

**CHAPTER 5**

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DIV. OF OIL, GAS & MINING

CHAPTER 5

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R03/28/95

**BANNING LOADOUT PERMIT**  
**Canyon Fuel Co., LLC - Soldier Canyon**

**CHAPTER 5**  
**ENGINEERING**

***R645-301-500 Engineering***

*The rules in R645-301-500 present the requirements for engineering information which is to be included in a permit application.*

This chapter will provide engineering information as required to be included in a permit application.

***R645-301-510 Introduction***

*The engineering section of the permit application is divided into the operation plan, reclamation plan, design criteria, and performance standards. All of the activities associated with the coal mining and reclamation operations must be designed, located, constructed, maintained and reclaimed in accordance with the operation and reclamation plan. All of the design criteria associated with the operation and reclamation plan must be met.*

This engineering chapter is divided into the following sections: Introduction; Operation Plan; Operational Design Criteria and Plans; Reclamation Plan; Reclamation Design Criteria and Plans; and Performance Standards. All of the activities associated with this operation will be designed, located, constructed, maintained and reclaimed in accordance with the approved plan. All of the design criteria associated with the operation and reclamation plan will also be met.

***R645-301-511 General Requirements***

*Each permit application will include descriptions of:*

The following sections will provide descriptions of the proposed operation, potential impacts and reclamation.

***R645-301-511.100 Proposed Operation***

*The proposed coal mining and reclamation operations with attendant maps, plans, and cross sections;*

The proposed operations are described in detail under Section R645-301-520 of this chapter. Proposed reclamation is described in detail under Section R645-301-540 of this chapter.

**R645-301-511.200 Potential Impacts**

*The proposed mining operation and its potential impacts to the environment as well as methods and calculation utilized to achieve compliance with design criteria; and*

The proposed operation and its potential impacts to the environment as well as methods and calculations utilized to achieve compliance with design criteria are described in detail under Section R645-301-520 and R645-301-530 of this chapter.

**R645-301-511.300 Reclamation**

Reclamation is described under Section R645-301-540 of this chapter.

**R645-301-512 Certification**

**R645-301-512.100 Cross Sections and Maps**

*Certain cross sections and maps required to be included in a permit application will be prepared by, or under the direction of, and certified by a qualified, registered, professional engineer or land surveyor, with assistance from experts in related fields such as hydrology, geology and landscape architecture, and will be updated as required by the Division. The following cross sections and maps will be certified:*

All maps requiring certification will be prepared by, or under the direction of and certified by a qualified, registered professional engineer or land surveyor. The following is a description of the cross-sections and maps to be certified.

**R645-301-512.110 Mine Workings**

*Mine workings to the extent known as described under R645-301-521.110*

N/A This is a surface loadout facility;

**R645-301-512.120 Surface Facilities and Operations**

*Surface facilities and operations as described under R645-301-521.124, R645-301-521.164, R645-301-521.165 and R645-301-521.167;*

Exhibits 5-1, 5-2 and 5-3 of this chapter.

**R645-301-512.130 Surface Configurations**

Surface configurations as described under R645-301-542.300 and R645-302-200;

Exhibit 5-6 and 5-6A of this chapter.

**R645-301-512.140 Hydrology**

Hydrology as described under R645-301-722, and as appropriate, R645-301-731.700 through R645-301-731.740; and

Exhibits 7-1, 7-2 and 7-3 of Chapter 7.

**R645-301-512.150 Geologic Cross Sections and Maps**

Geologic cross section and maps as described under R645-301-622.

N/A This is a surface loadout facility only. No mining will be done here.

**R645-301-512.200 Plans and Engineering Designs**

Excess spoil, durable rock fills, coal mine waste, impoundments, primary roads and variances from approximate original contour require certification by a qualified registered professional engineer.

The following sections will describe specific maps to be certified under this section.

**R645-301-512.210 Excess Spoil**

The professional engineer experienced in the design of earth and rock fills will certify the design according to R645-301-535.100.

N/A There are no plans to dispose of excess spoil at this site.

**R645-301-512.220 Durable Rock Fills**

The professional engineer experienced in the design of earth and rock fills must certify that the durable rock fill design will ensure the stability of the fill and meet design requirements according to R645-301-535.100 and R645-301-535.300.

N/A There are no plans for durable rock fills at this site.

**R645-301-512.230 Coal Mine Waste**

The professional engineer experienced in the design of similar earth and waste structures must certify the design of the disposal facility according to R645-301-536.

N/A There are no plans to dispose of coal mine waste at this site. Any coal mine waste will be blended with the coal and shipped as product. (See Section R645-301-513.300).

**R645-301-512.240 Impoundments**

The professional engineer will use current, prudent, engineering practices and will be experienced in the design and construction of impoundments and certify the design of the impoundments according to R645-301-743.

Exhibits 7-2 and 7-3 of Chapter 7.

**R645-301-512.250 Primary Roads**

The professional engineer will certify the design and construction or reconstruction of primary roads as meeting the requirements of R645-301-534.200 and R645-301-742.420.

Exhibits 5-2 and 5-7 of this chapter.

**R645-301-512.260 Variance from Approximate Original Contour**

The professional engineer will certify the design for the proposed variance from the approximate original contour, as described under R645-301-270, in conformance with professional standards established to assure the stability, drainage and configuration necessary for the intended use of the site.

N/A As shown on Exhibit 5-6/5-6A and described in Section R645-301-540, the area will be returned to Approximate Original Contour.

**R645-301-513 Compliance with MSHA Regulations and MSHA Approvals**

**R645-301-513.100 Coal Processing Waste Dams and Embankments**

will comply with MSHA 30 CFR 77.216-1 and 30 CFR 77.216-2 (see R645-301-528.400 and R645-301-536.820).

N/A There will be no coal processing waste dams or embankments at this site.

**R645-301-513.200 Impoundments and sedimentation ponds meeting the size or other qualifying criteria of MSHA, 30 CFR 77.216(a) will comply with the requirements of MSHA, 30 CFR 77.216 (see R645-301-533.600, R645-301-742.222, and R645-301-742.223).**

N/A There are no sediment ponds or impoundments at this site which meet the requirements of MSHA 30 CFR 77.216(a).

**R645-310-513.300** *Underground development waste, coal processing waste and excess spoil may be disposed of in underground mine workings, but only in accordance with a plan approved by MSHA and the Division (see R645-301-528.321).*

N/A There are no plans to return underground development waste or excess spoil to underground mine workings. Coal processing waste is not being produced at the present time or foreseeable future; however, should it be produced, it would be disposed by blending back into the product for retail sale. It would only be returned to underground mine workings if it met all MSHA and other requirements, and the above alternatives were no longer available.

**R645-301-513.400** *Refuse Piles*

*Refuse piles will meet the requirements of MSHA, 30 CFR 77.214 and 30 CFR 77.215 (see R645-301-536.900).*

N/A There are no plans for refuse piles at this site.

**R645-310-513.500** *Each shaft, drift, adit, tunnel, exploratory hole, entryway or other opening to the surface from the underground will be capped, sealed, backfilled or otherwise properly managed consistent with MSHA, 30 CFR 75.1771 (see R645-301-551).*

N/A This is a surface loadout operation with no underground mining or openings.

**R645-301-513.600** *Discharges into an underground mine are prohibited, unless specifically approved by the Division after a demonstration that the discharge will meet the approval of MSHA (see R645-301-731.511.4).*

N/A This is a surface operation. There are no plans to discharge into an underground mine.

**R645-301-513.700** The nature, timing and sequence of the SURFACE COAL MINING AND RECLAMATION ACTIVITIES that propose to mine closer than 500 feet to an active underground mine are jointly approved by the Division and MSHA (see R645-301-523.220).

N/A There are no plans to conduct activities within 500 feet of an active coal mine.

**R645-301-513.800** Coal mine waste fires will be extinguished in accordance with a plan approved by MSHA and the Division (see R645-301-528.323.1).

N/A Although a fire fighting plan is in effect at this site, per MSHA regulations, there are no plans to store coal mine waste on this site.

**R645-301-514 Inspections.** All engineering inspections, excepting those described under R645-301-514.330, will be conducted by a qualified, registered professional engineer or other qualified professional specialist under the direction of the professional engineer.

All engineering inspections, excepting those described under R645-301-514.330, will be conducted by a qualified, registered professional engineer or other qualified professional specialist under the direction of the professional engineer.

**R645-310-514.100 Excess Spoil** The professional engineer or specialist will be experienced in the construction of earth and rock fills and will periodically inspect the fill during construction. Regular inspections will also be conducted during placement and compaction of fill materials.

N/A There are no plans to construct earth or rock fills at this operation.

**R645-301-514.110, R645-301-514.111, R645-301-514.112, R645-301-514.113, R645-301-514.114, R645-301-514.120, R645-301-514.130, R645-301-514.131, R645-301-514.132, R645-301-514.133  
and R645-301-514.140**

N/A There are no plans to construct earth or rock fills at this operation.

**R645-301-514.200 Refuse Piles**

N/A There are no plans for refuse piles at this operation.

**R645-301-514.210, R645-301-514.220, R645-301-514.221, R645-301-514.222, R645-301-514.223, R645-301-514.224, R645-301-514.230, R645-301-514.240 and R645-301-514.250**

N/A

**R645-301-514.300 Impoundments**

The only impoundment associated with this operation is the sediment pond. R03/28/95

**R645-301-514.310 Certified Inspection**

*The professional engineer or specialist experienced in the construction of impoundments will inspect the impoundment.*

All impoundment inspections will be made by a professional engineer or specialist experienced in the construction of impoundments.

**R645-301-514.311** *Inspections will be made regularly during construction, upon completion of construction, and at least yearly until removal of the structure or release of the performance bond.*

Inspections will be made regularly during construction, upon completion of construction, and at least yearly until removal of the structure or release of the performance bond.

**R645-301-514.312** *The qualified registered professional engineer will promptly, after each inspection, provide to the Division, a certified report that the impoundment has been constructed and maintained as designed and in accordance with the approved plan and the R645 rules. The report will include discussion of any appearances of instability, structural weakness or other hazardous conditions, depth and elevation of any impounded waters, existing storage capacity, any existing or required monitoring procedures and instrumentation and any other aspects of the structure affecting stability.*

The qualified registered professional engineer will promptly, after each inspection, provide to the Division, a certified report that the impoundment has been constructed and maintained as designed and

in accordance with the approved plan and the R645 rules. The report will include discussion of any appearances of instability, structural weakness or other hazardous conditions, depth and elevation of any impounded waters, existing storage capacity, any existing or required monitoring procedures and instrumentation and any other aspects of the structure affecting stability. Pond inspection reports are further discussed in Chapter 7.

**R645-301-514.313** A copy of the report will be retained at or near the mine site.

A copy of the report will be retained at or near the site.

**R645-301-514.320 Weekly Inspections**

*Impoundments subject to MSHA, 30 CFR 77.216 must be examined in accordance with 30 CFR 77.216-3.*

N/A There are no impoundments subject to MSHA, 30 CFR 77.216 at this site.

**R645-301-514.330 Quarterly Inspections**

*Other impoundments, not subject to MSHA, 30 CFR 77.216, will be examined at least quarterly by a qualified person designated by the operator for appearance of structural weakness and other hazardous conditions.*

Impoundments will be examined at least quarterly by a qualified person designated by the operator for appearance of structural weakness and other hazardous conditions. A copy of the inspection report will be retained at or near the site.

**R645-301-515 Reporting and Emergency Procedure**

**R645-301-515.100** *The permit application will incorporate a description of the procedure for reporting a slide. The requirements for the description are: At any time a slide occurs which may have a potential adverse effect on public, property, health, safety, or the environment, the permittee who conducts the coal mining and reclamation operations will notify the Division by the fastest available means and comply with any remedial measures required by the Division.*

At any time a slide occurs which may have a potential adverse effect on public, property, health, safety or the environment, the

permittee will notify the Division by the fastest available means. If the slide is determined to be the result of activities of the permittee, the permittee will work with the Division to comply with any reasonable remedial measures required by the Division.

**R645-301-515.200 Impoundment Hazards**

*The permit application will incorporate a description of notification when potential impoundment hazards exist. The requirements for the description are: If any examination or inspection discloses that a potential hazard exists, the person who examined the impoundment will promptly inform the Division of the finding and of the emergency procedures formulated for the public protection and remedial action. If adequate procedures cannot be formulated or implemented, the Division will be notified immediately. The Division will then notify the appropriate agencies that other emergency procedures are required to protect the public.*

If any examination or inspection of an impoundment discloses a potential hazard exists, the permittee will promptly inform the Division of the finding and of the emergency procedures formulated for public protection and remedial action. If adequate procedures cannot be formulated or implemented, the Division will be notified immediately.

**R645-301-515.300** *The permit application will incorporate a description of procedures for temporary cessation of operations as follows:*

The following procedures will be taken for a temporary cessation of operations:

**R645-301-515.310** *Temporary abandonment will not relieve a person of his or her obligation to comply with any provisions of the approved permit.*

The conditions of the approved permit will continue to be met during the period of temporary cessation;

**R645-301-515.311** *Each person who conducts UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES will effectively support and maintain all surface access openings to underground operations, and secure surface facilities in areas in which there are no current operations, but operations are to be resumed under an approved permit.*

There are no underground operations associated with this facility.

**R645-301-515.312** Each person who conducts SURFACE COAL MINING AND RECLAMATION ACTIVITIES will effectively secure surface facilities in areas in which there are no current operations, but in which operations are to be resumed under an approved permit.

The surface area of the site will be secured and maintained during the period of temporary cessation.

**R645-301-515.320** Before temporary cessation of coal mining and reclamation operations for a period of 30 days or more, or as soon as it is known that a temporary cessation will extend beyond 30 days, each person who conducts coal mining and reclamation operations will submit to the Division a notice of intention to cease or abandon operations. This notice will include;

Before temporary cessation of operations for a period of 30 days or more, or as soon as it is known that a temporary cessation will extend beyond 30 days, the permittee will submit to the Division a notice of intention to cease or abandon operations. This notice will include the following:

**R645-301-515.321** For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, a statement of the exact number of surface acres and the horizontal and vertical extent of subsurface strata which have been in the permit area prior to cessation or abandonment, the extent and kind of reclamation of surface area which will have been accomplished, and identification of the backfilling, regrading, revegetation, environmental monitoring, underground opening closures and water treatment activities that will continue during the temporary cessation.

N/A There are no underground operations associated with this facility.

**R645-301-515.322** For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, a statement of the exact number of acres which will have been affected in the permit area prior to such temporary cessation, the extent and kind of reclamation of those areas which will have been accomplished, and identification of the backfilling, regrading, revegetation, environmental monitoring, and water treatment activities that will continue during the temporary cessation.

A statement of the exact number of acres which have been affected in the permit area prior to such temporary cessation, the extent and kind of reclamation of those areas which will have been accomplished; and identification of the backfilling, regrading,

revegetation, environmental monitoring and water treatment activities that will continue during the temporary cessation.

*R645-301-516 Prevention of Slides in SURFACE COAL MINING AND RECLAMATION ACTIVITIES. An undisturbed natural barrier will be provided beginning at the elevation of the lowest coal seam to be mined and extending from the outslope for such distance as may be determined by the Division as is needed to assure stability. The barrier will be retained in place to prevent slides and erosion.*

N/A This is a surface loadout facility only. There are no surface or underground mines at this site.

**R645-301-520 Operation Plan**

*R645-301-521 General. The applicant will include a plan, with maps, cross sections, narrative, descriptions, and calculations indicating how the relevant requirements are met. The permit application will describe and identify the lands subject to coal mining and reclamation operations over the estimated life of the operations and the size, sequence, and timing of the subareas for which it is anticipated that individual permits for mining will be sought.*

Banning Loadout began operations in 1976 when the Applicant received permission from the BLM to upgrade the existing road and to receive, stockpile and load coal at the site. The total permit area is illustrated on Exhibit 5-1. Surface disturbance area will be marked by perimeter markers, red reflectors attached to fence posts and/or steel pins securely set into the ground. Identification signs will be placed at access points from public roads into the disturbed area. Locations for the signs and markers are shown on Exhibit 5-1.

~~The operation at Banning Loadout is run by Soldier Canyon Mine, Savage Coal Service Corporation (Coal Service) under an agreement with the Applicant. Coal Service is responsible for the transportation of the coal to the site and for the complete operation of the loadout. Exhibit 5-2 details the surface facilities at Banning Loadout. Coal is shipped from the loadout by~~

rail cars, using a spur adjacent to the Railroad Company's main line track, and by trucks.

Bonding for the facilities is described in Section R645-301-800 (Chapter 8, **Appendix 8-1**) and plans and associated costs are given in Section R645-301-540 of this Chapter. The permit area and adjacent area are in the Price River drainage system which is not within the boundaries of any Wild or Scenic Rivers System. Also, the permit area and adjacent area are not within or adjacent to the boundaries of any public park, NRHP site, cemetery, burial ground or units of the National System of Trails.

The permit area is shown on Exhibit 5-1. It is not anticipated that this area will require enlargement during the life of the operation.

### **Materials Handling**

Construction at Banning Loadout did not include the separating and segregation of topsoil material. The soils were graded throughout the site to achieve desired elevations for specific needs or specific structure requirements. Analyses of the soils at the loadout indicate that the soil resources have not been lost or otherwise destroyed. Except for compaction, the capability and potential productivity are equal to that of the contiguous Ravola soil.

Soil that will be disturbed during the construction of drainage control structures will be used as part of the berms, dikes or sedimentation pond. Topsoil will be removed and used as the outslope material for the berms and dikes. The outslopes of the sedimentation pond and all disturbed area associated with pond construction will be revegetated as stated in Section R645-301-540.

This will protect the soils from wind and water erosion and lessen the chance of deterioration.

Coal processing wastes are not being produced by the Applicant's Banning Loadout at the present or, foreseeable, future time. Coal processing wastes that could be produced at the site would be a screen rock-coal mixture. Disposal of this type of waste would be by blending it back into the coal for retail sale, or if the waste meets MSHA's and other requirements, returning the waste to underground mine workings. There are no plans to use any coal processing waste as construction material at the site, although some coal and/or rock may be mixed into the berms, dikes or pond during construction. The reasons for this are because it would be virtually impossible to exclude all of this material due to the existing soil environment at Banning Loadout. All sediment removed from the sedimentation pond will be blended into the coal for retail sale.

The Applicant will provide DOGM with a 30 day notice prior to transporting coal waste or sedimentation pond waste to Soldier Canyon Mine. The notification will include the estimated quantity and the final location and disposition of the material. Coal that is transported to the mine site for final disposal will be reported to DOGM, but coal for retail sale will not be reported.

Disposal methods for noncoal wastes will depend upon the specific type of noncoal waste. All salvageable equipment will be sold to local scrap dealers, along with all tramp iron recovered from the belt magnets. Garbage and paper products will be collected in large trash "dumpsters" and disposed of by a **licensed contractor**. The contract garbage hauling service will collect the trash and haul it **to a licensed disposal facility**.

Petroleum by-products, such as oil and grease wastes, will be collected in barrels at the site by the operator and sold or returned for recycling to the distributors. Use of any by-product wastes on site is per state and federal regulations (50 CFR 49164; 11/29/85). Spills will be hauled as stated in the spill control plan. (See Appendix 5-2, Spill Prevention Control and Countermeasure Plan).

Temporary storage locations for waste disposal are shown on Exhibit 5-2.

### **Environmental Impacts and Mitigations**

Environmental impacts caused by the Applicant's operation will be kept to a minimum by following environmentally sound practices. The major effect on the environment will be the loss of ground to surface disturbance. This loss will be mitigated at the end of the operation, when the Applicant reclaims the lands as stated in Section R645-301-540. Additional impacts to the environment will be avoided through careful planning and adherence to this Permit Application Package.

Impacts to the wildlife in the area will be minimized by maintaining the small disturbance area and by avoiding contact with all wildlife. Since there are no perennial streams within or adjacent to the permit area, there will be little if any impact to fisheries. Banning Loadout does have above the ground electrical power lines which could become potential contacts with eagles or other large birds. These lines, however, are designed and constructed in accordance with the guidelines set forth in Environmental Criteria for Electric Transmission Systems or as approved by DOGM.

There are no prime or important farmlands that occur within or adjacent to the permit area. A copy of the SCS's investigation for prime farmlands included in **Appendix 2-1**. No special provisions for prime or important farmlands were made in the application.

The Applicant will notify DOGM of any slide within the permit area that may have a potential adverse effect on public property, health, safety or the environment. Also, the Applicant will comply with all remedial measures by DOGM. (See Section R645-301-515).

### **Operational Monitoring Plans**

Water monitoring at Banning Loadout will consist of sampling for UPDES parameters monthly when we discharge from the sedimentation pond or directly from our discharge pipe into the unnamed wash. Exhibit 5-2 which contains a complete copy of the Applicant's UPDES permit UTG-040011.

There will be no surface water monitoring plan for Banning Loadout. The Applicant will try, when an occurrence event allows, to sample water discharging through straw bale dikes and/or silt fences. Information from analyses of this water will be used to determine the effectiveness of the control structures and the need for any design change.

Monitoring for possible groundwater contaminates will consist of testing coal for possible toxic contaminants (Chapter 7). Testing will be done quarterly for one year, 1989, and annually after 1989 or if the general location of the mining operations change and this change drastically affects the quality of the coal. All water monitoring data will be summarized and submitted to DOGM on an annual basis. Raw data received from the laboratories will be included with the annual report.

Vegetation monitoring at Banning Loadout will consist of qualitative observations of the reference area every two years by the SCS. The SCS will be requested to provide the estimated range condition of the reference area and to provide qualitative information on the reclamation progress of the test plot. The test plot area will be monitored in first, second, third and fifth years as stated in Section R645-301-540. This information and all miscellaneous vegetative information and/or data will be included in the annual report sent to DOGM.

The Applicant applied for and received an Air Quality Approval Order for Banning Loadout on July 16, 1980. The facilities are operated in accordance to the approval order. Each year, the emission inventory for the operation is submitted to the Division of Environmental **Quality, Division** of Air Quality. A copy of this emission inventory will be included in the annual report. Also, a copy of the approval order is shown in Chapter 1.

The sedimentation pond for Banning Loadout, along with all berms and embankments, will be constructed in accordance to the design criterion in Chapter 7 and Appendices. Inspections of the pond will be done quarterly for structure weakness, erosion and any other hazardous conditions. Also, following the construction, the pond embankment was inspected and certified by a registered professional engineer. The first inspection was the first quarter following construction of the pond. These inspection will be submitted to DOGM as a part of the annual report. Along with the inspections, a general report on the condition of all runoff control structures and any repairs to them will be sent yearly to DOGM (See Section R645-301-514.300).

DOGM will be notified within 30 days or as soon as it is known that Banning Loadout will temporary cease operations for more than 30

days. The notice will include a statement of the exact number of effected surface acres in the permit area and all activities that will cease and those that will continue during the temporary cessation. (See Section R645-301-515.300).

The intent of all monitoring programs for Banning Loadout is to insure that no additional degradation of the environment occurs due to the Applicant's operation. As stated throughout this section, all monitoring information will be submitted to DOGM in the annual report. Any additional observation or information on environmental concerns will also be included in the report.

### **Control Plans**

#### **Oil Spill Prevention and Countermeasure Plan (SPCC)**

In the event of an oil spill, immediate steps will be taken to contain the spill. Available equipment will be deployed to clean up the spill and arrangements will be made for any special equipment that may be needed during clean-up operations. The following measures will be implemented to prevent contamination of surface waters if an accidental oil spill should occur.

1. Oil absorbent materials are available to be deployed in case of an accidental spill.
2. Wastewater that contain oil will be treated by settling pond before any such water is discharged.
3. Oil changing on vehicles is performed only in designated areas that are properly equipped to prevent spills.

4. All personnel are briefed on the SPCC Plan and spill prevention is discussed at regular safety meetings.

The chances of an oil spill entering surface waters from loadout operations are minimal since surface run-off will be contained in the sedimentation pond; however, any oil spills not contained by the sedimentation pond will be reported to the Environmental Protection Agency immediately. All discharges at the Banning Loadout will be reported to:

EPA Region 8  
1860 Lincoln Street  
Denver, CO 80295  
(303) 837-3880 (24-hour number)

and

State of Utah, Division of Health  
150 W. North Temple  
Salt Lake City, Utah 84103  
(801) 533-6145 (24-hour number)

The SCC Plan will be amended whenever there is a change in facility design.

#### **Air Pollution Control Plan**

The only significant emission to be produced by the operation is particulates. This emission is partially controlled by the following means:

1. Enclosed truck dump area;
2. Enclosed crusher and water sprays;
3. Water sprays on conveyor belts;
4. Covered conveyor belts;
5. Compaction of long-term coal storage.

#### **Fish and Wildlife Control Plan (FWCP)**

Potentially adverse impacts on wildlife and related environmental values will be avoided or minimized through the implementation of mitigation measures. Also, the operation and maintenance of all transportation systems and support facilities under the Applicant's control will be accomplished in a manner that minimizes impacts to the fish and wildlife. The Applicant reserves the right to amend the fish and wildlife plan.

The major emphasis of the FWCP is the restoration of the wildlife habitat destroyed by Banning Loadout. Reclamation of the area will be as outlined in Chapter 3 and will return the land to an environment similar to the premining condition. This environment will be capable of supporting the approved postmining land uses. Other measures included in the FWCP are:

1. Employee education program to minimize the potential negative impact of employees upon wildlife (See Chapter 3).
2. Reporting of threatened or endangered plant or wildlife species.
3. Timing any major disturbances during May and June so that blasting or major earthwork is avoided, whenever possible, from one hour before and two hours after sunrise or sunset.
4. Regulation of the use of pesticides or chemicals that have serious consequences to plants or wildlife.
5. Prevention of fires and their spreading outside the permit area.

**R645-301-521.100** *Cross Sections and Maps*

*The application will include cross sections, maps and plans showing all the relevant information required by the Division, to include, but not be limited to:*

Required maps and cross-sections are included in this Chapter as Exhibits. The following information is shown on these maps:

**R645-301-521.110** *Previously Mined Areas*

*These maps will clearly show:*

N/A There are no mining areas associated with this site. Original disturbance did take place in 1976 as indicated in Section R645-301-521.

**R645-301-521.111** *The location and extent of known workings of active, inactive, or abandoned underground mines, including mine openings to the surface within the proposed permit and adjacent areas. The map will be prepared and certified according to R645-301-512; and*

N/A

**R645-301-521.112** *The location and extent of existing or previously surface-mined areas within the proposed permit area. The maps will be prepared and certified according to R645-301-512.*

N/A

**R645-301-521.120** *Existing Surface and Subsurface Facilities and Features. These maps will clearly show:*

Surface facilities are shown on Exhibit 5-2. Permit Area and surrounding features are shown on Exhibit 5-1.

**R645-301-521.121** *The location of buildings in and within 1,000 feet of proposed permit area, with identification of the current use of the buildings;*

Buildings within the permit area are shown on Exhibit 5-2. There are no other buildings within 1,000 feet of the permit area.

**R645-301-521.122** *The location of surface and subsurface man-made features within, passing through, or passing over the proposed permit area, including but not limited to, major electric transmission lines, pipelines, and agricultural drainage tile fields;*

All surface man-made features within, passing through, or passing over the permit area are shown on Exhibits 5-1 and 5-2. There are no wells or pipelines within or adjacent to the permit area.

**R645-301-521.123** Each public road located in or within 100 feet of the proposed permit area;

The haulage road used to transport coal to the site splits off of U.S. Highway 6-50 just after the Sunnyside Junction. The road parallels the highway for approximately 1200 feet, then curves toward the loadout facilities. Parts of the permit area lie within 100 feet of the U.S. Highway 6-50 Right-of-Way. Location of the permit and U.S. Highway 6-50 are shown on Exhibit 5-1. There are no other public roads within 100 feet of the permit area.

**R645-301-521.124** The location and size of existing areas of spoil, waste, coal development waste, and noncoal waste disposal, dams, embankments, other impoundments, and water treatment and air pollution control facilities within the proposed permit area. The map will be prepared and certified according to R645-301-512; and

All other facilities are shown on Exhibit 5-2. This map is prepared and certified according to R645-301-512.

**R645-301-521.125** The location of each sedimentation pond, permanent water impoundment, coal processing waste bank and coal processing waste dam and embankment in accordance with R645-301-512.100, R645-301-512.230, R645-301-521.143, R645-301-521.169, R645-301-528.340, R645-301-531, R645-301-533.600, R645-301-533.700, R645-301-535.140 through R645-301--535.152, R645-301-536.600, R645-301-536.800, R645-301-542.500, R645-301-732.210, and R645-301-733.100.

The location of the sediment pond is shown on Exhibit 7-1 and 5-2.

There are no permanent water impoundment, coal processing waste banks or coal processing waste dams or embankments associated with this operation.

R03/28/95

**R645-301-521.130** Landowners and Right-of-Entry and Public Interest Maps. These maps and cross sections will clearly show:

Surface and Subsurface Ownership Maps are shown on Exhibits 5-4 and 5-5, respectively.

**R645-301-521.131** All boundaries of lands and names of present owners of record of those lands, both surface and subsurface, included in or contiguous to the permit area;

Surface ownership is shown on Exhibit 5-4. Sub-surface ownership is shown on Exhibit 5-5. Ownership is shown within and contiguous to the permit area.

**R645-301-521.132** The boundaries of land within the proposed permit area upon which the applicant has the legal right to enter and begin coal mining and reclamation operations; and

The boundaries of land within the permit area upon which the applicant has the legal right to enter are clearly shown on Exhibits 5-2, 5-4 and 5-5.

**R645-301-521.133** The measures to be used to ensure that the interests of the public and landowners affected are protected if, under R645-301-234, the applicant seeks to have the Division approve:

**R645-301-521.133.1** Conducting the proposed coal mining and reclamation operations within 100 feet of the right-of-way line of any public road, except where mine access or haul roads join that right-of-way; or

As indicated under Section R645-301-521.123, a portion of the haul road lies within 100 feet of the U.S. Highway 6-50 Right-of-Way. The haul road was constructed in this manner as a "Frontage Road" as required and approved by the Utah Department of Transportation, to provide a safe location for highway ingress and egress. The road is located outside of the highway right-of-way fence and has no effect on the highway after leaving the turnout. This area within 100 feet of the highway right-of-way is for the haul road only. The facilities operation is not conducted within 100 feet of this right-of-way.

This road, although permitted as a haul road, also provided access to lands south of the facilities. The public is protected by proper signing of the road, strict adherence to speed limits and maintenance of access to the lands south of the facility.

**R645-301-521.133.2 Relocating a Public Road**

N/A There are no plans to relocate any public road in connection with this operation.

**R645-301-521.140 Mine Maps and Permit Area Maps**

*These maps and/or cross-section drawings will clearly indicate:*

The permit area is shown on Exhibit 5-1. Surface Facilities are shown on Exhibit 5-2.

**R645-301-521.141** *The boundaries of all areas proposed to be affected over the estimated total life of the coal mining and reclamation operations, with a description of size, sequence and timing of the mining of subareas for which it is anticipated that additional permits will be sought; the coal mining and reclamation operations to be conducted, the lands to be affected throughout the operation, and any change in a facility or feature to be caused by the proposed operations;*

The boundaries of all areas proposed to be affected over the life of the operation are shown on Exhibits 5-1 and 5-2. There are presently no plans to enlarge or otherwise modify the disturbed area or affected areas at the site over the life of the operation.

**R645-301-521.142** *For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, the underground workings and the location and extent of areas in which planned-subside mining methods will be used and which includes all areas where the measures will be taken to prevent, control, or minimize subsidence and subsidence-related damage (refer to R645-301-525); and*

N/A This is a surface loadout facility. There are no underground mines here.

**R645-301-521.143** *The proposed disposal sites for placing underground mine development waste and excess spoil generated at surface areas affected by surface operations and facilities for the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES and the proposed disposal site and design of the spoil disposal structures for purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES according to R645-301-211, R645-301-212, R645-301-412.300, R645-301-512.210, R645-301-512.220, R645-301-514.100, R645-301-528.310, R645-301-535.100 through R645-301-535.130, R645-301-535.300 through R645-301-535.500, R645-301-536.300, R645-301-542.720, R645-301-553.240, R645-301-745.100, R645-301-745.300, and R645-301-745.400.*

N/A There are no plans to dispose of underground development waste or excess spoil at this site.

**R645-301-521.150 Land Surface Configuration Maps**

*These maps will clearly indicate sufficient slope measurements or surface contours to adequately represent the existing land surface configuration of the proposed permit area for the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES and the area affected by surface operations and facilities for the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES measured and recorded according to the following:*

The land surface configuration, both existing and proposed, is shown on Exhibits 5-1, 5-2 and 5-3.

**R645-301-521.151** *Each measurement will consist of an angle of inclination along the prevailing slope extending 100 linear feet above and below or beyond the coal outcrop or the area to be disturbed, or, where this is impractical, at locations specified by the Division. Maps will be prepared and certified according to R645-301-512; and*

Cross sections are shown on Exhibit 5-3. Maps are prepared and certified according to R645-301-512.

**R645-301-521.152** *Where the area has been previously mined, the measurements will extend at least 100 feet beyond the limits of mining disturbances, or any other distance determined by the Division to be representative of the premining configuration of the land. Maps will be prepared and certified according to R645-301-512.*

The area was originally disturbed in 1976 and this original permit area is shown on Exhibit 5-1. Additional permit areas added for the sub-station construction (0.54 acres) and an incidental boundary change (0.83 acres) were added in 1989 as shown on Exhibit 5-1.

**R645-301-521.160 Maps and Cross Sections of the Proposed**

**Features for the Proposed Permit Area. These maps and cross sections will clearly show:**

All constructed and proposed features are shown on Exhibits 5-1, 5-2 and 5-6.

**R645-301-521.161 Buildings, utility corridors, and facilities to be used;**

See Exhibits 5-2 and 5-6.

**R645-301-521.162** *The area of land to be affected within the proposed permit area, according to the sequence of mining and reclamation.*

See Exhibits 5-2 and 5-6.

**R645-301-521.163** *Each area of land for which a performance bond or other equivalent guarantee will be posted under R645-301-800;*

See Exhibits 5-2 and 5-6.

**R645-301-521.164** *Each coal storage, cleaning and loading area. The map will be prepared and certified according to R645-301-512;*

See Exhibit 5-2. The map has been prepared and certified according to R645-301-512.

**R645-301-521.165** *Each topsoil, spoil, coal preparation waste, underground development waste, and noncoal waste storage area. The map will be prepared and certified according to R645-301-512;*

There are no spoil piles, coal preparation waste or underground development waste storage areas associated with this site. Temporary storage areas for both coal and noncoal waste is shown on Exhibit 5-2.

**R645-301-521.166** *Each source of waste and each disposal facility relating to coal processing or pollution control;*

N/A There are no facilities on this site relating to coal processing waste disposal or pollution control. Any coal processing waste is stored only temporarily until removal or reloading as shown on Exhibit 5-2.

**R645-301-521.167** *Each explosive storage and handling facility;*

N/A There are no explosives stored on this site.

**R645-301-521.168** For the purposes of **SURFACE COAL MINING AND RECLAMATION ACTIVITIES**, each air pollution collection and control facility; and

N/A No air pollution collection or control facility is required at this site.

**R645-301-521.169** Each proposed coal processing waste bank, dam, or embankment. The map will be prepared and certified according to R645-301-512.

N/A There are no coal processing waste banks, dams or embankments associated with this site.

**R645-301-521.170** **Transportation Facilities Maps**

Each permit application will describe each road, conveyor, and rail system to be constructed, used, or maintained within the proposed permit area. The description will include a map, appropriate cross sections, and specifications for each road width, road gradient, road surface, road cut, fill embankment, culvert, bridge, drainage ditch, drainage structure, and each stream ford that is used as a temporary route.

Transportation facilities are described under Section R645-301-527. Required maps and cross sections are shown on Exhibits 5-2 and 5-7.

**R645-301-521.180** **Support Facilities**

Each permit applicant will submit a description, plans and drawings for each support facility to be constructed, used, or maintained within the proposed permit area. The plans and drawings will include a map, appropriate cross sections, design drawings, and specifications to demonstrate compliance with R645-301-526.220 through R645-301-526.222 for each facility.

Support facilities are described under Section R645-301-526. All facilities are shown on Exhibit 5-2.

**R645-301-521.190** Other relevant information required by the Division.

**R645-301-521.200** Signs and Markers Specifications. Signs and markers will:

**R645-301-521.210** Be posted, maintained and removed by the person who conducts the coal mining and reclamation operations.

Signs and markers will be posted, maintained and removed by the permittee.

**R645-301-521.220** *Be a uniform design that can be easily seen and read; be made of durable material; and conform to local laws and regulations;*

Signs and markers will be of a uniform design that can easily be seen and read. They will be made of durable material and conform to local laws and regulations.

**R645-301-521.230** *Be maintained during all activities to which they pertain;*

Sign and markers will be maintained during all activities to which they pertain.

**R645-301-521.240** *Mine and Permit Identification Signs*

**R645-301-521.241** *For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, identification signs will be displayed at each point of access from public roads to areas of surface operations and facilities on permit areas;*

Mine I.D. signs will be displayed at each point of access from public roads to the permit area. Locations are shown on Exhibit 5-1.

**R645-301-521.242** *For purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, identification signs will be displayed at each point of access to the permit area from public roads;*

N/A This is a surface loadout operation for underground and mining.

**R645-301-521.243** *Show the name, business address, and telephone number of the permittee who conducts coal mining and reclamation operations and the identification number of the permanent program permit authorizing coal mining and reclamation operations; and*

Mine I.D. signs will show the name, business address, and telephone number of the permittee and the identification number of the

permanent program permit authorizing coal mining and reclamation operations.

**R645-301-521.244** *Be retained and maintained until after the release of all bonds for the permit area;*

Mine I.D. signs will be retained and maintained until after the release of all bonds for the permit area.

**R645-301-521.250** *Perimeter Markers*

**R645-301-521.251** *For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES , the perimeter of all areas affected by surface operations or facilities before beginning mining activities will be clearly marked; or*

The surface disturbance area will be clearly marked by perimeter markers, consisting of red reflectors attached to fence posts and/or steel pins securely set into the ground. Locations are shown on Exhibit 5-1.

**R645-301-521.252** *For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, the perimeter of a permit area will be clearly marked before the beginning of surface mining activities;*

N/A This is a surface loadout facility for underground coal mining.

**R645-301-521.260** *Buffer Zone Markers*

N/A There are no perennial or intermittent streams associated with this operation.

**R645-301-521.261** *For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, signs will be erected to mark buffer zones as required under R645-301-731.600 and will be clearly marked to prevent disturbance by surface operations and facilities; or*

N/A

**R645-301-521.262** For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, buffer zones will be marked along their boundaries as required under R645-301-731.600; and

N/A

**R645-301-521.270** Topsoil Markers. Markers will be erected to mark where topsoil or other vegetation-supporting material is physically segregated and stockpiled as required under R645-301-234.

N/A Disturbance of this site took place in 1976. No topsoil was saved or stockpiled.

**R645-301-522** Coal Recovery. The permit application will include a description of the measures to be used to maximize the use and conservation of the coal resource. The description will assure that coal mining and reclamation operations are conducted so as to maximize the utilization and conservation of the coal, while utilizing the best technology currently available to maintain environmental integrity, so that re-affecting the land in the future through coal mining and reclamation operations is minimized.

N/A This is a surface loadout facility. No coal extraction takes place here.

**R645-301-523** Mining Method(s). Each application will include a description of the mining operation proposed to be conducted during the life of the mine within the proposed permit area, including, at a minimum, a narrative description of the type and method of coal mining procedures and proposed engineering techniques, anticipated annual and total production of coal, by tonnage and the major equipment to be used for all aspects of those operations.

N/A No mining takes place here.

**R645-301-523.100** SURFACE COAL MINING AND RECLAMATION ACTIVITIES proposed to be conducted within the permit area within 500 feet of an underground mine will be described to indicate compliance with R645-301-523.200.

N/A

**R645-301-523.200** No SURFACE COAL MINING AND RECLAMATION ACTIVITIES will be conducted closer than 500 feet to any point of either an active or abandoned underground mine, except to the extent that:

N/A

**R645-301-523.210** The operations result in improved resource recovery, abatement of water pollution, or elimination of hazards to the health and safety of the public; and

N/A

**R645-301-523.220** The nature, timing, and sequence of the activities that propose to mine closer than 500 feet to an active underground mine are jointly approved by the Division and MSHA.

N/A

**R645-301-524** *Blasting and Explosives.* For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, each permit application will contain a blasting plan for the proposed permit area explaining how the applicant will comply with R645-301-524. This plan will include, at a minimum, information setting forth the limitations the operator will meet with regard to ground vibration and airblast, the bases for those limitations, and the methods to be applied in controlling the adverse effects of blasting operations. Each blasting plan will also contain a description of any system to be used to monitor compliance with the standards of R645-301-524.600 including the type, capability, and sensitivity of any blast-monitoring equipment and proposed procedures and locations of monitoring. Blasting operations conducted within 500 feet of active underground mines require approval of MSHA. Blasts that use more than five pounds of explosive or blasting agent will be conducted according to the schedule required under R645-301-524.400. For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, R645-301-524.100 through R645-301-524.700 apply to surface blasting activities incident to underground coal mining, including, but not limited to, initial rounds of slopes and shafts.

The Applicant will comply with all applicable state and federal laws in the use of explosives at Banning Loadout. A certified blaster will direct all blasting operations with the help of at least one other person. The Applicant will instruct the operator on these procedures but cannot foresee any use of explosives at the loadout facilities.

No explosives are stored or used at this site, and there are no plans for use in the future.

Regulations R645-301-524.100 through R645-301-524.800 are not applicable to this operation and have therefore been omitted.

**R645-301-525 Subsidence.** The requirements of R645-301-525 pertain to permit applications for UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES.

There is no underground mining at this site.

Regulations R645-301-525.100 through R645-301-525.300 are not applicable to this operation and have therefore been omitted.

**R645-301-526 Mine Facilities.** The permit application will include a narrative explaining the construction, modification, use, maintenance and removal of the following facilities (unless retention of such facility is necessary for the postmining land use as specified under R645-301-413.100 through R645-301-413.334, R645-302-270, R645-302-271.100 through R645-302-271.400, R645-302-271.600, R645-302-271.800, and R645-302-271.900:

The following sections will explain the construction, modification, use, maintenance and removal of the Banning Loadout Facilities.

**R645-301-526.100 Mine Structures and Facilities**

**R645-301-526.110 Existing Structures.** A description of each existing structure proposed to be used in connection with or to facilitate the coal mining and reclamation operation. The description will include:

The structures and facilities that are used in connection with or to facilitate the Banning Loadout activities are located off U.S. Highway 6-50 near Sunnyside Junction, Carbon County, Utah. Table 5-1 lists and Exhibit 5-2 show all the structures and facilities.

There are five buildings at the Banning Loadout (Exhibit 5-2). Two primary and three support buildings. The two primary buildings are the main control building and the silo control building. The main control building houses items necessary for operations of the site along with the electrical controls which distribute power to the site. The silo control building controls the vibrating feeders and conveyor belt system that feed the coal silo.

The three support facilities are the fiberglass shack, wooden shack and the temporary scale house. The fiberglass shack houses the controls and equipment used in discharging a dust suppressing agent from the 2000 gallon underground storage tank. This dust suppressing agent, when in use, will be sprayed upon the coal once loaded into the train car. The wooden shack houses the controls and equipment used in discharging a deicing agent from the 8500 and 6400 gallon above ground storage tanks. The deicing agent, also when in use, will be sprayed within an empty train car and prior to loading. All chemicals used at the site are non-hazardous.

The Applicant reserves the right to relocate the support facilities in the future to better accommodate planned improvements. The temporary scale house operates the scales used when coal quality conditions deem it necessary to facilitate a coal blending procedure. To assist in the monitoring of Soldier Creek Coal Company's coal quality, an ash analyzer was installed at a point along the 60 inch conveyor belt (Exhibit 5-2). Power to the site is supplied by a substation and all power lines at the site are run underground. The remaining structures (Table 5-1) serve self explanatory purposes associated with the operation.

Water for dust suppression and fire fighting needs is collected from the water well and stored in the 8,000 gal. storage tank. The excess water that collects under the truck dump, the reclaim tunnel and the main control building is settled and then discharged into the sediment pond or an unnamed wash under UPDES permit UTG-040011. Culinary water is supplied by the operator in bottles and stored in the main control building.

There are two separate communication systems provided at Banning Loadout. The first is a mobile two-way radio set installed in the

large equipment and in communication with Coal Service's main office. The second is a hand held telephone with its base located within the main control building. Sanitary wastes are collected for disposal by a licensed disposal company Rocket Sanitation out of Duchesne, Utah.

TABLE 5-1

EXISTING STRUCTURES AND FACILITIES  
TO BE USED AT BANNING LOADOUT FOR PERMITTED OPERATIONS

<u>STRUCTURES</u>	<u>DATE OF CONSTRUCTION</u>	<u>TYPE OF CONSTRUCTION</u>	<u>CONDITION</u>	<u>PRESENT LOCATION</u>	<u>PERFORMANCE STANDARDS</u>
Truck Dump	1978	Steel Frame and Asphalt	Fair Over	Shown	Meets Standards of Exhibit
UMC R645-301-526					
#1 Conveyor	1978	30" Belt, Covered	Excellent	"	5-2
"					
Belt Magnet	1978	Prefabricated	"	"	
"					
#2 Conveyor	1978	30" Belt, Covered	"	"	
"					
Screen	1982	Vibrating Screen	"	"	
"					
Crusher	1978	Prefabricated	"	"	
"					

Enclosed Impact Mill  
(Cedar Rapids)

#3 Conveyor	"	1978	36" Belt, Covered	"	"
			Steel Structure		
#4 Conveyor	"	1978	Prefabricated 36"	"	"
			Radial Stacker Covered Steel Structure (Pemco)		

TABLE 5-1 (Continued)

EXISTING STRUCTURES AND FACILITIES  
TO BE USED AT BANNING LOADOUT FOR PERMITTED OPERATIONS

<u>STRUCTURES</u>	<u>DATE OF CONSTRUCTION</u>	<u>TYPE OF CONSTRUCTION</u>	<u>PRESENT CONDITION</u>	<u>LOCATION</u>	<u>PERFORMANCE STANDARDS</u>
Reclaim Tunnel	1978	Concrete Floor	"	"	
	"	and Walls with a Multi-Plate Arch			
Feeders	1978	Electro-Mechanical Steel Feeders	Excellent	Shown on	Meets Standards of
					E x h i b i t
UMC R645-301-526					
#5 Conveyor	1978	46" Belt, Steel	"	"	
		Structure			
#6 Conveyor	1978	60" Belt, Covered	"	"	
		Steel Structure			
Belt Scales	1978	Prefabricated	"	"	
		Weighing System			

Silo-Control "	1978	Enclosed Steel Silo	"	"
Building			and Concrete-Block Building	
Escape Tunnel & Fan	1978 "	24" CMP with Fan	"	"
Diesel Tank	1978 "	Steel Tank	"	"
Water Tank	1978 "	Steel Tank	"	"



Main Control Building	1977-78	"	Concrete	"	"
Fence	1977-78	"	Chain-Link	"	"
Shack	1983	"	Fiberglass	"	"
Tramroad (Resurfaced)	"	1976-77	Asphalt	"	"
	1988				

TABLE 5-1 (Continued)

EXISTING STRUCTURES AND FACILITIES  
TO BE USED AT BANNING LOADOUT FOR PERMITTED OPERATIONS

<u>STRUCTURES</u>	<u>DATE OF CONSTRUCTION</u>	<u>TYPE OF CONSTRUCTION</u>	<u>PRESENT CONDITION</u>	<u>PERFORMANCE LOCATION</u>	<u>STANDARDS</u>
*Main Line	Predates "	Track	"	"	
Track	Operation				
**Loading Spur	1976 "	Track	"	"	
Berms, Embankment and Sedimentation Pond	1988 "	Soil	"	"	
Substation	1989 "	Steel and Concrete	"	"	
Sampling System	1994	Conveyor		(See Appendix 5-1)	

\* Denver and Rio Grande Western Railroad owns this line.

\*\*Denver and Rio Grande Western Railroad will own spur at the completion of the operation.

The haulage road used to transport coal to the site, splits off of U.S. Highway 6-50 just after Sunnyside Junction. The road parallels the highway for approximately 1,200 feet then curves toward the loadout facilities. Parts of the permit area lie within 100 feet of U.S. Highway 6-50 right-of-way. There are no plans to relocate any road in the area and access to the lands south of the facilities by landowners and interest holding parties will be maintained.

The Applicant plans to use all existing structures to facilitate operations and to replace or repair the structures with items of similar performance standards throughout the life-of-operations. All existing structures are shown on Exhibit 5-2. The structures meet the performance standards of the ACT and provide adequate compliance so that no significant harm to the environment, public health or the safety will result from the use of the structures.

The design and construction of the haulage road was submitted to and approved by the BLM prior to construction. The road was constructed as per BLM requirements and preconstruction conference between Authorized Officer and Applicant. The road was resurfaced during 1988 as part of the regular maintenance to insure adherence to the original design. All drainage control devices originally installed during construction are being maintained free from debris that could impair the functions of the devices.

All drainage from the railroad company's main line and the spur are kept separate from the surface disturbance drainage. This drainage flows parallel to the main line and toward the south end of the loadout facility (Exhibit 5-2). All other

support facilities are maintained and used in a manner which prevents, to the extent possible, damage to the environment.

All facilities will be removed upon final reclamation, except the main line track, **substation, sediment pond** and a portion of the haul road as shown on Exhibit 5-6/5-6A. **A post-mining land-use change leaving the substation for use by the current land owner is being proposed by the operator. If approved by UDOGM, the substation will be removed for the permit and disturbed area and remain intact for use by the land owner. If the post mining land use change is not approved the reclamation contours reflecting the removal of the substation are provided on Exhibit 5-6A.**

**R645-310-526.111**    *Location*

Facilities are shown on Exhibit 5-2

**R645-301-526.112**    *Plans or photographs of the structure which describe or show its current condition;*

Table 5-1

**R645-301-526.113**    *Approximate dates on which construction of the existing structure was begun and completed;*

Table 5-1

**R645-301-526.114**    *A showing, including relevant monitoring data or other evidence, how the structure meets the requirements of R645-301;*

Table 5-1

**R645-301-526.115**    *A compliance plan for each existing structure proposed to be modified or reconstructed for use in connection with or to facilitate coal mining and reclamation operations. The compliance plan will include:*

N/A There are no plans to modify or reconstruct these facilities.

R645-301-526.115.1, R645-301-526.115.2, R645-301-526.115.3, and R645-301-526.115.4 are not applicable to this operation and have therefore been omitted.

N/A

**R645-301-526.116** *The measures to be used to ensure that the interests of the public and landowners affected are protected if the applicant seeks to have the Division approve:*

Refer to Section R645-301-521.133.1

**R645-301-526.116.1** *Conducting the proposed coal mining and reclamation operations within 100 feet of the right-of-way line of any public road, except where mine access or haul roads join that right-of-way; or*

Refer to Section R645-301-521.133.1

**R645-301-526.116.2** *Relocating a public road*

N/A There are no plans to relocate a public road in connection with this operation.

**R645-301-526.200** *Utility Installation and Support Facilities*

Utility installation and Support Facilities are described under Section R645-301-526.110 and Table 5-1 and shown on Exhibit 5-2.

**R645-301-526.210** *The utility installations description must state that all coal mining and reclamation operations will be conducted in a manner which minimizes damage, destruction, or disruption of services provided by oil, gas, and water wells; oil, gas, and coal-slurry pipelines, railroads; electric and telephone lines; and water and sewage lines which pass over, under, or through the permit area, unless otherwise approved by the owner of those facilities and the Division.*

All operations will be conducted in a manner which minimizes damage, destruction, or disruption of services provided by oil, gas and water wells; oil, gas and coal-slurry pipelines, railroads; electric and telephone lines; and water and sewage lines which pass over, under or through the permit area, unless otherwise approved by the owner of those facilities and the Division.

**R645-301-526.220** *The support facilities description must state that support facilities will be operated in accordance with a permit issued for the mine or coal preparation plant to which it is incident or from which its operation results. Plans and drawings for each support facility to be constructed, used, or maintained within the proposed permit area will include a map, appropriate cross sections, design drawings, and specifications sufficient to demonstrate how each facility will comply with applicable performance standards. In addition to the other provisions of R645-301, support facilities will be located, maintained, and used in a manner that:*

Support facilities will be operated in accordance with a permit issued for the loadout facility.

Facilities are described under Section R645-301-526.110 and Table 5-1 and are shown on Exhibits 5-1 and 5-2.

Compliance with applicable performance standards is explained in Section R645-301-521.

**R645-301-526.221** *Prevents or controls erosion and siltation, water pollution, and damage to public or private property; and*

Support facilities will be located maintained and used in a manner that prevents or controls erosion and siltation; water pollution, and damage to public or private property. (See Section R645-301-521).

**R645-301-526.222** *To the extent possible using the best technology currently available - minimizes damage to fish, wildlife, and related environmental values; and minimizes additional contributions of suspended solids to streamflow or runoff outside the permit area. Any such contributions will not be in excess of limitations of Utah or Federal law;*

Support facilities will be located, maintained and used in a manner that, to the extent possible using the best technology currently available - minimizes damage to fish, wildlife and related environmental values; and minimizes additional contributions of suspended solids to streamflow or runoff outside the permit area. Any such contributions will not be in excess of limitations of Utah or Federal law. (See Section R645-301-521).

**R645-301-526.300** *Water pollution control facilities; and*

The drainage control structures for Banning Loadout will consist of original structures, upgraded or improved structures and structures that have been constructed during 1988 following permit approval by DOGM. Chapter 7 of this permit application package details the exact measures that will be incorporated into the Applicant's permit to bring the site into compliance with federal and state regulations (Exhibits 7-1, 7-2 and 7-3). Appendices of Chapter 7 detail the calculations for the proper size of the sedimentation pond and riprap splash apron.

Drainage control devices at the loadout will be maintained as fully intact as possible during construction to prevent, to the extent possible, any additional contribution of sediment to streamflow or runoff outside the permit area. There may be times during construction when it is impracticable to control all the surface runoff during an isolated storm event. In order to alleviate this problem, the Applicant will try to schedule construction in such a manner as to expedite the process.

The sedimentation pond and other drainage control structures at Banning Loadout have been prepared by or under the

direction of a professional engineer. Maps, cross-sections and details of the structures are contained in Chapter 7. Each designed structure meets or exceeds all regulatory criteria. The drainage control structures will be inspected routinely throughout the life of the operation.

**R645-301-526.400** For SURFACE COAL MINING AND RECLAMATION ACTIVITIES, air pollution control facilities.

N/A This is a surface loadout for an underground coal mine. Air pollution control facilities are not required. An air pollution control plan is discussed under Section R645-301-521.

**R645-301-527** *Transportation Facilities*

Transportation Facilities are shown on Exhibits 5-1, 5-2 and 5-7. R03/28/95

**R645-301-527.100** The plan must classify each road.

All roads at the site are classified as Primary Roads. Location and classification is shown on Exhibit 5-2.

**R645-301-527.110** Each road will be classified as either a primary road or an ancillary road.

All roads at the site are primary roads.

**R645-301-527.120** A primary road is any road which is:

**R645-301-527.121** Used for transporting coal or spoil;

All roads on the site are used for transporting coal.

**R645-301-527.122** Frequently used for access or other purposes for a period in excess of six months; or

All roads on site are used on a year-around basis.

**R645-301-527.123** *To be retained for an approved postmining land use.*

A portion of the haulage road will remain in place after final reclamation as shown on Exhibits 5-1 and 5-6. This is a primary road and will provide access to lands south of the facility.

**R645-301-527.130** *An ancillary road is any road not classified as a primary road.*

N/A There are no roads classified as ancillary roads at this site.

**R645-301-527.200** *The plan must include a detailed description of each road, conveyor, and rail system to be constructed, used, or maintained within the proposed permit area. The description will include a map, appropriate cross sections, and the following:*

Detailed descriptions of all surface facilities, including transportation facilities are given in Section R645-310-526.100 and on Table 5-1. Locations are shown on Exhibits 5-1 and 5-2. Cross sections and details are shown on Exhibit 5-7.

**R645-301-527.210** *Specifications for each road width, road gradient, road surface, road cut, fill embankment, culvert, bridge, drainage ditch, and drainage structure;*

Specifications are described in Section R645-301-526.100 and on Table 5-1, and construction details are shown on Exhibit 5-7.

**R645-301-527.220** *Measures to be taken to obtain Division approval for alteration or relocation of a natural drainageway under R645-301-358, R645-301-512.250, R645-301-527.100, R645-301-527.230, R645-301-527.240, R645-301-534.100, R645-301-534.300, R645-301-542.600, R645-301-742.410, R645-301-742.420, and R645-301-752.200;*

N/A There are no plans to alter or relocate a natural drainageway in connection with this operation.

**R645-301-527.230** *A maintenance plan describing how roads will be maintained throughout their life to meet the design standards throughout their use.*

The haulage road at Banning Loadout was built as per the BLM specifications within the Right-of-Way 33855. The road was approved by the BLM and has been used by the Applicant without degradation to the surrounding environment. The Applicant has maintained the road and associated controls as they were designed and constructed. As part of the maintenance of the road, the Applicant resurfaced the haulage road during 1988.

The roads will continue to be maintained throughout their life to meet the design standards throughout their use. Maintenance will include regrading/resurfacing as necessary, cleaning of culverts as needed and maintenance of drainage controls such as slope, ditches and silt fences.

**R645-301-527.240** *A commitment that if a road is damaged by a catastrophic event, such as a flood or earthquake, the road will be repaired as soon as practical after the damage has occurred.*

If a road is damaged by a catastrophic event, such as a flood or earthquake, the road will be repaired as soon as practical after the damage has occurred.

**R645-301-527.250** *A report of appropriate geotechnical analysis, where approval of the Division is required for alternative specifications, or for steep cut slopes.*

N/A There are no plans requiring Division approval for alternative specifications or for steep cut slopes.

**R645-301-528 Handling and Disposal of Coal Overburden,**

**Excess Spoil and Coal Mine Waste.** The permit application will include a narrative explaining the construction, modification, use, maintenance, and removal of the following facilities (unless retention of such facility is necessary for the postmining land use as specified under R645-301-413.100 through R645-301-413.334, R645-302-270, R645-302-271.100 through R645-302-271.400, R645-302-271.600, R645-302-271.800, and R645-302-271.900):

The construction, modification, use, maintenance and removal of relevant facilities are discussed in the following sections.

**R645-301-528.100** Coal removal, handling, storage, cleaning, and transportation areas and structures;

There are no coal removal operations at this site. Coal handling facilities are described under Section R645-301-526 of this chapter.

**R645-301-528.200** Overburden

N/A There is no overburden removal associated with this operation.

**R645-301-528.300** Spoil, coal processing waste, mine development waste, and noncoal waste removal, handling, storage, transportation, and disposal areas and structures;

Waste handling and disposal are described in detail under the Materials Handling portion of Section R645-301-521 of this chapter.

**R645-301-528.310** **Excess Spoil.** Excess spoil will be placed in designated disposal areas within the permit area, in a controlled manner to ensure mass stability and prevent mass movement during and after construction. Excess spoil will meet the design criteria of R645-301-535. For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, the permit application must include a description of the proposed disposal site and the design of the spoil disposal structures according to R645-301-211, R645-301-212, R645-301-412.300, R645-301-512.210, R645-301-512.220, R645-301-514.100, R645-301-528.310, R645-301-535.100 through R645-301-535.130, R645-301-535.300 through R645-301-535.500, R645-301-536.300, R645-301-542.720, R645-301-553.240, R645-301-745.100, R645-301-745.300, and R645-301-745.400.

N/A There is no excess spoil generated by this operation.

**R645-301-528.320 Coal Mine Waste**

All coal mine waste will be placed in new or existing disposal areas within a permit area which are approved by the Division for this purpose. Coal mine waste will meet the design criteria of R645-301-536, however, placement of coal mine waste by end or side dumping is prohibited.

See the Materials Handling portion of Section R645-301-521.

**R645-301-528.321 Return of Coal Processing Waste to Abandoned Underground Workings.** For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, each plan will describe the design, operation and maintenance of any proposed coal processing waste disposal facility, including flow diagrams and any other necessary drawings and maps, for the approval of the Division and MSHA under R645-301-536.520 and meet the design criteria of R645-301-536.700.

See Sections R645-301-513.300 and R645-301-521.

**R645-301-528.322 Refuse Piles**

Each pile will meet the requirements of MSHA, 30 CFR 77.214 and 30 CFR 77.215, meet the design criteria of R645-301-210, R645-301-512.230, R645-301-513.400, R645-301-514.200, R645-301-515.200, R645-301-528.320, R645-301-536 through R645-301-536.200, R645-301-536.500, R645-301-536.900, R645-301-542.730, R645-301-553.250, R645-301-746.100, R645-301-746.200, and any other applicable requirement.

N/A There are no plans for refuse piles at this site.

**R645-301-528.323 Burning and Burned Waste Utilization**

There are no plans for long term storage of coal mine waste on this site. Any waste will only be stored temporarily for loadout and disposal. A fire-fighting plan for the facility has been filed with M.S.H.A. and approved.

**R645-301-528.323.1 Coal mine waste fires will be extinguished by the person who conducts coal mining and reclamation operations, in accordance with a plan approved by the Division and MSHA.** The plan will contain, at a minimum, provisions to ensure that only those persons authorized by the operator, and who have an understanding of the procedures to be used, will be involved in the extinguishing operations.

N/A

**R645-301-528.323.2** No burning or burned coal mine waste will be removed from a permitted disposal area without a removal plan approved by the Division. Consideration will be given to potential hazards to persons working or living in the vicinity of the structure.

N/A

**R645-301-528.330** Noncoal Mine Waste

Noncoal mine waste disposal is discussed in the Materials Handling portion of Section R645-301-521.

**R645-301-528.331** Noncoal mine wastes including, but not limited to, grease, lubricants, paints, flammable liquids, garbage, abandoned machinery, lumber and other combustible materials generated during mining activities will be placed and stored in a controlled manner in a designated portion of the permit area.

Noncoal mine wastes including, but not limited to, grease, lubricants, paints, flammable liquids, garbage, abandoned machinery, lumber and other combustible materials generated during processing/loading activities will be placed and stored in a controlled manner in a designated portion of the permit area. Storage areas will include dumpsters and fuel storage areas as described in Section R645-301-521 and shown on Exhibit 5-2.

**R645-301-528.332** Final disposal of noncoal mine wastes will be in a designated disposal site in the permit area or a State approved solid waste disposal area. Disposal sites in the permit area will be designed and constructed to ensure that leachate and drainage from the noncoal mine waste area does not degrade surface or underground water. Wastes will be routinely compacted and covered to prevent combustion and wind-borne waste. When the disposal is completed, a minimum of two feet of soil cover will be placed over the site, slopes, stabilized, and revegetation accomplished in accordance with R645-301-244.200 and R645-301-353 through R645-301-357. Operation of the disposal site will be conducted in accordance with all local, Utah, and Federal requirements.

Final disposal of noncoal mine wastes will be in a State-approved solid waste disposal area (i.e. - Carbon County Landfill). There will be no on-site disposal.

**R645-301-528.333** At no time will any noncoal mine waste be deposited in a refuse pile or impounding structure, nor will any excavation for a noncoal mine waste disposal site be located within eight feet of any coal outcrop or coal storage area.

N/A There will be no on-site disposal of noncoal wastes.

**R645-301-528.334** Notwithstanding any other provision to the R645 Rules, any noncoal mine waste defined as "hazardous" under 3001 of the Resource Conservation and Recovery Act (RCRA) (Pub. L. 94-580, as amended) and 40 CFR Part 261 will be handled in accordance with the requirements of Subtitle C of RCRA and any implementing regulations.

Noncoal mine waste defined as "hazardous" under 3001 of the Resource Conservation and Recovery Act (RCRA) and 40 CFR Part 261 will be handled in accordance with Subtitle C of RCRA and any implementing regulations. Such material will be recycled or re-used as possible as described in Section R645-301-521.

**R645-301-528.340 Underground Development Waste**

For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, the permit application must include a description of the proposed disposal methods for placing underground development waste and excess spoil generated at surface areas affected by surface operations and facilities according to R645-301-211, R645-301-212, R645-301-412.300, R645-301-512.210, R645-301-512.220, R645-301-514.100, R645-301-528.310, R645-301-535.100 through R645-301-535.500, R645-301-536.300, R645-301-536.600, R645-301-542.720, R645-301-553.240, R645-301-745.100, R645-301-745.300, and R645-301-745.400.

N/A This is a surface loadout facility. There are no plans to bring underground development waste to this site.

**R645-301-528.350** The permit application will include a description of measures to be employed to ensure that all debris, acid-forming and toxic-forming materials, and materials constituting a fire hazard are disposed of in accordance with R645-301-528.330, R645-301-537.200, R645-301-542.740, R645-301-553.100 through R645-301-553.600, R645-301-553.900, and R645-301-747 and a description of the contingency plans which have been developed to preclude sustained combustion of such materials; and

Acid and toxic forming materials will be disposed of in accordance with applicable regulations. Such materials will be removed from site and placed in State-approved disposal

locations where they can be buried beneath a minimum of 4' of incombustible non-acid and non-toxic material. Such materials may be disposed on-site during final reclamation only if they can be buried beneath 4' of incombustible, non-acid and non-toxic material.

**R645-301-528.400 Dams, Embankments and Other Impoundments**

Dams, embankments and impoundments are described in Section R645-301-531 and in Chapter 7.

**R645-301-529 Management of Mine Openings**

*The permit application will include a description of the measures to be used to seal or manage mine openings within the proposed permit area.*

N/A There are no mine openings at this site.

**R645-301-529.100** *Each shaft or other exposed underground opening will be cased, lined, or otherwise managed as approved by the Division. If these openings are uncovered or exposed by coal mining and reclamation operations within the permit area they will be permanently closed unless approved for water monitoring or otherwise managed in a manner approved by the Division.*

N/A

**R645-301-529.200** *For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES:*

N/A

**R645-301-529.210** *Each mine entry which is temporarily inactive, but has a further projected useful service under the approved permit application, will be protected by barricades or other covering devices, fenced, and posted with signs, to prevent access into the entry and to identify the hazardous nature of the opening. These devices will be periodically inspected and maintained in good operating condition by the person who conducts the activity.*

N/A

**R645-301-529.220** Each shaft and underground opening which has been identified in the approved permit application for use to return underground development waste, coal processing waste or water to underground workings will be temporarily sealed until actual use.

N/A

**R645-301-529.300** R645-301-529 does not apply to holes drilled and used for blasting, in the area affected by surface operations.

N/A

**R645-301-529.400** For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, each exposed underground opening which has been identified in the approved permit application for use to return coal processing waste to underground workings will be temporarily sealed before use and protected during use by barricades, fences, or other protective devices approved by the Division. These devices will be periodically inspected and maintained in good operating condition by the person who conducts the activity.

N/A

**R645-301-530 Operational Design Criteria and Plans**

**R645-301-531 General.** Each permit application will include a general plan for each proposed sediment pond, water impoundment, and coal processing waste bank, dam or embankment within the proposed permit area. Each general plan will describe the potential effect on the structure from subsidence of the subsurface strata resulting from past underground mining operations, if underground mining has occurred.

Plans for sediment pond are described in Sections R645-301-732 and 733 of Chapter 7. There are no coal processing waste banks, dams or embankments within the permit area. No underground mining has occurred at this site; therefore, no subsidence effects are anticipated.

**R645-301-532 Sediment Control.** The permit application will describe designs for sediment control. Sediment control measures include practices carried out within and adjacent to the disturbed area. The sedimentation storage capacity of practices in and downstream from the disturbed areas will reflect the degree to which successful mining and reclamation techniques are applied to reduce erosion and control sediment. Sediment control measures consist of the utilization of proper mining and sediment control practices, singly or in combination. Sediment control methods include but are not limited to:

Sediment control is described in detail in Section R645-301-732 of Chapter 7.

**R645-301-532.100** *Disturbing the smallest practicable area at any one time during the mining operation through progressive backfilling, grading, and prompt revegetation as required in R645-301-353.200; and*

Reclamation efforts of all lands disturbed by the Applicant's operation will occur as contemporaneously as practical with the operations. This will minimize the amount of disturbed area at any one time during the operation. R03/28/95

**R645-301-532.200** *Stabilizing the backfilled material to promote a reduction of the rate and volume of runoff in accordance with the requirements of R645-301-537.200, R645-301-552 through R645-301-553.230, R645-301-553.260, through R645-301-553.420, R645-301-553.600, and R645-301-553.900.*

N/A There are no plans for contemporaneous backfilling during operations. Backfilling and regrading will occur during final reclamation as described under Section R645-301-540.

**R645-301-533 Impoundments**

There is only one sediment pond associated with this operation.

**R645-301-533.100** *An impoundment meeting the size or other criteria of 30 CFR 77.216(a) or located where failure would be expected to cause loss of life or serious property damage will have a minimum static safety factor of 1.5 for a normal pool with steady state seepage saturation conditions, and a seismic safety factor of at least 1.2. Impoundments not meeting the size or other criteria of 30 FCR 77.216(a), except for coal mine waste impounding structure, and located where failure would not be expected to cause loss of life or serious property damage will have a minimum static safety factor of 1.3 for normal pool with steady state seepage saturation conditions or meet the requirements of R645-301-733.210.*

There are no impoundments meeting the size or other criteria of 30 CFR 77.216(a) or located where failure would expected to cause loss of life or serious property damage.

Impoundments are designed to meet the requirements of R645-301-733.210, as described in that section of Chapter 7.

**R645-301-533.200** *Foundation for temporary and permanent impoundments must be designed so that:*

All impoundments are temporary, and will be removed upon final reclamation.

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**R645-301-533.210** *Foundation and abutments for the impounding structure will be stable under all conditions of construction and operation of the impoundment. Sufficient foundation investigations and laboratory testing will be performed in order to determine the design requirements for foundation stability; and*

Due to the low relief of the area, the sediment pond is mostly incised. The foundation is therefore very stable, and no stability investigation was required.

**R645-301-533.220** *All vegetative and organic materials will be removed and foundations excavated and prepared to resist failure. Cutoff trenches will be installed if necessary to ensure stability.*

All vegetative and organic materials were removed from the pond area prior to construction.

**R645-301-533.300** *Slope protection will be provided to protect against surface erosion at the site and protect against sudden drawdown.*

The pond is mostly incised with 3h:1v interior slopes. Slopes have adequate protection against erosion and sudden drawdown.

**R645-301-533.400** *Faces of embankments and surrounding areas will be vegetated except that faces where water is impounded may be riprapped or otherwise stabilized in accordance with accepted design practices.*

The pond is mostly incised, with only a small embankment. The embankment faces have been vegetated for protection.

**R645-301-533.500** The vertical portion of any remaining highwall will be located far enough below the low-water line along the full extent of highwall to provide adequate safety and access for the proposed water users.

N/A There are no highwalls associated with impoundments at this site.

**R645-301-533.600** Impoundments meeting the criteria of MSHA, 30 CFR 77.246(a) will comply with the requirements of MSHA, 30 CFR 77.216 and R645-301-512.240, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301-533.600, R645-301-733.220 through R645-301-733.224, and R645-301-743. The plan required to be submitted to the District Manager of MSHA under 30 CFR 77.216 will also be submitted to the Division as part of the permit application.

N/A There are no impoundments meeting the size or other criteria of MSHA 30 CFR 77.216(a) at this site.

**R645-301-533.610** Each detailed design plan for a structure that meets or exceeds the size or other criteria of MSHA, 30 CFR 77.216 (a) will include any geotechnical investigation, design, and construction requirements for the structure. The operation and maintenance requirements for each structure will be described.

N/A

**R645-301-533.620** If the structure is 20 feet or higher or impounds more than 20 acre-feet, each plan under R645-301-536.800, R645-301-732.210, and R645-301-733.210 will include a stability analysis of each structure. The stability analysis will include, but not be limited to, strength parameters, pore pressures, and long-term seepage conditions. The plan will also contain a description of each engineering design assumption and calculation with a discussion of each alternative considered in selecting the specific design parameters and construction methods.

N/A

**R645-301-533.700** Each detailed design plan for a structure that does not meet the size or other criteria of MSHA, 30 CFR 77.216(a) will include any design and construction requirements for the structure, including any required geotechnical information. The operation and maintenance requirements for each structure will be described.

Complete design plans for the impoundments are provided in Section R645-301-733 of Chapter 7.

**R645-301-534 Roads.** The permit application will describe designs for roads.

Roads are discussed in detail under Section R645-301-527 of this Chapter.

**R645-301-534.100** Roads will be located, designed, constructed, reconstructed, used, maintained, and reclaimed so as to:

Roads are located, designed, constructed, reconstructed, used, maintained and will be reclaimed so as to:

**R645-301-534.110** Prevent or control damage to public or private property;

**R645-301-534.120** Use non-acid or non-toxic forming substances in road surfacing;

**R645-301-534.130** Have, at a minimum, a static safety factor of 1.3 for all embankments;

**R645-301-534.140** Have a schedule and plan to remove and reclaim each road that will not be retained under approved postmining land use;

**R645-301-534.150** Control or prevent erosion, siltation and the air pollution attendant to erosion by vegetating or otherwise stabilizing all exposed surfaces in accordance with current, prudent engineering practices.

See Section R645-301-527 for details.

**R645-301-534.200** To ensure environmental protection and safety appropriate for their planned duration and use, including consideration of the type and size of equipment used, the design and reconstruction of roads will incorporate appropriate limits for grade, width, surface materials, and any necessary design criteria established by the Division.

All roads on site are designed and constructed within appropriate limits for grade, width, surface materials and other necessary design criteria. The haul road was constructed per BLM specification. (See Exhibit 5-7 for design details).

**R645-301-534.300** Primary Roads. Primary roads will meet the requirements of R645-301-358, R645-301-527.100, R645-301-527.230, R645-301-534.100, R645-301-534.200, R645-301-542.600, R645-301-542.600, and R645-301-762, any necessary design criteria established by the Division, and the following requirements. Primary roads will:

All roads on site are classified as Primary Roads and meet the requirements of the regulations (See R645-301-527).

**R645-301-534.310** *Be located, insofar as practical, on the most stable available surfaces;*

This is a low relief area, and all roads are located on the most stable, available surfaces as shown on Exhibits 5-1 and 5-2.

**R645-301-534.320** *Be surfaced with rock, crushed gravel, asphalt, or other material approved by the Division as being sufficiently durable for the anticipated volume of traffic and the weight and speed of vehicles using the road;*

All roads are surfaced with gravel or asphalt as shown on Exhibit 5-7.

**R645-301-534.330** *Be routinely maintained to include repairs to the road surface, blading, filling potholes and adding replacement gravel or asphalt. It will also include revegetation, brush removal, and minor reconstruction of road segments as necessary; and*

Roads are routinely maintained by blading or resurfacing as necessary. Drainage and drainage controls along the road are also routinely maintained by cleaning or replacement as needed.

**R645-301-534.340** *Have culverts that are designed, installed, and maintained to sustain the vertical soil pressure, the passive resistance of the foundation, and the weight of vehicles using the road.*

Culverts are designed, installed and maintained to sustain the vertical soil pressure, the passive resistance of the foundation and the weight of vehicles using the road. Culvert installation on the haulage road was done per BLM specifications. Culvert sizing calculations are shown in Appendix 5-3.

*R645-301-535 Spoil. The permit application will describe designs for spoil placement and disposal.*

N/A This is an area of low relief, and no excess spoil has been, or will be, generated by this operation. There are no plans for spoil placement or disposal.

**R645-301-535.100 Through R645-301-535.500**

N/A This is an area of low relief, and no excess spoil has been, or will be, generated by this operation. There are no plans for spoil placement or disposal, therefore R645-301-535.100 through R645-301-553.500 have been omitted.

*R645-301-536 Coal Mine Waste. The permit application will include designs for placement of coal mine waste in new or existing disposal areas within approved portions of the permit area. Coal mine waste will be placed in a controlled manner and have a design certification as described under R645-301-512.*

N/A This is a coal processing loadout facility only and no coal mine waste is produced or brought here. Coal processing wastes are described under Section R645-301-536.700.

**R645-301-536.100 through R645-301-536.600**

N/A

Note: Sections R645-301-536.100 through R645-301-536.600 are not applicable to this operation and are therefore omitted.

**R645-301-536.700 Coal Processing Waste**

*For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, each plan for returning coal processing waste to abandoned underground workings will describe the source and quality of waste to be stowed, area to be backfilled, percent of the mine void to be filled, method of constructing underground retaining walls, influence of the backfilling operation on active underground mine operations, surface area to be supported by the backfill, and the anticipated occurrence of surface effects following backfilling.*

Coal processing wastes are not being produced at the Banning Loadout at the present, or foreseeable future time. Coal processing waste that could be produced at the site would be a screen rock-coal mixture. Disposal of this type of waste would be by blending it back into the coal for retail sale, or if the waste meets MSHA's and other requirements, returning the waste to underground mine workings. There are no plans to use any coal processing waste as construction material at the site, and no disposal will occur on site.

**R645-301-536.800** *Coal processing waste banks, and embankments will be designed to comply with:*

N/A There are no plans to construct coal processing waste banks, dams or embankments at this site, therefore R645-301-536.810 through R645-301-536.824 will not be listed.

**R645-301-536.900** *Refuse Piles.* Refuse piles will meet the requirements of R645-301-210, R645-301-512.230, R645-301-513.400, R645-301-528.320, R645-301-536 through R645-301-536.200, R645-301-536.500, R645-301-536.900, R645-301-542.730, R645-301-553.250, R645-301-746.100 through R645-301-746.200, and the requirements of MSHA, 30 CFR 77.214 and 30 CFR 77.215.

N/A There are no plans for refuse piles at this site.

**R645-301-537 Regraded Slopes**

Regrading is described under the Reclamation Plan Section R645-301-540 of this Chapter. It should be noted that there are no steep slopes at this site, and the reclamation is planned to return the area to Approximate Original Contour.

**R645-301-537.100** *Each application will contain a report of appropriate geotechnical analysis, where approval of the Division is required for alternative specifications or for steep cut slopes under R645-301-358, R645-301-512.250, R645-301-527.100, R645-301-527.230, R645-301-534.100, R645-301-534.200, R645-301-534.300, R645-301-542.600, R645-301-742.410, R645-301-742.420, R645-301-752.200, R645-301-762.*

N/A There are no approvals requested for alternative specifications or steep cut slopes at this site.

**R645-301-537.200** For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, regrading of settled and revegetated fills to achieve approximate original contour at the conclusion of mining operations will not be required if the following conditions are met.

The reclamation plan is designed to return the area to Approximate Original Contour. There are no settled or revegetated fills composed of spoil or underground development waste proposed to be left on site.

**R645-301-537.210 through R645-301-537.250**

N/A There are no settled or revegetated fills composed of spoil or underground development waste proposed to be left on site, therefore R645-301-537.210 through R645-301-537.250 will not be listed.

**R645-301-540 Reclamation Plan**

This section will describe the Reclamation Plan for the Banning Loadout site.

**R645-301-541 General**

The land uses within and adjacent to the permit area are listed in Chapter 4. An operating oil field, Grassy Trails, and an inactive carbon dioxide field, Farnham Dome, are located within the region. The operation of Banning Loadout will have no effect of these land uses or any other uses, except for the rangeland and wildlife uses.

Following final reclamation of the site, the affected lands will be returned to a state similar to that of the premining

environment. This will be accomplished by adherence to the reclamation plan contained within this section.

The road from U.S. Highway 6-50 to the entrance of the loadout facilities will remain following final reclamation of the site. This is as per the Applicant's BLM Right-of-Way 33855. Ownership of the road shall revert to the United States following reclamation activities at the site. The road from the entrance of the facilities to the truck dump will be removed and the lands will be reclaimed (Exhibit 5-6 and 5-6A).

The SCS determined that there are no prime or important farmlands within or adjacent to the permit area, so no special contingence will be made during reclamation. Soils within the reclaimed land will be redistributed, regraded and revegetated. This will insure the stability and productivity of the land.

**R645-301-541.100** *Persons who crease coal mining and reclamation operations permanently will close or backfill or otherwise permanently reclaim all affected areas, in accordance with the R645-301- Rules and the permit approved by the Division.*

As noted above, upon final cessation of operations, the area will be permanently reclaimed in accordance with the R645 Rules and the permit approved by the Division.

**R645-301-541.200** *For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, all underground openings, equipment, structures, or other facilities not required for monitoring, unless approved by the Division as suitable for the postmining land use or environmental monitoring, will be removed and the affected land reclaimed.*

N/A This is a surface loadout for an underground coal mine.

**R645-301-541.300** *For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, all surface equipment, structures, or other facilities not required for continued underground mining activities and monitoring, unless approved by*

*the Division as suitable for the postmining land use or environmental monitoring will be removed and the affected lands reclaimed.*

The existing structures are illustrated on Exhibits 5-1, 5-2 and 7-1. At the conclusion of the operation, all equipment will be removed by the operator to other projects, sold as used equipment or sold to a local scrap dealer. No support structures will be abandoned following final bond release. Refer to Chapter 4 Section R645-301-412.100 for information pertaining to the land purchased by East Carbonics Inc. and the associated post mining land use change. A detailed timetable for the completion of each major reclamation step is given on Table 5-2.

The first step in the reclamation plan is removal of all loose coal material. This will begin a year prior to the closure of the operation. The operator will start to scrape the outlying areas removing as much coal as possible and will continue inward toward the area above the vibrating feeders. This coal-soil mixture will be blended into the raw coal product and sold to customers. This process will continue until all of the area is devoid of the surface layer of coal. At this point in time, the operation will cease to exist as a loadout and the reclamation of the area will begin and will return the land to a premining condition.

The second step in the reclamation process will be the dismantling and removal of all support facilities, except the drainage controls. The conveyor structures will be the first to be dismantled and removed, either to be used by the operator for other projects or to be sold as scrap to local dealers. During the demolition of the conveyor structures, the reclaim tunnel will be uncovered and the vibrating feeders will be dismantled and removed from the site. All scrap metal

from the reclaim tunnel and vibrating feeder will be sold to local dealers.

The next step will be the demolition of both buildings and the coal silo. The diesel motor generating units, along with all other usable equipment, will be removed for use by the operator, will be sold as used equipment or will be sold to a local scrap dealer. Both buildings and the silo will then be dismantled or demolished and all parts removed for use or sold for scrap.

All concrete footers and pads associated with the facilities will be demolished and hauled to the reclaim tunnel areas for deposition. The underground water tank will then be removed along with the diesel storage tank. Also, during this step the escape tunnel, fan, electrical cables, underground piping and the water well will be demolished. The material from this demolition will be disposed in a manner similar to all other structures.

The haulage road, from the facilities entrance to the truck dump and back, will be the final item removed from the site during this stage of the reclamation process. The asphalt road will be ripped into small pieces and hauled to the reclaim tunnel area for deposition. The truck dump will be demolished and disposed of off site. Following this process, a general site cleanup will occur with any excess, non-metal, debris to be disposed of in the reclaim tunnel area.

All costs associated with the above steps are listed in Table 5-3. The drainage controls for the site will remain intact during this process to control any potential runoff. Signs, markers and the fence lines will remain during this period of

the reclamation process. No underground opening will be left nor will there be any use of coal processing waste for reclamation of the site. The haulage road from U.S. Highway 6-50 to the facilities area will remain following final reclamation and bond release, but the fence line will be removed.

*R645-301-541.400 Each application will include a plan for the reclamation of the lands within the proposed permit area which shows how the applicant will comply with R645-301, and the environmental protection performance standards of the State Program.*

The Banning Loadout will be abandoned and permanently closed when the Applicant has no further use of the area. Final reclamation will begin with the abandonment and closure. Closure will be timed so that revegetation can take place in the early fall of the same year. All surface structures will be removed and disposed of, except the road **belonging to the BLM**, at the conclusion of the operation.

Table 5-2 is a detailed timetable for the completion of each major reclamation step. Table 5-3 presents bond calculations for the disturbed areas, which include a breakdown of labor, equipment and material costs. No equipment salvage values were taken into consideration for this bond calculation.

The following sections will further describe each of the various reclamation activities.

*R645-301-542 Narratives, Maps and Plans. The reclamation plan for the proposed permit area will include:*

*R645-301-542.100 A detailed timetable for the completion of each major step in the reclamation plan;*

Table 5-2 is a detailed timetable for the completion of each major step of reclamation.



TABLE 5-2  
 RECLAMATION TIMETABLE  
 Months from Start of Reclamation

Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coal Removal																
Operation Closure																
Structures Removal																
Concrete & Asphalt Removal																
Backfilling, Grading, Channel Construction																
Soil Reclamation & Revegetation																
Mobilization & Demobilization																
Sediment Pond Removal																
Place Topsoil & Revegetation																

*R645-301-542.200 A plan for backfilling, soil stabilization, compacting and grading, with contour maps or cross sections that show the anticipated final surface configuration of the proposed permit area, in accordance with R645-301-537.200, T645-301-552 through R645-301-553.230, R645-301-553.260 through R645-301-553.900, and R645-302-234.*

## Backfilling and Grading Plan

All areas affected by the loadout facilities within the permit area, except the designated portion of the haulage road, will be returned to a final surface configuration that closely resembles premining conditions. This configuration will conform to the drainage pattern of the surrounding terrain (Exhibit 5-6 and 5-6A). The final contours will be achieved by backfilling and grading existing soils.

The final grading and shaping of the affected areas will produce many flat or relatively flat surfaces with slopes of a moderate grade. All grading will be completed in a controlled manner to suppress or eliminate erosion and sedimentation problems. Grading will take place along the contour as long as safety considerations and areal conditions permit. Graded surfaces will be left in rough shape and will be ripped to produce the proper seedbed conditions. Smooth compacted surfaces will be avoided throughout the process.

Material will be taken first from the truck ramp and used to build up the higher relief areas. Following this, the central drainage channel will be roughed in and the soil distributed to the higher relief areas. Next, the drainage channels and associated road will be regraded to final contours. The road will be built to closely approximate the need of right-of-way specifications. Last, the area will be graded as close to final contours and inspected and certified by the engineer-in-charge.

Drainage controls, except for the sediment pond, will be removed during the final contouring of the site. This is necessary to insure proper configuration of the site and so that future disturbance at the site, to remove the controls, is not required. (The decision on whether to leave the fence up or take it down will be made during the operation after reviewing the data obtained from the test plot area). If the fence is to be taken down it will be done along with final grading of the area. If the fence is to be left up, it will be taken down when the site meets bond release requirements.

All signs and markers associated with the operation will remain intact, until the final grading of the site. After final grading, if the fence is taken down, the perimeter signs will be placed on steel pins clearly marking the outline of the reclaimed area. All minor amounts of coal and debris left on site will be covered with soil during the grading. Any rills or gullies deeper than 9 inches will be filled, graded or otherwise stabilized and the affected area will be reseeded as per the plan.

Topsoil redistribution and revegetation of the site are discussed under Sections R645-301-240 (Chapter 2) and R645-301-340 (Chapter 3), respectively.

The final surface configuration is shown on Exhibit 5-6/5-6A and cross sections are shown on Exhibit 5-3.

**R645-301-542.300** For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, final surface configuration maps with cross sections (at internals specified by the Division) that indicate:

The final surface configuration is shown on Exhibit 5-6 and 5-6A. Cross sections are shown on Exhibit 5-3.

*R645-301-542.310 The anticipated final surface configuration to be achieved for the affected areas. The maps and cross sections will be prepared and certified as described under R645-301-512; and*

All final surface configuration maps and cross sections are prepared under the direction of, and certified by, a registered professional engineer as required.

*R645-301-542.320 Location of each facility that will remain on the proposed permit area as a permanent feature, after the completion of coal mining and reclamation operations;*

~~The only facility that will remain as a permanent feature will be a portion of the haul road as shown on Exhibit 5-6.~~ A portion of the haul road will remain as a permanent feature, this road is left as a provision of the B.L.M. Right-of-Way. See Section R645-301-526.110 for additional information.

*R645-301-542.400 Before abandoning a permit area or seeking bond release, a description ensuring all temporary structures are removed and reclaimed, and all permanent sedimentation ponds, impoundments and treatment facilities that meet the requirements of the R645 Rules for permanent structures, have been maintained properly and meet the requirements of the approved reclamation plan for permanent structures and impoundments. The operator will renovate such structures if necessary to meet the requirements of the R645 Rules and to conform to the approved reclamation plan;*

Prior to bond release, all temporary structures will be removed and reclaimed.

The Applicant will request Phase I bond release, 60% of the bonded amount, following successful completion of backfilling, regrading, soil dispersement and drainage control of the bonded area. Release of an additional 25% will be requested at the end of the responsibility period, completion of Phase II, when the revegetated

area exhibits statistical adequacy with the approved reference area. The remaining 15% of the bond will be released at the completion of Phase III, the removal of all remaining sediment controls and revegetation of these small areas.

**R645-301-542.500** *A timetable, and plans to remove each proposed sedimentation pond, water impoundment, and coal processing waste bank, dam, or embankment, if appropriate.*

The sediment pond will not be removed.

**R645-301-542.600** *Roads. A road not to be retained for use under an approved postmining land use will be reclaimed immediately after it is no longer needed for mining and reclamation operations, including;*

All roads will be removed and reclaimed, except for a portion of the haulage road which will be left as a permanent structure per requirements of the B.L.M. Right-of-Way.

**R645-301-542.610** *Closing the road to traffic;*

All roads to be reclaimed will be closed to traffic prior to reclamation activities

**R645-301-542.620** *Removing all bridges and culverts; unless approved as part of the postmining land use.*

All drainage controls will be removed on reclaimed roads. The culverts along the permanent portion of the haul road will be left in place and maintained throughout the bond liability period.

**R645-301-542.630** *Scarifying or ripping of the roadbed and replacing topsoil and revegetating disturbed surfaces in accordance with R645-301-232.100 through R645-301-232.600, R645-301-234, R645-301-242, R645-301-243, R645-301-244.200 and R645-301-353 through R645-301-357.*

All reclaimed road beds will be ripped. The asphalt haul road around the truck dump will be ripped into small pieces and hauled to the reclaim tunnel area for deposition. The areas will then be regraded and topsoiled and revegetated according to the approved plan.

**R645-301-542.640** *Removing or otherwise disposing of road-surfacing materials that are incompatible with the postmining land use and revegetation requirements.*

Gravel road surfacing will be ripped and blended with existing soils. Gravel will not be detrimental to revegetation or the postmining land use. The asphalt surface of reclaimed roads will be placed in the reclaim tunnel area and buried beneath a minimum of 4' of non-acid, non-toxic material.

**R645-301-542.700** *Final Abandonment of Mine Openings and Disposal Area*

There are no mine openings at this site.

**R645-301-542.710** *A description, including appropriate cross sections and maps, of the measures to be used to seal or manage mine openings, and to plug, case or manage other openings within the proposed permit area, in accordance with R645-301-529, R645-301-551, R645-301-631, R645-301-738, and R645-301-765.*

N/A There are no mine openings at this site.

**R645-301-542.720** *Disposal of Excess Spoil. Excess spoil will be placed in designated disposal areas within the permit area, in a controlled manner to ensure that the final fill is suitable for reclamation and revegetation compatible with the natural surroundings and the approved postmining land use. Excess spoil that is combustible will be adequately covered with noncombustible material to prevent sustained combustion. The reclamation of excess spoil will comply with the design criteria under R645-301-553.240.*

N/A There are no plans for excess spoil at this site.

**R645-301-542.730** *Disposal of Coal Mine Waste.* Coal mine waste will be placed in a controlled manner to ensure that the final disposal facility will be suitable for reclamation and revegetation compatible with the natural surroundings and the approved postmining land use.

N/A The only coal waste at this site will be coal processing waste. This material will be cleaned up and shipped as product during the year prior to reclamation. There are no plans to dispose of coal processing waste on site.

**R645-301-542.740** *Disposal of Non-Coal Mine Wastes*

Noncoal mine wastes will be placed and stored in a controlled area prior to disposal. Materials such as scrap machinery and metal will be salvaged and recycled as possible. Flammable liquids, paints, lubricants and other combustible or hazardous material will be stored and disposed of in accordance with RCRA and other applicable requirements for hazardous materials. Recycling will be used whenever possible. Normal garbage and scrap which can be taken to a landfill will be stored in dumpsters and hauled to the Carbon County Landfill.

The only material expected to be buried on site is the ripped asphalt surface from the haul road. As indicated, this will be placed in the reclaim tunnel area and covered with a minimum of 4' of non-acid, non-toxic material.

**R645-301-542.741** *Noncoal mine wastes including, but not limited to grease, lubricants, paints, flammable liquids, garbage, abandoned mining machinery, lumber and other combustible materials generated during mining activities will be placed and stored in a controlled manner in a designated portion of the permit area. Placement and storage will ensure that fires are prevented, and that the area remains stable and suitable for reclamation and revegetation compatible with the natural surroundings.*

Addressed under R645-301-542.740

**R645-301-542.742** Final disposal of noncoal mine wastes will be in a designated disposal site in the permit area or a state approved solid waste disposal area. Wastes will be routinely compacted and covered to prevent combustion and wind-borne waste. When the disposal is completed, a minimum of two feet of suitable cover will be placed over the site, slopes stabilized, and revegetation accomplished in accordance with R645-301-244.200 and R645-301-353 through R645-301-357, inclusive. Operation of the disposal site will be conducted in accordance with all local, Utah, and federal requirements.

Addressed under R645-301-542.740

**R645-301-542-800** The reclamation plan for the proposed coal mining and reclamation operations will also include a detailed estimate of reclamation costs as described in R645-301-830.100 through R645-301-830.300.

A detailed estimate of reclamation costs is shown on Table 5-3 of this chapter.

**R645-301-550 Reclamation Design Criteria and Plans**

Each permit application will include site specific plans that incorporate the following design criteria for reclamation activities.

**R645-301-551 Casing and Sealing of Underground Openings.** When no longer needed for monitoring or other use approved by the Division upon a finding of no adverse environmental or health and safety effects, each shaft, drift, adit, tunnel, or other opening to the surface from underground will be capped, sealed and backfilled, or otherwise properly managed, as required by the Division and consistent with MSHA, 30 CFR 75.1771. Permanent closure measures will be designed to prevent access to the mine workings by people, livestock, fish and wildlife, machinery and to keep acid or other toxic drainage from entering ground or surface waters.

N/A There are no underground openings at this site.

**R645-301-552 Permanent Features**

The only permanent features proposed to left is the portion of the haul road on the B.L.M. Right-of-Way as shown on Exhibit 5-6A. Refer to Chapter 4 Section R645-301-412.100 for information pertaining to the land purchased by East Carbonics Inc. and the associated post mining land use change pertaining to the

substation. In addition refer to Section *R645-301-526.110* concerning permanent features.

*R645-301-552.100* Small depressions may be constructed if they are needed to retain moisture, minimize erosion, create and enhance wildlife habitat, or assist revegetation.

The final surface will be roughened to promote water retention and assist vegetation. This roughening will create small pockets or depressions.

*R645-301-552.200* Permanent impoundments may be approved if they meet the requirements of *R645-301-512.240*, *R645-301-514.300*, *R645-301-515.200*, *R645-301-533.100* through *R645-301-533.600*, *R645-301-542.400*, *R645-301-733.220* through *R645-301-733.224*, *R645-301-743*, and if they are suitable for the approved postmining land use.

N/A There are no plans for permanent impoundments at this site.

TABLE 5-3

**R645-301-553** *Backfilling and Grading.* Backfilling and grading design criteria must be described in the permit application. For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES nothing in R645-301-553 will prohibit the placement of material in road and portal pad embankments located on the downslope, so long as the material used and the embankment design comply with the applicable requirements of R645-301-500 and R645-301-700 and the material is moved and placed in a controlled manner. For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES rough backfilling and grading will follow coal removal by not more than 60 days or 1500 linear feet. The Division may grant additional time for rough backfilling and grading if the permittee can demonstrate, through a detailed written analysis under R645-301-542.200, that additional time is necessary.

Backfilling and grading plans are discussed under Section R645-301-542.200.

**R645-301-553.100** *Disturbed areas will be backfilled and graded to:*

The disturbed area will be backfilled and graded to the following:

**R645-301-553.110** *Achieve the approximate original contour, except as provided in R645-301-553.600 through R645-301-553.642;*

**R645-301-553.120** *Eliminate all highwalls, spoil piles, and depressions, except as provided in R645-301-552.100 (small depressions); R645-301-553.620 (previously mined highwalls); and in R645-301-553.650 (retention of highwalls);*

Eliminate all depressions, except small depressions as described above. (There are no highwalls or spoil piles at this site);

**R645-301-553.130** *Achieve a postmining slope that does not exceed either the angle of repose or such lesser slope as is necessary to achieve a minimum long-term static safety factor of 1.3 and to prevent slides*

Achieve a postmining slope that does not exceed either the angle of repose or such lesser slope as is necessary to achieve a minimum long-term static safety factor of 1.3 and to prevent slides (See Exhibit 5-6);

**R645-301-553.140** *Minimize erosion and water pollution both on and off the site; and*

**R645-301-553.150** *Support the postmining land use. (See Section R645-301-541).*

**R645-301-553.200** *Spoil and Waste.* Spoil and waste materials will be compacted where advisable to ensure stability or to prevent leaching or toxic materials.

There will be no disposal of spoil at this site. The only waste material proposed to be left on site is the ripped asphalt surface of the haul road. This material will be placed in the reclaim tunnel area and buried beneath a minimum of 4' of non-acid, non-toxic material.

**R645-301-553.210 Through R645-301-240**

Note: N/A There will be no disposal of spoil at this site, therefore R645-301-553.210 through R645-301-553.240 will be omitted.

**R645-30-553.250** **Refuse Piles**

N/A There are no plans for refuse piles at this site.

**R645-301-553.251** *The final configuration for the refuse pile will be suitable for the approved postmining land use. Terraces may be constructed on the outslope of the refuse pile if required for stability, control of erosion, conservation of soil moisture, or facilitation of the approved postmining land use. The grade of the outslope between terrace benches will not be steeper than 2h:1v (50 percent).*

N/A

**R645-301-553.252** *Following final grading of the refuse pile, the coal mine waste will be covered with a minimum of four feet of the best available, nontoxic and noncombustible material, in a manner that does not impede drainage from the underdrains. The Division may allow less than four feet of cover material based on physical and chemical analyses which show that the requirements of R645-301-244.200 and R645-301-353 through R645-301-357.*

N/A

**R645-301-533.260** *Disposal of coal processing waste and underground development waste in the mined-out surface area (UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES) or mined-out area (SURFACE COAL MINING AND RECLAMATION ACTIVITIES) will be in accordance with R645-301-210, R645-301-512.230, R645-301-513.400, R645-301-514.200, R645-301-515.200, R645-301-528.322, R645-301-528.320, R645-301-536 through R645-301-536.200, R645-301-536.500, R645-301-536.900, R645-301-542.730, R645-301-553.250, and*

*R645-301-746.100 through R645-301-746.200, except that a long-term static safety factor of 1.3 will be achieved.*

Any coal processing waste will be disposed of during the year preceding reclamation, by blending with the coal and shipped as retail product. There are no plans to dispose of coal processing waste on site.

There are also no plans to have or dispose of underground development waste on site.

*R645-301-553.300 Exposed coal seams, acid and toxic forming materials, and combustible materials exposed, used or produced during mining will be adequately covered with nontoxic and noncombustible materials, or treated, to control the impact on surface and ground water in accordance with R645-301-731.100 through R645-301-731.522 and R645-301-731.800, to prevent sustained combustion, and to minimize adverse effects on plant growth and the approved postmining land use.*

There are no coal seams on this site. It is anticipated that all combustible materials will be shipped, recycled or otherwise properly disposed of off-site prior to reclamation. The only material expected to be buried on-site is the ripped asphalt surface from the haul road.

No acid or toxic forming materials are expected to be present during reclamation; however, should such materials be found, they would be placed in the reclaim tunnel area (along with the asphalt) and buried beneath a minimum of 4' of non-toxic and non-combustible material.

*R645-301-553.400 Cut-and-fill terraces may be allowed by the Division where:*

N/A There are no plans for cut and fill terraces at this site.

**R645-301-553.410** Needed to conserve soil moisture, ensure stability, and control erosion on final-graded slopes, if the terraces are compatible with the approved postmining land use; or

N/A

**R645-301-553.420** Special grading, foundation conditions, or roads are required for the approved postmining land use, in which case the final grading may include a terrace of adequate width to ensure the safety, stability, and erosion control necessary to implement the postmining land-use plan.

N/A

**R645-301-553.500** *Previously Mined Areas*

Operations began at Banning Loadout in 1976 under permission from the B.L.M. to upgrade the existing road and to receive, stockpile and load coal at the site.

**R645-301-553.510** Remaining operations on previously mined areas that contain a preexisting highwall will comply with the requirements of R645-301-537.200, R645-301-552 through R645-301-553.230, R645-301-553.260 through R645-301-553.900, and R645-302-234, except as provided in R645-301-553.500.

N/A There are no highwalls associated with this operation.

**R645-301-553.520 through R645-301-524**

N/A There are no highwalls associated with this operation, therefore R645-301-553.520 through R645-301-524 will not be listed.

**R645-301-553.600** *Approximate Original Contour. Postmining slopes may vary from the approximate original contour when:*

The proposed reclamation plan is designed to restore the area to the Approximate Original Contour as discussed under Section R645-301-542.200.

**R645-301-553.610 through R645-301-553.653**

N/A The area will be totally restored to the approximate original contour as discussed under Section R645-301-542.200, therefore R645-301-553.620 through R645-301-553.653 will not be listed.

**R645-301-553.700** Backfilling and Grading: Thin Overburden: For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, this section applies only where the final thickness is less than 0.8 of the initial thickness. Initial thickness is the sum of the overburden thickness and coal thickness prior to removal of coal. Final thickness is the product of the overburden thickness prior to removal of coal, times the bulking factor to be determined for each permit area. The provisions of this section apply only when SURFACE COAL MINING AND RECLAMATION ACTIVITIES cannot be carried out to comply with the requirements of R645-301-537.200, R645-301-552 through R645-301-553.230, R645-301-553.260 through R645-301-553.420, R645-301-553.600, and R645-301-553.900 to achieve the approximate original contour. The operator will, at a minimum:

N/A This is a surface loadout facility for an underground coal mine. No mining is done at this site.

**R645-301-553.710** Use all available spoil and waste materials to attain the lowest practicable grade, but not more than the angle of repose; and

N/A

**R645-301-553.720** Meet the requirements of R645-301-211, R645-301-212, R645-301-412.300, R645-301-512.210, R645-301-514.100, R645-301-535.100, R645-301-535.112 through R645-301-535.130, R645-301-536.300, R645-301-542.720, R645-301-553.240, and R645-301-745.100.

N/A

**R645-301-553.800** Backfilling and Grading: Thick Overburden. For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, this section applies only where the final thickness is greater than 1.2 of the initial thickness. Initial thickness is the sum of the overburden thickness and coal thickness prior to removal of coal. Final thickness is the product of the overburden thickness prior to removal of coal, times the bulking factor to be determined for each permit area. The provisions of this section apply only when SURFACE COAL MINING AND RECLAMATION ACTIVITIES cannot be carried out to comply with the requirement of R645-301-537.200, R645-301-552 through R645-301-553.230, R645-301-553.260 through R645-301-553.420, R645-301-553.600, and R645-301-553.900 to achieve the approximate original contour. In addition the operator will, at a minimum:

N/A No mining is done at this site.

**R645-301-553.810, R645-301-553.820, and R645-301-553.830**

N/A

**R645-301-553.900** For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, regrading of settled and revegetated fills at the conclusion of coal mining and reclamation operations will not be required if the conditions of R645-301-537.200 are met;

N/A There are no plans or requests to leave settled and revegetated fills at this site.

**R645-301-560 Performance Standards**

Coal mining and reclamation operations will be conducted in accordance with the approved permit and requirements of R645-301-510 through R645-301-553.

Coal processing and loading and reclamation operations will be conducted in accordance with the approved permit and requirements of R645-301-510 through R645-301-553. The methods by which the performance standards will be met are described in the applicable sections from R645-301-510 through R645-301-553.

## REFERENCES

Allgood, Ferris P., SCS 1987. Prime farmland investigation for the Banning Loadout.

Blue Book Equipment Rates, 1987.

Cook, George, SCS 1987. Productivity estimates and Range condition.

Cressy, Dan, BLM 1987. Personal Communication concerning oil, gas and carbon dioxide fields within and around Banning Loadout.

Franks, Carol D., BLM 1987. Soil mapping unit description and profile description for Banning Loadout.

Hardin, Randy, DOGM 1987. Personal Communication concerning reclamation costs.

Kunzler, Lynn, DOGM 1987. Meeting at Banning Loadout to choose reference area.

Bailey, Mark E., BLM 1989. Letter concerning post-mining land use and fence lines.

Dalton, Larry B., DWR 1989. Letter concerning fences at Banning Loadout following reclamation.

**CHAPTER 7**

Following construction of the sedimentation pond, all disturbed areas associated with pond construction (with the exception of the interior of the pond) were revegetated with the approved seed mixture. Mulching, fertilizing, and other reclamation procedures outlined in Chapter 5 of this PAP (except initial soil ripping to a depth of 18 inches) were followed where appropriate during reclamation of the areas disturbed by pond construction.

Sediment Pond calculations are provided in Appendix 7-6

**R645-301-732.210**

The sediment pond will not be removed according to the reclamation schedule shown in Table 5.2, ~~page 5-67~~ of this permit.

**R645-301-732.220**

N/A There are no coal processing waste dams or embankments at this site. The pond does not meet the size or other criteria of 30 CFR 77.216(a).

**R645-301-732.300 Diversions**

Runoff control at the loadout site will be provided primarily by maintenance and construction of existing and new berms and the sedimentation pond. A plan view of the site and the proposed runoff-control measures is provided in Exhibit 7-1.

**R645-301-733.100    *General Plan***

Plans for the sediment pond are provided in Section R645-301-732.200, Appendix 7-6 and Exhibits 7-2 and 7-3.

**R645-301-733.110**

All plans and maps are prepared and certified according to R645-301-512;

**R645-301-733.120**

Maps and cross sections are provided as described above;

**R645-301-733.130**

Narratives describing the structure are provided in Section R645-301-732.100, 732.200 and 733.

**R645-301-733.140**

Surveys are provided in Exhibits 7-1, 7-2 and 7-3;

**R645-301-733.150**

Assessment of hydrologic impacts are provided in Appendix 7-6 and Section R645-301-732.200;

**R645-301-733.160**

N/A Structures have been constructed under approved plans.

**R645-301-733.200    *Permanent and Temporary Impoundments***

The sediment pond will **not** be removed and reclaimed during final reclamation.

**R645-301-733.210**

The sediment pond was designed to comply with applicable regulations and does not meet the size or other criteria of 30 CFR 77-216.

December 2005

~~May 25, 2004~~

R645-301-733.220 *Permanent*

The sedimentation pond will **not** be removed during final reclamation.

R645-301-733.221

N/A

R645-301-733.222

N/A

R645-301-733.223

N/A

R645-301-733.224

N/A

R645-301-733.225

N/A

R645-301-733.226

N/A

R645-301-733.230 *Temporary Impoundments*

**The sediment pond is not considered temporary.** ~~in that it will be removed during final reclamation.~~

24R645-301-733.240 *Notification of Hazard*

If any examination or inspection discloses that a potential hazard exists, the person who examined the impoundment will promptly inform the Division as indicated in Section R64-301-515.200.

December 2005

~~May 25, 2004~~