CHAPTER 4

LAND USE AND AIR QUALITY
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CHAPTER 4
LAND USE AND AIR QUALITY

410 LAND USE

This section of the permit application includes descriptions of the premining and proposed postmining land use(s). Additional information can be found in the following amendments: Methane Degassification Amendment (August 2003), Refuse Pile Amendment (February 2003), and the Leachfield Addendum A-1 (March 2001). The remainder of the State Lease ML-48435-OBA (SITLA Lease) was incorporated into the Dugout Canyon Mine permit area in 2004. Refer to Plate 1-2 and 4-1 for the location of the acreage incorporated into the permit boundary.

In 2007 acreage (487.57 acres) was added to existing Federal Coal Lease U-07064-027821, two hundred and forty-seven acres of this added acreage is already included as part of the Dugout permitted area. Acreage was previously added to the permit area in excess of the Federal leased acreage to act as a subsidence buffer zone (207.57 acres) and to accommodate a revised mine plan (40 acres). In addition, State Lease ML-50582-OBA (320 acres, more or less) was issued to Dugout Canyon Mine in 2007. Future surface disturbance of these leases will be permitted as needed to facilitate mining activities.

Appendix 4-4 in the M&RP and in the confidential folder contains letters authorizing land use by Dugout Canyon Mine for data collection, exploration and degasification drilling and water monitoring.

411 Environmental Description

A statement of the conditions and capabilities of the land to be affected by coal mining and reclamation operations follows in this section.
411.100 Premining Land Use

The permit area has been primarily utilized as rangeland for livestock and wildlife habitat. Some crops related to the livestock industry have been developed along the creek bottoms adjacent to Soldier Creek Road. However, no crops have been raised within the permit area. Recreational use of the permit area is limited due to lack of access through private property.

The predisturbed area boundary outlined on Plate 5-4 reflects disturbance prior to 1965. The boundary was compiled from a 1980 map of the pre-mining topography prepared by Eureka Energy Company. According to historical data the Dugout Canyon area was last mined in 1964.

Pace Canyon

Archaeological inventories in the area were completed in 1980 by AERC who surveyed the access road into Pace Canyon to the Snow Mine site which is the currently proposed location of the fan site facility. The proposed fan site does not encompass the mine itself, but merely the facility area associated with the Snow Mine. The Snow Mine (42CB292) facility was active in 1906 but had its primary production period from 1932 - 1940. When inventoried the site was in moderately fair condition and avoidance was recommended in the 1980 inventory, however the site was not recommended for nomination to the National Register of Historic Places (Hauck & Weder: 1980).

During an inventory by Senco-Phenix in 2001 the BLM requested a second evaluation of the Snow Mine site utilizing current National Register of Historic Places (NRHP) criteria. Senco-Phenix recommendation was "the area has been heavily logged since the initial recordation and the area around the mine extensively disturbed by heavy equipment, probably dozed. The foundation has been destroyed and the coal loadout has been collapsed and pushed into the bed of Pace Creek. The rock-covered adit and adjacent stonewall are still there on the other side of Pace Creek (east)......Other than recent trash no artifacts were observed. The integrity of the site has been basically destroyed. The site is not recommended for the NRHP" (Senulis: 2001). The 2001 evaluation also stated "no historic properties will be affected and no further cultural resource inventory is necessary".
In October 2003, Senco-Phenix performed an additional survey of the Snow Mine area in conjunction with a exploration drilling project proposed and approved by the BLM in 2003. The surveys mentioned in this section are on file with the BLM an/or in the Confidential Binder.

411.110 Land Use Map

Plate 4-1 designates the prominent land uses within and adjacent to the permit boundary. Pace Canyon has a corral just above a locked gate in Section 25, Township 13 South Range 12 East (Plate 4-1). The main livestock watering source is Pace Creek and it’s tributaries in Sections 19, 20, 21 and 22, Township 13 South Range 13 East (Plate 4-1) and the Clark’s Valley Reservoir, approximately 3 miles southwest of the Pace Fan Portal site (outside of area covered by Plate 4-1).

411.120 Land Capability

The area surrounding Dugout Canyon supports a variety of land uses including industrial, agricultural, and recreational. Carbon County has zoned the permit area for mining and grazing.

Energy resource development occurs throughout the region in the form of coal mining, oil and gas production and tar sands development. A methane gas recovery operation was formerly running in conjunction with the Soldier Canyon Mine which lies west of the Dugout Canyon Mine permit boundary. The Soldier Canyon Mine has been in operation since 1976.

The major plant communities in the Dugout Canyon lease area are identified in Section 321. No cultivated lands lie within the permit boundary, due to the limiting terrain and lack of water for irrigation. Refer to Section 321.100 for forage production per acre.

The permit area is used for grazing cattle, but sheep have grazed in the area previously. Valley bottoms receive little grazing due to their limited forage and narrowness except in the vicinity of water sources. Steep slopes receive limited grazing pressure from livestock because of the steep inclines and the lack of water. Flatter mesa tops and rolling terrain receive heavier pressure.
because of easier movement by livestock and more available forage. Grasses are preferred forage for cattle; however, cattle will eat forbs and shrub species.

The use of land for grazing is dictated by the condition of and access to the specific areas. At the land owners discretion land may be used for grazing one year and not used again for five years. However, grazing should continue to be considered a potential land use for the permit and adjacent areas.

The permit area supports limited recreation due to inaccessibility to privately owned lands.

411.130 Land Use Description

The permit area lies within undeveloped lands used primarily as wildlife habitat and for livestock grazing. Five grazing allotments are located in or adjacent to the permit area (Plate 4-1). The allotments support 429 head of cattle from May through October. The grazing allotments as listed below are administered by the U. S. Bureau of Land Management (BLM): Pine Canyon Allotment No. 24089 supports 50 head of livestock, Dugout Allotment No. 34039 supports 60 head, Pole Canyon Grazing Allotment No. 34092 supports 144 head, Cow Canyon Allotment No. 34032 supports 95 head, and Pace Canyon Allotment No. 24085 supports 80 head of livestock. The grazing allotment within the vicinity of the fan portal facilities is the Pace Canyon Allotment No. 24085, both the existing road and proposed facility site occur within this allotment. The existing Pace Canyon road passes near the main watering sources and holding corral for livestock on this allotment.

Recreation in the permit and adjacent areas includes camping, hunting, and hiking from Spring to late Fall. Recreational use is light due to restricted access to privately-owned lands. There are no developed or inventoried recreation campgrounds within the permit boundary. No impact is expected to the current recreational uses of the area. SCM will preserve these uses into the postmining period.
During deer and elk hunting seasons, the accessible lands are used extensively by the public. Fishing is limited at best, with restricted access and no known game fish populations existing in the permit area streams.

Logging operations completed in 1996 by Cascade Resources within and adjacent to the permit boundary are shown on the Sale Area Map "Exhibit A" in Appendix 4-2. Exhibit A was prepared by Cascade Resources of Wellington, Utah who estimated harvesting six million board feet from the areas designated on the exhibit. Their logging contract expired on 12/31/96.

Timber within the disturbed area is very limited and therefore not economical for recovery by the logging industry. Exhibit B included in Appendix 4-2 shows SCM's timber inventory including areas logged and areas yet to be logged.

The nearest crop production (alfalfa) is approximately 4 miles southwest of the permit boundary adjacent to the Soldier Creek Road. Cultivation occurs on a year to year basis, depending upon the water available for irrigation.

### 411.140 Cultural and Historic Resources Information

Cultural resource information and maps identifying cultural and historical study areas are located within the confidential folder of information pertaining to this permit. An intensive cultural resource evaluation of the permit area has been conducted by Dr. Richard Hauck, Ph.D. of Archeological-Environmental Research Corporation (AERC). As part of this evaluation he also made a record search at the State Historic Preservation Office (SHPO) and the National Register of Historic Places (NRHP).

Cultural resource evaluations were performed on two sites within the permit boundary. Field evaluations on the historic Dugout Creek Mine (42CB 205/291) and on a prehistoric rock art site (42CB 92) were conducted by the AERC staff on November 20-22, 1995. Site 42CB 92, situated in the SE1/4 of Section 22, T13S, R12E, contains a series of pictograph panels first documented
by Dale Berge in 1977. The historic Dugout Creek Mine locus is situated in the NW1/4 of Section 23.

The historic components of the Dugout Creek Mine (42CB 205/291) are not considered to be significant and do not need to be avoided or mitigated prior to the development of the mine site. The prehistoric rock art site (42CB 92) is a significant resource and is eligible for nomination to the NRHP. Site 42CB 92 has been reported to the NRHP and BLM offices during previous cultural and historical studies of the area in 1977, 1980, and 1995 but is not currently listed on the NRHP.

The rock art panels are unstable and could be destroyed if blasting for road expansion is done within a 600-foot radius of the panels. SCM will make every effort to protect these rock art panels without drawing unnecessary attention to their location. The panels have been preserved primarily because the general public does not know of their existence. SCM will strive to maintain this condition.

The AERC report provides descriptive and valuational information for the two sites.

Cultural and historical inventories associated with the SITLA lease tract and adjacent areas are located in Appendix 4-1 and 4-3. This information should be held confidential by the Division.

The information in Appendix 4-3 was collected starting in 1980 and the last report was completed in 2003. According to information collected from the Price office of the BLM on March 23, 2004 and conversations with Mr. David Miller, there were no sites with artifacts considered for registration found in the areas surveyed and reported in 1980 through 1991. The conclusions were the same in the surveys conducted in 2001 - 2003. A letter from John Senulis, Archeologist with Senco Phenix detailing their file search and surveys of the area has been incorporated into Appendix 4-3. The letter is addressed to Kenny Wintch, the SITLA Archeologist and a copy has been sent to Mr. Dykman at SHPO. The letter states "No sites eligible for nomination to the National Register of Historic Places have been found in or adjacent to the permit expansion area. It is very unlikely that future survey will reveal sites eligible.... Furthermore all activity will be underground with no surface
disturbance. For these reasons a finding of "no effect on historic properties" is appropriate and archeologic clearance without stipulations is recommended."

Federal Lease Modification U-07064-027821 and ML-50582-OBA

Senco-Phenix (Archeological Consulting Services) conducted a Class 1 file search for the NW1/4NW1/4, Section 21, Township 13S, Range 13E (approximately 40 acres). The 40 acres has privately owned surface and federal coal.

The Class 1 file search results listed a survey in 2006 conducted by Senco-Phenix which included a walking survey of a portion of the NW1/4NW1/4, Section 21, Township13S Range 13East. The survey area and a road surveyed in 2005 are shown on a drawing attached to a letter addressed to Vicky Miller, dated January 23, 2007 from Senco-Phenix. Copies of the letter and drawing have been provided to the Division for inclusion into Appendix 4-1 of the confidential folder as has a copy of the walking survey listed in the letter. No cultural resources were located during either of the surveys located by the file search, listed in the aforementioned letter.

During the June of 2007, an area of 580 acres were surveyed by Senco Phenix, an intensive walking survey was performed on 270 of these acres. The area surveyed includes parts of Section 16, 17, 18 and 21, T13S, R13E. A record search was performed on June 19, 2007. A salt lick was located during the walking survey, the lick consisted of 12"x12" block of commercially produced salt. The cultural resource located during the study was in the form of an isolated aspen art inscription, no other cultural resources were located during the survey. According to the study written report "a finding of no effect is appropriate and archeological clearance without stipulation is recommended".

Cultural and Historic Resource Maps. Maps and photographs for the evaluated cultural and historical sites are contained in the confidential folder.

There are no cemeteries, public parks, or units of the National System of Trails or the Wild and Scenic Rivers System located within the Dugout Canyon Mine permit boundary. The National
Register of Historic Places was consulted by AERC and no registered historic or prehistoric properties will be affected by the proposed mine development.

SCM agrees to notify the Division and SHPO of previously unidentified cultural resources discovered in the course of mining operations. Arch Coal Company has a registered professional geologist on staff assigned to Dugout Canyon Mine available to confirm vertebrate fossil material discovered during earth moving activities during construction of the Pace Canyon Fan Portal site. SCM also agrees to have any such cultural resources evaluated in terms of NRHP eligibility criteria. Protection of eligible cultural resources will be in accordance with Division and SHPO requirements. SCM will also instruct its employees that it is a violation of federal and state laws to collect individual artifacts or to otherwise disturb cultural resources.

Coordination with State Historic Preservation Officer. AERC contacted SHPO concerning the Dugout Canyon Mine site and a copy of their report was forwarded to SHPO. The National Register of Historic Places was consulted by AERC and no registered historic or prehistoric properties will be affected by the proposed mine development.

411.200 Previous Mining Activity

Coal mining has occurred within Dugout Canyon since 1925. D. J. Collins prospected for and initially hand-developed the Red Glow Mine in the Gilson seam on the east side of Dugout Canyon in 1925. The west side of Dugout Canyon was first mined in 1952 by E.S.O. Coal Company when they mined the Rock Canyon seam.

The Knight Ideal Coal Company mined the Rock Canyon and Gilson coal seams located on both sides of the canyon between 1958 and 1964. Knight Ideal Coal Company extracted 1,326,000 tons of coal by conventional room and pillar method with partial pillar recovery. The area in Dugout Canyon disturbed by mining has changed hands through the years but no coal has been extracted since 1964.
Limited exploration within existing portals was conducted by Pacific Gas and Electric in 1979 and by Sunedco in 1982. Following each exploration, the portals were resealed with earthen fill. During 1995, SCM reopened four portals, two on the east and two on the west side of Dugout Canyon. The portals on the east side were resealed but the portals on the west side were left open and fenced for security and safety.

Remnants of the Fish Creek and Pace Canyon Mine which operated in the early 1900's also exist within the permit boundary. Both mine sites have been considered for preservation by SHPO but were ineligible for nomination to the National Register of Historic Places. Pace Canyon contains the remains of earlier mining, disturbance by logging activities, and road access disturbance. The area was neither reclaimed or revegetated following the aforementioned disturbance.

412 Reclamation Plan

412.100 Postmining Land Use Plan

All uses of the land prior to mining and the capability of the land to support prior alternate uses will remain available throughout the life of the mine except within the disturbed-area boundary.

SCM intends the postmining land use to be consistent with the present land use, which is livestock grazing and wildlife habitat. Final reclamation activities such as grading and seeding as detailed within this M&RP will be completed in a manner to provide lands able to parallel the premining land use. In areas where surface disturbance will result from mining operations, soil reclamation and revegetation will restore the areas to wildlife habitat and livestock grazing capabilities.

The activities associated with the mining operation will follow accepted standards or proven techniques. Erosion hazards will be minimized and, where possible, eliminated. Evidence of abandoned improvements will be removed. Reclamation will restore the land and vegetation to as near a natural and productive condition as possible.
Efforts to restore wildlife habitat are discussed in Chapter 3 of this M&RP. Specific periods of habitation by wildlife species of the disturbed and adjacent area are discussed in Appendices 3-2 and 3-3. Since the disturbed area is privately owned the timing and extent of use for grazing will be made after reclamation by the landowner.

412.200 Land Owner or Surface Manager Comments

The land surface within the permit boundary is owned by various entities, including the State of Utah and Canyon Fuel Company, LLC (CFC). The disturbed area is on surface lands owned by both CFC, BLM and the State.

The leases contained in Appendix 1-1 list responsibilities accepted by CFC in regard to the State of Utah's lands within the permit boundary. The leases contain requirements concerning use and maintenance of their administered lands. CFC is obligated by these leases to notify the Division for their determination as to whether this mining operation will be detrimental to the State of Utah's interest. By submitting this M&RP, CFC is indicating that the operation will not be detrimental to the State's interests and the obligation is being met. A letter of affirmation from the State of Utah concerning proposed land use is included in Appendix 4-2.

The Bureau of Land Management (BLM) Right-of-Way application (UTU-76601) in Appendix 1-3 lists the responsibilities accepted by CFC concerning the BLM lands included in the permit boundary. A letter from the BLM concerning proposed land use for Pace Canyon Fan Portal area and UTU-76601 will be included in Appendix 4-2.

Refer to Chapter 1 for responsibilities CFC accepts in association with Federal Lease U-07064-027821.

For clarification as to relationship of SCM to CFC, refer to Section 112.
412.300 Suitability and Capability

Final fills will not contain excess spoils.

413 Performance Standards

The performance standards for the areas to be reclaimed for postmining land use are contained in this section.

413.100 Postmining Land Use

Postmining land uses are discussed in Section 412.100. The postmining lands will be reclaimed in a timely manner and capable of supporting such land uses (see Chapters 2, 3, 5, and 7). The postmining roads are discussed in Section 542.600.

413.200 Determining Premining Uses of Land

Postmining land uses will be as stated in Section 412.

413.300 Criteria for Alternative Postmining Land Uses

No alternative postmining land uses have been planned.

414 Alternative Land Use

No alternative postmining land uses have been planned.
420 AIR QUALITY

This section includes descriptions of plans to comply with the Clean Air Act and applicable Utah or federal statutes and regulations pertaining to air quality standards.

Dugout Canyon Mine (called the Sage Point-Dugout Canyon Mine under previous ownership by Eureka Energy Company) was granted a PSD permit by EPA on December 17, 1979. On February 12, 1982 the EPA approved air quality regulations adopted by the State of Utah. Subsequently, an Approval Order (AO) was issued on September 28, 1983 by the Utah Air Conservation Committee for the Sage Point-Dugout Canyon Mine. However the planned mining operations were never implemented.

Information collected for the PSD and the 1983 AO have been submitted to the Utah Division of Air Quality in a request for an amended approval order. This amendment was requested because of a change in surface equipment and a decrease in proposed coal removal from 5.2 million tons to 2 million tons per year.

421 Air Quality Standards

Dugout Canyon's mining activities will be conducted in compliance with the requirements of the Federal Clean Air Act and the Utah Air Conservation Rules.

422 Compliance Efforts

No mining activities will be conducted without a current AO from the Utah Division of Air Quality (DAQ). All activity will be conducted in compliance with the conditions established in the AO. A Notice of Intent (NOI) to construct has been submitted in accordance with DAQ document "Preparing Your Notice of Intent". Preconstruction conferences will be held as required by DAQ personnel. Emissions will be estimated using procedures and factors supplied by DAQ. A copy of the Approval Order and supporting information can be found in Appendix 4-1.
423 Monitoring Program

An NOI was submitted to DAQ requesting approval for a production rate of 7 million tons per year. This rate exceeds immediate production plans, but approval at this level will preclude the necessity of reapplying if future production plans should increase. This approach is appropriate since an AO is subject to specific operating conditions rather than to a time period and thus does not expire at the end of a 5-year period as does the approval of the mining permit. If operating conditions change sufficiently to invalidate the AO, a new NOI will be prepared.

The operating conditions are specified in the NOI and form the basis of the AO. All monitoring requirements and fugitive dust control practices as established by the AO will be followed by SCM. Should additional requirements be established under the provisions of R645-301-244.100 or R645-301-244.300, these requirements will also be followed by SCM.

424 Fugitive Control Plan for Production Rates Less than One Million Tons Per Year

During startup, or other situations where production is less than one million tons per year, the same procedures established in Section 423 will be followed and will be subject to the conditions of the AO issues by DAQ. See Section 523 of this M&RP for coal extraction estimates for the first 5 years of mining.

425 Additional Division Requirements

Should an air quality monitoring program be required by the Division while operating at a production rate of less than one million tons per year, SCM will provide sufficient data to judge the effectiveness of the fugitive dust control plan.
REFERENCES:


APPENDIX 4-1

Air Quality Approval Order and Information
STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

APPROVAL ORDER FOR PRODUCTION INCREASE AND ADDITION OF A CRUSHER

Prepared By: Enqiang He, Engineer
(801) 536-4010

APPROVAL NUMBER
DAQE-001-1999

Date: January 5, 1999

Source

Canyon Fuel Company, LLC
Gary E. Taylor
(435) 637-6360

Ursula K. Trueman
Executive Secretary
Utah Air Quality Board
Abstract

Canyon Fuel Company, LLC operates a coal mine located in Carbon County, an attainment area for all pollutants. The company has proposed to (1) increase its coal production from two million tons per year to five million tons per year, and (2) add a crusher. Its operations include mining of coal underground and transporting of coal via a conveyor to a stockpile located on the surface where the coal is crushed and deposited in the truck load-out bin. The surface conveyors will be fully covered to reduce air emissions. The crusher is located above ground. As a result of the modifications, the PM$_{10}$ emission will increase from 1.58 tpy to 5.90 tpy. There are no other pollutants emitted. NSPS and Title V regulations apply to the source. A 30-day public comment period was required.

The above-referenced project has been evaluated and found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307) and the Utah Air Conservation Act. A 30-day public comment period was held and all comments received were evaluated. The conditions of this Approval Order reflect any changes to the proposed conditions which resulted from the evaluation of the comments received. 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.

General Conditions:

1. This AO applies to the following company:

   Facility Office
   Canyon Fuel Company, LLC
   Dugout Canyon Mine
   Wellington, Utah 84542
   
   Corporate Office Location
   Canyon Fuel Company, LLC
   Soldier Canyon Mine
   P.O. Box 1029
   Wellington, Utah 84542
   
   Phone Number (435) 637-6360
   Fax Number (435) 637-0108

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

   Directions: East of Price in Carbon County. Proceed east 3 miles from Wellington, turn left up State highway 53 for approximately 4.8 miles to the Dugout Canyon turn-off. The mine is located approximately 8.7 miles up the Dugout Canyon road.

   Universal Transverse Mercator (UTM) Coordinate System:
   4,390.665 kilometers Northing; 535,742 kilometers Easting; Zone 12

2. Definitions of terms, abbreviations, and references used in this AO conform to those used in the Utah Administrative Code Rule 307 (UAC R307), and Series 40 of the Code of Federal Regulations (40 CFR). These definitions take precedence, unless specifically defined otherwise herein.

3. Canyon Fuel Company, LLC shall install and operate the coal mining equipment at the Dugout Canyon Mine according to the terms and conditions of this AO as requested in the

At least once per calendar year, all employees who operate equipment (operator) that produces and/or controls emissions to the air shall receive proper training as to their responsibilities in operating that equipment according to all relevant conditions of this AO. The training for each operator shall be for all equipment that operator operates and the required training shall only be for pollution control equipment and/or procedures that have a direct effect on emissions to the ambient air. The equipment shall include all of the equipment listed below in Condition #6 and any other equipment that affects or produces air emissions that the operator operates. Within 60 days of every time this AO is modified or reissued, those employees who operate equipment that produces and/or controls emissions to the air that is affected by the AO changes shall receive proper training as to their responsibilities in operating equipment according to all relevant conditions of this AO. Within 60 days of a new operator being employed or assigned with the job responsibility to operate any of the equipment that produces and/or controls emissions to the air, the new operator shall receive proper training as to their responsibilities in operating the equipment according to all relevant conditions of this AO. Records of operator training 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. This AO shall be made available to all employees who operate the equipment listed in this AO.

This AO shall replace the AO dated June 18, 1996 (DAQE-634-96).

The approved installations shall consist of the following equipment or equivalent*:

A. Covered conveyors placed above ground shall be totally enclosed. Rated capacity of the conveyors - 3000 tons per hour.
B. Bottom feeder for coal transfer from the stockpile to truck load-out bin
C. Rock dust bin with associated compressor
D. One Crusher**
   Manufacturer: Jeffrey
   Model Number: 611 FT Flextooth
   Serial Number: NA
   Design Capacity: 1,300 TPH
   Year Manufactured: NA

* Equivalency shall be determined by the executive secretary.
** New equipment to be purchased; information not available (NA) at present will be provided upon purchase.

Any future changes or modifications to the equipment and processes approved by this AO that could affect the emissions covered by this AO must be approved in accordance with R307-401-1, UAC.
7. The executive secretary shall be notified in writing upon start-up of the installation, as an initial compliance inspection is required. Eighteen months from the date of this AO the executive secretary shall be notified in writing of the status of construction/installation if construction/installation is not completed. At that time, the executive secretary shall require documentation of the continuous construction/installation of the operation and may revoke the AO in accordance with R307-401-11, UAC. If construction is complete and operation has commenced, a notice is not required on the status of the construction/installation.

Limitations and Tests Procedures

8. Visible emissions from the following emission points shall not exceed the following values:
   A. The crusher - 15% opacity
   B. All conveyor transfer points - 10% opacity
   C. All diesel engines - 20% opacity
   D. Conveyor drop points - 10% opacity
   E. All other points - 20% opacity

Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. Visible emissions from mobile sources and intermittent sources shall use procedures similar to Method 9, but the requirement for observations to be made at 15-second intervals over a six-minute period shall not apply. Any time-interval with no visible emissions shall not be included.

9. The following production limits shall not be exceeded without prior approval in accordance with R307-401, UAC:
   A. Five million tons of coal per rolling 12-month period
   B. 6120 hours per rolling 12-month period

Compliance with the annual limitations shall be determined on a rolling 12-month total. The owner/operator shall calculate a new 12-month total based on the first 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. Records of production, including rolling 12-month totals shall be made available to the executive secretary or her representative upon request and shall include a period of two years ending with the date of the request. Production shall be determined by sale receipts. The records shall be kept on a daily basis. Hours of operation shall be determined by supervisor monitoring and maintaining of an operations log.

Roads and Fugitive Dust

10. All unpaved roads and other unpaved operational areas that are used by mobile equipment shall be water sprayed and/or chemically treated to control fugitive dust. The application of water or chemical treatment shall be used. Treatment shall be of sufficient frequency and quantity to maintain the surface material in a damp/moist condition or unless it is below freezing. The opacity shall not exceed 20% during all times the areas are in use. If chemical
treatment is to be used, the plan must be approved by the executive secretary. Records of water and/or chemical treatment shall be kept for all periods when the plant is in operation. The records shall include the following items:

A. Date
B. Number of treatments made, dilution ratio, and quantity
C. Rainfall received, if any, and approximate amount
D. Time of day treatments were made

Records of treatment 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.

11. Visible fugitive dust emissions from haul-road traffic and mobile equipment in operational areas shall not exceed 20% opacity. Visible emissions determinations for traffic sources 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. Six points, distributed along the length of the haul road or in the operational area, shall be chosen by the executive secretary or the executive secretary’s representative. An opacity reading shall be made at each point when a vehicle passes the selected points. Opacity readings shall be made ½ vehicle length or greater behind the vehicle and at approximately ½ the height of the vehicle or greater. The accumulated six readings shall be averaged for the compliance value.

12. Water sprays or chemical dust suppression sprays shall be installed at the following points to control fugitive emissions:

A. All conveyor transfer points
B. Haul roads
C. The crusher

The sprays shall operate whenever dry conditions warrant or as determined necessary by the executive secretary.

13. The storage piles shall be watered to minimize generation of fugitive dusts, as dry conditions warrant or as determined necessary by the executive secretary. Records of water and/or chemical treatment shall be kept for all periods when the plant is in operation. Records of water and/or chemical treatment 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.

Federal Limitations and Requirements

14. In addition to the requirements of this AO, all applicable provisions of 40 CFR 60, New Source Performance Standards (NSPS)\(^1\) Subparts A and OOO, 40 CFR 60.1 to 60.18 and 40

\(^1\) NSPS = New Source Performance Standards.
CFR 60.670 to 60.676 (Standards of Performance for Nonmetallic Mineral Processing Plants) apply to this installation. A copy of the latest 40 CFR 60 Subparts A (section 60.8) and OOO, amended June 6, 1997, is attached to this document as Appendix A. However, to be in compliance, this facility must operate in accordance with the most current version of 40 CFR 60 applicable to this source.

15. For sources that are subject to NSPS, opacity standards shall be determined by conducting observations in accordance with 40 CFR 60.11(b) and 40 CFR 60, Appendix A, Method 9. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard). It is the responsibility of the owner/operator of the source to supply these observations to the executive secretory. A currently certified observer must be used for these observations. Emission points that are subject to the initial observations are:

A. The crusher
B. All conveyor transfer points

16. This source is a NSPS and Title V source needing an Operating Permit. It is required to pay an annual emission fee upon start-up (or if an existing facility, upon issuance of this AO). The fee will be based on calculated annual emissions listed at the end of this AO. This fee is valid until inventory data for one year are available for the source. The owner or operator of this source will be billed upon start-up for all emissions that are considered "chargeable" as of that date.

Records & Miscellaneous

17. All installations and facilities authorized by this AO shall be adequately and properly maintained. All pollution control equipment approved by this approval order shall be installed, maintained, and operated according to standard operating practices that will ensure that the air quality limits set forth in this AO will be met. Instructions from the vendor or established maintenance practices that maximize pollution control shall be used. All maintenance performed on equipment authorized by this AO shall be recorded, and the records shall be maintained for a period of two years. All necessary equipment control and operating devices, such as pressure gauges, amp meters, volt meters, flow-rate indicators, temperature gauges, CEMS, etc., shall be installed and operated properly and easily accessible to compliance inspectors. A copy of all the manufacturers' and company's own subsequent operating instructions for pollution control equipment and pollution emitting equipment shall be kept on site. These instructions shall be available to all employees who operate the equipment and shall be made available to compliance inspectors upon their request. Maintenance records 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.

18. The owner/operator shall comply with R307-155, UAC. This rule addresses criteria pollutant and hazardous air pollutant emission inventory reporting requirements, and emission statement inventory requirements. All applicable inventory records required by R307-155,
UAC 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.

The full text of UAC R307-155 Emission Inventories is included as Appendix B. However, to be in compliance, this facility must operate in accordance with the most current version of R307-155 or the applicable section(s), if renumbered.

19. The owner/operator shall comply with R307-107, UAC. This rule addresses unavoidable breakdown reporting requirements. Any breakdown lasting longer than two hours shall be reported to the executive secretary within three hours of the breakdown if reasonable, but in no case longer than 18 hours after the beginning of the breakdown. During times other than normal office hours, breakdowns for any period longer than two hours shall be initially reported to the Environmental Health Emergency Response Coordinator. Within seven calendar days of the beginning of any breakdown lasting longer than two hours, a written report shall be submitted to the executive secretary. The owner/operator shall calculate/estimate the excess emissions (amount above AO limits) whenever a breakdown occurs. The total of excess emissions per calendar year shall be reported to the executive secretary as directed by the executive secretary. The owner or operator of an installation suffering an unavoidable breakdown shall assure that emission limitations and visible emission limitations are exceeded for only as short a period of time as reasonable. The owner or operator shall take all reasonable measures which may include but are not limited to the immediate curtailment of production, of operations, or activities at all installations of the source if necessary to limit the total aggregate emissions from the source to be no greater than the aggregate allowable emissions averaged over the periods provided in the source’s approval orders or R307.

All records referenced in this AO or in applicable NSPS, 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. All records shall be kept for a period of two years. A summary of those records that are required as part of this AO is included herein. This summary shall not be considered an additional requirement, but is included for informational purposes only. The condition that requires that these records be kept as part of the compliance with this AO is listed following the individual record. Examples of records to be kept at this source shall include the following as applicable:

- Operator Training (Condition number 4)
- Production rate (Condition number 9)
- Maintenance records (Condition number 17)
- Emission inventory (Condition number 18)
- Upset, breakdown episodes (Condition number 19)
- Hours of operation (Condition number 9)
- Fugitive emission control (Condition numbers 10 & 13)

The list above may not be a complete list of all records that are required to be kept by Canyon Fuel Company. For a complete list of required records check all AO conditions, and all applicable Federal regulations such as NSPS that apply to this source.
Any future modifications to the equipment approved by this order must also be approved in accordance with R307-401-1, UAC.

The executive secretary shall be notified in writing if the company is sold or changes its name. The notification shall be submitted within 30 days of such action.

Organizations have the responsibility to take whatever steps are necessary to ensure continued full compliance with environmental laws and regulations including undertaking whatever steps are necessary and appropriate to assure the accuracy of information and data required to be reported to the U.S. EPA and state programs. This includes a full Y2K issues assessment of the possible vulnerabilities of data systems, monitoring and operating systems and embedded computer chips that are relied upon for business operation or as part of the data gathering and reporting process. Failure to comply with requirements because of Year 2000 problems may be considered violations and may result in enforcement.

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.

Reorganization or change of rules of the Utah Air Quality Board may result in the Utah Administrative Code (UAC) numbering being changed for rules cited in this AO. There will be a document available that will cross reference old numbering with the new numbering. A change in numbering does not eliminate the requirement to comply with the referenced rule.

R307-12 is the rule currently in force for Fugitive Emissions & Fugitive Dust. A proposal to revise it is under consideration by the Air Quality Board. When the revision is complete, the rules for fugitive emissions and fugitive dust may be designated as R307-205 and R307-309.

Annual emissions for this source (Dugout Canyon Mine) are currently calculated at the following values:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM$_{10}$</td>
<td>5.90</td>
</tr>
</tbody>
</table>

The annual emission estimations above are for the purpose of determining the applicability of Prevention of Significant Deterioration, nonattainment area, maintenance area, and Title V source requirements of the UAC R307. They are not to be used for purposes of determining compliance.

In accordance with the requirements of Title V of the 1990 Clean Air Act, actual emissions of regulated pollutants maybe subject to operating permit fee except for the following:

A. CO
B. Any pollutant that is a regulated air pollutant solely because it is a Class I or II substance subject to a standard promulgated or established by Title VI of the Act, Stratospheric Ozone Protection
C. Any pollutant that is a regulated air pollutant solely because it is subject to a standard or regulation under Section 112(r) of the Act, Prevention of Accidental Releases
D. Tail pipe emissions.

Regulated air pollutant in R307-415 means any of the following:
(1) Nitrogen oxides or any volatile organic compound;
(2) Any pollutant for which a national ambient air quality standard has been promulgated;
(3) Any pollutant that is subject to any standard promulgated under Section 111 of the Act, Standards of Performance for New Stationary Sources;
(4) Any Class I or II substance subject to a standard promulgated under or established by Title VI of the Act, Stratospheric Ozone Protection;
(5) Any pollutant subject to a standard promulgated under Section 112, Hazardous Air Pollutants, or other requirements established under Section 112 of the Act, including Sections 112(g), (j), and (r) of the Act, including any of the following:
   (i) Any pollutant subject to requirements under Section 112(j) of the Act, Equivalent Emission Limitation by Permit. If the Administrator fails to promulgate a standard by the date established pursuant to Section 112(e) of the Act, any pollutant for which a subject source would be major shall be considered to be regulated on the date, 18 months after the applicable date established pursuant to Section 112(e) of the Act;
   (ii) Any pollutant for which the requirements of Section 112(g)(2) of the Act (Construction, Reconstruction and Modification) have been met, but only with respect to the individual source subject to Section 112(g)(2) requirement.

Emissions of the following pollutants from all sources, including pre-November 29, 1969 sources, may be subject to the operating permit fee. Both the fees rate and the class of pollutants are subject to change by State, the federal agencies, or both. If the actual emissions are not known, then the operating permit fee will be based on the following amounts:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. PM$_{10}$</td>
<td>5.90</td>
</tr>
</tbody>
</table>

Approved By:

Ursula K. Trueman, Executive Secretary
Utah Air Quality Board
Appendix A

Canyon Fuel Company, LLC

40 CFR SUBPART A SECTION 60.8

§ 60.8 Performance tests.

(a) Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

(d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present.

(e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facility. This includes (I) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(2) Safe sampling platform(s).

(3) Safe access to sampling platform(s).

(4) Utilities for sampling and testing equipment.
(f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

Canyon Fuel Company, LLC

40 CFR 60 OOO (sections 60.670 - 60676), dated July 1, 1993

Subpart OOO
Standards of Performance for Nonmetallic Mineral Processing Plants

Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants

Source: 51 FR 31337, Aug. 1, 1985, unless otherwise noted. Amendments filed 6-6-97, FR Doc. 97-14856

§ 60.670 Applicability and designation of affected facility.
(a)(1) Except as provided in paragraphs (a)(2), (b), (c) and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart.
(2) The provisions of this subpart do not apply to the following operations: All facilities located in underground mines; and stand-alone screening operations at plants without crushers or grinding mills.
(b) An affected facility that is subject to the provisions of subpart F or I or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.
(c) Facilities at the following plants are not subject to the provisions of this subpart:
(1) Fixed sand and gravel plants and crushed stone plants with capacities, as defined in Sec. 60.671, of 23 megagrams per hour (25 tons per hour) or less;
(2) Portable sand and gravel plants and crushed stone plants with capacities, as defined in Sec. 60.671, of 136 megagrams per hour (150 tons per hour) or less; and
(3) Common clay plants and pumice plants with capacities, as defined in Sec. 60.671, of 9 megagrams per hour (10 tons per hour) or less.
(d)(1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in Sec. 60.671, having the same function as the existing facility, the new facility is exempt from the provisions of Secs. 60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.
(2) An owner or operator complying with paragraph (d)(1) of this section shall submit the information required in Sec. 60.676(a).
(3) An owner or operator replacing all existing facilities in a production line with new facilities does not qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of Secs. 60.672, 60.674 and 60.675.
(e) An affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after August 31, 1983 is subject to the requirements of this part.
(f) Table 1 of this subpart specifies the provisions of subpart A of this Part 60 that apply and those that do not apply to owners and operators of affected facilities subject to this subpart.
Table 1.—Applicability of Subpart A To Subpart OOO

<table>
<thead>
<tr>
<th>Subpart A reference</th>
<th>Applies to Subpart OOO</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>60.1. Applicability</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>60.2. Definitions</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>60.3. Units and abbreviations</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>60.4. Address:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>(b)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>60.5. Determination of construction or modification</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>60.6. Review of plans</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>60.7. Notification and recordkeeping</td>
<td>Yes</td>
<td>Except in (a)(2) of anticipated date of initial startup is not required (60.676(h)).</td>
</tr>
<tr>
<td>60.8. Performance tests</td>
<td>Yes</td>
<td>Except in (d), after 30 days notice for scheduled performance tests, any rescheduled performance test requires 7 days notice, not 30 days (Sec. 60.675(g)).</td>
</tr>
<tr>
<td>60.9. Availability of information</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>60.10. State authority</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>60.11. Compliance with standards and maintenance requirements</td>
<td>Yes</td>
<td>Except in (b) under certain conditions (Secs. 60.675 (c)(3) and (c)(4)), Method 9 observation may be reduced from 3 hours to 1 hour. Some affected facilities exempted from Method 9 tests (Sec. 60.675(h)).</td>
</tr>
<tr>
<td>60.12. Circumvention</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>60.13. Monitoring requirements</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>60.14. Modification</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>60.15. Reconstruction</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>60.16. Priority list</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>60.17. Incorporations by reference</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>60.18. General control device</td>
<td>No</td>
<td>Flares will not be used to comply with the emission limits.</td>
</tr>
<tr>
<td>60.19. General notification and reporting requirements</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

§ 60.671 Definitions.
All terms used in this subpart, but not specifically defined in this section, shall have the meaning given them in the Act and in subpart A of this part.

**Bagging operation** means the mechanical process by which bags are filled with nonmetallic minerals.

**Belt conveyor** means a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

**Bucket elevator** means a conveying device of nonmetallic minerals consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

**Building** means any frame structure with a roof.

**Capacity** means the cumulative rated capacity of all initial crushers that are part of the plant.
Capture system means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport particulate matter generated by one or more process operations to a control device.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more process operations at a nonmetallic mineral processing plant.

Conveying system means a device for transporting materials from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to the following: Feeders, belt conveyors, bucket elevators and pneumatic systems.

Crusher means a machine used to crush any nonmetallic minerals, and includes, but is not limited to, the following types: jaw, gyratory, cone, roll, rod mill, hammer mill, and impactor.

Enclosed truck or railcar loading station means that portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.

Fixed plant means any nonmetallic mineral processing plant at which the processing equipment specified in Sec. 60.670(a) is attached by a cable, chain, turnbuckle, bolt or other means (except electrical connections) to any anchor, slab, or structure including bedrock.

Fugitive emission means particulate matter that is not collected by a capture system and is released to the atmosphere at the point of generation.

Grinding mill means a machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

Initial crusher means any crusher into which nonmetallic minerals can be fed without prior crushing in the plant.

Nonmetallic mineral means any of the following minerals or any mixture of which the majority is any of the following minerals:

(a) Crushed and Broken Stone, including Limestone, Dolomite, Granite, Traprock, Sandstone, Quartz, Quartzite, Marl, Marble, Slate, Shale, Oil Shale, and Shell.
(b) Sand and Gravel.
(c) Clay including Kaolin, Fireclay, Bentonite, Fuller's Earth, Ball Clay, and Common Clay.
(d) Rock Salt.
(e) Gypsum.
(f) Sodium Compounds, including Sodium Carbonate, Sodium Chloride, and Sodium Sulfate.
(g) Pumice.
(h) Gilsomite.
(i) Talc and Pyrophyllite.
(j) Boron, including Borax, Kernite, and Colemanite.
(k) Barite.
(l) Fluorospar.
(m) Feldspar.
(n) Diatomite.
(o) Perlite.
(p) Vermiculite.
(q) Mica.
(r) Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.

Nonmetallic mineral processing plant means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in Sec. 60.670 (b) and (c).

Portable plant means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.
Production line means all affected facilities (crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck and railcar loading stations) which are directly connected or are connected together by a conveying system.

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens).

Size means the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a conveyor belt; and the rated capacity in tons of a storage bin.

Stack emission means the particulate matter that is released to the atmosphere from a capture system.

Storage bin means a facility for storage (including surge bins) or nonmetallic minerals prior to further processing or loading.

Transfer point means a point in a conveying operation where the nonmetallic mineral is transferred to or from a belt conveyor except where the nonmetallic mineral is being transferred to a stockpile.

Truck dumping means the unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include but are not limited to: trucks, front end loaders, skip hoists, and railcars.

Vent means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities.

Wet mining operation means a mining or dredging operation designed and operated to extract any nonmetallic mineral regulated under this subpart from deposits existing at or below the water table, where the nonmetallic mineral is saturated with water.

Wet screening operation means a screening operation at a nonmetallic mineral processing plant which removes unwanted material or which separates marketable fines from the product by a washing process which is designed and operated at all times such that the product is saturated with water.

§ 60.672 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by Sec. 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions which:

(1) Contain particulate matter in excess of 0.05 g/dscm; and

(2) Exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing control device. Facilities using a wet scrubber must comply with the reporting provisions of Sec. 60.676 (c), (d), and (e).

(b) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under Sec. 60.11 of this part, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in paragraphs (c), (d) and (e) of this section.

(c) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under Sec. 60.11 of this part, no owner or operator shall cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity.

(d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.

(e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a), (b) and (c) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(1) No owner or operator shall cause to be discharged into the atmosphere from any building enclosing any transfer point on a conveyor belt or any other affected facility any visible fugitive emissions except emissions from a vent as defined in Sec. 60.671.
(2) No owner or operator shall cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits in paragraph (a) of this section.

(f) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under Sec. 60.11 of this part, no owner or operator shall cause to be discharged into the atmosphere from any baghouse that controls emissions from only an individual, enclosed storage bin, stack emissions which exhibit greater than 7 percent opacity.

(g) Owners or operators of multiple storage bins with combined stack emissions shall comply with the emission limits in paragraph (a)(1) and (a)(2) of this section.

(h) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no owner or operator shall cause to be discharged into the atmosphere any visible emissions from:

(1) Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to the next crusher, grinding mill or storage bin.

(2) Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, where such screening operations, bucket elevators, and belt conveyors process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

§ 60.673 Reconstruction.

(a) The cost of replacement of ore-contact surfaces on processing equipment shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital cost that would be required to construct a comparable new facility" under Sec. 60.15. Ore-contact surfaces are crushing surfaces; screen meshes, bars, and plates; conveyor belts; and elevator buckets.

(b) Under Sec. 60.15, the "fixed capital cost of the new components" includes the fixed capital cost of all depreciable components (except components specified in paragraph (a) of this section) which are or will be replaced pursuant to all continuous programs of component replacement commenced within any 2-year period following August 31, 1983.

§ 60.674 Monitoring of operations.

The owner or operator of any affected facility subject to the provisions of this subpart which uses a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring devices:

(a) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ±250 pascals ±1 inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer’s instructions.

(b) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ±5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer’s instructions.

§ 60.675 Test methods and procedures.

(a) In conducting the performance tests required in Sec. 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in Sec. 60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.

(b) The owner or operator shall determine compliance with the particulate matter standards in Sec. 60.272(a) as follows:

(1) Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

(2) Method 9 and the procedures in Sec. 60.11 shall be used to determine opacity.

(c)(1) In determining compliance with the particulate matter standards in Sec. 60.672(b) and (c), the owner or operator shall use Method 9 and the procedures in Sec. 60.11, with the following additions:
DAQE-001-99
Page 17

(i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.

(iii) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

(2) In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under Sec. 60.672(f) of this subpart, using Method 9, the duration of the Method 9 observations shall be 1 hour (ten 6-minute averages).

(3) When determining compliance with the fugitive emissions standard for any affected facility described under Sec. 60.672(b) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

(i) There are no individual readings greater than 10 percent opacity; and

(ii) There are no more than 3 readings of 10 percent for the 1-hour period.

(4) When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under Sec. 60.672(c) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

(i) There are no individual readings greater than 15 percent opacity; and

(ii) There are no more than 3 readings of 15 percent for the 1-hour period.

(d) In determining compliance with Sec. 60.672(e), the owner or operator shall use Method 22 to determine fugitive emissions. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.

(e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

(i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

(ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.

(f) To comply with Sec. 60.676(d), the owner or operator shall record the measurements as required Sec. 60.676(c) using the monitoring devices in Sec. 60.674 (a) and (b) during each particulate matter run and shall determine the averages.

(g) If, after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting any rescheduled performance test required in this section, the owner or operator of an affected facility shall submit a notice to the Administrator at least 7 days prior to any rescheduled performance test.

(h) Initial Method 9 performance tests under Sec. 60.11 of this part and Sec. 60.675 of this subpart are not required for:

(1) wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to, but not including the next crusher, grinding mill or storage bin.

(2) screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, that process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

§ 60.676 Reporting and recordkeeping.

(a) Each owner or operator seeking to comply with Sec. 60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment:

(1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railroad loading station:

(i) The rated capacity in tons per hour of the existing facility being replaced and

(ii) The rated capacity in tons per hour of the replacement equipment.

(2) For a screening operation:
(i) The total surface area of the top screen of the existing screening operation being replaced and
(ii) The total surface area of the top screen of the replacement screening operation.
(3) For a conveyor belt:
(i) The width of the existing belt being replaced and
(ii) The width of the replacement conveyor belt.
(4) For a storage bin:
(i) The rated capacity in tons of the existing storage bin being replaced and
(ii) The rated capacity in tons of replacement storage bins.
(b) Removed and reserved.
(1) The information described in Sec. 60.676(a).
(2) A description of the control device used to reduce particulate matter emissions from the existing facility and a list of all other pieces of equipment controlled by the same control device; and
(3) The estimated age of the existing facility.
(c) During the initial performance test of a wet scrubber, and daily thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.
(d) After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss (or gain) and liquid flow rate differ by more than ±30 percent from the averaged determined during the most recent performance test.
(e) The reports required under paragraph (d) shall be postmarked within 30 days following end of the second and fourth calendar quarters.
(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in Sec. 60.672 of this subpart, including reports of opacity observations made using Method 9 to demonstrate compliance with Sec. 60.672(b), (c), and (f), and reports of observations using Method 22 to demonstrate compliance with Sec. 60.672(e).
(g) The owner or operator of any screening operation, bucket elevator, or belt conveyor that processes saturated material and is subject to Sec. 60.672(h) and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the 10 percent opacity limit in Sec. 60.672(b) and the emission test requirements of Sec. 60.11 and this subpart. Likewise a screening operation, bucket elevator, or belt conveyor that processes unsaturated material but subsequently processes saturated material shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the no visible emission limit in Sec. 60.672(h).
(h) The subpart A requirement under Sec. 60.71(a)(2) for notification of the anticipated date of initial startup of an affected facility shall be waived for owners or operators of affected facilities regulated under this subpart.
(i) A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.
(1) For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.
(2) For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.
(j) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected facilities within the State will be relieved of the obligation to comply with the reporting requirements of this section, provided that they comply with requirements established by the State.

(Approved by the Office of Management and Budget under control number 2060-0050.)

[51 FR 31337, Aug. 1, 1986, as amended at 54 FR 6680, Feb. 14, 1989 and FR Doc. 97-14856 Filed 6-6-97; 8,45 am]BILLING CODE 6560-50-P
Appendix B

Canyon Fuel Company, LLC

UAC R307-155 and UAC R307-107

R307-155


R307-155-1. Criteria Pollutant Inventory.

(1) The requirements of R307-155 replace any annual inventory reporting requirements in approval orders issued prior to April 1, 1998.

(a) Report Every Third Year. The owner or operator of each of the following sources is required to submit a report of actual emissions every third year. The first report shall be due in 2000 for calendar year 1999 for:

(i) any Part 70 source located in Davis, Salt Lake, Utah or Weber Counties;

(ii) any Part 70 temporary source;

(iii) any Part 70 source located outside Davis, Salt Lake, Utah or Weber Counties with 25 tons per year or more of combined allowable emissions of PM10, sulfur dioxide, oxides of nitrogen, volatile organic compounds or carbon monoxide; or

(iv) any stationary source:

(I) located in Davis, Salt Lake, Utah or Weber County with allowable emissions of PM10, sulfur oxides, or oxides of nitrogen of 25 tons per year or more;

(II) located in Davis or Salt Lake County with allowable emissions of volatile organic compounds of 10 tons per year or more;

(III) located in Davis, Salt Lake, or Utah County with allowable emissions of carbon monoxide of 100 tons per year or more;

(IV) that actually emits 100 tons per year or more of PM10, sulfur oxides, volatile organic compounds, carbon monoxide or oxides of nitrogen; or

(V) that actually emits 5 tons per year or more of lead.

(b) Report Every Sixth Year. Any Part 70 source not included in (a) above shall submit an emissions inventory every sixth year. The inventory for calendar year 1996 suffices as the first inventory.

(c) Additional Reports of Actual Emissions Required Under Specified Circumstances. This subsection is applicable to sources identified in (a)(i) through (iv) above.

(i) A source that initially achieves compliance at any time with any requirement of an applicable state implementation plan shall submit an inventory for the calendar year in which compliance is achieved.

(ii) A source specified in (a)(iv)(I), (II), (III), or (V) above and whose actual emissions of any of the individual pollutants specified in (a)(iv)(I), (II), (III), or (V) above increase or decrease by five percent or more from the most recently submitted inventory information shall submit an inventory for the calendar year in which the increase or decrease occurred.

(iii) A source with actual or allowable emissions of 100 or more tons per year of carbon monoxide, PM10, sulfur oxides, volatile organic compounds, or oxides of nitrogen, and whose actual emissions of any of these pollutants increase or decrease by five percent or more from the most recently submitted inventory shall submit an inventory for the calendar year in which the increase or decrease occurred.
(iv) A source operating temporarily in Davis, Salt Lake, Utah or Weber County shall submit an inventory for the calendar year in which the source operated in those counties.

(v) A source that ceases operations shall submit a report of actual emissions for the partial year and a report for the previous calendar year.

(vi) A new or modified source that receives approval to construct or begins operating shall submit a report for the initial partial year of operation and a report for the subsequent calendar year.

(d) In addition to the required inventories, any source may choose to submit an inventory for any calendar year. The executive secretary may require at any time a full or partial year inventory on reasonable notice to affected sources.

(e) Due Date. Emission inventories shall be submitted on or before April 15 of each calendar year following any calendar year in which an inventory is required under R307-155-1 or 3.

(f) Reports. Emission inventory reports shall include the rate and period of emission, excess or breakdown emissions, specific plant source of air pollution, composition of air contaminant, type and efficiency of air pollution control equipment and other information necessary to quantify operation and pollution emission, and to evaluate pollution control.


The owner or operator of a stationary source, either "major source" or "area source" as defined in the Federal Clean Air Act (Title I, Part A, Section 112), which emits one or more hazardous air pollutant shall submit, at the request of the Executive Secretary, but not more than once per year, a Hazardous Air Pollutant Inventory. The inventory shall be submitted no later than July 1 of each year following any calendar year for which the hazardous air pollutant inventory is required. The required submittal shall be limited to hazardous air pollutants and shall include a report of the rate and period of emission, excess or breakdown emissions, the specific plant source of the emissions, the composition of the emission, the type and efficiency of air pollution control equipment, and any other information determined necessary by the Executive Secretary for the issuance of permits, the verification of compliance, and the determination of the effectiveness of control technology relative to the source's maximum achievable control technology (MACT).


(1) Applicability. The owner or operator of a stationary source of either volatile organic compounds or oxides of nitrogen that is located in Salt Lake or Davis Counties or a nonattainment area for ozone and which emits or has the potential to emit 25 tons or more per year of either volatile organic compounds or oxides of nitrogen is required to submit an emission statement for the emissions released directly or indirectly into the outdoor atmosphere in the calendar years specified in (2) below. Such emission statement shall include information concerning both volatile organic compounds and oxides of nitrogen even if the source's emissions or its potential to emit equaled or exceeded 25 tons per year for only volatile organic compounds or oxides of nitrogen. Compliance with the emission statement requirements does not relieve any owner or operator of a source from the responsibility to comply with any other applicable reporting requirements set forth in any federal or state law or in the conditions of approval of any order or certificate in effect.

(2) Timing of Submittals.

(a) An emission statement shall be submitted for calendar year 1999 and every third year thereafter.

(b) A report for the calendar year in which any of the following conditions occurs must be submitted by any source:

(i) whose actual emissions of volatile organic compounds or oxides of nitrogen increase or decrease by five percent or more from the most recently submitted inventory information;

(ii) that initially achieves compliance at any time with any requirement of an applicable state implementation plan; or
(iii) for which the executive secretary requests submittal.

(c) A source that ceases operations shall submit a report for the partial year and a report for the previous calendar year.

(d) A new or modified source that receives approval to construct or begins operating during the reporting period shall submit a report for the initial partial year of operation and the subsequent calendar year.

(3) Procedure for submitting an emission statement. Emission statements shall be submitted in accordance with the following provisions:

(a) Emission statements shall be submitted on or before April 15 of each calendar year following any calendar year in which the source is subject to this rule.

(b) Emission statements shall be submitted to the Division of Air Quality on a form obtainable from the Division of Air Quality.

(4) Required contents of an emission statement. Any person who submits an emission statement shall include, as an integral part of the report:

(a) Certification, signed by the highest ranking individual with direct knowledge and overall responsibility for the information contained in the certified documents, that the information provided is true, accurate and complete. Such certification should be submitted with the understanding that submittal of false, inaccurate or incomplete information is subject to civil and criminal penalties.

(b) The date of the signature of certification and the telephone number of the certifying individual shall be included.

(c) The following source identification information shall be included:

(i) full name of the source;

(ii) parent company name, if applicable;

(iii) physical location of the source (i.e., the street address);

(iv) mailing address of the source;

(v) SIC code(s) of the source;

(vi) UTM coordinates or latitude and longitude of the source; and

(vii) the calendar year of the emissions.

(d) The following operating data for each source operation which has the potential to emit volatile organic compounds or oxides of nitrogen shall be included:

(i) annual and peak ozone season throughput;

(ii) average days of operation per week;

(iii) average hours of operation per day; and

(iv) total hours of operation for the year.

(e) The following information at the process level for oxides of nitrogen (expressed as molecular weight of nitrogen dioxide) and volatile organic compounds shall be included:

(i) Emissions information, including:

(A) the actual emissions of volatile organic compounds and oxides of nitrogen in tons per year;

(B) the average actual emissions of volatile organic compounds and oxides of nitrogen in pounds per day of operation during the peak ozone season;

(C) the code for the method used to quantify the actual emissions (from Table 1 included with the filing form in (2)(b) above); and

(D) any emission factor used to determine actual emissions.

(ii) Control apparatus information, including current primary and secondary control apparatus identification codes (from Table 2 included with the filing form in (2)(b)); and the actual control efficiency achieved by the control apparatus. If the actual control efficiency is unavailable, the control apparatus design efficiency shall be used.
(iii) Process rate data, including the annual process rate and the average process rate per day of operation during the peak ozone season.

(f) In place of the information required in (4)(d) and (e) above, any source which has the potential to emit less than one ton per year of either volatile organic compounds or nitrogen oxides but which is subject to this rule shall include:

(i) a description of each source operation and actual emissions of each air contaminant emitted from each source operation shall be estimated at one ton per year, or

(ii) a description of each source operation; estimated actual emission in tons per year; the code for the method used to quantify the actual emissions (from Table 1 included with the filing form in (2)(b); and any emission factor used to determine actual emissions.

(g) Emission statements shall include cumulative total fugitive emissions for the stationary source for all fugitive emissions that cannot be reported in the information pursuant to (4)(d) through (f) above. Such fugitive emissions shall be expressed in tons per year and in average pounds per day of operation during the peak ozone season.

(h) The method used for quantifying actual emissions for a source operation for use in preparing emission information required in (4)(e)(i) or (4)(f)(ii) above shall be the method which is reasonably available and which best estimates the actual emissions from the source operation, unless an operating permit pursuant to Title V of the federal Clean Air Act has been issued for the stationary source. In such case, the method used shall be the method specified in the operating permit.

(5) Record keeping requirements.

(a) Each owner or operator of a stationary source subject to this rule shall maintain for a period of four years from the due date of each emission statement a copy of the emission statement submitted to the Division of Air Quality and records indicating how the information submitted in the emission statement was determined, including any calculations, data, measurements, and estimates used.

(b) Upon the request of the Executive Secretary, the owner or operator of the stationary source shall make these records available at the stationary source for inspection by any representative of the Division of Air Quality during normal business hours.
APPENDIX 4-1
Notice of Intent
Air-Quality Approval Order and Information
February 27, 1996

Mr. Russell Roberts, Director
Utah Division of Air Quality
150 North 1950 West
Salt Lake City, Utah 84116

Re: NOI to Construct and Operate a Coal Mining Facility in Dugout Canyon.

Dear Mr. Roberts:

Soldier Creek Coal Company (SC3) intends to re-open and operate a coal mine located in Dugout Canyon east of Wellington, Utah. This property is adjacent to the existing SC3 coal mining operation but will be serviced from separate portal facilities.

A previous air quality Approval Order was issued on September 18, 1983 for the same facility with ownership listed under Eureka Energy Company. The surface equipment for the proposed facility is sufficiently different to require a new, albeit less complicated, Approval Order. The mine was never operated under the original Approval Order. (The original proposal was for a 5.2 mm ton per year as compared to the current proposal of 2 mm tons per year.)

This NOI is thought to comply with the instructions of the DAQ publication “Preparing Your Notice of Intent [NOI], November 1994 Edition”, and with directions received from Mr. Maung and Mr. Blanchard of your staff.

Questions should be directed to Mr. Barry Barnum, Environmental Coordinator for this project at phone number (801) 636-2669. The assistance of your staff in the preparation of this NOI is appreciated.

Sincerely,

Rick Olsen
General Manager
Soldier Creek Coal Company
Appendix B

Coal Handling Flow Diagram
Appendix B
To Air Quality Notice of Intent

Coal Handling Flow Diagram
Dugout Canyon Coal Mine

Covered Conveyor(s) from Mines - Maximum Capacity - 3,000 tph each

Stockpile(s) Max 4,000 tons each

Transfer Point

Covered Conveyor Stockpile(s) to Truck Bin

Transfer to Truck

Truck Bin(s)

Transfer Point
Appendix C

Detailed Process / Equipment Description

The process, as shown on the coal handling flow diagram, (Appendix B) is a rather simple coal mining operation where coal mined underground is transported via a conveyor to a stockpile located on the surface. This stockpile serves as a surge type supply source assuring that a ready supply of coal is available for removal from the site by truck transport. Coal is removed from the stockpile by a conveyor starting on the bottom of the stockpile and depositing the coal in the truck load-out bin. The coal is removed from the site by diesel truck pulling either two or three unit trailers.

The original equipment will include a conveyor from a simple underground mine depositing coal into a single stockpile with reclaim to a single truck load-out bin. As the demand for coal from this mine increases an additional conveyor from a second coal seam may be added. This may require a second stockpile with a second reclaim conveyor and, perhaps, a second truck load-out bin. Emissions calculations are based on a 2 million ton per year production rate. These calculations show totals which are independent of the number of conveyors, stockpiles and load-out facilities and also of the amount transferred from each coal seam. This is possible since the coal handling system will be identical for each source.

The surface conveyors will be fully covered to reduce potential emissions. These covers are necessary to serve a more practical purpose of protecting the conveyors from harsh winter conditions. The conveyors are designed to handle a maximum production rate of 3000 tons per hour. The truck load-out flow rate is limited by the number of trucks that can pass through the facility in a given time period. The facility will operate 5 days per week, 24 hours per day. With only a one week annual shutdown the facility will operate 51 weeks per year.

This list of equipment identified as forms 11 through 22 of item 20 in the New Source Review Application Instructions are not applicable to this operation.

There are no coal crushing or coal preparation operations proposed at the mine.
Appendix D

Emissions Related Information

Description of Potential Emission of Air Pollutants

Item No. 1

There are no major sources of air pollutants associated with this project.

Item No. 2

The only regulated air pollutants from this mining operation are TSP and PM$_{10}$. The sources of these pollutants are the coal handling equipment, i.e. conveyors and their drop points and the transfer of coal to the haulage vehicles. The haulage vehicles will in turn produce fugitive emissions in the form of wheel dust. There are no sources of hazardous air pollutants associated with this project.

Item No. 3

The amount of emissions are directly related to the rate of production. Consequently, no operational constraints or work practices are really available beyond those associated with the sales of coal. BACT practices, however, will be imposed as described in Appendix G.

Item No. 4

Emissions, on an annual basis, are calculated in this appendix based on a production rate of 2 mm tons per year. An estimate of hourly or daily emissions from each source may be made from the capacity of the conveyors (3000 tph) and the calculated emission rate are based on the pounds per ton of coal processed. These hourly and daily estimates represent a worst case short term condition and are not typical of long term operation. These hourly and daily emissions estimates are attached to the calculations.

Item No. 5

All calculations, and summaries of these calculations are attached as part of this appendix.

Item No. 6

There are no products using Material Safety Data Sheets associated directly with the mining of coal. There may be some cleaning or other products associated with maintenance for which MSDS will be required. These records will be kept in the mine office.
Appendix D Calculations

Emissions Calculations - Proposed System

1. Conveyors and Drop Points

Emissions Factors

Specific assumptions: Conveyor and drop points use the following factors taken from AP42, Chapter II. Fully enclosed facilities are given an additional 80% reduction in emissions since the wind speed is essentially reduced to zero. (Personal communication with Lynn Menlove - DAQ Staff 1/92.)

\[ E = k (0.0032) \left( \frac{u}{5} \right)^{1.3} \left( \frac{M}{2} \right)^{1.4} \text{ (lbs/ton)} \]

Where
- \( E \) = Emission factors
- \( k \) = Particle size multiplier (dimensionless)
- \( u \) = Mean wind speed, (mph)
- \( M \) = Material moisture content (%)

Table 11.2.3-2 from AP-42

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<th>Aerodynamic Particle Size Multiplier (k)</th>
<th>≤30 um</th>
<th>≤15 um</th>
<th>≤10 um</th>
<th>≤5 um</th>
<th>≤2.5 um</th>
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<td>0.48</td>
<td>0.35</td>
<td>0.20</td>
<td>0.11</td>
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The particle size multiplier (k) used for TSP is 0.74 and PM10 is 0.35. The mean wind speed is taken from data collected near Wellington, Utah (May 1, 1978 to April 30, 1979) by H.E. Cramer, Air Quality Consultants and is estimated at 2 m/sec or 4.47 mph. (See Table D-1)

The material moisture content factor is estimated at 5.1% as determined from samples taken from the same coal seam at the adjacent Soldier Creek Coal Company Mine. The moisture
Table D-1

Average Wind Speed at Wellington, Utah
(May 1,1978 to April 30, 1979)

Taken from Table IV-E-4 of H.E. Cramer Report

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<th>Month</th>
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<th>Minimum</th>
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<td>Average</td>
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<td>Max 10.3</td>
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</table>
content factor is an average of 16 samples taken during December, 1995 and January, 1996. The moisture content of these samples ranged from 4.22% to 6.97%. A typical laboratory report is appended to this section as Exhibit A.

\[
E(TSP) = 0.00055 \text{ lbs/ton}
\]

\[
E(PM_{10}) = 0.00026 \text{ lbs/ton}
\]

Source Specific Calculations

**Mine Conveyor(s)**

\[
E(TSP) = 0.00055 \text{ lbs/ton} \times 2 \text{ mm ton/year} \times 1 \text{ ton/2000 lbs} = 0.55 \text{ tons/year} \\
= 0.11 \text{ tons/year} \times 80\% \text{ enclosure reduction}
\]

\[
E(PM_{10}) = 0.00026 \text{ lbs/ton} \times 2 \text{ mm ton/year} \times 1 \text{ ton/2000 lbs} = 0.26 \text{ tons/year} \\
= 0.05 \text{ tons/year} \times 80\% \text{ enclosure reduction}
\]

**Drop Point to Stockpile(s)**

\[
E(TSP) = 0.00055 \text{ lbs/ton} \times 2 \text{ mm ton/year} \times 1 \text{ ton/2000 lbs} = 0.55 \text{ tons/year}
\]
Exhibit A

Laboratory Report Showing Typical Coal Moisture

Commercial Testing and Engineering co

Analysis Report No. 33-12258
E(\(PM_{10}\)) = \frac{0.00026 \text{ lbs}}{\text{ton} \times 2 \text{ mm ton} / \text{year} \times 1 \text{ ton} / 2000 \text{ lbs}}
= 0.26 \text{ tons} / \text{year}

Note: No emissions are assumed at pick-up point of conveyor(s) from stockpile(s) since this is an encapsulated direct contact of the belt(s) with the bottom of the coal pile and thus has no opportunity for emissions.

**Conveyor(s) to Truck Load-out Bin**

E(TSP) = \frac{0.00055 \text{ lbs}}{\text{ton} \times 2 \text{ mm ton} / \text{year} \times 1 \text{ ton} / 2000 \text{ lbs}}
= 0.55 \text{ tons} / \text{year} \times 80\% \text{ enclosure reduction}
= 0.11 \text{ tons} / \text{year}

E(\(PM_{10}\)) = \frac{0.00026 \text{ lbs}}{\text{ton} \times 2 \text{ mm ton} / \text{year} \times 1 \text{ ton} / 2000 \text{ lbs}}
= 0.26 \text{ tons} / \text{year} \times 80\% \text{ enclosure reduction}
= 0.05 \text{ tons} / \text{year}

**Drop Point to Truck Load-out Bin(s)**

E(TSP) = \frac{0.00055 \text{ lbs}}{\text{ton} \times 2 \text{ mm ton} / \text{year} \times 1 \text{ ton} / 2000 \text{ lbs}}
= 0.55 \text{ tons} / \text{year}

E(\(PM_{10}\)) = \frac{0.00026 \text{ lbs}}{\text{ton} \times 2 \text{ mm ton} / \text{year} \times 1 \text{ ton} / 2000 \text{ lbs}}
= 0.26 \text{ tons} / \text{year}

**Drop Point to Load-out Bin(s) to Trucks**

E(TSP) = \frac{0.00055 \text{ lbs}}{\text{ton} \times 2 \text{ mm ton} / \text{year} \times 1 \text{ ton} / 2000 \text{ lbs}}
= 0.55 \text{ tons} / \text{year}

E(\(PM_{10}\)) = \frac{0.00026 \text{ lbs}}{\text{ton} \times 2 \text{ mm ton} / \text{year} \times 1 \text{ ton} / 2000 \text{ lbs}}
= 0.26 \text{ tons} / \text{year}
## Emissions Summary - Conveyors and Drop Points

<table>
<thead>
<tr>
<th>Source</th>
<th>Emissions - (tpy)</th>
<th>TSP</th>
<th>PM&lt;sub&gt;10&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mine Conveyors</td>
<td>0.11</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>Drop Point to Stockpiles</td>
<td>0.55</td>
<td>0.26</td>
<td></td>
</tr>
<tr>
<td>Truck Bin Conveyors</td>
<td>0.11</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>Drop to Truck Bin</td>
<td>0.55</td>
<td>0.26</td>
<td></td>
</tr>
<tr>
<td>Drop via Truck Chute</td>
<td>0.55</td>
<td>0.26</td>
<td></td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>1.87 tpy</strong></td>
<td><strong>0.88 tpy</strong></td>
<td></td>
</tr>
</tbody>
</table>

### HOURLY CONVEYOR EMISSIONS ESTIMATES

\[
E(TSP) = 0.00055 \text{ lbs / ton} \times 3000 \text{ tons / hour} \\
= 1.65 \text{ lbs / hour}
\]

\[
E(PM_{10}) = 0.00026 \text{ lbs / ton} \times 3000 \text{ tons / hour} \\
= 0.78 \text{ lbs / hour}
\]

### HOURLY DROP POINT EMISSIONS ESTIMATES

\[
E(TSP) = 0.00055 \text{ lbs / ton} \times 3000 \text{ tons / hour} \\
= 1.65 \text{ lbs / hour}
\]

\[
E(PM_{10}) = 0.00026 \text{ lbs / ton} \times 3000 \text{ tons / hour} \\
= 0.78 \text{ lbs / hour}
\]
DAILY CONVEYOR EMISSIONS ESTIMATES

Daily emission rates may be determined simply by multiplying the hourly rates by 24 hour / day. These rates again represent a worst case scenario but are realistically impractical.

\[
E(\text{TSP}) = 1.55 \text{ lbs} / \text{hour} \times 24 \text{ hours} / \text{day} \\
= 37.2 \text{ lbs} / \text{day}
\]

\[
E(\text{PM}_{10}) = 0.78 \text{ lbs} / \text{ton} \times 24 \text{ hours} / \text{day} \\
= 18.7 \text{ lbs} / \text{day}
\]

DAILY DROP POINT EMISSIONS ESTIMATES

\[
E(\text{TSP}) = 1.55 \text{ lbs} / \text{hour} \times 24 \text{ hours} / \text{day} \\
= 37.2 \text{ lbs} / \text{day}
\]

\[
E(\text{PM}_{10}) = 0.78 \text{ lbs} / \text{ton} \times 24 \text{ hours} / \text{day} \\
= 18.7 \text{ lbs} / \text{day}
\]
Truck Travel on Paved Roads

Emissions Factors

\[ E = k \left( \frac{sL}{2} \right)^{0.65} \left( \frac{W}{3} \right)^{1.5} \]

Where

- \( E \) = Particulate Emission Factor
- \( k \) = Base Emission Factor—use 0.082 for TSP and 0.016 for PM\(_{10}\)
- \( sL \) = Road Surface Silt Loading Factor—use 1.89 oz/yd\(^2\) per Personal Communications with M. Maung 1/96
- \( W \) = Average Vehicle Weight in Tons

Source - AP42, Section 13.2.1.3, Eq(1) 1/95

Doubles refer to two trailer units. Triples have three trailers.

\[ E(\text{TSP - Doubles}) = 0.082 \left( \frac{1.89}{2} \right)^{0.65} \left( \frac{51.6}{3} \right)^{1.5} = 5.64 \text{ lbs/VMT} \]

\[ E(\text{PM}_{10} - \text{Doubles}) = 0.016 \left( \frac{1.89}{2} \right)^{0.65} \left( \frac{51.6}{3} \right)^{1.5} = 1.10 \text{ lbs/VMT} \]

\[ E(\text{TSP - Triples}) = 0.082 \left( \frac{1.89}{2} \right)^{0.65} \left( \frac{59.9}{3} \right)^{1.5} = 7.05 \text{ lbs/VMT} \]
$E(\text{PM}_{10} - \text{Triples}) = 0.016 \left( \frac{1.89}{2} \right)^{0.65} \left( \frac{59.9}{3} \right)^{1.5}$

$= 1.38 \text{ lbs / VMT}$

Source Specific Emissions Calculations

Assumption
- Distance traveled per trip = 0.18 miles (scaled from site map)
- Coal hauled = 2mm ton / year
- Reduction for wet days or water spray and vehicle speeds of less than 10 mph use 85% reduction. (Personal communication with DAQ personal.)

Distance Traveled

Distance (doubles) = 1 trip / 45.16 tons x 2mm tons / year x 0.18 mi / trip

= 7972 miles / year

Distance (triples) = 1 trip / 67.7 tons x 2mm tons / year x 0.18 mi / trip

= 5318 miles / year

Emissions

E(TSP - doubles) = 5.64 lb / VMT x 7972 miles / year x 1 ton / 2000 lb

= 22.48 tons / year x 85% water spray reduction

= 3.37 tons / year

E(\text{PM}_{10} - \text{doubles}) = 1.10 lb / VMT x 7972 miles / year x 1 tone / 2000 lbs

= 4.39 tons / year x 85% water spray reduction

= 0.66 tons/ year

E(TSP - triples) = 7.05 lb / VMT x 5318 miles / year x 1 ton / 2000 lbs

= 18.75 tons / year x 85% water spray reduction

= 2.81 tons / year
E(PM\textsubscript{10} - triples) = 1.38 lb/ VMT x 5318 miles / year x 1 ton / 2000 lb
= 3.67 tons / year x 85\% water spray reduction
= 0.55 tons / year

**TRUCK TRAVEL PAVED HAUL ROADS - HOURLY ESTIMATES**

Distances traveled are the same as for unpaved roads. The miles traveled per hour are based on removal of 300 tons per hour with truck capacity of 45.16 tons for double units and 67.7 tons for each triple units. Doubles again refer to two trailer units. Triples have three trailers.

Emissions (TSP - doubles) = 5.64 lbs / VMT x 12 miles / hour
= 67.7 lbs / hour x 85 \% control
= 10.2 lbs / hour

Emissions (PM\textsubscript{10} - doubles) = 1.10 lbs / VMT x 12 miles / hour
= 13.2 lbs / hour x 85 \% control
= 2.0 lbs / hour

Emissions (TSP - triples) = 7.05 lbs / VMT x 8 miles / hour
= 56.4 lbs / hour x 85 \% control
= 8.46 lbs / hour

Emissions (PM\textsubscript{10} - triples) = 1.38 lbs / VMT x 8 miles / hour
= 11.0 lbs / hour x 85 \% control
= 1.66 lbs / hour
TRUCK TRAVEL ON PAVED HAUL ROADS - DAILY ESTIMATES

Estimates are made by scaling up hourly emission rates.

Emissions (TSP - doubles) = 10.2 lbs / hour x 24 hours / day

= 244.8 lbs / day

Emissions (PM$_{10}$ - doubles) = 2.0 lbs / hour x 124 hours / day

= 48.0 lbs / day

Emissions (TSP - triples) = 8.46 lbs / hour x 24 hour / day

= 203.0 lbs / day

Emissions (PM$_{10}$ - triples) = 1.66 lbs / hour x 24 hour / day

= 39.8 lbs / day
Appendix D - Continued

Wind Erosion from Stockpile Surfaces

The dugout Canyon Mine will initially operate with a single conical stockpile. However, as production increases it may be necessary to add a second similarly shaped stockpile. For permitting purposes a worst case two stockpile scenario is being assumed. The capacity of each stockpile is approximately 4000 tons.

Calculations of wind erosion are made using AP - 42, Section 11.2.3.3. Equation (3) 5/83. More recent editions of AP - 42 suggest using equations based on on-site wind velocity data which are not available in Dugout Canyon. Consequently, the 5/83 edition is used as being the best system available. (Personal communications with M. Maung at T. Blanchard of DAQ staff - 1/29/96).

Meteorological data were taken from the Sunnyside NOAA station located in similar terrain approximately 15 miles southeast of the mine site (1992 data).

The calculations assumes a scenario of stockpiles of conical shape with a base diameter of 105 feet and a height of 42 feet. It is further assumed that only one half of this amount will be stored on an annual average.

Emission Factor

\[
E \left[ \frac{lb}{(day \cdot acre)} \right] = 1.7 \left( \frac{5}{1.5} \right) \left( \frac{365 - P}{365} \right) \left( \frac{F}{15} \right)
\]

where
- \( s \) = silt content - 5% (taken from typical size particle distribution as the portion which will pass through a 100 mesh screen.)
- \( P \) = Annual wet days - 124 days (1992 data)
- \( F \) = Frequency of winds > 12 mph - est. 20%

\[
E = 1.7 \left( \frac{5}{5} \right) \left( \frac{365 - 124}{365} \right) \left( \frac{20}{15} \right) \frac{lb}{(day \cdot acre)}
\]

\[
= 1.5 \text{ lbs} / (\text{day} \cdot \text{acre})
\]
Area of stockpiles

\[
Surface \ area \ (ft^2) = \pi r \sqrt{r^2 + h^2}
\]

\[
= 3.14 \times 52.5 \sqrt{52.5^2 + 42^2}
\]

\[
= 11,083 \ ft^2
\]

\[
= 11,083 \ ft^2 \times \frac{1 \ acre}{43,500 \ ft^2}
\]

\[
= 0.26 \ acres
\]

Emissions calculations for TSP

Emissions \ (TSP) = Emissions \ factor \times \text{area} \times \# \ days/\text{year} \times \frac{1 \ ton}{2000 \ lbs}

\[
= 1.5 \ lbs/(day \cdot \text{acre}) \times 0.26 \ acres \times 365 \ days/\text{year} \times \frac{1 \ ton}{2000 \ lbs}
\]

\[
= 0.07 \ tons/\text{year} \cdot \text{(per stockpile if full)}
\]

Total \ Emissions \ (TSP) = 0.07 \ tons/\text{year} \times \text{stockpile \ x \ 2 stockpiles}

\[
= 0.14 \ tons/\text{year} \times 50\% \ storage \ factor
\]

\[
= 0.07 \ ton/\text{year}
\]

Emissions estimate for PM$_{10}$ - use 55% of TSP

Total \ Emissions \ (PM$_{10}$) = 0.07 \ tons/\text{year} \times 55\%

\[
= 0.04 \ tons/\text{year}
\]
Emissions Summary

Annual Emissions

<table>
<thead>
<tr>
<th>Source</th>
<th>TSP</th>
<th>PM$_{10}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conveyors and Drop points</td>
<td>1.87</td>
<td>0.88</td>
</tr>
<tr>
<td>Truck travel on Paved Roads</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doubles*</td>
<td>3.37</td>
<td>0.66</td>
</tr>
<tr>
<td>Triples</td>
<td>2.81</td>
<td>0.55</td>
</tr>
<tr>
<td>Stockpiles</td>
<td>0.07</td>
<td>0.04</td>
</tr>
<tr>
<td>Totals*</td>
<td>5.31 tons / year</td>
<td>1.58 ton / year</td>
</tr>
</tbody>
</table>

* Totals assume worst case of double trailer systems. Does not include triples estimates.
STOCKPILE EMISSIONS - HOURLY RATES

This calculation is based on the previously established rate of 1.5 lbs / (day - acre) but with the assumption that on any given hour both stockpiles may be at maximum capacity thus ignoring the annual average storage estimate of 50% of capacity.

Emissions (TSP - hourly)

\[
E(TSP \text{ - hourly}) = 1.5 \text{ lbs / (day - acre)} \times 0.26 \text{ acres / stockpile}
\times 2 \text{ stockpiles} \times 1 \text{ day / 24 hours}
= 0.03 \text{ lbs / hour}
\]

\[
E(\text{PM}_{10} \text{ - hourly}) = 0.03 \text{ lbs / hour} \times 55\% \text{ of TSP}
= 0.02 \text{ lbs / hour}
\]

STOCKPILE EMISSIONS - DAILY RATES

Emissions (TSP - daily)

\[
E(TSP \text{ - daily}) = 1.5 \text{ lbs / (day - acre)} \times 0.26 \text{ acres / stockpile}
\times 2 \text{ stockpiles}
= 0.78 \text{ lbs / day}
\]

\[
E(\text{PM}_{10} \text{ - daily}) = 0.78 \text{ lbs / day} \times 55\% \text{ of TSP}
= 0.43 \text{ lbs / day}
\]
Appendix E

List of Air Pollution Control Equipment

The list of air pollution control equipment as identified in Form 1 of the New Source Review Application Instructions, Item 24, is not applicable as are forms 3 through 10.

Control equipment will consist of three items:

1. A full cover for all conveyors, and

2. A water spray truck with capability of application rates as specified by DAQ.

3. Roads for coal haul vehicles will be paved.
Appendix F

Compliance Monitoring Devices or Activities

No monitoring devices are proposed for this project.

Monitoring activities will consist of visual emissions observations (EPS Method 9) as required by the conditions of the DAQ Approval Order. Certified company observers will be available for the project. Records of visual emissions observations will be kept as required.

Applications of water spray will be on a frequency and amount specified by the DAQ. Records of water spray application will also be kept as required.
Appendix G

BACT Procedures Applicable to Project

The facility design will reduce fugitive emissions as far as it is economically feasible.

Fugitive emissions from the coal itself is controlled primarily by inherent moisture. However, an additional BACT for coal handling comes from fully covered conveyors which reduce opportunity for exposure to the wind.

Coal removal from the stockpile is from the bottom of the pile which reduces the disturbance of the drier exposed surface of the pile.

Drop heights are kept to the minimum practical distance. The moisture of the coal again minimizes the potential for fugitive emissions at the drop points.

The major potential source of fugitive emissions is from wheel dust from the coal haul vehicles. The primary BACT for this fugitive source will be from paving the haul roads. BACT is further applied by water spray of road surfaces during dry periods. Additional control comes from reduced vehicle speed in the mine area dictated by the tight turns required in the narrow canyon. Also the facility has been designed to keep the haul distance to a minimum.

Control of wind borne emissions from the stockpile surfaces has little practicality since the water spray required could increase the potential for spontaneous combustion. Any type of stockpile enclosure would be cost prohibitive and is not justified by the small amount of wind borne emissions calculated to originate from the stockpiles.
APPENDIX 4-1

Air Quality Approval Order and Information
Canyon Fuel Company, LLC
SCM/Dugout Canyon Mine

Mining and Reclamation Plan
March 7, 2007

APPENDIX 4-1

Air Quality Approval Order and Information
October 21, 2005

Vicky S. Miller
Canyon Fuel Company LLC
Dugout Canyon Mine
P.O. Box 1029
Wellington, Utah 84542

Dear Ms. Miller:

Re: Approval Order: Modification of Approval Order DAQE# AN1634004-03 to Add Two Backup Generators and One Diesel Engine, Carbon County – CDS B; ATT; NSPS, HAPs, TITLE V
Minor Project Code: N1634-005

The attached document is the Approval Order (AO) 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. Please direct any technical questions you may have on this project to Mr. Maung Maung. He may be reached at (801) 536-4153.

Sincerely,

Richard W. Sprott, Executive Secretary
Utah Air Quality Board

RWS:MM:re

cc: Southeastern Utah District Health Department
STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

APPROVAL ORDER: Modification of Approval Order
DAQE# AN1634004-03 by Adding Two Backup Generators and
One Diesel Engine & Extend Hours

Prepared By: Maung Maung, Engineer
(801) 536-4153
Email: mmaung@utah.gov

APPROVAL ORDER NUMBER

DAQE-AN1634005-05

Date: October 21, 2005

Canyon Fuel Company LLC
Source Contact
Vicky Miller
(435) 636-2869

Richard W. Sprott
Executive Secretary
Utah Air Quality Board
Abstract

Canyon Fuel Company has proposed to add two diesel electric generators and one diesel engine to its coal mine to serve as backups. It also proposes to extend operational hours from 6120 hours to 7300 hours per rolling 12 months total. The emissions increases will result from diesel engines operations, maintenance, and tests for readiness. The annual production limit of coal will remain the same at five millions tons per year. The mine is located in Carbon County, near the city of Price, Utah. Carbon County is an attainment area of the National Ambient Air Quality Standards (NAAQS) for all pollutants. This source is subject to New Source Performance Standards (NSPS) under 40 CFR Part 60 Subpart OOO- Standards of Performance for Nonmetallic Mineral Processing Plants. National Emission Standards for Hazardous Air Pollutants (NESHAP) and Maximum Available Control Technology (MACT) regulations do not apply to this source. Because this source is a NSPS source, it also falls under the 40 CFR Part 70 or CAA Title V regulations.

The emissions, in tons per year, will change as follows: \( PM_{10} = +0.32, NO_x = +10.88, SO_2 = +.19, CO = +2.50, VOC = +0.32, HAPs \) (aldehydes from diesel engines) = +0.22.

The changes in emissions will result in the following, in tons per year, potential to emit totals: \( PM_{10} = 7.62, NO_x = 13.88, SO_2 = 5.15, CO = 5.25, VOC = 0.32, HAPs \) (aldehydes from diesel engines) = 0.22.

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 was held in accordance with UAC R307-401-4 and no comments were received. This air quality Approval Order (AO) authorizes the project with the following conditions, and failure to comply with any of the conditions may constitute a violation of this order.

General Conditions:

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

   **Site Office**
   Canyon Fuel Company, LLC
   Dugout Canyon Mine
   Wellington, Utah 84542

   **Corporate Office Location**
   Canyon Fuel Company, LLC
   225 North 5th Street
   Suite 900
   Grand Junction, CO 81501

   Phone Number (435) 637-6360
   Fax Number (435) 636-2897

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

   Directions: East of Price in Carbon County. Proceed east 3 miles from Wellington, turn left up State highway 53 for approximately 4.8 miles to the Dugout Canyon turn-off. The mine is located approximately 8.7 miles up the Dugout Canyon road.

   Universal Transverse Mercator (UTM) Coordinate System: UTM Datum NAD27
   4,390.665 kilometers Northing, 535.742 kilometers Easting, Zone 12
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
R307-401-1.

5. All records referenced in this AO or in applicable NSPS 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. 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 Two years

6. This AO shall replace the AO (DAQE-AN1634004-03) dated July 9, 2003.
APPENDIX 4-2

Land Uses
RE: Post mining Land Use for right-of-way UTU-76601

Dear Mr. Payne:

As requested, the Bureau of Land Management has reviewed your plans for reclamation and post mining land use of the above referenced right-of-way, located in portions of the NW¼SW¼ of section 23, T. 13 S., R. 12 E., SLM. The BLM concurs with the post-mining reclamation and land-use plans proposed for the effected lands as stated in the Mining and Reclamation Plan for the Dugout Canyon Mine, ACT/007/039. Post mining land use would be wildlife habitat, livestock grazing and incidental recreational use.

The BLM should be notified in the future if your plans are modified regarding the reclamation or postmining land use for this right-of-way. Additionally, please notify the BLM when reclamation work is performed at the conclusion of mining activity. If you have any questions please feel free to contact Mark Mackiewicz of my staff at (435) 636-3600.

Sincerely,

Mark E. Bailey
Acting, Field Manager
Area harvested by 6/1/96

Area to be harvested by 12/31/96
October 28, 1997

Ken Payne, Project Manager
Dugout Canyon Mine
Canyon Fuel Co.
P.O. Box 1029
Wellington, UT 84542

RE: ML 42648--Coal

Dear Mr. Payne,

I am in receipt of your letter dated October 24, 1997, giving notice of intent to construct an access road, sediment pond, and leach field upon the surface of trust lands in Section 23, T13S, R12E, SLB&M, under the above numbered coal lease. The coal lease provides that Lessee may have reasonable use of the surface in constructing facilities necessary to mine the coal.

The Trust Lands Administration concurs with the proposed uses of the surface so long as coal lease ML 42648 remains in good standing. Also, this approval is conditioned upon the understanding that construction of said surface facilities will not interfere with the recovery of any potentially recoverable coal resources within the lands under ML 42648.

The Trust Lands Administration further concurs with the post-mining reclamation and land use proposed for the effected lands. The Trust Lands Administration should be notified in the future when the reclamation work is performed at the conclusion of mining.

Please contact me if I may be of any further assistance in the permitting process for the Dugout Canyon Mine.

Sincerely,

John T. Blake
Mineral Resources Specialist

cc: Daron Haddock
THAYNE TRUST
SURFACE USE AGREEMENT

MAY 06 2005

INCORPORATED
EFFECTIVE:

UTAH DIVISION OIL, GAS AND MINING
PRICE FIELD OFFICE
SURFACE USE AGREEMENT

THIS SURFACE USE AGREEMENT (this "Agreement"), dated as of November 1, 1999 ("Effective Date"), is by and between Canyon Fuel Company, L.L.C. ("CFC"), whose mailing address is 6955 Union Park Center, Suite 540, Midvale, Utah 84047, and Milton and Ardith Thayn Trust ("Thayn"), whose mailing address is 7730 East Hwy 6, Price, Utah 84501.

Recitals

Thayn is the surface owner of lands located in Carbon County, Utah, which are described on Exhibit "A" attached hereto (the "Thayn Lands"). CFC is a coal mining company and owns and operates the Soldier Canyon Mine and Dugout Canyon Mine (the "Mines"). CFC holds rights under Federal coal leases and pursuant to mine permits granted or to be granted by the Utah Division of Oil, Gas and Mining (the "Mine Permits") to develop and mine underground coal. Thayn has agreed to grant to CFC the nonexclusive use by CFC of the surface of the Thayn Lands to facilitate its coal mining operations in exchange for rights and services from CFC.

Agreement

IN CONSIDERATION of the mutual covenants contained in this Agreement and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Grants and Services to Thayn.

   (a) CFC shall lease to Thayn for farming and grazing the following lands and grazing and water rights described in Exhibit "B" attached hereto: (1) lands owned by CFC located in the Clark Valley (the "Clark Valley Lease Lands"); (2) water rights owned by CFC appurtenant to the Clark Valley Lease Lands (the "Clark Valley Water Rights"); (3) state and federal grazing rights held by CFC related to the Clark Valley Lease Lands (the "Grazing Rights"); and (4) water rights represented by 50 shares of water stock in the Wellington Canal Company owned by CFC (the "Water Shares"). The Clark Valley Lease Lands, the Clark Valley Water Rights, the Grazing Rights and the Water Shares shall all be leased to Thayn under the "Lease Agreement" attached hereto as Exhibit "C."
(b) CFC hereby grants to Thayn, for the term of this Agreement and for so long thereafter as agreed in writing by the parties, the non-exclusive, limited use of the Dugout Canyon unimproved road lying north of the Dugout Canyon Mine as may be reasonable and necessary for Thayn's cattle ranching activities, provided that such use shall (i) not interfere with the regular activities of the Mines; (ii) comply with all CFC and applicable federal, state and local rules and regulations imposed on the use of the road; and (iii) not include use of the road by any third party including hunters, tourists or sightseers.

(c) Upon written notice to CFC, Thayn may request that CFC monitor the flow of springs, streams and seeps located on the Thayn Lands that Thayn reasonably believes may be impacted by CFC's underground mining operations. Upon receiving the written request, CFC shall meet with Thayn to discuss the monitoring sites and to reach a mutually acceptable schedule for such monitoring, provided that CFC shall only be required to monitor such sites for flow. Nothing in this Agreement shall modify CFC's water monitoring program as required by the Mine Permits.

(d) Thayn shall have the non-exclusive right to submit bids as an independent contractor for earth-moving projects conducted on the Thayn Lands that CFC elects, in its sole discretion, to contract to a third party. Thayn shall have a preference for selection as the contractor for the project provided that Thayn can demonstrate to the reasonable satisfaction of CFC that (i) Thayn owns or has right to use the necessary equipment for the project, (ii) Thayn carries insurance coverage required by CFC's risk management procedures for the project, (iii) Thayn has the necessary licenses and permits to conduct the project, and (iv) Thayn's proposed bid is competitive with other bids solicited by CFC for the project. Notwithstanding the foregoing, nothing in this Agreement shall be construed to require CFC to use a third party contractor for any project on the Thayn Lands or to conduct a bid process to select a third party contractor for work conducted on the Thayn Lands or on behalf of Thayn.

2. **Surface Use Grants to CFC.** CFC shall have and is hereby granted an easement on, over, and through, and a right to use, the surface of the Thayn
Lands as may be necessary and appropriate for the following purposes in connection with mining coal by underground mining methods: (a) conduct subsidence and soil and water sampling, and carry out raptor, wildlife and other environmental studies; (b) conduct exploration drilling and analyses of subsurface conditions by all reasonable means; (c) place or install minor mechanical instruments such as geophones, geo-seismic lines and the like to monitor underground, mine-related activities and results; (d) drill production holes, place and relocate pipelines, and place surface facilities to develop, vent or remove coalbed methane gas, provided such use shall not interfere with regular activities of Thayn's ranching and hunting, and further provided, CFC shall coordinate such activities with Thayn to minimize disruption to Thayn's ranching and hunting activities; and (e) exclusively subside the surface of the Thayn Lands. Except as provided in Sections 3 and 5, CFC shall have no obligation to pay to Thayn any compensation for use of the Thayn Lands.


(a) In the event CFC is required to place temporary or semi-permanent structures on the Thayn Lands (such as methane venting, exhausting equipment, methane drainage pump stations, pipelines and utilities) in connection with exercising its rights hereunder, CFC shall reasonably compensate Thayn for the use of the Thayn Lands for such structures at rates comparable to other operations in the area. (By way of example, coalbed methane venting and degasification wells are currently compensated at rates in the range of $2,000 to $3,500 per year until the well is plugged and reclaimed.) The parties shall use their best good faith efforts to negotiate compensation for any permanent structure placed on the Thayn Lands.

(b) CFC shall pay Thayn $2,000 for each exploration drill hole placed on the Thayn Lands. Thayn acknowledges that $2,000 represents fair and reasonable compensation for each such drill hole, provided, however, if any such exploration drill hole is subsequently used for coalbed methane venting, Thayn shall be entitled to additional compensation in accordance with the provisions of Section 3(a).

4. Care of Thayn Lands.
(a) CFC shall use and maintain the Thayn Lands in a careful, safe, and lawful manner and shall conduct its operations in compliance with all applicable federal, state and local laws, rules and regulations. CFC shall only use the Thayn Lands for the purposes set forth herein and shall not permit the use or occupancy of the Thayn Lands by any person other than CFC, its employees, agents and contractors.

(b) CFC shall provide Thayn with written notice prior to undertaking any activities on the Thayn Lands. Thayn’s concurrence shall be obtained regarding the location of any proposed material surface disturbance, including but not limited to drilling exploration boreholes. Thayn’s permission shall not be unreasonably withheld.

(c) CFC shall give special siting consideration to potential borehole locations near springs and seeps on the Thayn Lands.

(d) CFC shall repair or replace any improvements upon the Thayn Lands damaged by CFC’s operations. CFC shall reclaim all surface areas disturbed as a result of CFC’s operations and shall implement a noxious weed control program for all such disturbed areas for a period of not less than four years from the date of reclamation reseeding.

(e) All drilling or other similar activities and all CFC-related facilities, such as "mud pits," that could result in injury or death to livestock shall be fenced or otherwise isolated to protect livestock. CFC shall repair or reclaim to the extent technologically and economically feasible subsidence damage to the Thayn Lands that could be harmful to livestock.

(f) CFC shall maintain insurance coverage for its activities conducted on the Thayn Lands consistent with coverages customary for the coal industry and in compliance with all applicable regulatory requirements and shall provide Thayn with a copy of all insurance certificates naming Thayn as an additional insured against CFC’s operations conducted pursuant to this Agreement.

(g) As required by and in conformance with applicable law, CFC shall replace any water supply owned and beneficially used by Thayn for
domestic, agricultural, or other legitimate use from an underground or surface source where the water supply has been adversely impacted by contamination, diminution, or interruption proximately resulting from CFC's mining operations.

5. Term.

(a) This Agreement shall be for a term of years beginning on the Effective Date and continuing for a period for the life of the Mines plus two (2) years, but in no event longer than twenty (20) years. For purposes of this Agreement, the life of the Mines shall end upon permanent closure of the Mines and cessation of all operations for the production and sale of coal from the Mines.

(b) CFC shall have no obligation to make any rental or other payment to maintain this Agreement in full force and effect. The parties acknowledge and agree that the Lease Agreement shall constitute full and fair consideration for this Agreement. In the event the Lease Agreement terminates or expires as provided therein prior to a date twenty (20) years from the Effective Date, CFC shall pay to Thayn the sum of $5,000 annually on the anniversary date for the remaining term of this Agreement in lieu of the rights granted under the Lease Agreement ("Rental Payment").

(c) The monetary payment terms set forth in Sections 3 and 5(b) of this Agreement ("Payment Terms") shall be adjusted for inflation on the seventh (7th) and fourteenth (14th) annual anniversaries after the Effective Date based on the cumulative changes in the Consumer Price Index (CPI), or other generally-recognized economic pricing index, for the preceding seven-year period. The proposed adjustments shall be calculated by CFC and communicated to Thayn in writing within thirty (30) days after the seventh and fourteenth anniversaries. All adjustments to Payment Terms shall be effective as of the seventh and fourteenth anniversary dates and shall otherwise apply prospectively and shall not apply to payments previously made under this Agreement. All other claims for adjustment of non-monetary terms of this Agreement, including allegations of non-compliance with any express term, shall be subject to the provisions of Section 7.
6. Title. Thayn warrants generally the title to the surface of the Thayn Lands and represents that Thayn has all necessary right and authority to grant to CFC the property rights and privileges conveyed hereunder.

7. Breach of Obligations. If either party believes that the other party has not complied with any express term, obligation or covenant of this Agreement, then in such event such party shall notify the other party in writing setting out specifically the details regarding the alleged breach or default. The party in default shall have thirty (30) days after receipt of the notice within which to cure or commence to cure all or any part of the breach or default alleged by the other party. If the defaulting party fails to cure or commence to cure the alleged default or breach as required, then the non-defaulting party shall have the option, but not the obligation, to submit the matter to binding arbitration as provided in this Agreement.

8. Arbitration. Disputes arising under this Agreement between the parties based upon any alleged breach of any of the obligations hereunder, which the parties are unable to resolve, shall be finally settled in accordance with the provisions of the Utah Arbitration Act by a single arbitrator. The arbitrator shall have broad power to grant relief for any dispute submitted pursuant to this Section 8, including without limitation termination of this Agreement. The arbitration proceedings shall be conducted in Price, Utah. CFC shall be responsible for all costs incurred in arbitration, including all fees and expenses of the arbitrator. Either party may enforce any arbitration award by instituting an action in the appropriate state or federal district court.

9. Indemnification. CFC shall indemnify, defend and hold harmless Thayn from and against all claims, costs, losses and expenses of any and every kind or character (including without limitation, mechanic liens and additional taxes) that are caused by or arise out of CFC's operations conducted on the Thayn Lands pursuant to this Agreement, provided that Thayn shall not be indemnified for matters expressly covered by this
10. **Assignment.** CFC’s rights under this Agreement may not be assigned or sublet without the prior written consent of Thayn, which consent shall not be unreasonably withheld, provided that CFC may assign or sublease its interest hereunder without consent if such assignment or sublease is to an affiliate, parent or subsidiary of CFC, or to a party which acquires all or substantially all of the assets of CFC or the Mines.

11. **Notices.** All notices shall be in writing and addressed as follows:

   If to Canyon Fuel Company:

   President  
   Ark Land Company  
   CityPlace One  
   Suite 300  
   St. Louis, MO 63141-7056  
   (314) 994-2700

   With a copy to:

   Canyon Fuel Company, L.L.C.  
   Soldier Canyon Mine  
   P.O. Box 1029  
   Wellington, UT 84542  
   Attn: David G. Spillman  
   (435) 636-2872

   If to Thayn:

   Milton and Ardith Thayn Trust  
   7730 East Hwy 6  
   Price, UT 84501  
   Attn: David Thayn  
   (435) 472-4251
Notices are sufficient if delivered by hand, sent by facsimile transmission or deposited in the United States mail, postage prepaid and addressed to the appropriate addresses.

12. CFC Permits. Thayn expressly agrees to not oppose CFC’s application for or issuance of the Mine Permits or for such other permits or approvals necessary or required to conduct coal mining operations at the Mines that may relate to or involve the Thayn Lands. In the event that CFC’s Mine Permits are materially revised to require access or use of the Thayn Lands not granted by this Agreement, the parties shall use their respective best good faith efforts to negotiate such required access or use.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the Effective Date.

CANYON FUEL COMPANY L.L.C.

By ____________________________

Its VP & Treasurer

Milton and Ardith Thayn Trust

By ____________________________

Its Trustee

The foregoing instrument was acknowledged before me this ___ day of ______________________, by ____________________________ who being by me duly sworn did say that he is the VP + Treasurer of Canyon Fuel Company, L.L.C.,
and that the foregoing Surface Use Agreement was signed on behalf of said limited liability company.

My Commission Expires: 9-14-2003

STATE OF UTAH ()
COUNTY OF CARBON ()

The foregoing instrument was acknowledged before me this 15th day of November, by Milton Thayn, the signer of the foregoing Surface Use Agreement, who duly acknowledged to me that he executed the same as Trustee of and for the benefit of the Milton and Ardith Thayn Trust.


INTEGRATED EFFECTIVE:
MAY 05, 2005
Utah Division Oil, Gas and Mining Price Field Office
EXHIBIT "A"

to

Surface Use Agreement

Thavn Lands

T13S. R12 E. Salt Lake Meridian, Utah
Sec. 12: E/2 SE/4;
Sec. 13: E/2; SE/4 NW/4; E2 SW/4; NW/4 SW/4;
Sec. 24: All;
Sec. 25: NW/4.

T13S. R13 E. Salt Lake Meridian, Utah
Sec. 7: S/2SW/4, NW/4SW/4;
Sec. 18: S/2, NW/4, S/2NE/4, NW/4NE/4;
Sec. 17: SW/4, S/2SE/4, NW/4SE/4;
Sec. 19: All Except Lot 4;
Sec. 20: All;
Sec. 21: S/2, S/2N/2, NW/4NW/4;
Sec. 22: SW/4, S/2NW/4;
Sec. 27: W/2;
Sec. 28: All;
Sec. 29: All;
Sec. 30: All Except Lots 1 and 2;
Sec. 33: N/2N/2.
EXHIBIT "B"  
to  
Surface Use Agreement  

**CLARK VALLEY LEASE LANDS**  

(approximately 4,461 acres):  

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**CLARK VALLEY WATER RIGHTS**  

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### Exhibit B to Surface Use Agreement

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### GRAZING RIGHTS

BLM Grazing Allotment #4079 (North Clark Valley) Approx. (Acreage 9,480)
Period of Use - March 20th-June 5th
State Grazing Permit #21722 (Approx. Acreage 680)

### WATER SHARES

50 Shares of water stock in The Wellington Canal Company from Certificate No. 881

**INTEGRATED EFFECTIVE:**
MAY 06 2005
UTAH DIVISION OIL, GAS AND MINING
PRICE FIELD OFFICE
EXHIBIT "C"

to
Surface Use Agreement

LEASE AGREEMENT

THIS LEASE AGREEMENT (this "Lease") is made and entered into as of November 9, 1999 ("Effective Date"), by and between CANYON FUEL COMPANY, L.L.C. ("Lessor"), and MILTON AND ARDITH THAYN TRUST ("Lessee").

Recitals

A. Lessor is the owner of certain lands and water and grazing rights located in Carbon County, Utah, and more particularly described in Exhibit "A" attached hereto: (1) lands located in Clark Valley ("Clark Valley Lease Lands"); (2) water rights appurtenant to the Clark Valley Lease Lands ("Clark Valley Water Rights"); (3) state and federal grazing rights related to the Clark Valley Lease Lands ("Grazing Rights"); and (4) water rights represented by 50 shares of water stock in the Wellington Canal Company ("Water Shares"). The Clark Valley Lease Lands, the Clark Valley Water Rights, the Grazing Rights and the Water Shares are collectively referred to as the "Lease Interests."

B. The parties have entered into that certain Surface Use Agreement dated __________ ("Surface Use Agreement") whereby Lessee grants to Lessor rights to use the surface of Lessee's lands to facilitate Lessor's coal mining operations in exchange for this Lease, Lessee desires to lease from Lessor and Lessor and other consideration.

Agreement

NOW, THEREFORE, in consideration of the mutual promises and obligations herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Lessor hereby leases to Lessee the Lease Interests subject to and conditioned upon the following agreement between the parties:

ARTICLE I
AGREEMENT FOR WATER RIGHTS

1.1 Lessor's Right to Use Clark Valley Water Rights and Water Shares. Lessee shall have the right to use part or all of the Clark Valley Water Rights and the water represented by the Water Shares (collectively, the "Leased Water Rights") for the sole purposes of irrigation or stock watering on or for the benefit of the Clark Valley Lease Lands, or such additional uses.
expressly allocated to the Leased Water Rights, upon the condition that Lessee notifies Lessor of its intention to use the Leased Water Rights at least one (1) month prior to the date of use by Lessee. Notwithstanding Lessee's exercise of its right granted hereunder, Lessee shall make beneficial use of the Leased Water Rights during the term of this Lease and shall take all necessary and reasonable actions so as to preserve the validity of the Leased Water Rights and prevent any reversion back to the State of Utah. Lessee's promise to make beneficial use of the Leased Water Rights provides an essential portion of the consideration given by Lessee to cause Lessor to enter into this Lease.

1.2 Interest in Clark Valley Water Rights. Lessor and Lessee expressly acknowledge that the interest of Lessee in the Leased Water Rights is that of a tenant, that Lessee shall acquire no ownership interest in the Leased Water Rights, and that Lessee shall have no right, title, or interest in the Leased Water Rights from and after the termination of this Lease. Lessee shall not in any way, intentionally or otherwise, directly or indirectly, take or encourage others to take any action which is inconsistent with or which will or may jeopardize the interests of Lessor in the Leased Water Rights.

1.3 Change of Diversion or Use. Without the prior written consent of Lessor, Lessee shall not file any change application or exchange application with the Utah State Engineer for purposes of changing the nature, point of diversion or use of the Leased Water Rights.

1.4 Voting Rights. Lessee shall have no right to vote the Water Shares and nothing contained in this Lease shall, nor shall it be interpreted to, grant to Lessee any rights to participate in meeting of the Wellington Canal Company or to act for or on behalf of Lessor as the record title owner of the Shares.

ARTICLE II
AGREEMENT FOR GRAZING RIGHTS

2.1 Conditions. Lessor shall have the right to use the Grazing Rights shall be subject to the following conditions:

(a) Lessee shall comply with all applicable statutes and regulations and the terms and conditions of the Grazing Rights and shall perform all other duties or tasks necessary to preserve the Grazing Rights in good standing and prevent any cancellation or other loss of the Grazing Rights. Lessee shall preserve and protect the interest of the Lessor therein and shall not take any action which is inconsistent with or will jeopardize the interest of Lessor in the Grazing Rights. Lessee shall promptly provide Lessor with a copy of any notice of violation, cancellation, inquiry or rental requirement received by Lessee relating to the Grazing Rights and shall undertake all necessary and reasonable actions to
remedy, cure or otherwise remove the basis for the notice. Lessee shall fully cooperate with Lessor to perform such actions as are necessary and advisable to preserve in full force and effect the Grazing Rights.

(b) Lessor shall remain responsible for and shall pay directly to the BLM and/or State, as appropriate, all fees, rents, costs, or other charges required by statute, regulation, or agreement to keep the Grazing Rights in good standing.

(c) Lessee hereby expressly waives any right or claim that it may have pursuant to 43 C.F.R. Part 4100 as now enacted or as hereinafter amended to receive compensation for any interests lessee may have in authorized range improvements on the Grazing Rights; and Lessee expressly acknowledges that the mutual promises and obligations of Lessor as specified in this Lease shall be deemed to be adequate compensation for any interests that Lessee may have in authorized range improvements on the Grazing Rights.

(d) The general terms and conditions of this Lease shall apply to Lessee’s right to use the Grazing Rights and the lands governed thereby as though included within the Clark Valley Lease Lands. Any breach or failure by Lessee to satisfy the covenants or conditions relative to the Grazing Rights shall constitute a breach of this Lease.

2.2 Lessee’s Cattle. At all times during the term of this Lease, Lessee shall own a minimum of forty percent (40%) of the cattle actively grazing on or using the Clark Valley Lease Lands. Lessee shall not permit grazing of third party livestock on the Clark Valley Lease Lands that would result in a breach of this provision.

ARTICLE III
GENERAL TERMS AND CONDITIONS

3.1 Term. The term of this Lease shall commence upon the Effective Date and continue for a primary term five (5) years or the equivalent of sixty (60) calendar months. Lessee at its option shall have the right to renew this Lease for three (3) additional extended terms of five (5) years each by giving Lessor written notice of Lessee’s election to renew 60-days prior to the termination of the then effective term. Unless otherwise terminated, this Lease shall terminate at the end of the last extended term which termination in no event shall occur later than 20 years after the Effective Date.

3.2 Consideration.
(a) Lessee shall have no obligation to pay any rental to maintain this Lease in full force and effect for the term hereof, the consideration for this Lease being represented by the covenants and obligations set forth in the Surface Use Agreement.

(b) In the event that this Lease is terminated or expires prior to a date twenty (20) years from the Effective Date, Lessor shall pay to Lessee as continuing consideration for the Surface Use Agreement the sum of $5,000 annually ("Rental Payment") in lieu of this Agreement, payable on the anniversary date of the Effective Date each year for twenty (20) years from the Effective Date, or until the Surface Use Agreement terminates as provided therein.

3.3 Use and Occupancy by Lessee. Lessee shall use the Clark Valley Lease Lands, Leased Water Rights the Grazing Rights and the water attributable to the Water Shares exclusively for the grazing of cattle and for the raising of forage for the feeding of livestock. Lessee shall not authorize or conduct mining, drilling operations or hunting on the Clark Valley Lease Lands or remove sand, gravel, dirt, minerals, water, or associated substances from the Clark Valley Lease Lands; shall not commit any waste upon the Clark Valley Lease Lands; and shall not conduct or allow any business, activity, or thing on the Clark Valley Lease Lands which is or becomes unlawful, prohibited, or a nuisance, or which may cause damage to lessor, to occupants of the vicinity, or to other third parties. Lessee shall comply with and abide by all laws, ordinances, and regulations of all municipal, county, state and Federal authorities which are now in force or which may hereinafter become effective with respect to the use and occupancy of the Clark Valley Lease Lands, the Leased Water Rights and the Grazing Rights. Lessee shall conduct operations of the Clark Valley Lease Lands in accordance with good grazing and range or husbandry practices with reference to practices of others in the geographic vicinity of the Clark Valley Lease Lands and in compliance with applicable law. Lessee shall not overgraze the Clark Valley Lease Lands. Lessee shall ensure that all main entrance gates are kept locked with locks provided by Lessor.

3.4 Use by Lessor. Use of the Clark Valley Lease Lands by Lessee shall be nonexclusive. Lessor shall be entitled, without compensation to Lessee, to use the Clark Valley Lease Lands or grant other parties the right to use the Clark Valley Lease Lands, including but not limited to rights for easements, licenses, and leases, but Lessor shall not grant rights for grazing or agricultural use of the Clark Valley Lease Lands to third parties or make use of the Clark Valley Lease Lands itself for such purposes. However, Lessor shall reimburse Lessee for any damages done to Lessee's crops as a result of the use of the Clark Valley Lease Lands by Lessor.

3.5 Improvements. Lessee shall not construct any permanent building on the Clark Valley Lease Lands and shall not construct any temporary building or advertising sign on the Clark Valley Lease Lands without the prior written consent of Lessor. Lessee shall provide
and/or pay for the labor, material, and equipment for any fences, gates, cattle guards, ditches, ponds, reservoirs, or other improvements for Lessee to make use of the Clark Valley Lease Lands, the Grazing Rights, or to make beneficial use of the Leased Water Rights. Unless otherwise agreed in writing, any improvements which Lessee shall make to the Clark Valley Lease Lands shall be made at no expense to Lessor and shall not be removed and shall remain on the Clark Valley Lease Lands upon the termination of this Lease unless otherwise directed by Lessor. Lessee may use whatever fences, gates, cattle guards, ditches, ponds, reservoirs, and other improvements which now exist on the Clark Valley Lease Lands.

3.6 Representation of Lessee. Lessee represents as follows:

(a) Lessee is experienced in farming methods, farm equipment, and irrigation methods generally used in Carbon County Lessee shall cultivate grazing pastures and make beneficial use of the Clark Valley Water Rights and otherwise exercise Lessee's rights and privileges under this Lease.

(b) Lessee has sufficient farming and construction equipment available for its use and shall continue to have such equipment available for its use during the term of this Lease for the construction and maintenance of ditches, roads, ponds, fences, and the performance of other tasks which may be needed to satisfy Lessee's obligations under this Lease.

(c) Lessee has knowledge of the requirements necessary to preserve the Leased Water Rights in good standing and prevent any loss of nonuse or other reversion back to the State of Utah.

3.7 Right of Entry. At any time throughout the term of the Lease, Lessor shall have the right to enter upon the Clark Valley Lease Lands or any portion thereof for purposes of inspecting the same, determining whether Lessee is performing its obligations under the Lease, including but not limited to the obligation to make beneficial use of the Leased Water Rights, taking any action necessary or desirable to remedy any default by lessee in any of Lessee's obligations hereunder, showing or exhibiting the Clark Valley Lease Lands to existing or prospective mortgage lenders, purchasers, or lessees, placing "for sale" or "for lease" signs on the Clark Valley Lease Lands, performing environmental or analytical studies, or for any other purpose whatsoever.

3.8 Insurance. At all times during the term hereof, Lessee shall secure and maintain public liability insurance providing coverage against damage to persons or property resulting from acts or omissions of Lessor or Lessee respecting the Clark Valley Lease Lands, with limits of liability in such amounts as lessor may determine. All insurance required or permitted hereunder shall be written by reputable, responsible companies licensed in the State of Utah and shall name Lessor as insured. Lessee shall be furnished with copies of the insurance policies then
in force pursuant to this section, together with evidence that the premiums therefor have been paid.

3.9 Taxes. Throughout the term hereof Lessor shall pay all real property taxes, assessments, and special assessments, (all of which are hereinafter collectively referred to as "Taxes"), which are levied against or which apply with respect to the Clark Valley Lease Lands, the Grazing Rights or the Water Rights. Lessee shall pay all taxes, assessments, charges and fees which during the term hereof may be imposed, assessed, or levied by any governmental or public authority against or upon Lessee’s use of the Clark Valley Lease Lands or any personal property, equipment, or fixtures kept or installed therein by Lessee.

3.10 Assignment and Subletting.

(a) Lessee shall have the right to assign or sublet a portion of this Lease with the prior written consent of Lessor, which consent shall not be unreasonably withheld, provided, however, that such assignment or sublease shall expressly provide and require that Lessee own and maintain a minimum of forty percent (40%) of the cattle actively grazing on or using the Clark Valley Lease Lands (as required under Section 2.2 of this Agreement) and that such assignment or sublease shall automatically terminate if at any time Lessee breaches the covenant under Section 2.2. In the event of any such assignment or sublease with the consent of the Lessor, Lessee shall remain liable on all of its covenants and obligations hereunder unless the instrument whereby Lessor consents to the assignment or subletting contains a provision in which Lessor specifically releases Lessee from such further liability. Any purported assignment without the written consent of the Lessor shall constitute a default hereunder and shall be void and of no effect.

(b) Lessor shall have the right to assign its interests under this Lease without the consent of Lessee. In the event Lessor assigns such interests, Lessor shall, from and after the Effective Date (irrespective of when the assignment occurs), be relieved of any and all liability or obligation to Lessee hereunder, and all such liability and obligation shall, as of the time of such assignment or on the Effective Date, whichever is later, automatically pass to Lessor’s assignee, whether or not specifically assumed by it.

3.11 Default and Remedies. In the event Lessee breaches or fails to perform any of its obligations hereunder and Lessee does not within sixty (60) days, unless a lesser time is required by applicable law for the Grazing Rights, after the giving of written notice by Lessor cure the default or begin action to cure the default and thereafter diligently prosecute such action to completion if the default cannot be reasonably cured within sixty (60) days, or as required by applicable law, Lessor shall have the right, at its option, to exercise any of the following rights and remedies:
(a) Lessor may itself perform or cause to be performed the obligation with respect to which Lessee is in default. In the event Lessor does so, its cost of such performance, including reasonable attorneys' fees and all expenses incurred by Lessor, plus interest thereon at the rate of eighteen percent (18%) per annum from the date of expenditure, shall be deemed to be additional rent and shall be immediately paid by Lessee.

(b) Lessor may terminate this Lease, immediately enter the Clark Valley Lease Lands, and take possession of the Clark Valley Lease Lands, the Leased Valley Water Rights and the Grazing Rights with or without process of law, and remove all persons and property from the Clark Valley Lease Lands. No such action by Lessor shall be considered or construed to be a forcible entry. By taking such action, Lessor shall incur no liability to Lessee or to any other persons occupying or using the Clark Valley Lease Lands or using the Leased Water Rights or the Grazing Rights for any damage caused or sustained by reason of such entry and removal of persons and property, and Lessee hereby covenants and agrees to indemnify and save harmless Lessor from all costs, loss, or damage arising from or occasioned by such action. In the event Lessor terminates this Lease pursuant to this Subsection (b), it shall also have the right to recover from Lessee all other amounts necessary to compensate Lessor for all damages caused by Lessee's default or which would be likely to result from such default.

(c) Lessor may continue this Lease in effect and enforce all of its rights hereunder. If Lessor does so, it shall have the right to relet or sublet the Clark Valley Lease Lands, the Leased Water Rights, and the Grazing Rights or portions thereof, and any such reletting or subletting may be for a term which extends beyond the term of this Lease. Notwithstanding any election by Lessor to proceed under Subsections (a) or (b) above, so long as Lessee remains in default under this Lease, Lessor shall have the right at any time to terminate this Lease pursuant to Subsection (b) above and to exercise the rights therin provided. The remedies specified in this Section 3.11 are cumulative and are not intended to exclude any other remedy or means of redress to which Lessor may be entitled in the even of any default or threatened default by Lessee with respect to any of its obligations under this Lease.

3.12 Indemnification and Waiver. Lessee shall indemnify and shall hold harmless Lessor and all of Lessor's directors, partners, members, officers, agents, and employees, and each of them, from and against any and all obligations, debts, loss, damage, claims, demands, suits, controversies, costs, fees, liens, encumbrances, and liabilities whatsoever, including attorneys' fees, in any way resulting from or arising out of any failure by Lessee to abide by all of the terms of this Lease or any negligent or intentional act or omission by Lessee or any of its agents, employees, invitees, licensees, or contractors arising out of or in connection and occupancy of the
Clark Valley Lease Lands or use of the Leased Water Rights, or the Grazing Rights. Lessor shall not be responsible or liable for any loss or damage to Lessee or to Lessee’s property or business that may be occasioned by or through the acts or omissions of persons occupying, using, or trespassing upon the Clark Valley Lease Lands. Lessee shall use the Clark Valley Lease Lands, the Leased Water Rights and the Grazing Rights at its own risk, and hereby releases Lessor, to the full extent permitted by law, from all claims of every kind or nature, including claims for loss of life, personal or bodily injury, or property damage.

3.13 Enforcement. If any action is brought to recover any rent under this Lease, or because of any breach of or to enforce or interpret any of the provisions of this Lease, or for recovery of possession of the Clark Valley Lease Lands, the party prevailing in such action shall be entitled to recover from the other party reasonable attorney’s fees (including those incurred in connection with any appeal), the amount of which shall be fixed by the court and made a part of any judgment rendered.

3.14 Notices. Any notice required or permitted hereunder to be given or transmitted between the parties shall be either personally delivered or mailed, postage prepaid by certified or registered mail, addressed as follows:

TO LESSOR: President
Ark Land Company
CityPlace One
Suite 300
St. Louis, MO 63141-7056

With a copy to: Canyon Fuel Company, L.L.C.
Soldier Canyon Mine
P. O. Box 1029
Wellington, UT 84542
Attn: David G. Spillman
(435) 636-2872

Milton and Ardith Thayn Trust
7730 East Highway 6
Price, Utah 84501
Attn: David Thayn
(435) 472-4751

Any notice which is mailed shall be effective on receipt as evidenced by the registration certificate. Either party may, by notice to the other given as prescribed in this Section 3.14, change the above address for any future notices which are mailed under this Lease.
3.15 Liens and Encumbrances. Lessor shall keep the Clark Valley Lease Lands, Leased Water Rights, and Grazing Rights, free of all liens and encumbrances of every nature and kind arising after the Effective Date and shall proceed with all diligence to contest or discharge any lien or encumbrance that is filed or claimed.

3.16 Miscellaneous.

(a) Neither this instrument nor any memorandum or notice concerning the same shall be recorded without the prior written consent of Lessor. Lessor may, at its option and at any time, file this Lease or a notice or short form concerning the same (which said notice or short form Lessee hereby agrees to execute upon Lessor's request) for record in Carbon County, Utah.

(b) The captions which precede the sections of this Lease are for convenience only and shall in no way affect the manner in which any provision hereof is construed.

(c) There are no representations or agreements between the parties except as set forth in this Lease, and this Lease supersedes any and all prior negotiations, agreements, or understandings between Lessor and Lessee in any way related to the subject matter hereof. None of the provisions of this Lease may be altered or modified except through an instrument in writing signed by both parties.

(d) The liability of each person executing and delivering this Lease shall be joint and several. Each provision of this Lease to be performed by Lessee shall be construed to be both a covenant and a condition. To the extent permitted by the provisions hereof, all reservations, terms, conditions, and covenants herein contained shall be binding upon and shall inure to the benefit of the respective heirs, personal representatives, successors, and assigns of the parties hereto.

(e) Time is of the essence to the provisions of this Lease. Any waiver, either express or implied, by Lessor or any breach by Lessee of any promise, condition or term hereof shall not be construed or claimed to be a waiver of any other breach of any condition, promise, or term of this Lease.

(f) Nothing in this Lease shall, nor shall it be interpreted to, amend, modify or waive any provision of the Surface Use Agreement. Except for the express provision to make the Rental Payments under Section 3.2(b), any default under or termination of this Lease shall not affect in any manner the terms, conditions or validity of the Surface Use Agreement, it being the intent and understanding of the parties that the Surface Use Agreement and this Lease shall constitute separate and independent legal agreements, enforceable in accordance with their respective terms.
IN WITNESS WHEREOF the parties hereto have executed this Lease as of the Effective Date.

LESSOR:
CANYON FUEL COMPANY, L.L.C.

By ______________________
Its ______________________

LESSEE:
MILTON AND ARDITH THAYN TRUST

By ______________________
Its Trustee

STATE OF UTAH )
) ss:
COUNTY OF ____________

The foregoing instrument was acknowledged before me this ___ day of __________, by ____________, who being by me duly sworn did say that he is the _______________ of Canyon Fuel Company, L.L.C., and that the foregoing Lease was signed on behalf of said limited liability company.

NOTARY PUBLIC

Residing at: ______________________

My Commission Expires: ______________________

STATE OF UTAH )
) ss:
COUNTY OF CARBON )

The foregoing instrument was acknowledged before me this ___ day of __________, by ______________________.

-10-
the signer of the foregoing Lease, who duly acknowledged to me that he
executed the same as Trustee of and for the benefit of the Milton and Ardith Thayn Trust.

NOTARY PUBLIC

Residing at: ____________________________

My Commission Expires: ____________________________

INTEGRATED
EFFECTIVE:

MAY 09, 2005

UTAH DIVISION OF MINING
PRICED DIVISION OFFICE
EXHIBIT “A”
to
Lease Agreement

CLARK VALLEY LEASE LANDS

(approximately 4,461 acres):

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<th>Section</th>
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CLARK VALLEY WATER RIGHTS

Water Right No.
(Irrigation & Stockwatering)
91-23
91-85
91-86
91-409
91-457

Water Right No.
(Stockwatering)
91-410 91-447
91-411 91-448
91-412 91-449
91-413 91-450
91-414 91-451

INCOMPORATED EFFECTIVE:
MAY 08 2005
UTAH DIVISION OIL, GAS AND MINING PRICE FIELD OFFICE
Exhibit A
to Lease Agreement

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**GRAZING RIGHTS**

BLM Grazing Allotment #4079 (North Clark Valley) Approx. (Acreage 9,480)
Period of Use - March 20th-June 5th

State Grazing Permit #22966 (Replacing Permit #21722) (Approx. Acreage 680)

**WATER SHARES**

50 Shares of water stock in The Wellington Canal Company from Certificate No. 881
Canyon Fuel Company LLC
6955 Union Park Center, Suite 540
Midvale, Utah 84047

RE: Soldier Canyon Mine
Dugout Canyon Mine

Gentlemen:

The Milton and Ardith Thayn Trust ("Trust") is the record title owner of the surface to the lands described below that cover or otherwise relate to coal leases Canyon Fuel Company now or in the future intends to develop ("Lands"):

**T13S, R12 E, Salt Lake Meridian, Utah**
Sec. 12: E/2 SE/4;
Sec. 13: E/2; SE/4 NW/4; E2 SW/4; NW/4 SW/4;
Sec. 24: All;
Sec. 25: NW/4.

**T13S, R13 E, Salt Lake Meridian, Utah**
Sec. 7: S/2SW/4, NW/4SW/4;
Sec. 18: S/2, NW/4, S/2NE/4, NW/4NE/4;
Sec. 17: SW/4, S/2SE/4, NW/4SE/4;
Sec. 19: All Except Lot 4;
Sec. 20: All;
Sec. 21: S/2, S/2N/2, NW/4NW/4;
Sec. 22: SW/4, S/2NW/4;
Sec. 27: W/2;
Sec. 28: All;
Sec. 29: All;
Sec. 30: All Except Lots 1 and 2;
Sec. 33: N/2N/2.

Subject to the Surface Use Agreement dated effective November 21, 1999, between the parties, the Trust hereby consents to Canyon Fuel's underground mining activities below the Lands and access to the surface to repair subsidence.

Very truly yours,

Milton and Ardith Thayn Trust

By: Milton Thayn
FIRST AMENDMENT TO SURFACE USE AGREEMENT

THIS FIRST AMENDMENT TO SURFACE USE AGREEMENT ("Amendment"), dated effective as of 13 August, 2001, is by and between Canyon Fuel Company, L.L.C. ("CFC") and Milton and Ardith Thayn Trust ("Thayn").

Recitals

A. The parties have entered into that certain Surface Use Agreement dated as of November 22, 1999, between CFC and Thayn ("Surface Use Agreement"). All capitalized terms used in this Amendment, unless otherwise defined herein, shall have the meanings assigned to them in the Surface Use Agreement.

B. The parties now desire to amend the Surface Use Agreement consistent with the terms of this Amendment.

Amendment

NOW, THEREFORE, for good and valuable consideration, the parties agree as follows:

1. The Surface Use Agreement is amended by addition of the following provisions:

   a. Water Purchases. CFC may, at its option any time during the term of the Surface Use Agreement, purchase water from Thayn, for which Thayn holds beneficial use rights or otherwise controls, to conduct any of the activities permitted by the Surface Use Agreement on the Thayn Lands. CFC and Thayn will cooperate to make necessary filings with the Utah State Engineer to facilitate such water uses. The purchase price for the water is $.0125/gallon and will be adjusted as provided in subparagraph (d) below. Thayn may determine at its discretion when water is available for purchase by CFC and CFC will be responsible for all costs and expenses to deliver the water to the location of usage. The purchase price for the water shall have no bearing on future determinations of the value of the Thayn water rights or water used on the Thayn Lands.

   b. Interference with Hunting Activities.

      (i) CFC will reimburse Thayn in an amount not to exceed $10,000 annually for the loss of any revenue incurred by Thayn as a result of interference with, or the inability to conduct, deer and elk hunting and guide services on the Thayn Lands by Thayns' outfitters due to exploration or production drilling conducted by or on behalf of CFC on the Thayn Lands. For purposes of this provision, the deer hunting season includes the muzzle load, archery and rifle hunts. Thayn will provide CFC with a written claim for lost revenue describing the basis for the claim no later than 30 days after the end of a hunting season. The parties agree that the actual presence and ongoing operation of a drilling rig on the Thayn Lands during the elk or the deer hunting seasons will automatically constitute interference with hunting activities. In such event, upon written notice from Thayn, Arch will pay to Thayn $3750 for the deer hunt season and $3750 for the elk hunt season respectively impacted by the presence and operation of a drilling rig. Arch's maximum liability under this provision for each hunting season shall not
exceed $5,000 for the elk hunt and $5,000 for the deer hunt. The reimbursement payment will be readjusted as provided in subparagraph (d) below. Thayn acknowledges that the payment provided represents fair and reasonable compensation and Thayn waives any and all other claims against CFC for alleged damages arising out of interference with deer and elk hunting and guide services on the Thayn Lands.

(ii) CFC and Thayn have jointly established a 100-yard non-hunting buffer zone surrounding any drilling rig or active drilling operations. Thayn will inform hunters on the Thayn Lands of actual drilling locations and operations in an effort to create a safe operations buffer zone. CFC will prohibit its employees and employees of its contractors from carrying firearms, including muzzle loaders, archery equipment and rifles during the hunting seasons. Only road use necessary to conduct Arch's operations and activities under the Surface Use Agreement will be allowed during the elk and deer hunting seasons on the Thayn Lands in an effort to maintain a quality hunting environment.

c. Rezoning. Thayn will support and not oppose any rezoning of the Thayn Lands that is required by or results from mining or oil and gas operations conducted on the Thayn Lands, provided, however, that CFC will reimburse Thayn for all additional taxes, or other costs and expenses, incurred by Thayn as a result of such rezoning.

d. Adjustments to Payments.

(i) The purchase price for the water described in subparagraph (a) will be adjusted for inflation on the fifth annual anniversary date after the Effective Date, and every five years thereafter on the anniversary of the Effective Date based on the cumulative changes in the Consumer Price Index (CPI), or other generally-recognized economic pricing index, for the preceding five-year period.

(ii) The reimbursement payment described in subparagraph (b) will be adjusted for inflation on the fourth annual anniversary date after the Effective Date, and every four years thereafter on the anniversary of the Effective Date based on the then current fee arrangement with Thayn or on a written bona fide offer from a hunting outfitter who, if required by state law, is licensed. Allocation of the reimbursement payment between the deer and elk hunts shall be based on the terms of the offer.

(iii) The proposed adjustment shall be calculated by CFC and communicated to Thayn in writing within thirty (30) days after the applicable anniversary date. All adjustments shall be effective as of the then applicable anniversary date and shall otherwise apply prospectively and shall not apply to payments previously made under this Amendment.

2. Except as expressly provided in this Amendment, nothing herein shall, nor be interpreted to, amend, modify or waive any provision of the Surface Use Agreement. The parties acknowledge that the Surface Use Agreement is in full force and effect and currently in good standing. This Amendment may be executed in counterparts by the parties.

Executed and dated as of the Effective Date.
Canyon Fuel Company, L.L.C.  

By: ____________________________  
Its: ____________________________  

Milton and Ardith Thayn Trust  

By: ____________________________  

EFFECTIVE: MAY 06 2005  

INCORPORATED  

PRICE FIELD OFFICE  

UTAH DIVISION OIL, GAS AND MINING
SECOND AMENDMENT TO SURFACE USE AGREEMENT

THIS SECOND AMENDMENT TO SURFACE USE AGREEMENT ("Second Amendment"), dated effective as of September 1, 2004 ("Effective Date"), is by and between Ark Land Company, ("Ark Land"), whose mailing address is One CityPlace Drive, Suite 300, St. Louis, MO 63141, and Milton and Ardith Thayn Trust ("Thayn"), whose mailing address is 7730 East Hwy 6, Price, Utah 84501.

Recitals

A. Canyon Fuel Company, L.L.C. ("CFC"), an affiliate of Ark Land, and Thayn entered into a Surface Use Agreement dated as of November 22, 1999 ("Agreement"). The Agreement was amended by a First Amendment to Surface Use Agreement dated effective as of August 13, 2001. All capitalized terms used in this Second Amendment, unless otherwise defined herein, shall have the meanings assigned to them in the Agreement, as amended.

B. By Assignment dated as of the Effective Date, CFC assigned to Ark Land all right, title and interest in, to and under the Agreement.

C. The parties now desire to amend the Agreement consistent with and as set forth in this Second Amendment.

Amendment

NOW, THEREFORE, for and in consideration of Ten Dollars and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties agree as follows:

1. The Agreement is hereby amended by adding the following provisions:

a. Vent Fan Easement.

   (i) In addition to the surface use grant in favor of Ark Land under Section 2 of the Agreement, Thayn hereby grants to Ark Land an exclusive easement on, over, across, under and through the Thayn Lands, as more specifically described on the plat map attached hereto as Exhibit A ("Easement"), for access to construct, maintain, utilize, repair and reclaim a mine vent fan and all surface structures related to a mine vent fan and an associated air intake (collectively "Vent Fan") to be located on lands adjacent to the Thayn Lands and for access to provide water, power and communication facilities to, in association with and for the benefit of the Vent Fan ("Vent Fan Facilities"). Third Parties providing services for Vent Fan Facilities shall have the non-exclusive right to use the Easement under the same terms and conditions as Ark Land's designation. The Easement shall have a term that runs concurrent with the term of the Agreement, provided, however, that upon termination of the Agreement, Ark Land, at its sole option, may elect to extend the term of the Easement for an additional five (5) year period upon 30-days prior written notice to Thayn. In such event, Thayn shall execute an independent instrument susceptible to recording in the records of the Carbon County Recorder evidencing the Easement under the extended term.
(ii) Upon execution of this Second Amendment, and thereafter on or before the anniversary of the Effective Date hereof and so long as the Easement remains in effect, Ark Land shall pay to Thayn the sum of Thirty Thousand Dollars ($30,000) ("Easement Payment"). Thayn acknowledges that the Easement Payment represents full and fair compensation for the grant of the Easement, placement of the Vent Fan adjacent to the Thayn Lands, and placement of the Vent Fan Facilities on, over, across, under or through the Easement. Thayn disclaims and hereby waives any and all further claims and causes of action for compensation or damages arising out of or relating to use of the Easement and the placement, use, operation, repair and reclamation of the Vent Fan and the Vent Fan Facilities, including, without limitation, claims based on alleged noise, visual or environmental pollution or nuisance. In particular, without limitation, the placement, use, operation, repair and reclamation of the Vent Fan and the Vent Fan Facilities shall not constitute the basis for any claim for interference with the use and enjoyment of the Thayn Lands including hunting activities described in the First Amendment.

(iii) Thayn hereby concurs with, joins in and ratifies, and shall provide such further assurances as necessary for, any and all permits and authorizations necessary or required by applicable regulatory authority to permit the construction, repair, use and reclamation of the Vent Fan and Vent Fan Facilities. Thayn shall not oppose any permit, application or plan involving the Vent Fan or Vent Fan Facilities.

2. Thayn consents to the assignment from CFC to Ark Land and fully recognizes Ark Land as the legal successor to CFC under the Agreement. Thayn represents that the Agreement is in full force and effect and in good standing, is not subject to any defaults or activities or events of which Thayn is aware which could result in a default, and that all payments due under the Agreement have been timely and properly made.

3. Except as expressly provided in this Second Amendment, nothing herein shall, nor shall it be interpreted to, amend, modify or waive any provision of the Agreement.

4. This Second Amendment may be executed in counterparts by the parties.

Executed and dated as of the Effective Date.

ARK LAND COMPANY

By: [Signature]
Its: Vice President

MILTON AND ARDITH THAYN TRUST

By: [Signature]
Name: Milton Thayn

Milton and Ardith Thayn Trust
STATE OF MISSOURI
COUNTY OF PROPER

The foregoing instrument was acknowledged before me by Douglas Orman as Vice President of Ark Land Company.

MARY C. HAMILTON
St. Louis City
My Commission Expires
September 14, 2007
Notary Public

STATE OF WYOMING
COUNTY OF Losh Co

The foregoing instrument was acknowledged before me by Milton Thayn as Representative of the Milton and Ardith Thayn Trust.

BARBARA J. ROBINETT
NOTARY PUBLIC STATE OF UTAH
161 WHITMORE
E. CARBON, UTAH 84520
COMM. EXP. 12-12-2005
Notary Public

INCORPORATED
EFFECTIVE:
MAY 06 2005
UTAH DIVISION OIL, GAS AND MINING
PRICE FIELD OFFICE
INFORMATION IN APPENDIX 4-3 SHOULD BE PLACED IN A CONFIDENTIAL LOCATION
APPENDIX 4-4
Miscellaneous Land Use
March 2, 2007

Ms. Vicky Miller
Dugout Canyon Mine
P. O. Box 1029
Wellington, Utah 84542

Dear Ms. Miller:

I grant the right to use existing roads on lands belonging to me for survey conducted by Dugout Canyon Mine.

I also authorized right-of-way entry to access water monitoring location on or through lands belonging to me. If existing roads do not allow access to water monitoring sites, foot travel is required.

Sincerely,

[Signature]

Gil L. Conover
CLIMATOLOGICAL INFORMATION

Methodology

Meteorological and air quality data were collected from mid-1978 through mid-1980, at a monitoring station located near Wellington, Utah. The data were collected specifically to meet EPA’s PSD requirements but also for incorporation into the Sage Point-Dugout Canyon Mine Permit Document (ACT/007/009). The data included the following parameters:

- Suspended particulates
- Wind speed
- Wind direction
- Ambient temperature
- Precipitation
- Relative humidity

Particulates were sampled for 24 hours every sixth day. Precipitation was recorded four times hourly; other meteorological data were recorded hourly. Monitoring equipment included two high volume samplers and an electronic weather station with strip chart recorders. Meteorological parameters were measured with an accuracy of ±5% of full scale output.

Only those data required by R645-301-724.400 are included in this document. Obviously much more data have been collected and are available upon request. The approach to air quality evaluation has changed substantially since these data were collected particularly regarding the concept of respirable particulates known as PM_{10}. The impact of the mining operation on air quality is now site specifically controlled by a DAQ Approval Order.

Additional information was collected for Price, Utah from the U.S. Department of Commerce, Environmental Service Administration. These data included means and extremes for temperature and precipitation for the years 1936-1965.
Contributors

Data collection was provided by H.E. Cramer Co., Inc. Salt Lake City, Utah. This consulting firm specializes in monitoring systems and meteorological site surveys, among other fields. Kirk D. Wing of Environmental Research and Technology, Inc., Westlake Village, California, prepared the information regarding air quality. Where necessary, the data were updated by Charles Durrett, Sunedco Coal Company, Lakewood, Colorado.

Discussion of Climatological Factors

The permit area is located in the northwestern portion of the Price River basin in eastern Utah. The basin is surrounded almost completely by mountains, ranging up to over 8,000 ft. in the permit area. The highest mountain in the region, rising to 11,300 ft. lies about 37 miles southwest of the permit area.

The nearby mountains greatly influence local weather. They act as a barrier to storms approaching from every direction except south. Consequently, clear days predominate and annual precipitation within the permit area ranges from 10 to 20+ inches. The mountains ranges to the north and east inhibit cold arctic air masses from penetrating into the region.

The climate is continental and dry. The combination of elevations of 5,500 to 8,000 ft. clear skies, and dry air results in large daily temperature variation. Average monthly temperatures range from about 15°F in January to about 70°F in July. Minimum temperatures in winter drop as low as -15°F, while summer maxima occasionally reach 100°F at the lower elevations in the permit area.

Winters are cold, but usually not severe. Snowfall is usually light, especially at the lower elevations; however, seasonal snowfall occasionally exceeds 100 inches.

Summers are marked by hot days and cool nights. In July, maximum temperatures frequently exceed 90°F, while minima are usually below 60°F. Relative humidity is usually low. The
principal rainfall period occurs in late summer, when occasional thunderstorms result from moisture-laden air masses moving in from the Gulf of Mexico.

At the lower elevations, the growing season averages 5 months in length, extending from early May to early October.

Figures 1 through 3 show isopleths for central Utah of mean minimum temperatures in January, mean maxima in July, and mean annual precipitation. The permit area is located in the upper middle area of the figures. Figure 4 presents a graphical summary of temperature and precipitation data for Price, Utah, for the years 1936-1965. Table 1 presents ambient climatological data collected at the Wellington weather monitoring station for the period May 1, 1978 to April 30, 1979. Prevailing winds usually come from the south in the morning and afternoon, then blow from the north in the evening and at night. Although these wind data were collected for only one-year period, the morning-evening trends are consistent with historical wind patterns in the region.

Ambient Air Quality and Other meteorological Considerations

The topographic basin which defines the regional air shed containing the Dugout Canyon Mine is the watershed of the upper Colorado River in eastern Utah and western Colorado. The northern boundary of this air shed is formed by the Roan Plateau. The project site is at the southern base of this plateau. To the northeast and east, this basin rises sharply to heights over 10,000 ft. in the Rocky Mountains. These high mountains severely limit westerly flow out of the basin.

Winds in the surface layer are strongly dependent on terrain features. In general, radiative cooling at night results in local gravity-induced downslope drainage flow into the river valleys and basins. In the morning, as solar heating warms the higher surrounding terrain, the surface layer of air rises causing a local daytime upslope wind flow. The depth and intensity of this localized gravity wind system vary from one location to another as a function of terrain slope and radiative heating or cooling. In general, this diurnal shifting leads to stable air conditions at night and neutral to unstable air conditions during the day.
FIGURE 2
Mean Maximum Temperature (°F) in Central Utah

Source: USGS, 1976
## Table I
**Ambient Climatological Conditions**
Near Soldier Canyon Mine Between May, 1978 and April, 1979

<table>
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<th>PARAMETER</th>
<th>MAY</th>
<th>JUNE</th>
<th>JUL</th>
<th>AUG</th>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
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</table>
Maximum 24 hr. average concentrations of pollutants in the upper Colorado River air shed occur during winter stagnation episodes. The large scale weather pattern associated with stagnation is an upper level ridge or high pressure cell that resides over the entire Great Basin. Under such a condition, winds aloft are light and from the west to north. In addition, the large-scale subsidence causes relatively low mixing depths averaging from 300 m in the morning to 1000 m in the afternoon. As a result, much of the level flow in the basins is disconnected from the flow aloft. Terrain orientation directs the winds below 500 m and mountain-valley wind circulation dominates during stagnation episodes. The air flow within the lower boundary layer will be downslope during the night and upslope during the day. Consequently, the air mass may remain within a local air shed or zone of influence for several consecutive days if the stagnation weather persists. In actuality, the persistence of such high pressure centers is a relatively common occurrence in the Great Basin area. Holtzworth (1972) reports that episodes of 2 days or longer occurred an average of 21 days between October and February for the period of 1949 to 1956. In other words, an average of one or two stagnation periods take place each month during fall and winter. Dugout Canyon Mine is located within the Utah Interstate Air Quality Control Region (AQCR) #219. The attainment/non-attainment status of each of the AQCR’s within the State with respect to the National Ambient air Quality Standards (NAAQS) is determined by the state Division of Air Quality (DAQ). The Dugout Canyon mine is located in an attainment area. The impact of the mine on the compliance status with the NAAQS is addressed in the air quality permit issued by the DAQ.

Although there were no designated Class I visibility areas near the mine, a qualitative examination of ambient visibility was conducted. The mine’s impact on visibility is negligible. Concentrations of total suspended particulates and PM₁₀ may contribute to a slight increase in the extinction coefficient, which results in a slight decrease in visibility.
October 21, 2005

Vicky S. Miller  
Canyon Fuel Company LLC  
Dugout Canyon Mine  
P.O. Box 1029  
Wellington, Utah 84542  

Dear Ms. Miller:  

Re: Approval Order: Modification of Approval Order DAQE# AN1634004-03 to Add Two Backup Generators and One Diesel Engine, Carbon County – CDS B; ATT; NSPS, HAPs, TITLE V  
Minor Project Code: N1634-005  

The attached document is the Approval Order (AO) 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. Please direct any technical questions you may have on this project to Mr. Maung Maung. He may be reached at (801) 536-4153.  

Sincerely,  

Richard W. Sprott, Executive Secretary  
Utah Air Quality Board  

RWS:MM:re  

cc: Southeastern Utah District Health Department
STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

APPROVAL ORDER: Modification of Approval Order
DAQE# AN1634004-03 by Adding Two Backup Generators and
One Diesel Engine & Extend Hours

Prepared By: Maung Maung, Engineer
(801) 536-4153
Email: mmaung@utah.gov

APPROVAL ORDER NUMBER

DAQE-AN1634005-05

Date: October 21, 2005

Canyon Fuel Company LLC
Source Contact
Vicky Miller
(435) 636-2869

Richard W. Sprott
Executive Secretary
Utah Air Quality Board
Abstract

Canyon Fuel Company has proposed to add two diesel electric generators and one diesel engine to its coal mine to serve as backups. It also proposes to extend operational hours from 6120 hours to 7300 hours per rolling 12 months total. The emissions increases will result from diesel engines operations, maintenance, and tests for readiness. The annual production limit of coal will remain the same at five millions tons per year. The mine is located in Carbon County, near the city of Price, Utah. Carbon County is an attainment area of the National Ambient Air Quality Standards (NAAQS) for all pollutants. This source is subject to New Source Performance Standards (NSPS) under 40 CFR Part 60 Subpart OOO- Standards of Performance for Nonmetallic Mineral Processing Plants. National Emission Standards for Hazardous Air Pollutants (NESHAP) and Maximum Available Control Technology (MACT) regulations do not apply to this source. Because this source is a NSPS source, it also falls under the 40 CFR Part 70 or CAA Title V regulations.

The emissions, in tons per year, will change as follows: \( PM_{10} = +0.32 \), \( NO_x = +10.88 \), \( SO_2 = +.19 \), \( CO = +2.50 \), \( VOC = +0.32 \), \( HAPs \) (aldehydes from diesel engines) = +0.22.

The changes in emissions will result in the following, in tons per year, potential to emit totals: \( PM_{10} = 7.62 \), \( NO_x = 13.88 \), \( SO_2 = 5.15 \), \( CO = 5.25 \), \( VOC = 0.32 \), \( HAPs \) (aldehydes from diesel engines) = 0.22.

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 was held in accordance with UAC R307-401-4 and no comments were received. This air quality Approval Order (AO) authorizes the project with the following conditions, and failure to comply with any of the conditions may constitute a violation of this order.

General Conditions:

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

   Site Office
   Canyon Fuel Company, LLC
   Dugout Canyon Mine
   Wellington, Utah 84542
   Phone Number (435) 637-6360
   Fax Number (435) 636-2897

   Corporate Office Location
   Canyon Fuel Company, LLC
   225 North 5th Street
   Suite 900
   Grand Junction, CO 81501

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

   Directions:  East of Price in Carbon County. Proceed east 3 miles from Wellington, turn left up State highway 53 for approximately 4.8 miles to the Dugout Canyon turn-off. The mine is located approximately 8.7 miles up the Dugout Canyon road.

   Universal Transverse Mercator (UTM) Coordinate System:  UTM Datum NAD27
   4,390,665 kilometers Northing, 535,742 kilometers Easting, Zone 12
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 R307-401-1.

5. All records referenced in this AO or in applicable NSPS 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. 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 Two years

6. This AO shall replace the AO (DAQE-AN1634004-03) dated July 9, 2003.