



State of Utah

Department of
Environmental Quality

Dianne R. Nielson, Ph.D.
Executive Director

DIVISION OF AIR QUALITY
Richard W. Sprott
Director

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Lieutenant Governor

DAQE-IN0096021-06

September 26, 2006

Kendell Reed
General Manager
Sunnyside Cogeneration Associates
RR2 Box 56
Clarion, PA 16214

Dear Mr. Reed:

Re: Intent to Approve: Modify Approval Order DAQE-AN0096020-06 For Emergency Generator Hour of Operation, Carbon County – CDS A; ATT; NSPS; HAPs; PSD; TITLE V MAJOR Project Code: N0096-021

The attached document is the Intent to Approve (ITA) for the above-referenced project. ITAs are subject to public review. Any comments received shall be considered before an Approval Order is issued.

Future correspondence on this Intent to Approve should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any technical questions you may have on this project to Mr. Nando Meli. He may be reached at (801) 536-4052.

Sincerely,

Rusty Ruby, Manager
New Source Review Section

RR:NM:kw

cc: Southeastern Utah District Health Department

Mike Owens, EPA Region VIII

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

**INTENT TO APPROVE: Modify Approval Order
DAQE-AN0096020-06 For Emergency Generator
Hours of Operation**

**Prepared By: Nando Meli, Engineer
(801) 536-4052
Email: nmeli@utah.gov**

INTENT TO APPROVE NUMBER

DAQE-IN0096021-06

Date: September 26, 2006

Sunnyside Cogeneration Associates

**Source Contact
Rusty Netz
(435) 888-4476 EXT 107**

**Richard W. Sprott
Executive Secretary
Utah Air Quality Board**

Abstract

Sunnyside Cogeneration Associates (SCA) operates an electric power plant near Sunnyside, Utah. The Sunnyside Plant is a waste coal-fired steam electric generating plant located in Carbon County. SCA is requesting that the hours of operation limit for the emergency generator be increased. Currently the Approval Order DAQE-AN0096020-06, states that the hours of operation shall not be more than 52 hours of operation per rolling 12-month period. SCA has requested that it be increased to the standard hours of operation for emergency generators. The standard limit is 500 hours per year.

Carbon County is an attainment area of the National Ambient Air Quality Standards (NAAQS) for all pollutants. New Source Performance Standards (NSPS) Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units) applies to the Sunnyside plant. National Emission Standards for Hazardous Air Pollutants (NESHAP) and Maximum Achievable Control Technology (MACT) regulations do not apply to the Sunnyside plant. Title V of the 1990 Clean Air Act applies to the Sunnyside plant. The Title V operating permit for this source shall be amended prior to the operation of the approved modifications. The emissions, in tons per year, will change as follows: $PM_{10} + 0.12$, $NO_x + 3.61$, $SO_2 + 1.22$, $CO + 0.83$, and $VOC + 0.11$. The changes in emissions will result in the following, in tons per year, potential to emit totals: $PM_{10} = 142.91$, $NO_x = 771.20$, $SO_2 = 1289.26$, $CO = 261.96$, $VOC = 18.17$.

The Notice of Intent (NOI) for the above-referenced project has been evaluated and has been found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307). Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an Approval Order (AO) by the Executive Secretary of the Utah Air Quality Board.

A 30-day public comment period will be held in accordance with UAC R307-401-7. A notice of intent to approve will be published in the Sun Advocate on September 22, 2006. During the public comment period the proposal and the evaluation of its impact on air quality will be available for both you and the public to review and comment. If anyone so requests a public hearing it will be held in accordance with UAC R307-401-7. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated.

Please review the proposed AO conditions during this period and make any comments you may have. The proposed conditions of the AO may be changed as a result of the comments received. Unless changed, the AO will be based upon the following conditions:

General Conditions:

1. This Approval Order (AO) applies to the following company:

Site Office

Sunnyside Cogeneration
State Route 123, #1 Power plant Road
Sunnyside, Utah 84539

Corporate Office Location

Sunnyside Cogeneration Associates
111 Market Place 2nd Floor
Baltimore, Maryland 21201

Phone Number (435) 888-4476

Fax Number (435) 888-2538

The equipment listed in this AO shall be operated at the following location:

State Route 123, #1 Power Plant Road, Sunnyside, Carbon County, Utah

Universal Transverse Mercator (UTM) Coordinate System: UTM Datum NAD27 Zone 12

Plant: 4,377.786 kilometers Northing; 552.984 kilometers Easting

Ash Landfill: 4,376.600 kilometers Northing; 550.780 kilometers Easting;

2. All definitions, terms, abbreviations, and references used in this AO conform to those used in the Utah Administrative Code (UAC) Rule 307 (R307) and Title 40 of the Code of Federal Regulations (40 CFR). Unless noted otherwise, references cited in these AO conditions refer to those rules.
3. The limits set forth in this AO shall not be exceeded without prior approval in accordance with R307-401.
4. Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved in accordance with R307-401.
5. All records referenced in this AO or in applicable NSPS standards, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request. Records shall be kept for the following minimum periods:
 - A. Emission inventories Five years from the due date of each emission statement or until the next inventory is due, whichever is longer.
 - B. All other records Five years
6. Sunnyside Cogeneration Associates (SCA) shall conduct its operations of the electric generating plant in accordance with the terms and conditions of this AO, which was written pursuant to SCA's Notice of Intent submitted to the Division of Air Quality (DAQ) on August 29, 2006.
7. This AO shall replace the AO (DAQE-AN0096020-06) dated April 13, 2006.
8. The approved installations shall consist of the following equipment and related operations or equivalent*, located at or adjacent to the plant site:
 - A. Coal surface mining; coal processing; and coal handling/storage operations
 - Primary screen and conveyor System
 - Crusher, secondary screen and conveyor system
 - Crusher baghouse minimum manufacturer filter efficiency rating 99%**
 - Maximum air to cloth ratio 8:1
 - Maximum Air Flow design Rate 10,000 cfm

- B. Limestone and ash handling/storage operations
 - Fly ash silo unloading system
 - Minimum manufacturer scrubber efficiency rating 99% **
 - Maximum Air Flow design Rate 8,000 cfm
- C. One boiler (fluidized bed with baghouse)
- D. Emergency Generator
 - Fuel Type Diesel
 - Electrical Output 500 kW
- E. Pollution control equipment and monitoring equipment
- F. Instrumentation monitoring and control
- G. Ash Landfill and related operations
- H. Other associated equipment

* Equivalency shall be determined by the Executive Secretary.

** For informational purposes only

A detailed list of the above equipment is attached in Appendix A.

The information listed in Appendix A including the information already submitted to DAQ shall be maintained in conjunction with and considered part of this AO. DAQ may alter or substitute portions of the pollution control equipment list, at any time, provided SCA submits these alterations for approval to the Executive Secretary in accordance with R307 401, UAC.

- 9. SCA shall notify the Executive Secretary in writing when the installation of the primary screen and conveyors listed in Condition #8.A has been completed and is operational, as an initial compliance inspection is required. To insure proper credit when notifying the Executive Secretary, send your correspondence to the Executive Secretary, attn: Compliance Section.

If the installation has not been completed within eighteen months from the date of this AO, the Executive Secretary shall be notified in writing on the status of the installation. At that time, the Executive Secretary shall require documentation of the continuous installation of the operation and may revoke the AO in accordance with R307-401-18.

Limitations and Tests Procedures

10. Visible emissions from the following emission points shall not exceed the following values:
 - A. Fluidized bed boiler stack - 10% opacity (six minute average) at all times, except for one six-minute period per 60-minute period, during which the opacity shall not exceed 27%.
 - B. Baghouses - 7% opacity
 - 1) Canica Crusher and crusher to conveyor transfer points
 - 2) Conveyor transfer points (evacuated to a baghouse)
 - 3) Coal silo dust collectors
 - 4) Fly ash baghouse
 - 5) Soda ash storage silo
 - 6) Ash unloading
 - 7) Hydrated lime storage silo
 - 8) Limestone bulk storage
 - C. Point Sources not controlled by a baghouse or a scrubber - 10% opacity
 - 1) Conveying operations and transfer points
 - 2) Fuel receiving hoppers
 - 3) Bulk storage of coal
 - 4) Limestone receiving
 - 5) Primary screen and secondary screen
 - D. Emission Sources with a 20% opacity
 - 1) Diesel engine exhaust
 - 2) Waste coal mining operations
 - 3) Ash landfill operations
 - 4) Unpaved roads
 - 5) Paved haul roads
 - E. All other point sources - 10% opacity

Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9.

For sources that are subject to NSPS, opacity shall be determined by conducting observations in accordance with 40 CFR 60.11(b) and 40 CFR 60, Appendix A, Method 9.

11. Sunnyside Cogeneration Facility shall operate in accordance with the most current fugitive dust control plan approved by the Executive Secretary for the control of all dust sources associated with the plant and Ash Landfill. The version of the fugitive dust control plan for the plant and landfill approved at the date of this AO is attached as Appendix B. This plan shall contain sufficient control measures to prevent an increase in PM₁₀ emissions

above those modeled for this AO. The parameters and assumptions used in the most recent air quality modeling analysis shall not be changed if such change would result in an increase in PM₁₀ emissions. The limitations and conditions in the current fugitive dust control plan shall not be changed without prior approval in accordance with R307-401, UAC.

12. The coal additives shall consist of alternative fuels approved by the Executive Secretary. The average quantity of coal additives blended with waste coal for burning shall not be greater than 10% of the total coal burned during a calendar day. SCA may increase the average quantity of alternative fuels up to 25% upon approval of SCA's alternative fuels by the Executive Secretary. To obtain approval from the Executive Secretary SCA shall submit a test analysis of the alternative fuels. Prior to switching sources of alternative fuels SCA shall obtain approval from the Executive Secretary. The analysis shall contain at a minimum the ASTM coal proximate analyses, the ultimate analyses, the benzene analyses and the Poly Aromatic Hydrocarbons (PAH) analyses.
13. The sulfur content of any fuel oil burned shall not exceed 0.85 pounds of sulfur per million BTU heat input as determined by ASTM Method D-4239-83. The percent by weight of the sulfur contained in the fuel can be obtained from the fuel oil certifications. Certification of fuels shall be either by SCA's own testing or test reports from the fuel marketer. Records of the fuel sulfur content must be kept on site.
14. In addition to the requirements of this AO, all applicable provisions of 40 CFR 60, New Source Performance Standards (NSPS) Subpart A, and Subpart Db, 40 CFR 60.40.b to 60.49.b (Standards of Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units) apply to this installation. To be in compliance, Sunnyside must operate in accordance with the most current version of 40 CFR 60 applicable to this source.
15. The emission rates/concentrations from the main boiler stack shall not exceed any of the following values:
 - A. 0.025 lb Particulates per 10⁶ BTU heat input
 - B. SO₂
 - 1) 0.42 lb SO₂ per 10⁶ BTU heat input during normal boiler operation not including startup, shutdown and malfunction (30-day rolling average)
 - 2) 1.2 lb SO₂ per 10⁶ BTU heat input including startup, shutdown and malfunction (30-day rolling average)
 - 3) 462 lb SO₂ per hour during normal boiler operation not including startup, shutdown and malfunction (3-hour block average)
 - C. NO_x
 - 1) 0.25 lb NO_x per 10⁶ BTU heat input during normal boiler operation not including startup, shutdown and malfunction (30-day rolling average)

2) 0.6 lb NO_x per 10⁶ BTU heat input including startup, shutdown and malfunction (30-day rolling average)

D. 0.085 lb CO per 10⁶ BTU heat input.

16. Stack testing to show compliance with the emission limitations of Condition 15 for the boiler stack shall be performed as specified below within the applicable quarter in that calendar year:

<u>Pollutant</u>	<u>Testing Status</u>	<u>Test Frequency</u>
TSP	*	Every 3 yrs
SO ₂	*	Continuous
NO _x	*	Continuous
CO	*	annually

* Initial compliance testing was completed June 8, 1993.

17. The test methods used shall be as follows.

- A. Particulate - Appropriate methods as described in 40 CFR 60.46b
- B. SO₂ - Appropriate method as described in 40 CFR 60, Appendix A, Method 6, 6a, 6b, or 6c at the option of the owner
- C. NO_x - Appropriate method as described in 40 CFR 60.46b
- D. CO - Appropriate method as described in 40 CFR 60, Appendix A, Method 10 or 10b. CO emissions shall be converted from a concentration basis (ppm) to a mass emission rate (lb/mmBTU) using a similar method as for NSPS pollutants.

The owner/operator shall comply with 40 CFR 60.46b(b) when conducting compliance testing for Particulates, 60.46b (c) and (e) for nitrogen oxides, 60.45b(b) and (c) for sulfur oxides and Condition 17.D for CO.

A pre-test protocol and notification of the test date shall be provided at least 30 days prior to the test. A pretest conference shall be held. It shall be held at least 30 days prior to the test between the owner/operator, the tester, and the Executive Secretary. The emission points shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) approvable access shall be provided to the test locations.

During the pretest conference the owner/operator shall submit a monitoring plan and a quarterly report format to the Executive Secretary for review and approval/disapproval. The monitoring plan shall include all of the required monitors.

The production rate during all compliance testing shall be no less than 52 megawatts or 90% of the production rate at which the facility will be operated. For an existing source/emission point, the production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three years.

18. The production limit of 506,700 megawatt-hours of electricity per rolling 12-month period shall not be exceeded. To determine compliance with a rolling 12-month total, SCA shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12 months. Records of electricity production shall be kept for all periods when the plant is in operation. Compliance with the limitations for the production of electricity shall be determined by examination of power sales records and electrical meter records. Both shall be kept on a daily basis.
19. SCA shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere from the main boiler stack and record the output of the system. The monitoring system shall be used for measuring and determining compliance. The continuous monitoring system shall comply with applicable provisions of 40 CFR 60.48b and 40 CFR 60 Appendix B, Specification 1.
20. SCA shall install, calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere from the main boiler stack and record the output of the system. The monitoring system shall be used for measuring and determining compliance. The continuous monitoring system shall comply with applicable provisions of 40 CFR 60.48b and 40 CFR 60, Appendix B, Specification 2.
21. SCA shall install, calibrate, maintain, and operate a continuous monitoring system for measuring sulfur dioxide emissions discharged to the atmosphere from the main boiler stack and record the output of the system. The monitoring system shall be used for measuring and determining compliance. The continuous monitoring system shall comply with applicable provisions of 40 CFR 60, Appendix B, Specification 2 and 40 CFR 60.47b.

To determine compliance with the SO₂ mass emission limits (lbs/hr), SCA shall install, maintain, calibrate, and operate a continuous stack flow monitoring system or other alternate monitoring methodology acceptable to the Executive Secretary. Any approved alternate monitoring plan shall be included as Appendix C to this AO. A 15% Relative Accuracy Test Audit (RATA) performance requirement shall apply to the mass emission rate monitoring system.
22. SCA shall install, maintain, calibrate, and operate a continuous monitoring system for measuring the CO₂ or O₂ in the main boiler stack. The monitoring system shall comply with the requirements of 40 CFR 60, Appendix B, Specification 3.
23. SCA shall comply with R307-170, UAC, Continuous Emission Monitoring Program. To be in compliance, SCA must operate in accordance with the most current version of the UAC, R307-170. Also, SCA shall comply with all the reporting and record keeping requirements of 40 CFR 60.49b.
24. All continuous monitoring data shall be recorded.

Records & Miscellaneous

- 25. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this Approval Order, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on the information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on the equipment authorized by this AO shall be recorded.
- 26. The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring.
- 27. The owner/operator shall comply with R307-107. General Requirements: Unavoidable Breakdowns.

The Executive Secretary shall be notified in writing if the company is sold or changes its name.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including R307.

A copy of the rules, regulations and/or attachments addressed in this AO may be obtained by contacting the Division of Air Quality. The Utah Administrative Code R307 rules used by DAQ, the Notice of Intent (NOI) guide, and other air quality documents and forms may also be obtained on the Internet at the following web site:

<http://www.airquality.utah.gov/>

The annual emissions estimations below include point source, fugitive emissions, fugitive dust and road dust, and do not include tail pipe emissions and grandfathered emissions. These emissions are for the purpose of determining the applicability of Prevention of Significant Deterioration, non-attainment area, Maintenance area, and Title V source requirements of the R307. They are not to be used for determining compliance.

The Potential To Emit (PTE) emissions for the SCA electric plant are currently calculated at the following values:

	<u>Pollutant</u>	<u>Tons/yr</u>
A.	PM ₁₀	142.91
B.	SO ₂	1,289.26
C.	NO _x	771.20
D.	CO	261.96
E.	VOC	18.17

The Division of Air Quality is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an AO. An invoice will follow upon issuance of the final Approval Order.

Sincerely,

Rusty Ruby, Manager
New Source Review Section

Appendix A

Equipment List and Specifications

1. Coal Surface mining; coal processing; and coal handling/storage operations:

Coal surface mining (Heavy Equipment)

- * Loaders
- * Semi-Tractor/Trailers

Coal Processing/Handling/and Storage

- * Coal truck dump: 8 inch unloading grizzly dump
- * Belting Conveyor Systems
- * Primary Screen: Bivitec Screen 2400 mm x 7 m
- * Secondary Screen: Bivitec screen is 2400 mm x 7 m
- * Crusher: Canica, VFI Impact crusher
- * Coal Dust Collector: 120 Pulse-Jet, 10,000 CFM
- * Stacking Conveyor Systems
- * Coal Silo Bin Vents (3): C. P. Environmental, Model-36BF0096
- * Coal Silo Unloading Dust Collector #1: MAC, Model-96MCF153-153
- * Coal Bunker Dust Collector 2: MAC, Model-I20LVS144

2. Limestone and Ash Handling/Storage Operations:

- * Ash Silo Baghouse #1: National Conveyor, Model-100 CTBC 72 (11G)
- * Ash Silo Baghouse #2: National Conveyor, Model-100 CTBC 72 (11G)
- * Ash Silo Bin Vent: National Conveyor, Model-100WSBS100 IIG
- * Ash Silo Unloading Mixers #1 and #2: Ashtech, Model-5K490G9747
- * Ash System Vacuum Producer #1: Roots, Model-RCS-V 827
- * Ash System Vacuum Producer #2: Roots, Model-RCS-V 827
- * Limestone Bin Vent Filters (2): Flex-Kleen, 84 BVBS 16 IIG
- * HL-54 Vertical Venturi Wet Scrubbing dust collection system

3 & 4. Boiler/Pollution Control Equipment and Monitoring Equipment

- * Boiler Baghouse-Pulse Jet Fabric Filter: Brandt Environmental Corp.,
- * Limestone Feeders: Stock, Model-LPG 8818
- * Water Spray System through out the Property

5. 500 KW Diesel fired emergency generator

6. Instrumentation Monitoring and Control

- * EcoChem MC3 Multi-Component Analyzer (SO₂, NO_x, O₂)
- * Opacity Analyzer: Durag D-R 290
- * DAS Recorder: ECS

7. Ash Landfill and Related Operations

- * Semi-Tractor/Trailers
- * Semi-Tractor/Trailers: Water Truck
- * Motor Grader

8. Other Associated Equipment

- * Lime Bin Vent Filter: C. P. Environmental, 77MS5
- * Soda Ash Bin Vent Filter: C. P. Environmental, 77MS5

Appendix B

February 24, 2006

Approved Fugitive Dust Control Plan for Sunnyside Plant and Ash Landfill

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), and, (3) establish record keeping and training procedures.

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 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). The Utah Division of Air Quality must approve this plan.

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:

Plant/Coal Pile: 4,377.786 kilometers Northing; 552.984 kilometers Easting; Zone 12
Ash Landfill: 4,376.600 kilometers Northing; 550.780 kilometers Easting; Zone 12

1.2 Process Description

The Sunnyside Cogeneration facility, located in Carbon County, Utah uses waste coal from an abandoned mining operation to fuel a fluidized bed combustion unit feeding a steam turbine capable of producing approximately 58 megawatts of electricity, all of which is sold to Utah Power & Light. The waste coal is transported by truck from the storage piles on site to the coal preparation hopper. The coal is then transported by covered conveyor to a primary screen and then to a vertical impact crusher. The coal is then sized by a secondary screen and conveyed to storage silos. After proper blending, the coal is then mixed with limestone and fed into a boiler for combustion. The fly/bed ash generated from the combustion is then transferred to silos for storage. Just before loading into transport trucks, the fly/bed ash is mixed, in a pugmill, with enough water to achieve a

moisture content of about 16 percent. The 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 fly/bed ash is graded, watered 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 and the unloading of ash 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 observation 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

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
Savage Ash Landfill 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 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, crushers, 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 crushers 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 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).

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 evidence exists 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 Landfill

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 (cell) 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 vegetative cover soil material, and hydra seeded. Weather permitting the covering, hydra seeding and mulching, typically occurring during the spring and 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: Paved haulage roadways will be periodically watered or cleaned to control fugitive emissions (no water will be applied during adverse weather conditions). Any spillage from haul trucks on the paved roadways will be cleaned immediately by the contractor hauling the ash or other materials. Methods used to clean this area 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.

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 permits. Those employees/contractors who have received the initial training will then be retrained on an annual base.

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 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 trainers supervision, using VO technics listed under section 3.0-Monitoring of this plan and/or using 40 CFR 60, Appendix A, Method 9 technics. 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 DAQ inspections. Records will be maintained by the Plant/Environmental Engineer.

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 audits will be documented and retained with the training records.

Appendix C

Approved SO₂ Mass Emission Rate Monitoring Plan

To determine SO₂ mass emission rates (lbs/hr), the pollutant concentration as determined in accordance with 40 CFR 60.47b, shall be multiplied by the heat input rate per the following formula:

$$M_s = E_s * H$$

Where:

M_s = The hourly average SO₂ emission rate in Lbs/Hr.

E_s = The hourly average SO₂ emission rate from the existing CEM in Lbs/MMBtu.

H = The hourly average boiler heat input rate (MMBtu/Hr) derived from a parametric relationship between the boiler steam flow and heat input.

The parametric equation is as follows:

$$\text{MMBtu/hr} = 164 + 1.05 * (\text{Steam Flow in Mlb/hr})$$

The use of different coefficients in this parametric equation must be certified by a Relative Accuracy Test Audit (RATA) of the entire SO₂ monitoring system.