crusher. The waste coal is then sized by a secondary screen and conveyed to storage

silos. The fly/bed ash (CCR) generated from the combustion is then transferred to silos for storage. Just before loading into transport trucks the fly/bed ash is conditioned by mixing in a pug mill with enough water to achieve a moisture content of about 16 percent. The silo unloading system is controlled by a wet scrubbing dust collection system. The material is then transported by trucks approximately one mile to the ash landfill site. After the truck is unloaded the conditioned fly/bed ash is graded, moisture conditioned to optimum compaction range and compacted.

2.0 Potential Sources of Fugitive Dust

Activities which have the potential to produce fugitive dust at the Sunnyside Cogeneration Facility include: (1) the unloading of ash from the ash silo into the trucks and the unloading of ash from the trucks at the ash landfill, (2) wind erosion at both the ash landfill and the waste coal pile, (3) coal processing (conveyors and conveyor transfer points), (4) movement of mobile equipment on the waste coal pile and the ash landfill, and, (5) movement of mobile equipment on all paved and unpaved roadways associated with the SCA project.

3.0 Monitoring

Periodic visual observations shall be conducted by one or more of the following individuals: (1) all equipment operators, (2) the Materials Handling Superintendent or his designee, (3) the Operations Supervisor responsible for plant operations and/or, (4) the Plant/Environmental Engineer. (Typically, the daily visual inspections will be conducted by the Water Truck Driver). All will be trained in visual observations for fugitive dust control; see section 5.0 Training.

Visual indicators will be used to evaluate the effectiveness of the plan implementation and dust control measures in complying with the approval order conditions, taking into consideration meteorological conditions described in section 6.1.

4.0 Description and Control procedures for Potential Sources of Fugitive Dust

As described below, fugitive dust will be largely controlled by the addition of water, i.e., conditioning, supplemented by other measures including enclosure, sweeping and/or flushing, and cover via tarps (during transport), or topsoil, mulch and vegetation (landfill). Conditioning of CCR is an effective dust control measure for transport and placement of CCR in large quantities. Sweeping and/or flushing are effective means of controlling small or incidental amounts of CCR, such as may be in handling areas or roadways. Temporary cover, such as truck tarps, provides dust control during transport. When operational conditions permit, reducing or delaying the hauling, unloading or grading during times of high wind events can be effective in avoiding conditions which would increase CCR dust. The final cover (soil, mulch, vegetation), will be completed as the landfill is built up and out so as to minimize the open working areas.

Visual observations are to be used to determine if an appropriate level of control to minimize fugitive dust is occurring. Sunnyside's fugitive dust treatment shall be of sufficient frequency and quantity to maintain the surface material (roadways, ash pile and coal pile active areas, etc.) in a damp/moist condition unless it is below freezing. The watering schedule can be increased /

decreased accordingly to contain sufficient control measures to prevent an increase in fugitive emissions.

Identified below are the individuals ("Dust Control Team") responsible for the implementation and maintenance of the fugitive dust control measures:

<u>Title</u>	<u>Telephone#(435 area code)</u>
Plant Manager	888-4476
Environmental/Engineer	888-4476
Operations Supervisor	888-4476
Maintenance Supervisor	888-4476
Savage Coal Manager	888-4436

Several sources of water may be used for fugitive dust control (when the application of water is the operative control measure): (1) Sedimentation basins, (2) Dragerton Well, (3) Boiler/cooling tower blow down, (4) Service water, and/or (5) raw water reservoirs.

4.1 Waste Coal Pile/Coal Processing and Conveying

Generally, the waste coal being removed from the waste coal pile has a moisture content sufficient to minimize fugitive dust without the need for additional control; however water may be applied, using a water truck, to the active work areas of the coal pile as needed to minimize fugitive dust when coal is being loaded into the haulage trucks as determined by visual observations conducted by the Equipment Operator(s) or Water Truck Driver(s).

The coal processing areas (conveyors and conveyor transfer points, crusher, screens, etc.) have water suppression sprays in place and shall be operational whenever coal is being processed, and/or whenever dry conditions warrant. The moisture in the conveyor system shall be maintained at a level such that opacity limitations are met at the crusher and screens. If possible, conveyors, drop points, and storage silos shall be covered or enclosed as presently constructed. A fire hose station, located outside the motor control room, can be used to further control fugitive emissions in the coal processing yard, if conditions so require.

4.2 Fly Ash Silo Unloading Area

Fly ash is mixed with water, and is then loaded into haulage trucks. The unloading process is controlled by a wet scrubbing dust collection system. Fugitive emissions will also be controlled by the volume of water being added during transfer (to the truck) and hauling (to the ash landfill). All ash truck trailers have tarps which cover the trailers during transport to and from the ash landfill.

Fallout from airborne ash and spillage from haul trucks can accumulate on the paved area surrounding the ash silo area. This area will be cleaned at least once per week (or more frequently if plant operating personnel or the Ash Haul Contractor determine that fugitive dust does not meet monitoring criteria or if evidence indicates that fly ash is being tracked away from the ash unloading area). Methods used to clean this area include, but are not limited to, flushing the area with water, or removing the material using a front-end loader or vacuum truck. Small ash spills will be swept up and the area will be flushed with water.

4.3 Ash Landfills

Conditioned fly ash and bottom ash is delivered to the ash landfill via haulage trucks. It is placed on the ash pile, and is compacted as it is delivered. Water is liberally applied both as a compaction aid and for fugitive dust control. The active area of the ash landfill is more susceptible to wind erosion and is thus typically confined to the smallest practical working area.

The inactive portions of the ash landfill are compacted and covered with a top soil material and seeded. Weather permitting, the covering, seeding and mulching, typically occurs during the spring and/or fall of the year.

Ash landfill construction or earth-moving activities will occur in phases per the specific job. Earth-moving activities will occur only when that phase of ash landfill construction is required. Vegetation will remain in place and undisturbed until such time as earth-moving is necessary. Dust control measures (watering, controlling vehicle speed, etc.) will be in place during earth-moving activities.

4.4 Plant Roads and Traffic Areas, including Roadways On and Around the Coal Pile and the Ash Landfill Haulage Roads.

Unpaved Roads: All unpaved roads and other unpaved operational areas that are being used by mobile equipment will be watered or chemically treated to control fugitive dust. Treatment will be of sufficient frequency and quantity to maintain the surface material in a damp/moist condition unless it is below freezing. Visible fugitive dust emissions from haul-road traffic and mobile equipment in operational areas will not exceed 20% opacity. Should control measures fail to control fugitive dust (20% opacity) vehicle speeds will be reduced accordingly or other control measures will be taken to control fugitive emissions.

Paved Roads, Including Public Hwys 123 and 124: Any spillage from haul trucks on all paved roadways will be cleaned promptly by the contractor hauling the ash or other materials. Any tracking from haul trucks on the paved haulage roads, including public highways 123 and 124, will be cleaned using the methods described below. Methods used to clean these areas include, but are not limited to, flushing the area with water, removing the material using a front-end loader and/or vacuum truck. Small ash spills will be swept up and the area will be flushed with water. Haulage trucks are required to lower traveling speeds approaching intersections and railroad crossings to reduce the potential for fugitive dust emissions. Ash hauling from the Silo to the SCA#2 Ash Landfill will remain on SCA private roads and will not utilize public roads.

5.0 Employee Training

All employees, new employees, newly assigned employees, and contractors (contractors that have the potential to create fugitive emissions) who operate equipment that produces and/or controls fugitive emissions will be trained on the dust control procedures of this plan and relevant sections of the AO and Title V air permits. Those employees/contractors who have received the initial training will then be retrained on an annual basis.

Training will be conducted by SCA's Plant/Environmental Engineer. Training will include covering all aspects of the dust control plan and relevant sections of the AO and Title V air permits. Employees/ and long term contractors will be trained in all jobs/tasks (relating to dust control) not just a specific job or task. The importance of controlling fugitive emissions, facility wide, will be stressed during employee/contractor training.

Employees/contractors will be trained on how to make proper visual observations (VO's). Employees/contractors will be required to do physical visual observations at various facility locations, under trainer supervision, using VO techniques listed under section 3.0-Monitoring of this plan and/or using 40 CFR 60, Appendix A, Method 9 techniques. Maintenance personnel will be trained on the regulations regarding applicable installed controls, such as water sprays and the requirement for them to maintain such in a working condition.

6.0 Recordkeeping

Records of all actions taken to implement the Fugitive Dust Control Plan will be maintained and shall include the following:

6.1 Dust Control Log Sheets

A daily log (the "Fugitive Dust Control Log") of dust control activities shall be maintained. This log is to include (1) the date and time, (2) employee/contractor name, (3) number of treatments, quantity of water/chemical treatment, (4) location of treatment (paved/unpaved road, ash landfill, etc.), (5) and special weather conditions known or observed, such as precipitation and high wind conditions. A copy of this daily log shall be submitted to the Plant/Environmental Engineer for his/her review and for the review of other Dust Control Team Members.

6.2 Training Log Sheets

Training log sheets will be used to document training being conducted and will include (1) date and time, (2) trainers name, (3) trainees name, (4) type of trainee (new employee/contractor, annual refresher, etc.), and (5) type of training. Appropriate questions and observations will be made to confirm/verify training adequacy.

6.3 Record Retention

All fugitive dust control logs and training records will be kept on site for a period of five years for UDAQ inspections. Records will be maintained by the Plant / Environmental Engineer.

6.4 Citizen Complaint Log

Any citizen complaints received regarding fugitive CCR dust will be promptly reported to the Dust Control Team identified in Section 4.0 of this plan for assessment and corrective measures. A complete record of the complaint will be entered into the Plant Operating Record, and will include:

-
- Name and contact information for the reporting party,
 - Date and time of the complaint
 - Name of person receiving the complaint
 - Name(s) of appropriate person complaint relayed to
 - Assessment and response details
 - Any follow up communication with the reporting party

6.5 Annual CCR Fugitive Dust Control Report

The first Annual CCR Fugitive Dust Control Report will be completed no later than 14 months after placing this Plan in the Plant Operating Record. Subsequent annual reports will be due no later than one year after the date of the previous annual report.

The annual report will include descriptions of actions taken by the Plant to control CCR fugitive dust during the reporting period. It will also include a record of all citizen complaints regarding CCR fugitive dust received in that reporting period, as well as a description of any corrective actions taken in response.

7.0 Quality Assurance

Sunnyside's Plant Engineer or Dust Control Team members will conduct annual audits and evaluations of the Fugitive Dust Control Plan and the potential emission sources in order to evaluate the effectiveness of the Fugitive Dust Control Plan. If it is determined that revisions to the plan are necessary, the plan shall be revised and resubmitted to the Division of Air Quality for approval. The amended plan will also be placed in the Plant Operating Record. The audits will be documented and retained with the training records.

8.0 Certification Statement

I certify that this Fugitive Dust Control Plan meets the requirements of federal regulations 40CFR §257.80 specifying Air Criteria in the *Standards of Coal Combustion Residuals in Landfills and Impoundments*, and corresponding Utah Code Rules (draft) R315-319-80.

S. Scott Carlson, PE 187727, Utah
September 2015

