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State of Utah
DEPARTMENT OF NATURAL RESOURCES
Division of Oil, Gas & Mining

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February 26, 2008

James Jensen, Vice President
Savage Services Corporation
6340 South 3000 East
Salt Lake City, Utah 84121

Subject: Midterm Review, Savage Services Corporation, Savage Coal Terminal, C/007/0022, Task ID #2759, Outgoing File

Dear Mr. Jensen:

The Division has completed the Midterm Review of the Savage Coal Terminal in accordance with R645-303-211. The items reviewed, were identified in our March 5, 2007 letter to Savage Services Corporation.

The results are listed below.

- 1) An AVS check to was conducted on January 23, 2008. No violations are pending.
- 2) The MRP is updated to reflect changes in the Utah Coal Regulatory Program that occurred subsequent to permit approval. A mine plan comparison was conducted on January 23, 2008. The Mining and Reclamation plans of the Permittee, Price Field Office and Salt Lake Office are now identical.
- 3) A review for Division Orders and mine plan changes has indicated that all pending issues have been addressed.
- 4) The Permittee is implementing the best technology currently available (BTCA) to prevent additional contributions of suspended solids to stream flows outside of the permit area.
- 5) The bond has been reviewed to ensure that it is in order and that the cost estimate is accurate and is escalated to the appropriate year dollar.
- 6) The Division conducted a technical site visit on April 18, 2007 to document the status and effectiveness of operational, reclamation, and contemporaneous reclamation practices. At the time of the technical site visit field visit the Division expressed concerns about the procedures used to supply processing water and disposition wash-down waters.

Page 2
James Jensen
February 26, 2008

from the preparation plant. The Division's concerns were addressed during the review process.

This concludes the midterm review of the Savage Coal Terminal. A stamped incorporated copy has been sent to Dan Guy for your copy of the Mining and Reclamation Plan. Thank you for your cooperation during the review.

If you have any questions regarding these requirements or the Midterm Review please don't hesitate to call.

Sincerely,



Daron R. Haddock
Permit Supervisor

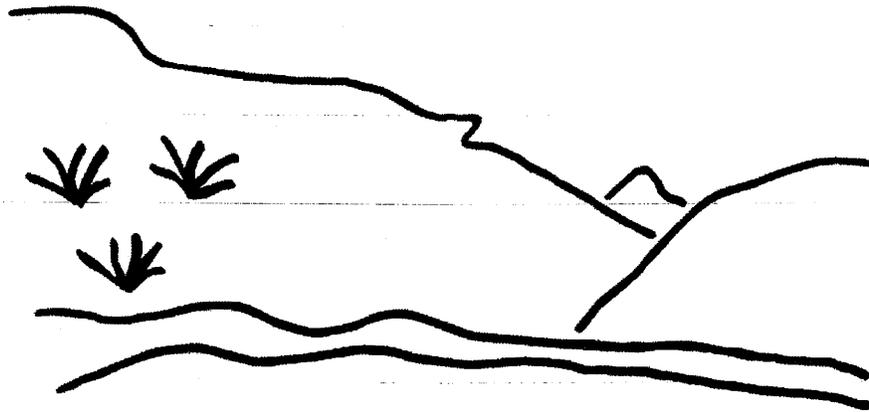
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Enclosure

cc: Marc Stilson, Water Rights w/o
Dave Ariotti, DEQ w/o
Eric Larson, DWR w/o
Dan Guy, w/ enclosure
Boyd Rhodes, w/o
Price Field Office w/enclosure

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State of Utah



Utah Oil Gas and Mining

Coal Regulatory Program

Savage Coal Terminal
C/007/0022
Midterm Permit Review
February 26, 2008

TABLE OF CONTENTS

TECHNICAL ANALYSIS DESCRIPTION	1
SUMMARY OF PERMIT CONDITIONS.....	3
GENERAL CONTENTS.....	5
IDENTIFICATION OF INTERESTS	5
RIGHT OF ENTRY	6
LEGAL DESCRIPTION AND STATUS OF UNSUITABILITY CLAIMS.....	6
PERMIT TERM.....	7
ENVIRONMENTAL RESOURCE INFORMATION	9
PERMIT AREA	9
HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION.....	9
CLIMATOLOGICAL RESOURCE INFORMATION	10
VEGETATION RESOURCE INFORMATION	10
FISH AND WILDLIFE RESOURCE INFORMATION	11
SOILS RESOURCE INFORMATION.....	12
ALLUVIAL VALLEY FLOORS	13
Alluvial Valley Floor Determination	14
Applicability of Statutory Exclusions.....	14
PRIME FARMLAND.....	15
HYDROLOGIC RESOURCE INFORMATION	16
Probable Hydrologic Consequences Determination	16
MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION.....	16
Existing Structures and Facilities Maps.....	16
OPERATION PLAN	17
MINING OPERATIONS AND FACILITIES.....	17
AIR POLLUTION CONTROL PLAN.....	17
SUBSIDENCE CONTROL PLAN.....	18
Notification	18
FISH AND WILDLIFE INFORMATION	18
Protection and Enhancement Plan	18
Endangered and Threatened Species	18
Bald and Golden Eagles.....	19
Wetlands and Habitats of Unusually High Value for Fish and Wildlife	19
TOPSOIL AND SUBSOIL.....	19
Topsoil Removal and Storage.....	19
VEGETATION	21
ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES	21
Road Classification System	21
Plans and Drawings.....	22
Performance Standards	22
Primary Road Certification.....	22
Other Transportation Facilities	22
SPOIL AND WASTE MATERIALS	23
Disposal Of Noncoal Mine Wastes.....	23
Refuse Piles.....	23

TABLE OF CONTENTS

Impounding Structures.....	24
HYDROLOGIC INFORMATION	24
General.....	24
Groundwater Monitoring.....	25
Surface Water Monitoring.....	25
Acid- and Toxic-Forming Materials and Underground Development Waste.....	26
Water-Quality Standards And Effluent Limitations.....	26
Diversions: General.....	26
Diversions: Perennial and Intermittent Streams.....	27
Diversions: Miscellaneous Flows.....	27
Stream Buffer Zones.....	27
Sediment Control Measures.....	27
Siltation Structures: Sedimentation Ponds.....	27
Impoundments.....	27
Ponds, Impoundments, Banks, Dams, and Embankments.....	28
USE OF EXPLOSIVES	28
MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS	28
Mining Facilities Maps.....	28
Monitoring and Sampling Location Maps.....	29
Certification Requirements.....	29
RECLAMATION PLAN	31
GENERAL REQUIREMENTS	31
POSTMINING LAND USES	31
PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES ...	32
APPROXIMATE ORIGINAL CONTOUR RESTORATION	32
BACKFILLING AND GRADING	32
General.....	33
MINE OPENINGS	33
TOPSOIL AND SUBSOIL	33
Redistribution [01162008].....	33
ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES	34
Reclamation.....	34
Retention.....	34
HYDROLOGIC INFORMATION	35
Hydrologic Reclamation Plan.....	35
REVEGETATION	35
Revegetation: General Requirements.....	35
Revegetation: Timing.....	35
Revegetation: Standards For Success.....	35
STABILIZATION OF SURFACE AREAS	37
MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS	38
Reclamation Backfilling And Grading Maps.....	38
Final Surface Configuration Maps.....	38
BONDING AND INSURANCE REQUIREMENTS	39

TABLE OF CONTENTS

Determination of Bond Amount 39

REQUIREMENTS FOR PERMITS FOR SPECIAL CATEGORIES OF MINING 41

COAL PREPARATION PLANTS NOT LOCATED WITHIN THE PERMIT AREA OF A
MINE 41

OPERATIONS IN ALLUVIAL VALLEY FLOORS 41

TABLE OF CONTENTS

TECHNICAL ANALYSIS DESCRIPTION

The Division ensures that coal mining and reclamation operations in the State of Utah are consistent with the Coal Mining Reclamation Act of 1979 (Utah Code Annotated 40-10) and the Surface Mining Control and Reclamation Act of 1977 (Public Law 95-87). The Utah R645 Coal Mining Rules are the procedures to implement the Act. The Division reviews each permit or application for permit change, renewal, transfer, assignment, or sale of permit right for conformance to the R645-Coal Mining Rules. The Applicant/Permittee must comply with all the minimum regulatory requirements as established by the R645 Coal Mining Rules.

The regulatory requirements for obtaining a Utah Coal Mining Permit are included in the section headings of the Technical Analysis (TA) for reference. A complete and current copy of the coal rules can be found at <http://ogm.utah.gov>

The TA is organized into section headings following the organization of the R645-Coal Mining Rules. The Division analyzes each section and writes findings to indicate whether or not the application is in compliance with the requirements of that section of the R645-Coal Mining Rules.

Page 2
C/007/0022
February 26, 2008

TECHNICAL ANALYSIS DESCRIPTION

SUMMARY OF PERMIT CONDITIONS

SUMMARY OF PERMIT CONDITIONS

Permit conditions placed on the permit in 2006 have been addressed, this Technical Analysis has been updated accordingly.

Page 4

C/007/0022

February 26, 2008

SUMMARY OF PERMIT CONDITIONS

GENERAL CONTENTS

IDENTIFICATION OF INTERESTS

Regulatory Reference: 30 CFR 773.22; 30 CFR 778.13; R645-301-112

Analysis:

The current Mining and Reclamation permit, dated August 7, 2004, is assigned to Savage Services Corp. Section 2.2.1 and 2.2.5 of the MRP indicates that the Permittee and operator of the Savage Coal Terminal is Savage Services Corp. All Division correspondence to Savage Coal Terminal is through James T. Jensen, Executive Vice President, General Counsel and Corporate Secretary of Savage Services Corp.

Savage Industries Inc is an independent Utah corporation. The Savage Services Corporation ownership and control information in Sections 2.2.7.1 is dated April 2005. Savage Industries Inc. also operates the reclaimed Catale, Oklahoma Loadout in Catale, Oklahoma (MRP, Section 2.2.7.3 and Appendix 2-1).

Section 2.2.6 of the MRP indicates that the Resident Agent for the Permittee is C. T. Corporation Systems; 50 West Broadway; Salt Lake City, Utah 84101. Phone: 1 (800) 441-9820.

Authorized Representatives of the Permittee are listed in Appendix 2-8 of the MRP. They are James Jensen, Boyd Rhodes, and Dan W. Guy for Boyd Rhodes.

Throughout the MRP the Permittee is variously called "Swisher Coal Co," "Beaver Creek Coal Company" or "Mountain Coal Company" or "Savage Industries Inc," reflecting the change in ownership over the years (MRP, Section 2.1).

The surface and subsurface ownership belongs to Savage Services Corp. (Sec. 2.2.2, Sec. 2-4, Tables 4-1 and 4-2). The Mountain Coal Company bond found in the MRP, Appendix 2-4, was replaced in May 2004 with Liberty Mutual Insurance Company Bond #965-003-641. This information should be updated in the MRP.

The MSHA Identification Number for the site is 42-01444. The MSHA identification number for the refuse pile is found in the MRP Appendix 2-5: 1211-UT-9-0033 for temporary refuse storage and 1211-UT-9-0034 for permanent refuse storage.

GENERAL CONTENTS

Findings:

The information on file with the Division and in the MRP meets the Identification of Interests requirements of the Regulations. Appendix 2-4 contains outdated information, which must be updated at permit renewal: the Division holds a current bond dated 2004 through Liberty Mutual Insurance Company.

VIOLATION INFORMATION

Regulatory Reference: 30 CFR 773.15(b); 30 CFR 773.23; 30 CFR 778.14; R645-300-132; R645-301-113

Analysis:

The compliance information for the Savage Coal Terminal was updated in 2005 (MRP Appendix 2-2). [The next update to this appendix should include NO6-46-3-1 issued by the Division on July 14, 2006.] An AVS check conducted on May 17, 2007 did not reveal any outstanding violations for Savage Services Corp. or Mountain Coal Co.

Findings:

The information provided meets the requirements of Violation information.

RIGHT OF ENTRY

Regulatory Reference: 30 CFR 778.15; R645-301-114

Analysis:

Table 4-1 and 4-2 of the MRP show required leases, easements and rights to access.

Findings:

The information provided meets the Right of Entry requirements of the regulations.

LEGAL DESCRIPTION AND STATUS OF UNSUITABILITY CLAIMS

Regulatory Reference: 30 CFR 778.16; 30 CFR 779.12(a); 30 CFR 779.24(a)(b)(c); R645-300-121.120; R645-301-112.800; R645-300-141; R645-301-115.

Analysis:

GENERAL CONTENTS

February 26, 2008

Exhibit A of Appendix 2-4 of the MRP describes the permit area as the SW1/4 Section 11, T. 15 S., R. 10 E., SLM, Utah, (160 acres more or less). This figure is more exactly described in the MRP Section 2.6 as 153.46 acres. The Permit issued in 1999 refines the legal description as follows:

Township 15 South Range 10, East, SLBM

Section 11: W1/2SW1/4 except 0.24 ac in NW corner, E1/2SW1/4 except East 100 feet and 5.42 ac. in SW corner.

The operation is within 100' of a public road providing access to the site. There are no dwellings within a ¼ mile of the permit area (MRP, Section 2.5).

Findings:

The Division's Findings (July 6, 1995 State Decision Document Permit Transfer, ACT/007/022) concerning the status of lands unsuitable remains unchanged with this Permit Modification as there has been no change to the legal description of the lands involved.

PERMIT TERM

Regulatory References: 30 CFR 778.17; R645-301-116.

Analysis:

The current permit for the Savage Coal Terminal was renewed August 7, 2004 to Savage Industries, Inc. The permit expires August 7, 2009. The life of mine is indefinite and renewals will be sought every five years (MRP Section 2.6).

Findings:

The information provided meets the permit term requirements of the regulations.

GENERAL CONTENTS

ENVIRONMENTAL RESOURCE INFORMATION

PERMIT AREA

Regulatory Requirements: 30 CFR 783.12; R645-301-521.

Analysis:

The site is located about four miles southeast of Price Utah at the following address: 2025 East 5000 South; Price Utah 84501. The site is referred to throughout the MRP as the Castle Valley Spur Processing and Loadout Facility or CV Spur (MRP, Section 2.2.10), however the name was changed to the Savage Coal Terminal with transfer of the permit in 1999 to Savage Industries, Inc. (Attachment A of the 1995 Permit).

The 126 acre site is located approximately 4,000 feet southwest from the Price River floodplain and 4,000 feet north of Miller Creek. The permit area lies on what used to be undeveloped rangeland dominated by shadscale and mat saltbush. The area is zoned for industrial use (Section 4.4.3) and developing as an industrial corridor along Ridge Road between State Hwy 10 and Wellington. The Permittee will not change the permit area boundary.

Findings:

The information provided meets the permit area requirements of the regulations.

HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.12; R645-301-411.

Analysis:

Historic and Archaeological information is provided for in section 5.0 of the approved Mining and Reclamation Plan, (MRP). Cultural Resources Studies include a Cultural Resources Literature Review and a Summary and a Field Survey performed by Utah Archaeological Research Corporation on June 9, 1980. Plate 5-1 includes the area surveyed, which is basically the present day permit area as noted on plate 1-1. The results of the survey indicated that no prehistoric or historic cultural resources existed within the permit area and the National Register of Historic Places listed no properties within the project boundary. By way of "E" mail

correspondence the SHPO has concurred with the Division's findings. A copy of the e-mail correspondence has been filed with the application.

Findings:

The information provided is adequate to meet the requirements of this section of the regulations.

CLIMATOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.48; R645-301-724.

Analysis:

From the soils descriptions and Map Unit Descriptions provided in Chapter 8, the mean annual precipitation is given as 6 – 11 inches and the mean annual soil temperature ranges is 47 – 48 degrees Fahrenheit. The frost-free period is 110 to 160 days.

Table IV-5 Estimated Return Periods for Short Duration Precipitation indicates that Table IV-6 shows the average monthly precipitation for the period 1936 – 1976 and the climatology summary by month for the period 1936 – 1965 is given in Table IV-7. Table IV-6 and Table IV-7 could not be found within the MRP.

Climatological information is provided in Section 11 of the MRP. Table 11-1 provides the Mean Monthly Precipitation (inches) 1931-1955. Current climatological information is requested for the Price/Wellington area. The Permittee will supply the requested information during the 2002 mid-term permit review.

Findings:

A commitment to summarize current climatological information during the 2002 mid-term review is adequate for the purposes of the regulations.

VEGETATION RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.19; R645-301-320.

Analysis:

Table 9-1 outlines the areal extent of each vegetation type within the permit area.

ENVIRONMENTAL RESOURCES INFORMATION February 26, 2008

Industrial and agricultural disturbed ground accounts for 132 acres within the permit area. Undisturbed acreage amounts to 22 acres.

Plate 9-1 of the MRP shows three phases of vegetation within the salt desert vegetation type that will be disturbed by the proposed coal storage area: shadscale phase, greasewood phase and saltgrass phase. In addition, approximately 2 acres of the proposed coal storage area is shown as previously disturbed on Plate 9-1.

In September 1982, Stoecker-Keammerer & Associates Ecological Consultants of Boulder, Colorado, quantitatively described the shadscale phase of the salt desert community, with cover, production and density information. The other salt desert community phases were qualitatively described by dominant and conspicuous species.

In the shadscale phase, shrubs accounted for 71.3% of the total vegetation cover, with the average total vegetative cover being 19%. The dominant plants in the proposed disturbed area are shadscale (*Atriplex confertifolia*) and rubber rabbitbrush (*Chrysothamnus nauseosus*). The most common grass was galleta (*Hilaria jamesii*) and important forbs were marsh alder (*Iva axillaris*) and globe mallow (*Sphaeralcea* sp.).

The vegetation reference areas are discussed under the revegetation section of this analysis.

Section 9.4, page 9-19b of the MRP includes a current list of threatened and endangered plant species for the proposed disturbed area. According to the survey performed by Mt. Nebo Scientific there are no T & E species present in the proposed disturbed area.

Findings:

Information provided in the mining and reclamation plan is adequate to meet the Vegetation Resource requirements of the Regulations.

FISH AND WILDLIFE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.21; R645-301-322.

Analysis:

The proposed disturbed area is home to the Ring-neck Pheasant and Morning Dove, songbirds, black-tailed jackrabbit (*Lepus californicus*), white-tailed jackrabbit (*L. townsendi*) and desert cottontail (*Sylvilagus auduboni*), badger (*Taxidea taxus*) and coyote (*Canis latrans*). Table 10-1 lists all species that could inhabit the area. Plate 10-1 maps the burrows of the white-tailed prairie dog (*Cynomys leucurus*). A Threatened and Endangered Species survey also

conducted in 1980 did not reveal any of the three federally listed species of concern: Bald Eagle, Peregrine Falcon, and Black-footed Ferret (Section 10.3.3). According to the survey performed by Mt. Nebo Scientific in 2006 there are no T & E species present in the disturbed area.

Mr. Joe Helfrich, a wildlife biologist with the Division, has been inspecting the site for the past two years and has not seen any evidence of species of concern.

Findings:

Information provided in the mining and reclamation plan is adequate to meet the Fish and Wildlife Resource requirements of the regulations.

SOILS RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.21; 30 CFR 817.22; 30 CFR 817.200(c); 30 CFR 823; R645-301-220; R645-301-411.

Analysis:

Savage Coal Terminal soils were surveyed in 1980 by James P. Walsh and Associates in July 1980 (MRP, Section 8, p8-1). The survey is referred to but not included with the plan. Upon request, the Permittee was not able to locate a copy of the original survey.

The following pedons were described by Mr. James Walsh at the loadout site: Billings Series; Chipeta Series; Disturbed Lands; Killpack Series; Killpack Series High Water Table Variant; Saltair Series (pp 8-3 to 8-11). All are gypsiferous soils formed from Mancos shale.

A topsoil thickness survey of the proposed disturbed area was conducted in the spring of 2002 by Mr. Dan Larsen, soil scientist, EIS Environmental Engineering Consultants, Helper, Utah. Mr. Larsen's survey is included as Appendix 8-2. Mr. Larsen confirmed that on the average six inches would be salvaged from the site, but he created a topsoil salvage map to indicate an area of salvage from 4 – 7 inches, and area of salvage from 7 to 9 inches and an area of salvage from 3 – 6 inches thick. This map will be utilized along with the expertise of the soil scientist on site during topsoil salvage (page 8-34).

On page 8-38, the Permittee has indicated that "the disturbed soils can be upgraded as needed to provide a plant growth medium; therefore, no soil substitute is necessary for reclamation of the disturbed soil areas."

Disturbed land is described on pages 8-6 and 8-16 and in Table 8-5. The original surface layer was removed and twelve inches of gravel fill was placed over the subsoil. Below twelve inches the earth is light grayish brown, massive, hard, very sticky and very plastic, calcareous,

with numerous gypsum crystals and threads. This information is contradicted by Table 8-5 where the percent clay is listed as 10% and the texture is given as silty loam and the saturation is 37%, typical of loam soil, not clays. Below twelve inches the pH is 7.6 and the EC is 47.9, the SAR is 18.8 and the Nitrogen content is 72%. This soil is toxic (sodic) and will be very difficult to use as germination medium. Consequently, further sampling will be conducted prior to final grading of the site to evaluate the extent of the sodic hazard and to develop a management plan that will provide adequate soil cover for germination and rooting (pages 8-38 and 8-39).

Settling Pond Construction

In July 2006, a soil survey was conducted of the 6.61 acres expansion area (Appendix 8-3). The locations of the three soil pits are shown on revised Plate 8-1 along with the five soil types as indicated by Appendix 8-3. The 2006 survey expanded upon and modified the original soil survey of the area by James P. Walsh and Associates in July 1980 (MRP, Section 8, p8-1, which is referred to but not included with the plan). [Note: The MRP does not contain survey information to confirm the Sa and ChC soil map units in the north west corner of the permit area (shown on Plate 8-1).]

The soil map unit to be disturbed by the settling ponds is Billings silty clay 1 – 3% slopes, moist (Plate 8-1). The soils to be disturbed were derived from Mancos Shale and deposited by water. Brigham Young University laboratory reports confirm the saline/sodic chemistry and the clay texture of the soil. Dispersion of the illitic and kaolinitic clays confounded the hydrometer method of particle size analysis of the subsoil horizons and no data was reported for texture. Mechanical analysis of texture indicated 40 – 50% clays in the subsoil. Interestingly, the laboratory reports indicate an unusually high amount of phosphorus in the surface 12 inches (average 6.51 mg/Kg phosphorus) and a negligible amount of potassium throughout the soil profile (average 0.45 mg/Kg potassium in the surface six inches). The pH values are slightly above neutral (7.7) at SP1 and SP2 gradually climbing up to 8.5. The SAR values of 5 to 6 were noted in the surface horizons of SP1 and SP2. Subsurface SAR values climbed to 30 at depth in pits SP1 and SP2.

Survey site SP3, which was the most saline/sodic of the sampled soils with pH values at the surface of 8.3 to 8.6, EC values at the surface of 14 – 20 mmhos/cm, SAR values at the surface of 40 to 116, is representative of the vegetation reference area. The vegetation is salt desert shrub with the predominant vegetation being shadscale and greasewood.

Findings:

The Permittee has met the requirements for environmental soil resource information.

ALLUVIAL VALLEY FLOORS

Analysis:

Alluvial Valley Floor Determination

The 1989 Technical Analysis document that accompanied the Beaver Creek Coal Company permit outlines the existence of an alluvial valley floor in sections 1, 2, and 12 of T15S, R10E, based on published information and Plate 6-1 of the permit. The 1989 document also confirms the connection between the unconfined, upper aquifer beneath the permit area and the Quaternary alluvium within the Price River Alluvial Valley Floor. Ground water moves generally in an east-northeast direction.

Although French drains were installed to intercept the ground-water flow along the northern and western margins of the permit area towards the Price River, the eastern portion of the permit still has a moderately high potential for being hydrologically connected, year round, in the subsurface to the Price River Alluvial Valley Floor. The Permittee has monitored the shallow, unconfined aquifer along the eastern and western portions of the permit area. Plate 7-1 shows the monitoring locations, both of which are to the east of the proposed disturbance. Monitoring information is being filed in the electronic water database.

Hydrologic monitoring of the site was reviewed recently by Mr. Gregg Galecki (Inspection Report, December 18, 2001). Mr. Galecki agrees with the Division's 1989 determination that there is a low potential for degrading alluvial valley floor ground-water quality.

Settling Pond Construction

In 1989 the Division found by reason of statutory exclusion that the site is not within an alluvial valley floor, although approximately 12.9% of the permit area was previously cropland (MRP, Section 9.3.2.2). Figure 7-6A illustrates the mixture of agricultural, and industrial land use in the vicinity of the Savage Coal Terminal.

Plate 6-1 illustrates that the location of the Savage Coal Terminal straddles the Quaternary pediment mantle and the Quaternary Alluvium. The settling ponds lie within the Billings silty clay, which is characteristic of alluvial fans and flood plains. The Billings silty clay is a Torriorthent, meaning that it was formed from water deposition.

Irrigation canals run adjacent to the permit area on the south and east borders. Figure 7-6 "Location of Irrigation Canals" was updated in 2006.

Applicability of Statutory Exclusions

ENVIRONMENTAL RESOURCES INFORMATION February 26, 2008

The Division determined in 1989 that the Savage Coal Terminal

1. Does not include the extraction of coal;
2. Will not result in a significant disturbance to the surface or groundwater regime; and
3. Occurs on undeveloped rangeland that is not significant to farming, grazing, or any other agricultural activity.

Therefore, the statutory exclusion from operating within an alluvial valley floor was invoked.

Findings:

The statutory exclusion from operating within an alluvial valley floor has been invoked for this permitted site. The information provided meets the minimum requirements of the regulations.

PRIME FARMLAND

Regulatory Reference: 30 CFR 785.16, 823; R645-301-221, -302-270.

Analysis:

Abandoned agricultural land makes up 12.9% of the land at Savage Coal Terminal. The land was under cultivation in the 1930's, but was deemed uneconomical and abandoned (MRP, Section 9.3.2.2).

Settling Pond Construction

In June of 1980, the Soil Conservation Service determined that the site did not contain prime farmland, Figure 8-1, page 8-23. The soils to be disturbed for the settling ponds include Billings Silty Clay loam (Map Unit #8 in the Carbon County Soil Survey). According to the Carbon County soil survey information, land use of the Billings silty clay unit is crop production (alfalfa, grass and grain) and wildlife habitat and range. The soil survey indicates the subsoils are saline/sodic with a high clay content.

Findings:

The Division concludes that there is no prime farmland within the permit area.

HYDROLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 701.5, 784.14; R645-100-200, -301-724.

Analysis:

Probable Hydrologic Consequences Determination

The Permittee has met the requirements of R645-301-728 by updating the PHC to reflect current conditions and the past 20 years of data.

Findings:

The information provided meets the requirements of the Hydrologic Resource requirements of the regulations.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Existing Structures and Facilities Maps

Savage Industries entered into an agreement with Canyon Fuel Company, LLC, Dugout Canyon Mine to wash high ash coal which had been generated by that Mine and placed into storage at the waste rock site during 2006. In order to do this, Savage proposed to re-start the old C.V. Spur wash plant, which had been idle since 1984.

The wash plant is an existing structure, based upon definition of its use to wash coal and its pre-1981 construction date. Plate 3-2, Savage Coal Terminal Facility Map has been updated and submitted as part of the requirements to construct four fine coal settling basins and restart this coal washing facility. Plate 3-2 still shows the wash plant building in its original location, as well as new facilities constructed in order to restart the coal washing process.

Findings:

The information provided meets the requirements of the Maps, Plans, and Cross-Sections of Resource Information requirements of the regulations.

OPERATION PLAN

OPERATION PLAN

MINING OPERATIONS AND FACILITIES

Regulatory Reference: 30 CFR 784.2, 784.11; R645-301-231, -301-526, -301-528.

Analysis:

The Savage Coal Terminal was used as a coal washing / blending and storage facility up until 1984. In 2006, the Permittee negotiated a contract with a local mining Company to wash coal which was incapable of meeting contract specifications in its natural state, (i.e., high ash product). The permit area has numerous coal piles, all of which have varying amounts of quality relative to sulfur and ash content. The Savage Coal Terminal is unique in that it has the capability of taking various qualities of coal and blending them to meet specific contract specifications for multiple uses. This product can be shipped in 10,000 ton quantities via the train loading silo and rail spur.

The area to be redesignated as a "Coal Stockpile Area," encompasses 13.34 acres. The area is located southwest of the Truck Dump, within the railroad loop. Maps 3-1, and 3-2 show the location of the storage area. The area is approved and permitted in the MRP as a "Coal Refuse" storage area. At present the area is undisturbed and contains approximately 10,620 cubic yards of topsoil material based on a stripping depth of 6 inches. Drainage control structures are in place and adequately sized to accommodate additional runoff from the area. Minor adjustments to the reclamation cost estimate may require a slight change to the reclamation bond (3.87% increase).

Findings:

The Permittee has met the minimum requirements for giving the Division information about the general activities that will be conducted at the site.

AIR POLLUTION CONTROL PLAN

Regulatory Reference: 30 CFR 784.26, 817.95; R645-301-244, -301-420.

Analysis:

The approved MRP contains an Air Pollution Control Plan, which was updated in 2006 for the loadout facility. The protection of air quality is described for in section 3.4.6 and

OPERATION PLAN

appendix 11-1 of the approved MRP. The plan allows for a through put of 10,000,000 tons of coal annually at the loadout facility.

Findings:

The information provided in the information provided and the MRP is adequate to meet the requirements of this section of the regulations.

SUBSIDENCE CONTROL PLAN

Regulatory Reference: 30 CFR 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

Analysis:

Notification

The Savage Coal Terminal is a washing / blending / shipping facility and is not involved with coal extraction from either a surface or underground deposit. This section of the Coal Rules is not applicable.

Findings:

The requirements of this section of the R645 Coal Mining Rules are not applicable to this permit.

FISH AND WILDLIFE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

Analysis:

Protection and Enhancement Plan

A protection and enhancement plan is provided for in section 3.4.5 of the approved MRP.

Endangered and Threatened Species

Section 9.4 page 9-19b of the MRP has been updated to include a current list of Threatened and Endangered plant and wildlife species for the proposed lease addition areas and a short narrative about the existence of those species listed for the area where the proposed

OPERATION PLAN

February 26, 2008

activities are located has been added to the text. Mr. Guy has been in contact with Mr. Helfrich about the issues concerning the U.S. Fish and Wildlife Department-Colorado River Endangered Fish Recovery Program, and the Cultural Resource-Archeological Inventory. Mr. Helfrich has drafted a technical report stating that calculations and criteria used to determine mine water consumption for the Colorado Fish Recovery Program will be included in the reformatted MRP. It is determined there is no consumptive use of water at the facility since SCS has a water right for the water used.

According to the information on file with the Division of Water Rights, Beaver Creek Coal Co. filed a water rights on 7/22/1977 for the loadout and wash plant facilities. Water right is for a well (#91-4164) are for 180 acre feet per year. Another water right (#91-4875) for 157 acre feet of water per year filed on 5/12/1978, is collects water from a french drain on the permit area. The technical aspects of consumptive use with water rights is still under review by the Division Any alternate changes will be addressed by the operator.

Bald and Golden Eagles

There are no Bald or Golden eagles nesting within the proposed disturbed area. Bald Eagles may pass through or roost along the Price River during the winter months and or periods of migration.

Wetlands and Habitats of Unusually High Value for Fish and Wildlife

There are no wetlands or habitats of unusually high value for fish and wildlife located within the proposed disturbed area.

Findings:

The information provided is adequate to meet the requirements of this section of the regulations.

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

Analysis:**Topsoil Removal and Storage**

A qualified soil scientist will be on site during topsoil stripping to ensure adequate recovery of the soils (page 8-34).

OPERATION PLAN

Table 8-6 of the submittal indicates that there will be 8,002 bank cubic yards of topsoil stripped from 9.92 acres of Chipeta soils and 4,138 bank cubic yards of topsoil stripped from the 3.42 acres of Killpack soils for a total of 12, 298 cubic yards. Stripping depth is listed as six inches for Chipeta and nine inches for Killpack.

The MRP indicates in Section 3.5.2, page 3-54 that topsoil and subsoil stockpiles will be roughened with the bucket of a trackhoe to incorporate straw mulch and to create basins that will capture water to aid germination. Please refer to the Practical Guide to Reclamation in Utah¹ available on the Internet at <http://dogm.nr.state.ut.us> for specifications on extreme surface roughening and organic matter additions.

The MRP also indicates on page 3-54 that the soil salvaged from the proposed coal stockpile disturbance will be placed between the two existing piles and then covered when the existing piles are reconfigured. To expedite establishment of vegetation on the topsoil piles, the Division recommends that the topsoil being salvaged from the coal storage site is placed over the entire surface of the reconfigured topsoil and subsoil piles in a "live-haul" operation. In this manner, the seeds, propagules, microbes and nutrients available in the topsoil being salvaged will be located on the surface of the topsoil pile where the germinating and establishing plants can benefit from them.

Settling Pond Construction

Plate 3-2 illustrates a topsoil and subsoil stockpile location adjacent to the Savage office. The construction of the topsoil pile is described in Sec. 3.5.2. The volume of soil recovered prior to pond construction in 2006 was 13,028 yd³ and the total volume of stored topsoil is 62,314 yd³. (Table 8-6). Based upon the soil survey (Appendix 8-3) topsoils were salvaged to a depth of 12 inches and subsoil to a depth of 24 inches (Table 8-6 and page 8-36). BiBe soils were of such poor quality that they were not be salvaged.

Section 8.10 summarizes the volume of material stored in three stockpiles at the Savage Coal Terminal. Plate 8-2 and Appendix 8-1 provides as-built information for the subsoil/topsoil stockpile created in 2002. Cross sections and volumes are provided to arrive at 49,285.93 yd³. Plate 8-3 provides as-built information for the settling pond subsoil (6,514 yd³) and topsoil (6,514 yd³) storage piles. These piles were treated with liquid fertilizer as described in Section 8.7 and seeded in October 2006.

¹ Utah Division of Oil, Gas and Mining, Department of Natural Resources. 2000. The Practical Guide to reclamation.

OPERATION PLAN

February 26, 2008

Findings:

The information provided meets the requirements of the topsoil/subsoil handling regulations.

VEGETATION

Regulatory Reference: R645-301-330, -301-331, -301-332.

Analysis:

The temporary seed mix found in Table 3-1 (MRP, page 3-54 and 3-57) will be used on the topsoil pile. Table 3-1 was modified with this amendment based upon the 1997 evaluation of test plot #2 and the existing condition of the soil stockpiles (FV030602.doc). Species in Table 3-1 were chosen for their tolerance of fine-textured soil and low water requirements.

Although page 3-58 indicates that seeding will occur in the fall, a June or early July seeding is acceptable because several of the species are warm season and summer seeding will allow their establishment. If seeded in the fall, warm season species usually cannot compete with the other weed and seeded species and will not be seen. The Permittee is planning on a summer seeding immediately after the topsoil pile is graded (personal communication with Mr. Dan Guy, April 18, 2002). Upon completion of the ponds plate 9-1 should be updated to reflect the current disturbed areas and vegetative communities within the permit area.

Findings:

The information provided is adequate for the purposes of the Regulations.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 784.24, 817.150, 817.151; R645-301-521, -301-527, -301-534, -301-732.

Analysis:

Road Classification System

The Savage Coal Terminal permit area encompasses thirteen roads, all of which are classified as primary roads.

Plans and Drawings

All roads used for coal or refuse hauling are classified as primary roads, for which designs with appropriate cross sections have been submitted. Only PR-13 has a cross section design which is different from the other twelve haul roads. PR-13 has a sixteen foot surface width. All other roads have a twenty to twenty-four foot surfaced travel width to accommodate large double trailer coal trucks. Refer Plate 3-4, Savage Coal Terminal Road Map.

Performance Standards

The roads designs approved in the mining and reclamation plan meet the minimum performance standards for the following topics;

- 1) Control or prevent erosion and air pollution.
- 2) Control or prevent damage to fish, wildlife, or other habitat and related environmental values
- 3) Control or prevent additional contributions of suspended solids to stream flow or to flow outside the permit area.
- 4) Have no impact on State or Federal water quality standards.
- 5) Have no effect on the inherent drainage pattern of the area.
- 6) Are not located in intermittent or perennial stream channels.
- 7) Prevent damage to public and / or private property.
- 8) Use surfacing materials, which are non-acid and non-toxic.
- 9) Are properly maintained at all times.

Primary Road Certification

All primary road designs and drawings are P.E. certified by Mr. Dan Guy, Utah registered professional engineer.

Other Transportation Facilities

The Savage Coal Terminal utilizes an extensive arrangement of conveyors to stockpile and reclaim coal volumes, as well as route product to a wash plant, and the shipment mechanisms. Seventeen conveyors are used to do this. All are described in Section 3.2.5.3 Conveyors of the MRP. Same are depicted on Plate 3-2, Savage Coal Terminal Facility Map.

Findings:

The approved information contained in the mining and reclamation plan meets the minimum regulatory requirements of the R645 Coal Mining Rules.

SPOIL AND WASTE MATERIALS

Regulatory Reference: 30 CFR Sec. 701.5, 784.19, 784.25, 817.71, 817.72, 817.73, 817.74, 817.81, 817.83, 817.84, 817.87, 817.89; R645-100-200, -301-210, -301-211, -301-212, -301-412, -301-512, -301-513, -301-514, -301-521, -301-526, -301-528, -301-535, -301-536, -301-542, -301-553, -301-745, -301-746, -301-747.

Analysis:

Disposal Of Noncoal Mine Wastes

Noncoal mine waste generated at the site is temporarily stored in metal dumpsters, until it is transferred into trucks for transfer to an approved sanitary landfill (See section 3.2.3.1, Non-coal Waste Disposal of the approved MRP, page 3-2).

Figure 3-12 contains a letter of authorization from Carbon County Board of Commissioners, Carbon County, Utah which grants the Permittee approval to dispose of noncoal wastes in the County landfill.

Refuse Piles

The production of coal processing waste ended when washing coal became cost prohibitive in 1984. The preparation plant was shut down and the existing refuse pile was permitted for shipment to a cogeneration facility for blending and burning. It was anticipated that 112,000 tons of refuse would be shipped to Sunnyside Cogeneration Associates in Sunnyside, Utah for utilization of this resource. Prior to the actual recovery of the Savage refuse pile material, SCA permitted another fuel source in the Carbon County area.

With this other fuel source on line, the Savage pile remained dormant until June of 2005 when the Permittee submitted an application (Task ID #2267) to the DOGM to permit the recovery and blending of this refuse material with coals stored at the Savage site for shipment to cement plants. Same eventually received Division approval.

A second amendment to the Savage MRP in 2006 permitted the transportation of "product" from the Savage Coal Terminal refuse facility to a non-permitted site for enhancement purposes. The enhancement method utilized an air jig process to improve the quality / marketability of the "product". The reject from this enhancement process was to be returned to the Savage Coal Terminal facility for final disposal.

In 2006, Savage Industries negotiated a contract with an outside Company to wash high ash coal which had been produced from that Company's mine and placed in temporary storage at

OPERATION PLAN

the Mine waste rock facility. This required the startup of a coal washing facility which had been idled since 1984.

Coal processing waste generated by this activity was approved for temporary storage at the Savage Coal Terminal in an area, which was previously occupied by similar processing waste. The two areas are distinctly separated, however, as the processing waste generated by the restart of the wash plant is to be returned to the outside Company waste rock facility, upon the completion of the permitting for expansion of that facility.

Based upon the approved operation plan, the temporary storage of this coal processing waste was to utilize the same placement, compaction and drainage requirements as those implemented for the permanent storage refuse facility. Quarterly inspections with P.E. certification will be conducted for this temporary pile as well. The coal processing material will be stored for a maximum of one year prior to return shipment to the outside Company's waste rock permanent disposal facility.

Impounding Structures

Runoff from the Savage Coal Terminal refuse disposal site as well as the temporary refuse storage facility (subdrainage area 5a; See Figure 7-5, Area Subdrainages) will report to sediment pond #5, which is located as shown on Plate 3-2, Savage Coal Terminal Facility Map. Pond #5 has been designed to adequately treat the reporting volume prior to discharging the effluent to pond #6. All ponds are inspected on a quarterly basis by a Utah registered professional engineer.

Findings:

The information provided meets the minimum regulatory requirements of the R645 Coal Mining Rules.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

General

OPERATION PLAN

February 26, 2008

An application for a Nationwide Permit has been submitted to the U.S. Army Corps (Appendix 9-3). EIS Environmental Engineering Consultants of Helper Utah delineated the wetland. Plate 9-1 has not been revised to change size of the wetland, but will be after a determination by the U.S. Army Corps is received (personal communication with Dan Guy, April 18, 2002).

Due to the small size of the wetland and in the interest of time, Savage Industries has proposed installation of a silt fence "around the areas in question at a minimum distance of 25' from the delineation points. The wetland will be protected, as shown on enclosed Plate 3-2. Topsoil stripping would take place on the remainder of the proposed site, leaving the wetland delineation area intact until the Corps completes its review and makes a decision as to whether it can be removed or not."

Groundwater Monitoring

The Permittee has met the requirements of R645-301-731.210 basing the groundwater-monitoring plan on a current PHC. The Permittee re-evaluated the groundwater-monitoring plan in light of the current and proposed operations, and has added two new monitoring wells.

Located in Castle Valley, the coal terminal sits on the Manchos shale. The terminal activities take place on the upper Bluegate Shale unit. The upper layers of the unit are weathered and can hold low volumes of groundwater that has seeped in from the surface, whereas the deeper layers are more consolidated silts and clays that do not transmit groundwater. The low hydrologic conductivity of the strata below the terminal prevent vertical migration and limit horizontal flow of groundwater. SSC monitors the level of groundwater in three wells. Site CV-1-W is an older site. Data has been collected from this well since 1979. Sites S-1-GW and S-2-GW were installed in early 2007 and first monitored February 20, 2007. The sites will continue to be monitored throughout the operational and reclamation phases of coal process. The wells are monitored for water levels and water quality on a quarterly basis. The data is sent to the DOGM Water Quality Database quarterly. The data is checked for completeness and analyzed for anomalies in flow and quality.

Water monitoring is conducted according the groundwater monitoring schedule established in Section 7.1.5, Section 7, of the MRP. Groundwater is analyzed for parameters established in Figure 7-15, Chapter 7 of the MRP.

Surface Water Monitoring

The Permittee has met the requirements of R645-301-731.220, because the current surface water-monitoring plan is based on a current PHC. No new surface monitoring sites have been added. SSC monitors one surface water site and one UPDES site. The data is checked for completeness and analyzed for anomalies in flow and quality. Site CV-14-W is established in a

ditch along the north end of the terminal. Site CV-14-W is monitored during the 2nd and 4th quarters and submitted to the DOGM Water Quality Database. The UPDES site, CV-15-W is monitored monthly. Water monitoring is conducted according the surface water monitoring schedule established in Section 7.1.5, Section 7, of the MRP. Surface water is analyzed for parameters established in Figure 7-15, Chapter 7 of the MRP.

Acid- and Toxic-Forming Materials and Underground Development Waste

The temporary storage of coal processing waste from the 2006 start up of the wash plant facility requires the sampling of every 5000 tons of refuse for analysis of acid and toxic potential if the material is to be stored in excess of thirty days. The analytical results of the sampling will be forwarded to the Division on a quarterly basis, as well as within the Annual Report for the Savage Coal Terminal.

The Permittee has met the requirements of R645-301-731.300. They have included information in the amendment application concerning the acid- toxic-forming potential of the fines that will be settled in the new ponds. The Permittee will sample for acid- or toxic-forming potential periodically, and have a plan for proper burial and/or treatment of any acid/toxic waste in a timely manner.

Water-Quality Standards And Effluent Limitations

The Permittee has submitted plans in Section 7.2.2.2. Chapter 7 of the MRP to divert undisturbed area runoff away from the disturbed area, and control and contain disturbed area runoff on the disturbed area. All disturbed area runoff and sediment generated during runoff events will be directed to sedimentation ponds 1, 2, 3 or pond 5 or pond 6, where the runoff will be held and sediment will settle out prior to any discharge. All runoff will be routed through Pond #6 before it leaves the coal terminal. All water discharged from the site will be monitored monthly and discharged when it meets UPDES water quality standards.

Disturbed and undisturbed drainage areas are shown in Figure 7-4 and 7-5. The figure shows the sedimentation pond receiving runoff from the respective drainage area. These areas are used to calculate runoff and sedimentation volumes to establish design criteria for hydrologic structures. Section 7.2.3.3. show the designs for the sedimentation ponds.

Diversions: General

The Permittee controls runoff on the surface using berms, ditches and culverts. The structures are shown on Plate 7-2. Hydrologic designs for the structures are presented beginning in Section 7.2.3.4 of Chapter 7 of the MRP. Sizing calculations and parameters are presented to ensure ditches, culverts and berms meet the design criteria of the 10 yr-24 hr precipitation event.

OPERATION PLAN

February 26, 2008

Diversions: Perennial and Intermittent Streams

There are no perennial or intermittent stream that flow on or off the permit area. The Permittee has a water right to divert water from the Price River to the preparation plant when process water is low.

Diversions: Miscellaneous Flows

The Permittee has met the requirements of R645-301-742.310 and 742.330 by including design calculations for the undisturbed drainage ditch in Chapter 7 of the MRP.

Stream Buffer Zones

A stream buffer zone is not required. There are no perennial or intermittent stream channels on or adjacent to the permit area.

Sediment Control Measures

Best technology currently available is employed at the Terminal through the use of Sediment is contained and controlled by sedimentation ponds, silt fences, berms and straw bales.

Siltation Structures: Sedimentation Ponds

The Permittee has met the requirements of R645-301-733, R645-301-742.220, R645-301-743, and R645-301-121.200. Chapter 7 of the MRP contains all of the necessary design information required in the Rules. The MRP states that Sedimentation Pond 1 works in series with Ponds 2 and 3.

The Permittee has met the requirements of R645-301-742.220. They claim on page 3-34 of the amendment that the preparation plant will be operated as a closed circuit, unless an emergency discharge is needed; and that "If such an emergency should occur, any discharge from the plant or settling ponds would be contained by the sedimentation ponds on site." The Permittee has demonstrated in Chapter 7 that no offsite discharge from the plant will occur; even if the emergency plant discharge and a 10-year 24-hour storm occur at the same time.

Impoundments

The Permittee has met the requirements of R645-301-733 and 743, by providing certified, detailed plans for the thickener ponds in Chapter 5.

OPERATION PLAN

Ponds, Impoundments, Banks, Dams, and Embankments

All impoundments are incised. The embankments are checked for stability every quarterly by a registered professional engineer. Reports are maintained on site for inspections and reported in the Annual Report.

Findings:

The information provided meets the requirements of the Operation Plan: Hydrologic Information requirements of the regulations.

USE OF EXPLOSIVES

Regulatory Reference: 30 CFR Sec. 817.61, 817.62, 817.64, 817.66, 817.67, 817.68; R645-301-524.

Analysis:

The Savage Coal Terminal has not had a need to use explosives at the site for any reason. Should a need exist, it will be necessary for the Permittee to properly permit such activities through the Division.

Findings:

The requirements of this section of the R645 Coal Mining Rules are not applicable to this permit area at this time (9/2006).

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

Mining Facilities Maps

Plate 3-2, Savage Coal Terminal Facility Map, shows the location of the facilities, supporting structures, roads, rail lines, settling ponds, and topsoil and subsoil storage and the topography. The plate has been modified to show the addition of the new coal stockpile area.

The contour lines and elevations are shown on Plate 3-2. Note: the contour interval is shown to be two feet on Plate 3-2.

OPERATION PLAN

February 26, 2008

Hydrology Maps 7-1 and 7-2 Savage Coal Terminal Hydrology Map, updated in August 2006. Plate 7-4C shows the detailed plans for constructing the pond

Monitoring and Sampling Location Maps

Plate 7-1 shows the location of surface and groundwater monitoring sites.

Certification Requirements

All maps and plates submitted as information for the Savage Coal Terminal mining and reclamation plan are certified by a Utah registered professional engineer.

Findings:

Information provided in the application is adequate to meet the minimum Maps, Plans and Cross Sections of Mining Operations requirements of the regulations.

Page 30

C/007/0022

February 26, 2008

OPERATION PLAN

RECLAMATION PLAN

February 26, 2008

RECLAMATION PLAN**GENERAL REQUIREMENTS**

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

Analysis:

Section 3.2.1.2 of the MRP has been updated to reflect the current status of operations. Section 3.5 includes the reclamation procedures for the disturbed areas. Table 3-2b on page 3-60 lists the seed mix for the area where the ponds are located. The lowland reference area as per consultation with the applicant and Mt. Nebo Scientific has been relocated as shown on plate 3-1.

Findings:

The information provided is adequate to meet the requirements of this section of the regulations.

POSTMINING LAND USES

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133; R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

Analysis:

The post-mining land use for the site is small mammal and songbird habitat (MRP, Section 10-5). Enhancement of the riparian zones within the disturbed area and the proximity of the site to the Price River will encourage utilization of the reclaimed site by migratory birds (see deficiency listed under R645-301-342.100). Surrounding land is cropland and industrial in use.

Findings:

The information provided is adequate for the post-mining land use requirements of the Regulations.

PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES

Regulatory Reference: 30 CFR Sec. 817.97; R645-301-333, -301-342, -301-358.

Analysis:

Section 3.4.5 of the MRP describes the measures to be taken for the protection of fish wildlife and related environmental values.

Findings:

The information provided is adequate to meet the requirements of this section of the regulations.

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

Analysis:

The Savage Coal terminal permit area lies in an area of southeastern Utah which is essentially flat. The reclamation plan is contained in section 3.5, page 3-52 of the approved mining and reclamation plan. Since there are no highwalls or slopes associated with this permit area, the meeting of the requirements associated with approximate original contour restoration consists of backfilling ditches, sediment ponds and fine coal settling ponds and generally regrading the area such that it will properly drain. Final surface configuration maps are needed to depict the anticipated reclamation work.

Findings:

The Division has notified the Permittee that the MRP for the Savage Coal Terminal is in need of major revision / update. The reclamation plan for this site is one area which is in need of revision.

BACKFILLING AND GRADING

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

RECLAMATION PLANFebruary 26, 2008

Analysis:**General**

The Savage Coal terminal permit area lies in an area of southeastern Utah which is essentially flat. The reclamation plan is contained in section 3.5, page 3-52 of the approved mining and reclamation plan.

Findings:

The information provided meets the requirements of the Backfilling and Grading requirements of the regulations.

MINE OPENINGS

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

Analysis:

There are no mining portals or ventilation shafts associated with the Savage Coal Terminal permit area. The only openings requiring reclamation are shallow water monitoring wells. The reclamation of these shallow water monitoring wells is discussed in section 3.5.3, Fianl Abandonment, page 3-54a of the approved MRP.

Findings:

The reclamation plan for the shallow water monitoring wells associated with the Savage Coal Terminal meets the minimum regulatory requirements of this section of the R645 Coal Mining Rules.

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

Analysis:**Redistribution [01162008]**

Currently, there are 132.5 acres disturbed and 62,314 cubic yards of topsoil and subsoil stored at the site (Sec. 8-10 and Table 8-9).

RECLAMATION PLAN

Currently the mass balance for the mine site is as follows:

- Topsoil available = 62,314 yd³ stockpiled topsoil and subsoil.
- Disturbed area = 132.5 acres
- Post Law Disturbance = 55.3 acres
- Topsoil required (Post Law) = 44,617 yd³, reflecting the commitment to re-apply six inches of topsoil to post-law areas
- Max area for 6" redistribution = 77.25 acres, reflecting the area that could be covered to a depth of six inches by the stored soil.

Commitments for deep chiseling and soil testing during final reclamation are found in Section 8.9.

Findings:

The information provided meets the requirements of the topsoil/subsoil handling regulations.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

Analysis:

Reclamation

There are no plans to leave any of the thirteen primary roads at this site upon the completion of mining activities. All roads will be reclaimed in accordance with the details discussed in section 3.5.4, Backfilling and Grading plans.

Retention

None of the sites roads will be retained, post-mining.

Findings:

This section meets the minimum regulatory requirements of the R645 Coal Mining Rules.

RECLAMATION PLAN

February 26, 2008

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

Analysis:**Hydrologic Reclamation Plan**

The Permittee has met the requirements of R645-301-533.714 and 301-764 by including reclamation plans for the thickener ponds in Chapter 5.

Findings:

The information provided meets the requirements of the Hydrologic Reclamation Plan requirements of the regulations.

REVEGETATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:**Revegetation: General Requirements**

Section 3.5.5.2 of the MRP describes the seeding of the reclaimed areas. A narrative describing the reclamation of the ponds has been added to page 3-54b section 3.3.5.3.1 of the MRP.

Revegetation: Timing

The schedule for reclamation is described on page 3-63 section 3.5.6 of the MRP. It includes the removal of structures, regarding, topsoil placement, seeding and mulching. Seeding and mulching are scheduled in the fall, after October 15th. These reclamation practices are described in sections 3.5.5.2 and 3.5.5.3 of the MRP.

Revegetation: Standards For Success

As shown on Plates 3-2 and 9-1 and discussed in Sections 3.4.4.2 (page 3-48) and 9.3.2.5, the reference area was set up in 1980 for the shadscale phase of the salt desert community to

RECLAMATION PLAN

establish revegetation success standards for the entire mine site. Production of the reference area was estimated at 450-lbs/acre air dry and the site was rated in good condition in September 1983 by Mr. Don Andrew, Range Conservationist with the USDA SCS (MRP, Figure 9-1). The Permittee has made a commitment in Section 9.3.2.5 of the MRP to re-evaluate the condition of the condition of the reference area during the 2002 growing season. Revegetation success is described in section 3.5.5.4 of the MRP. Page 3-62b has been revised to include the lowland reference area.

The reference area soils are described as Chipeta silty clay slopes 3-20%. The reference area soils differ from much of the permit area including a small acreage of those to be disturbed in that their elevation places them above the water table and they are not subject to accumulations of salt from ponding water as are the Killpack soils that support the wetland salt grass vegetation.

The Division suspects that upon reclamation, sizeable areas of ponded water will exist at the entire site for the following reasons:

- During recent removal of refuse, the Permittee was obliged to remove equipment from areas along the eastern boundary of the permit due to the elevated water table.
- As noted in the MRP Section 9.5 "eventual soil saturation or inundation of the low western permit area is possible upon final reclamation."
- As noted in the MRP Section 9.2.1, page 9-2, "A sedge meadow was mapped during the original study (June 1980), adjacent to the current western permit boundary. Although no such type was actually mapped within the permit area, a low area does exist within the currently mapped Disturbed, Agricultural area, now drained by a French drain."

These wetlands will not likely meet the criteria for success established for higher ground, i.e. diversity. The Permittee has documented the condition of the wetland vegetation within the proposed disturbed area (Appendix 9-3). Reclamation for wetland areas within the permit can be patterned after previously existing wetland descriptions. i.e. the baseline data method described in the Vegetation Information Guidelines.² The wetland within the proposed disturbance is one of two last wet areas remaining in the permit area.

The Permittee states in the application that no provisions for re-establishment of wetland vegetation will be proposed; unless the U.S. Army Corps makes a determination that a wetland exists. The Division is of the opinion that Savage Industries should develop a wetland mix for lowlands within the disturbed area. This could be a mid-term or permit renewal topic.

The site will receive the final reclamation seed mix as described in Table 3-2 of the MRP: Crested wheat grass, Thickspike wheatgrass, Indian ricegrass, Fairway crested wheatgrass,

² Utah Division of Oil, Gas and Mining. February 1992. Vegetation Information Guidelines. p 6.

RECLAMATION PLAN

February 26, 2008

Squirreltail grass, Russian wildrye, Globemallow, Sunflower, Palmer penstemon, Yellow sweetclover, Kochia, Winterfat, Shadscale, Matbush, Whitestem rubber rabbitbrush, and Four-wing saltbush. As stated on page 3-58 the final mix may undergo alteration depending upon the success of the interim seed mixture.

Savage Industries has made plans for a wetland mix along the Price River Pipeline (page 3-58). This mix is found in Table 3-3. Reclamation of the pipeline will include willow plantings and streambank wheatgrass.

Findings:

The information provided is adequate to address the requirements of the Regulations. The reclamation seed mix will evolve over time, based upon successes at the site. During the mid-term review, the Division will focus attention on reclamation of high water table areas.

STABILIZATION OF SURFACE AREAS

Regulatory Reference: 30 CFR Sec. 817.95; R645-301-244.

Analysis:

Previous treatment of soil stockpiles is described in Section 3.5.2 (page 3-47). The piles were smoothly graded and tilled to a depth of 5 inches. Slopes greater than 20% were prepared using a crawler tractor at right angles to the slope to leave grouser tracks parallel to the slope. This sort of treatment has been abandoned. The best technology to date is proposed instead as described on page 3-54 of the MRP: hay mulch will be applied at a rate of 2,000 pounds/acre and incorporated into the surface during the roughening of the pile with a trackhoe. After hydroseeding, wood fiber mulch will be over sprayed at a rate of 2000lbs/acre in combination with 60 lbs of Tac per acre (page 3-54). Mulching is also described in Section 3.5.5.3, page 3-62.

Please refer to the Practical Guide to Reclamation in Utah³ available on the Internet at <http://dogm.nr.state.ut.us> for specifications on extreme surface roughening and organic matter additions.

Settling Pond Construction [09082006]

The mean annual precipitation for the site is about 10 inches (Table 11-1 and section 11.1.2). The site receives most of its precipitation from August through September, making it a

³ Utah Division of Oil, Gas and Mining, Department of Natural Resources. 2000. The Practical Guide to reclamation.

candidate for July seeding of warm season species. A summer (July) seeding is acceptable because several of the species are warm season and summer seeding will allow their establishment. If seeded in the fall, warm season species usually cannot compete with the other weed and seeded species and will not be seen.

Section 3.5.2 of the proposal indicates that topsoil will be reclaimed contemporaneously with the first suitable growing season and that seeding will immediately topsoil placement regardless of season, whether on the stockpile or at final reclamation. This is acceptable, because past experience with the soils at this site indicates that seeding must immediately follow topsoiling to allow good seed/soil contact regardless of season, whether on the stockpile or at final reclamation.

Findings:

The information provided is adequate for the purposes of the Regulations.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

Reclamation Backfilling And Grading Maps

Plate 3-7, Post Mining Topography and Drainage, show the contours for the site after reclamation. The revised map shows that the topography for the reclaimed coal storage pile area will gently dipping instead of a mound.

Final Surface Configuration Maps

Plate 3-7, Post Mining Topography and Drainage, show the contours for the site after reclamation.

Findings:

The information provided in the proposed amendment is considered adequate to meet the requirements of this section.

RECLAMATION PLAN

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

Determination of Bond Amount

The Permittee provided the Division with updated bond costs calculations. The current bond amount is for \$2,525,000 in 2012 dollars to ensure reclamation in the event of bond forfeiture. The Division calculated the bond amount to be \$2,412,000. Therefore, the current bond is adequate.

Findings:

The information in the plan is adequate to meet the requirements of the bonding section of the regulations.

Page 40
C/007/0022
February 26, 2008

RECLAMATION PLAN

REQUIREMENTS FOR PERMITS FOR SPECIAL CATEGORIES OF MINING

COAL PREPARATION PLANTS NOT LOCATED WITHIN THE PERMIT AREA OF A MINE

Regulatory Reference: 30 CFR Sec. 785.21, 827; R645-302-260, et seq.

Analysis:

The Savage Loadout falls within this category of a preparation plant not located within the permit area of a mine. Coal refuse production ceased when washing coal became cost prohibitive in 1981. The portion of the facility associated with washing coal shut down and the existing refuse is being shipped to a cogeneration facility. Currently, Savage crushes, sizes and blends coal.

Findings:

The Division's review of amendment AM02A to the MRP recognizes the requirements for compliance with R645-302-263 and R645-302-264.

OPERATIONS IN ALLUVIAL VALLEY FLOORS

Regulatory Reference: 30 CFR Sec. 822; R645-302-324.

Analysis:

The Permittee has met the Requirements of R645-302-321.210 and R645-301-140 by providing a new Plate 6-1 that is legible.

At this time, the Division does not feel that the new ponds will affect any alluvial valley floors. The Savage Coal Terminal has had no effect on them to date, because the groundwater in the area is naturally high in salts and other substances that make it unusable for irrigation. The water used to irrigate the alluvial valley floors comes from the Price River.

Though the original Technical Analysis (TA), the MRP, and the original (and only to date) CHIA fail to mention any alluvial valley floors in the vicinity of the permit area, a 1989 TA

SPECIAL CATEGORIES

mentions one in Sections 1, 2, and 12 of T15S, R10E. These were identified by a reconnaissance study carried out in 1985, and referenced in the TA as Nimick et al., 1985. The Division at that time (1989) found that there was “a low potential for degrading alluvial valley floor groundwater quality because the naturally occurring ground water has such poor quality.” The Division determined that the Savage Coal Terminal: “1. Does not include the extraction of coal; 2. Will not result in a significant disturbance to the surface or groundwater regime; and 3. Occurs on undeveloped rangeland, which is not significant to farming, grazing, or any other agricultural activity. Although a percentage of the land may have previously been used for farming, the Division feels that no significant alluvial valley floors have been or will be affected.

Findings:

The statutory exclusion from operating within an alluvial valley floor has been invoked for this permitted site. The information provided meets the minimum requirements of the regulations