State of Utah

GARY R. HERBERT
Governor

GREG BELL
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF AIR QUALITY
Cheryl Heying
Director

DAQE-AN0140470002-10

November 10, 2010

Chris McCourt
Alton Coal Development, LLC
463 North 100 West, Suite 1
Cedar City, UT 84721

Dear Mr. McCourt:

Re: Approval Order: Approval Order for a New Surface Coal Mine to be Located Near Alton, Utah.
Project Number: N014047-0002

The attached document is the Approval Order for the above-referenced project. Future correspondence on this Approval Order should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. The project engineer for this action is Jon Black, who may be reached at (801) 536-4047.

Sincerely,

M. Cheryl Heying, Executive Secretary
Utah Air Quality Board

MCH:JB:kw

cc: Mike Owens
Southwest Utah Public Health Department

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

APPROVAL ORDER: Approval Order for a New Surface Coal Mine to be Located Near Alton, Utah.

Prepared By: Jon Black, Engineer
Phone: (801) 536-4047
Email: jlblack@utah.gov

APPROVAL ORDER NUMBER

DAQE-AN0140470002-10

Date: November 10, 2010

Alton Coal Development, LLC
Coal Hollow Mine
Source Contact:
Mr. Chris McCourt
Phone: (435) 781-3348

M. Cheryl Heying
Executive Secretary
Utah Air Quality Board

Abstract

Alton Coal Development, LLC submitted a NOI for construction of the Coal Hollow Surface Coal Mine. Under the NSR program, the surface mine is a minor source of air emissions. The plant will be located in Kane County near the town of Alton, Utah. Kane County is an attainment area of the NAAQS for all pollutants.

NSPS 40 CFR 60 Subparts A (General Provisions), Y (Standards of Performance for Coal Processing Plants) and IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines) regulations apply to this source. NESHAP 40 CFR 63 Subpart ZZZZ (Stationary Reciprocating Internal Combustion Engines) regulations apply to this source. Title V of the 1990 Clean Air Act applies to this area source.

BACT will require wet suppression methods (water sprays and water trucks) and chemical dust suppression to control particulate emissions including (PM_{10} and $PM_{2.5}$) from the removal, transfer, sizing, storage, and processing of all on-site materials which include coal, topsoil, and overburden. BACT for the two stationary diesel engines will require the installation of Selective Catalytic Reduction for NO_x reduction.

The emissions, in TPY, will be as follows: PM_{10} (Includes $PM_{2.5}$) = 75.64 (fugitive & point source), $PM_{2.5}$ = 10.48, NO_x = 26.21, SO_2 = 31.52, CO = 9.14, VOC = 5.47, and HAPs = 0.082 (Emissions of NO_x, SO_2, CO, VOC and HAP's do not include mobile sources).

The project has been evaluated and found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307). A public comment period and a public hearing were held in accordance with UAC R307-401-7 and comments were received. All oral and written comments were evaluated and addressed. This air quality AO authorizes the project with the following conditions and failure to comply with any of the conditions may constitute a violation of this order. This AO is issued to, and applies to the following:

Name of Permittee:

Alton Coal Development, LLC
463 North 100 West, Suite 1
Cedar City, UT 84721

Permitted Location:

Coal Hollow Mine
County Road 136
Alton, UT

UTM coordinates: 371534 m Easting, 4140699 m Northing, UTM Zone 12
SIC code: 1221 (Bituminous Coal & Lignite Surface Mining)

Section I: GENERAL PROVISIONS

I.1 All definitions, terms, abbreviations, and references used in this AO conform to those used in the UAC R307 and 40 CFR. Unless noted otherwise, references cited in these AO conditions refer to those rules. [R307-101]

I.2 The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]

I.3 Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]

I.4 All records referenced in this AO or in other applicable rules, 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, and the records shall include the two-year period prior to the date of the request. Unless otherwise specified in this AO or in other applicable state and federal rules, records shall be kept for a minimum of two (2) years. [R307-401-8]

I.5 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 AO, 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 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 equipment authorized by this AO shall be recorded. [R307-401-4]

I.6 The owner/operator shall comply with UAC R307-107. General Requirements: Unavoidable Breakdowns. [R307-107]

I.7 The owner/operator shall comply with UAC R307-150 Series. Inventories, Testing and Monitoring. [R307-150]

Section II: SPECIAL PROVISIONS

II.A The approved installations shall consist of the following equipment:

II.A.1 **Surface Coal Mine**
Coal Hollow Mine

II.A.2 **Product Transfer Equipment**
Loaders, Dozers, Power Shovels, Excavators, Haul and Water Trucks, etc.

II.A.3 **Stacker Belt**
Rating: 1000 tph

II.A.4 **Associated Material Processing Equipment**
Conveyors, Stackers, Drills, etc.

II.A.5 **Feeder Breaker**
Rating: 1000 tph

II.A.6 **Secondary Crusher**
Rating: 1000 tph

II.A.7 **Generator #1**
Rating: 910 kw Fuel type: Diesel
Control Equipment: Selective Catalyst Reduction (SCR)

I.4 All records referenced in this AO or in other applicable rules, 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, and the records shall include the two-year period prior to the date of the request. Unless otherwise specified in this AO or in other applicable state and federal rules, records shall be kept for a minimum of two (2) years. [R307-401-8]

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Conveyors, Stackers, Drills, etc.

II.A.5 **Feeder Breaker**
Rating: 1000 tph

II.A.6 **Secondary Crusher**
Rating: 1000 tph

II.A.7 **Generator #1**
Rating: 910 kw Fuel type: Diesel
Control Equipment: Selective Catalyst Reduction (SCR)

II.A.8 **Generator #2**
Rating: 635 kw Fuel type: Diesel
Control Equipment: Selective Catalyst Reduction (SCR)

II.A.9 **Temporary Generator**
Temporary Generator: Will remain on-site during mine initiation and initial production mining.

II.A.10 **Fuel Tank #1**
Capacity: 12,000 gallons Fuel type: Diesel

Note: Listed for informational purposes only.

II.A.11 **Fuel Tank #2**
Capacity: 12,000 gallons Fuel type: Diesel

Note: Listed for informational purposes only.

II.A.12 **Fuel Tank #3**
Capacity: 4,000 gallons Fuel type: Gasoline

Note: Listed for informational purposes only.

II.B Requirements and Limitations

II.B.1 **The Alton Coal Development, LLC Coal Hollow Mine shall be subject to the following**

II.B.1.a The owner/operator shall not exceed the following production limits:

A. 2,000,000 tons of maximum coal production per rolling 12-month period

B. 19,145,000 tons of overburden material moved per rolling 12-month period

C. 373,750 tons of topsoil removed per rolling 12-month period

D. 7,488 hours of operation for the mine per rolling 12-month period

[R307-401-8]

II.B.1.b To determine compliance with a rolling 12-month total the owner/operator shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12 months. Records of production shall be kept for all periods when the plant is in operation. The records of production shall be kept on a daily basis. Production shall be determined by scale house records, vendor receipts or other approved method determined by the Executive Secretary. Hours of operation and production shall be determined by supervisor monitoring and maintaining of an operations log. [R307-401]

II.B.1.c Unless otherwise specified in this AO, visible emissions from the following emission points shall not exceed the following values:

A. All crushers - 15% opacity
B. All conveyor transfer points - 10% opacity
C. Conveyor drop points - 20% opacity
D. All diesel engines - 20% opacity
E. All other points - 20% opacity

[R307-401]

II.B.1.d Unless otherwise specified in this AO, opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. [R307-201-3]

II.B.1.e All storage piles and unpaved operational areas shall be water sprayed to minimize generation of fugitive dust. Water shall be applied as dry conditions warrant or as determined necessary by the Executive Secretary. [R307-401-8]

II.B.1.f Blasting may be utilized if conditions warrant. Blasting shall be limited to one (1) blast per day and 32 blasts per rolling 12-month period. Blasting shall be conducted in a manner to prevent overshooting (blasting which loosens solid rock formations outside the limits of the planned slopes) and to minimize the area to be blasted. [R307-401-8]

II.B.1.g In addition to the requirements of this AO, all applicable provisions of 40 CFR 60, NSPS Subpart A, 40 CFR 60.1 to 60.18 (General Provisions) and Subpart Y, 40 CFR 60.250 to 60.258 (Standards of Performance for Coal Preparation and Processing Plants) apply to this installation. [40 CFR 60 Subpart Y]

II.B.1.h Alton Coal Development, LLC shall abide by all applicable requirements of R307-205 for Fugitive Emission and Fugitive Dust sources. To be in compliance, this facility must operate in accordance with the most current version of R307-205. [R307-205]

II.B.1.i Alton Coal Development, LLC shall abide by a fugitive dust control plan acceptable to the Executive Secretary for control of all dust sources associated with the Coal Hollow Mine. Alton Coal shall abide by the most current fugitive dust control plan approved by the Executive Secretary. [R307-401-8]

II.B.2 **Ambient Monitoring Requirements**

II.B.2.a Alton Coal Development, LLC shall operate an ambient monitoring network as described in this Approval Order document. The monitoring plan will be periodically reviewed by the UDAQ and revised if necessary. [R307-401]

II.B.2.b The air monitoring installation and set-up shall be completed within 90 days of the final permit issuance date. Alton Coal Development, LLC shall complete the calibration and equipment testing within 30 days of the final set-up and installation date. [R307-401]

II.B.2.c Alton Coal Development, LLC shall operate and maintain two (2) air monitoring sites in the vicinity of the Coal Hollow mine and facilities. The first air monitor shall be sited in a

location impacted by the modeled highest concentration of emissions. This site is along the western portion of the mine's northern property line and is defined below. The second air monitor shall be sited outside of the property boundary near the southeastern corner of the property and is defined below. The exact locations of the monitoring sites shall be approved by the DAQ and meet all of the sitting requirements established by the DAQ. [R307-401-8]

II.B.2.d Alton Coal Development, LLC shall utilize air monitoring and quality assurance procedures which are equal to or exceed the requirements described in the EPA Quality Assurance Manual including revisions 40 CFR Parts 53 and 58. [R307-401]

II.B.2.e The air monitoring shall track the long-term impacts of emissions from the facility. Should monitoring data indicate that project emissions are producing ambient air quality impacts that could produce an exceedance of the NAAQS, additional air monitoring or analyses will be required. If this situation occurs, an additional data assessment plan shall be developed that is mutually acceptable to both UDAQ and Alton Coal. [R307-401]

II.B.2.f Alton Coal shall monitor the following parameters at the sites and frequencies described below:

Site Name	UTM Coordinates	Parameter	Frequency
Northern Boundary	Zone 12 N 4,139,594.2 E 373,175.2	PM_{10}	Every 6th Day
Southeastern Corner	TBD	PM_{10}	Every 6th Day

Note: PM_{10} is defined as particulate matter less than 10 microns.

[R307-401-1]

II.B.2.g Any ambient air monitoring changes proposed by Alton Coal Development, LLC must be approved, in writing, by the Executive Secretary or representative. [R307-401]

II.B.2.h Alton Coal Development, LLC shall submit quarterly data reports within 45 days after the end of the calendar quarter and an annual data report within 90 days after the end of the calendar year. [R307-401]

II.B.2.i The quarterly report shall consist of a narrative data summary and a submittal of all data points in EPA-AIRS record format. The data shall be submitted in compact disc (CD) format. The narrative data summary shall include:

A. A topographic map of appropriate scale with UTM coordinates and a true north arrow showing the air monitoring site locations in relation to the mine and facilities and the general area;

B. A hard copy of the individual data points;

C. The quarterly and monthly means for PM_{10} and wind speed;

D. The first and second highest 24-hour concentrations for PM_{10};

E. The quarterly and monthly wind roses;

F. A summary of the data collection efficiency;

G. A summary of the reasons for missing data;

H. A precision and accuracy (audit) summary;

I. A summary of any ambient air standard exceedances; and

J. Calibration information.

[R307-401]

II.B.2.j The annual data report shall consist of a narrative data summary containing:

A. A topographic map of appropriate scale with UTM coordinates and a true north arrow showing the air monitoring site locations in relation to the mine and facilities and the general area;

B. A pollution trend analysis;

C. The annual means for PM_{10} and wind speed;

D. The first and second highest 24-hour concentrations for PM_{10};

E. The annual wind rose;

F. An annual summary of data collection efficiency;

G. An annual summary of precision and accuracy (audit) data;

H. An annual summary of any ambient standard exceedance; and

I. Recommendations for future monitoring.

[R307-401]

II.B.2.k The DAQ may audit, or may require Alton Coal Development, LLC to contract with an independent firm to audit, the air monitoring network, the laboratory performing associated analyses, and any data handling procedures at unspecified times. On the basis of the audits and subsequent reports, the DAQ may recommend or require changes in the air monitoring system and associated activities in order to improve precision, accuracy, and data completeness. [R307-401]

II.B.3 **All Unpaved Haul Roads shall be subject to the following**

II.B.3.a Alton Coal Development, LLC shall not allow visible emissions from unpaved roads used by mobile equipment to exceed 20 percent opacity. [R307-201]

II.B.3.b Visible emission determinations for fugitive dust emissions from haul-road traffic and mobile equipment in operational areas shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Visible emissions shall be measured at the densest point of the plume but at a point not less than 1/2 vehicle length behind the vehicle and not less than 1/2 the height of the vehicle. [R307-201]

II.B.3.c All unpaved roads that are used by mobile equipment, that are located within the pit footprint, shall be water sprayed to control fugitive dust. If annual production of coal exceeds 1.5 million tons per rolling 12-month period, water sprays will continue to be used on short-term roads (same location for less than one month) within the pit footprint while chemical suppressant treatments shall be used on in-pit roads that will remain in place for more than one month, including in-pit ramps.

All unpaved roads that are outside of the pit footprint shall be water sprayed and/or chemically treated to control fugitive dust. The application of water or chemical treatment shall be used except when the ambient temperature is below freezing (32 degrees). Chemical treatment shall be applied two (2) times, or more if necessary, per rolling 12-month period and watering shall be initiated daily dependent upon observed fugitive dust generation. [R307-401-8]

II.B.3.d Records of water/chemical treatment application shall be kept for all periods when the plant is in operation. The records shall include the following items:

A. Date and time treatments were made
B. Number of treatments made and quantity of water applied
C. Rainfall amount received, if any
D. Records of temperature, if the temperature is below freezing.

[R307-401-8]

II.B.3.e Each coal haul road shall not exceed 7975 feet in length and each overburden haul road shall not exceed 2500 feet in length. The vehicle speed on the haul roads shall be posted, at minimum, on-site at the beginning of each haul road so that it is clearly visible from the haul road. [R307-401-8]

II.B.4 **The Diesel fired Generators on-site shall be subject to the following**

II.B.4.a Alton Coal Development, LLC shall install Selective Catalytic Reduction (SCR) technology for NO_x reduction on each of the two (2) stationary diesel generator engines. [R307-401-8]

II.B.4.b The two (2) stationary diesel generator engines shall not exceed 7,488 total hours of operation each per rolling 12-month period. [R307-401-8]

II.B.4.c To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12 months. To determine the total generator hours of operation for the surface mine, the owner/operator shall sum the operating hours of each engine. Hours of operation shall be determined by supervisor monitoring and maintaining of an operations log. [R307-401]

II.B.4.d The temporary diesel powered generator shall operate on-site until the generators listed in Conditions II.A.7 and II.A.8 have been installed and are operational. The plant-wide emissions for NO_x from these generators shall not exceed the following:

26.21 tons per rolling 12-month period for NO_x

The NO_x emissions shall be determined by maintaining a record of the operating hours of the diesel generator used on a monthly basis. The operating hours shall be used in the following calculations:

A. The amount of NO_x emitted monthly, in tons, by the temporary diesel generator shall be calculated by the following procedure:

Diesel Generator rating < 600 horsepower (hp)

NO_x = (0.031 lb/hp hr) x [Gen Rating (hp)] x (Operating hours) x (1 ton/2000lb)

Diesel Generator rating > 600 hp

NO_x = (0.024 lb/hp hr) x [Gen Rating (hp)] x (Operating hours) x (1 ton/2000lb)

Compliance with the limitation shall be determined on a rolling 12-month total. Based on the last day of each month, a new 12-month total shall be calculated using data from the previous 12 months. Monthly calculations shall be made no later than 20 days after the end of each calendar month. Generator operating hours shall be determined by an hour meter installed on the equipment or other appropriate method as established by Alton Coal Development, LLC. [R307-401]

II.B.4.e The owner/operator shall abide by all applicable provisions of 40 CFR 60, NSPS Subpart A (General Provisions), 40 CFR 60.1 to 60.18 and Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines), 40 CFR 60.4200 to 60.4219 for all stationary diesel engines on site as specified in 40 CFR 60.4200(a). [40 CFR 60 Subpart IIII]

II.B.4.f The owner/operator shall abide by all applicable provisions of 40 CFR 63 Subpart A (General Provisions), 40 CFR 63.1 to 63.16 and 40 CFR 63 Subpart ZZZZ (National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines), 40 CFR 63.6580 to 63.6675 for all stationary diesel engines on site as specified in 40 CFR 63.6585. [40 CFR 63 Subpart ZZZZ]

II.B.5 **On-Site Fuel Limitations**

II.B.5.a The owner/operator shall use #1, #2 or a combination of #1 and #2 diesel fuel in the on-site equipment. [R307-401]

II.B.5.b The sulfur content of any fuel oil or diesel burned in the on-site equipment shall not exceed 0.05 percent by weight. [R307-401-8]

II.B.5.c The sulfur content shall be determined by ASTM Method D2880-71, D4294-89, or approved equivalent. Certification of fuel sulfur content shall be by test reports from the fuel oil or diesel fuel marketer. [R307-401]

Section III: APPLICABLE FEDERAL REQUIREMENTS

In addition to the requirements of this AO, all applicable provisions of the following federal programs have been found to apply to this installation. 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 UAC R307.

NSPS (Part 60), Y: Coal Preparation Plants
MACT (Part 63), ZZZZ: Recipro. Int. Comb Engine (RICE)
NSPS (Part 60), A: General Provisions
NSPS (Part 60), IIII: Stationary Comp/Ignit R.I.C.E

PERMIT HISTORY

This AO is based on the following documents:

Incorporates	Source Plan Review Comments dated September 2, 2010
Incorporates	Comment Response to Air Dispersion Modeling Information dated August 11, 2010
Incorporates	Evaluation of Air Dispersion Modeling Results dated August 1, 2010
Incorporates	Additional NOI Modeling Information Supporting Air Model dated May 28, 2010
Incorporates	Additional NOI Information submitted in response to October 27, 2009 UDAQ letter. dated March 22, 2010
Incorporates	Additional NOI Information submittal in response to October 22, 2009 meeting at UDAQ. dated March 22, 2010
Incorporates	Additional NOI Information submittal in response to Email request sent on October 14, 2009 dated March 22, 2010
Incorporates	Revised Notice of Intent regarding $PM_{2.5}$, Dispersion Modeling, & Siste Specific Data dated March 17, 2010
Incorporates	Moisture Content Drilling and Sample Collection SOP dated October 30, 2009
Incorporates	Additional NOI Information regarding BACT and Emission Calculations dated September 3, 2009

Incorporates	BACT Analysis for Diesel Engines dated August 25, 2009
Incorporates	Revised Notice of Intent dated April 21, 2009
Is Derived From	NOI dated April 9, 2009

ADMINISTRATIVE CODING

The following information is for UDAQ internal classification use only:

Kane County
CDS SM
Attainment Area, MACT (Part 63), NSPS (Part 60), NSR, Synthetic minor, Title V (Part 70) Area source

ACRONYMS

The following lists commonly used acronyms and associated translations as they apply to this document:

40 CFR	Title 40 of the Code of Federal Regulations
AO	Approval Order
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDS	Classification Data System (used by EPA to classify sources by size/type)
CEM	Continuous emissions monitor
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CO	Carbon monoxide
COM	Continuous opacity monitor
DAQ	Division of Air Quality (typically interchangeable with UDAQ)
DAQE	This is a document tracking code for internal UDAQ use
EPA	Environmental Protection Agency
FDCP	Fugitive Dust Control Plan
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
LB/HR	Pounds per hour
MACT	Maximum Achievable Control Technology
MMBTU	Million British Thermal Units
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOI	Notice of Intent
NO_x	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM_{10}	Particulate matter less than 10 microns in size
$PM_{2.5}$	Particulate matter less than 2.5 microns in size
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
R307	Rules Series 307
R307-401	Rules Series 307 - Section 401
SO_2	Sulfur dioxide
Title IV	Title IV of the Clean Air Act
Title V	Title V of the Clean Air Act
TPY	Tons per year
UAC	Utah Administrative Code
UDAQ	Utah Division of Air Quality (typically interchangeable with DAQ)
VOC	Volatile organic compounds