

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

September 16, 2008

TO: Internal File

THRU: Dave Darby, Team Lead 

FROM: Priscilla Burton, CPSSc, Environmental Scientist III *PWB bus*

RE: MRP Update – R645 Format, Savage Services Corp., Savage Coal Terminal ACT/007/022 Task # 2955.

SUMMARY:

The revised MRP was received on April 9, 2008. Reviews of new mine plans and revisions to mine plans have taken priority over the review of this task, which was undertaken at the direction of the Division during the course of the 2007 mid-term review (Task 2759). An AVS check of Savage Services Corporation was made on September 23, 2008. Updates to the ownership and control for both Savage Services Corporation and its parent entity, Savage Companies needs to be completed in the AVS system. Information was requested from the applicant to make these updates.

The following deficiencies were noted with the reformatted MRP:

R645-300-141, Section 116.100 states the permit area is 153.46 acres. No legal description of the permit area was found in the application.

The Permit issued August 4, 2004 provides 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.

Also included in the permit area is a 20-foot Right-of-Way for a pipeline across the SE1/4NW1/4 and NW1/4NW1/4 of Section 11 (1.21 acres), and across the SW1/4SW1/4, NW1/4/SW1/4, SW1/4NW1/4 and NE1/4NW1/4 of Section 2 (3.97 acres).

This permit area description does not appear to match the permit area circumscribed on Plate 1-1, that shows the permit area skirting around property owned by Keven and Lois Jensen in the W1/2SW1/4 of Section 11. Please verify this legal description and if necessary, provide a corrected legal description in Chapter 1. [PB]

R645-301-112.200, The AVS system lists Savage Service Corp employer ID number as 870387049. This is the number that the MRP lists for Savage Companies. Therefore, please confirm employer ID numbers for Savage Services Corp and Savage Companies, to ensure that no error has been made in writing the MRP. [PB]

R645-301-112.230, Section 112.230 states that Savage Services Corp will pay the abandoned mined fee, but the name, address, telephone number, and employer I.D. of a person was not provided. [PB]

R645-301-112.330, In Section 112.310, the MRP must distinguish between officer and directors for Savage Services Corporation and those for Savage Companies. •The Corporate Secretary should provide an end date for recently retired director James T. Jensen. •End dates are requested for the following officers names listed in the AVS system: Eric B. Adamson, Arthur D. Johnson, Fred C. Busch, Raymond Alt, Kenneth W. Cooper, Kim F. Christensen, Ellis Edwards, Charles O. Monroe, Jeff M. Chessler, Troy Reid, Mark Wehmanen, Gary L. Plant, Kenneth D. Ellzey, Boyd E. Draper, Troy M. Savage, Isaac Haboucha, Butch Jentzsch, Terrence Savage, Kevin R. Haugh; and Mark Andrew Nelson. • Hire dates are provided, but the MRP need only list the date that ownership position was assumed. Please indicate whether hire date is equivalent to the date that the ownership position was assumed. •Start and end dates must be confirmed by notarized Secretary signature. • Provide percent ownership for all officers and directors listed in Section 112.310. [PB]

R645-301-112.340, The Catale Oklahoma Loadout has been listed in Section 112.340 as a site operated within the last five years by Savage Industries Inc. The MRP must list the permit number of this site and verify its status (reclamation, bond release, etc.). Is it still under Savage Services Corp. control? If not, when was it sold? [PB]

R645-301-112.600, Adjacent surface and mineral owners are shown on Plate 1-1. Table 1-1 supplies the names and addresses of the surface and mineral owners. The heading for table 1-1 should clearly indicate both surface and mineral owners area listed or a separate table could be created for mineral owners. Table 1-1 is not current for either surface and mineral ownership. Table 1-1 is missing the following surface owners: 2 C' Properties, LLC; Shane & Kristin Campbell; Daniel Campbell; Nick Platis, et. al Table 1-1 is missing the following mineral owners: BLM (O & G owner); Mountain Coal Co. (coal

and other mineral owner). In addition, Table 1-1 lists the following surface owners who are no longer shown on Plate 1-1: Alan Walton, David R. Cave, Rocky Mountain Power; Mountain States Telephone and Telegraph. • Table 1-2 was referred to in Section 112.600, but could not be found. [PB]

R645-301-112.700, A letter from MSHA found in Chapter 5, Figure 5-6 states that refuse pile 1211-UT-9-0034 was reassigned the number 1211-UT-09-01444-01. Please refer to this number when listing MSHA ID numbers in Chapter 1 of the application. • Please clarify in Section 112.700 whether the temporary refuse pile with MSHA ID 1211-UT-9-0033 is still in existence. If this pile is no longer in existence and if the MSHA ID number was retired, please edit Section 112.700 accordingly. [PB]

R645-301-114 and R645-301-121.200, All right of entry agreements in Section 114 were negotiated by either Swisher Coal or Beaver Creek Coal Co, but, the loadout was purchased from Mountain Coal Co. To be clear, Chapter 1 should make the connection between Beaver Creek Coal Co. and Mountain Coal Co. • In addition, the site is referred to throughout the MRP as the Castle Valley Spur Processing and Loadout Facility or CV Spur, 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). This information should be presented in the narrative of Chapter 1. [PB]

R645-301-114.100, From the information provided, it appears that Savage Industries acquired ownership of the permit area in 1994 through a lease agreement with option to purchase (item 7, Section 114.100). The specific lands to which this lease pertains must be disclosed, as well as the date the purchase agreement option was executed. • Ownership of the surface has changed hands since the 1978 Right of Way agreement for the water line from the Price River and for the river pump was negotiated (items 4 & 5, Section 114.100). Were any subsequent agreements filed with the County Recorder? • Item 6, Section 114.100, should indicate the application number for the exchange of water is filed with Division of Water Rights. • Item 8, Section 114.100 should indicate where the name change is filed (Department of Commerce? Or with the County Recorder?) [PB]

R645-301-117.100, The application (dated April 9, 2008) must be accompanied by a current liability insurance certificate. [PB]

R645-301-117.200, An affidavit of publication must be made part of the application. [PB]

R645-301-123, Appendix 1-5 provides a signature of James Jensen, Executive Vice President, certifying that the information in the application is true and correct. There is no date on this signature, but the notary's commission expired in 1997. This is probably the original certification that accompanied the original MRP. Since Mr. Jensen recently retired, it is

recommended that the signature of another authorized official of the company be provided in Appendix 1-5, to verify that the information provided in the application is true and correct. [PB]

R645-301-222 and R645-301-121.200, On page 29 of this section, there is a reference to Sections 8.5 and 8.6 that do not exist any longer with this reformatted plan. • Five soil types described by Bruce Chessler in 2006 (Appendix 2-3) along with those identified by the 2002 Larsen survey have been removed from the Soils Map 2-1 with this reformatting amendment. The soils map should portray the baseline soils information, not the extent of current disturbance. [PB]

R645-301-244 and R645-301-354 and R645-301-355, Section 542.200 must be updated with the knowledge gained from topsoil stockpiles, that the best technology for establishing vegetation is surface roughening for water harvesting and seeding immediately after topsoil placement, regardless of season. [PB]

R645-301-731.300, Provide in Attachment 1 of Appendix 5-1 the analyses referred to in Section 536. • Provide in Attachment 1 of Appendix 5-2, the acid toxic analysis of air-jig separation waste for parameters described in Appendix 5-2. [PB]

TECHNICAL ANALYSIS:

GENERAL CONTENTS

IDENTIFICATION OF INTERESTS

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

Analysis:

Section 112 of the MRP indicates that the applicant and operator is Savage Services Corp. The current five year Mining and Reclamation permit, dated August 7, 2004, is assigned to Savage Services Corp. Employer identification number is listed with address and telephone number.

Section 112.300 states that Savage Services Corporation is wholly owned by Savage Companies (also a Utah corporation). The ownership and control information for both companies is provided in Section 112.300. An end date for recently retired director James T.

Jensen is requested. End dates for all other retired or inactive officers and directors listed in the AVS system is also requested.

The applicant's resident agent is listed as C.T. Corporation (address and telephone provided). In addition, Appendix 1-6 designates James Jensen, Boyd Rhodes and Dan Guy as authorized representatives for the purposes of permit and environmental monitoring. Section 112.230 states that Savage Services Corp will pay the abandoned mined fee, but the name, address, telephone number, and employer I.D. of a person was not provided.

Section 112.340 lists the Catale Oklahoma Loadout as a site operated within the last five years by Savage Industries Inc. The MRP must list the permit number of this site.

Section 112.700 provided MSHA site identification number 42-01444 for the facility. Appendix 1-2 lists MSHA I.D. numbers: 1211-UT-9-0033 (temporary refuse permit) and 1211-UT-9-0034 (permanent refuse permit). A letter from MSHA found in Chapter 5, Figure 5-6 states that refuse pile 1211-UT-9-0034 was reassigned the number 1211-UT-09-01444-01 and that all future reference to this waste pile should use the reassigned number.

Adjacent surface and mineral owners are shown on Plate 1-1. Table 1-1 supplies the names and addresses of the surface and mineral owners. Table 1-2 was referred to in Section 112.600, but could not be found. The heading for table 1-1 should clearly indicate both surface and mineral owners area listed or a separate table could be created for mineral owners. Table 1-1 is not current for either surface and mineral ownership. Table 1-1 is missing the following surface owners: 2 C' Properties, LLC; Shane & Kristin Campbell; Daniel Campbell; Nick Platis, et. al Table 1-1 is missing the following mineral owners: BLM (O & G owner); Mountain Coal Co. (coal and other mineral owner). In addition, Table 1-1 lists the following surface owners who are no longer shown on Plate 1-1: Alan Walton, David R. Cave, Rocky Mountain Power; Mountain States Telephone and Telegraph.

Findings:

The information provided does not meet the requirements of the Regulations. Prior to approval, provide the following in accordance with:

R645-301-112.200, The AVS system lists Savage Service Corp employer ID number as 870387049. This is the number that the MRP lists for Savage Companies. Therefore, please confirm employer ID numbers for Savage Services Corp and Savage Companies, to ensure that no error has been made in writing the MRP.
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application. •Please clarify in Section 112.700 whether the temporary refuse pile with MSHA ID 1211-UT-9-0033 is still in existence. If this pile is no longer in existence and if the MSHA ID number was retired, please edit Section 112.700 accordingly. [PB]

VIOLATION INFORMATION

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

Analysis:

Violation information is discussed in Section 113. The threeyear history of compliance found in Appendix 1-1 is current as of 2008. An AVS check conducted on September 17, 2008 did not reveal any outstanding violations for Savage Services Corp. or Mountain Coal Co.

Findings:

The information provided meets the requirements of the Utah Coal Rules.

RIGHT OF ENTRY

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

Analysis:

Section 114 describes the right of entry and Plate 1-1 shows surface ownership. All documents providing right of entry were entered into by previous owners of the site and were acquired upon purchase of the site. From the information provided, it appears that Savage Industries acquired ownership of the permit area in 1994 through a lease agreement with option to purchase (item 7, Section 114.100). The specific lands to which this lease pertains must be disclosed, as well as the date the purchase agreement option was finalized.

Ownership of the surface has changed hands since the 1978 Right of Way agreement for the water line from the Price River and for the river pump was negotiated (items 4 & 5, Section 114.100). Were any subsequent agreements filed with the County Recorder?

Item 6, Section 114.100, should indicate the application number for the exchange of water is filed with Division of Water Rights.

Item 8, Section 114.100 should indicate where the name change is filed (Department of Commerce? Or with the County Recorder?)

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All right of entry agreements in Section 114 were negotiated by either Swisher Coal or Beaver Creek Coal Co, but, the loadout was purchased from Mountain Coal Co. To be clear, Chapter 1 should make the connection between Beaver Creek Coal Co. and Mountain Coal Co.

In addition, the site is referred to throughout the MRP as the Castle Valley Spur Processing and Loadout Facility or CV Spur, 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). This information should be presented in the narrative of Chapter 1.

Findings:

The information provided does not meet the requirements for right of entry. Prior to approval, please provide the following, in accordance with:

R645-301-121.200 and R645-301-114, All right of entry agreements in Section 114 were negotiated by either Swisher Coal or Beaver Creek Coal Co, but, the loadout was purchased from Mountain Coal Co. To be clear, Chapter 1 should make the connection between Beaver Creek Coal Co. and Mountain Coal Co. • In addition, the site is referred to throughout the MRP as the Castle Valley Spur Processing and Loadout Facility or CV Spur, 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). This information should be presented in the narrative of Chapter 1. [PB]

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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:

Section 114.100 states that Plate 1-1 shows the boundaries of the permit area. Section 116.100 states the permit area is 153.46 acres. Legal descriptions are provided for lease agreements and rights of way, but no legal description of the permit area was found in the application.

The Permit issued August 4, 2004 provides 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.

Also included in the permit area is a 20-foot Right-of-Way for a pipeline across the SE1/4NW1/4 and NW1/4NW1/4 of Section 11 (1.21 acres), and across the SW1/4SW1/4, NW1/4/SW1/4, SW1/4NW1/4 and NE1/4NW1/4 of Section 2 (3.97 acres).

This permit area description does not appear to match the permit area circumscribed on Plate 1-1, that shows the permit area skirting around property owned by Keven and Lois Jensen in the W1/2SW1/4 of Section 11. Please verify this legal description and provide any corrected legal description in Chapter 1.

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 (Sec. 115.300). The Division's Findings (dated 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.

Findings:

The information provided does not meet the requirements of the Utah Coal Rules. Prior to approval, please provide the following, in accordance with:

R645-300-141, Section 116.100 states the permit area is 153.46 acres. No legal description of the permit area was found in the application.

The Permit issued August 4, 2004 provides the legal description as follows:

Township 15 South, Range 10, East, SLBM

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Also included in the permit area is a 20-foot Right-of-Way for a pipeline across the SE1/4NW1/4 and NW1/4NW1/4 of Section 11 (1.21 acres), and across the SW1/4SW1/4, NW1/4/SW1/4, SW1/4NW1/4 and NE1/4NW1/4 of Section 2 (3.97 acres).

This permit area description does not appear to match the permit area circumscribed on Plate 1-1, that shows the permit area skirting around property owned by Keven and Lois Jensen in the W1/2SW1/4 of Section 11. Please verify this legal description and if necessary, provide a corrected legal description in Chapter 1. [PB]

PERMIT TERM

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

Analysis:

The permit term is for five years. The current permit was issued on August 4, 2004 and will expire in August 2008. The life of mine is indefinite and renewals will be sought every five years (Sec. 1116.100).

Findings:

The information provided meets the requirements of the Utah Coal Rules.

PUBLIC NOTICE AND COMMENT

Regulatory References: 30 CFR 778.21; 30 CFR 773.13; R645-300-120; R645-301-117.200.

Analysis:

A draft of the newspaper advertisement is provided in Appendix 1-3. In accordance with R645-301-117.200, an affidavit of publication must be made part of the application. Liability insurance certificate is provided in Appendix 8-3. This insurance certificate expired on April 1, 2008.

Findings:

The information provided does not meet the requirements of the Utah Coal Rules. Prior to approval, please provide the following, in accordance with:

R645-301-117.100, The application (dated April 9, 2008) must be accompanied by a current liability insurance certificate.[PB]

R645-301-117.200, An affidavit of publication must be made part of the application.
[PB]

FILING FEE

Regulatory Reference: 30 CFR 777.17; R645-301-118.

Analysis:

A filing fee was paid at the time of the original application in 1994. A copy of that payment is found in Appendix 1-5.

Findings:

The information provided meets the requirements of the Utah Coal Rules.

PERMIT APPLICATION FORMAT AND CONTENTS

Regulatory Reference: 30 CFR 777.11; R645-301-120.

Analysis:

Section 123 refers to Appendix 1-5 for a notarized statement that the information provided in the application is true and correct. Appendix 1-5 provides a signature of James Jensen, Executive Vice President. There is no date on this signature, but the notary's commission expired in 1997. This is probably the original certification that accompanied the original MRP. Since Mr. Jensen recently retired, it is recommended that the signature of another authorized official of the company be provided in Appendix 1-5, to verify that the information provided in the application is true and correct.

Findings:

The information provided does not meet the requirements of the Utah Coal Rules. Prior to approval, please provide the following, in accordance with:

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R645-301-123, Appendix 1-5 provides a signature of James Jensen, Executive Vice President, certifying that the information in the application is true and correct. There is no date on this signature, but the notary's commission expired in 1997. This is probably the original certification that accompanied the original MRP. Since Mr. Jensen recently retired, it is recommended that the signature of another authorized official of the company be provided in Appendix 1-5, to verify that the information provided in the application is true and correct. [PB]

REPORTING OF TECHNICAL DATA

Regulatory Reference: 30 CFR 777.13; R645-301-130.

Analysis:

Analytical data is accompanied by the names of the individuals or firms responsible for collection and/or analysis of the data. Exceptions will be noted in this technical analysis.

Findings:

The information provided meets the requirements of the Utah Coal Rules.

MAPS AND PLANS

Regulatory Reference: 30 CFR 777.14; R645-301-140.

Analysis:

Plate 5-1 indicates most of the site was disturbed pre-SMCRA. The map differentiates between lands disturbed post law, but before May 3, 1978.

Findings:

The information provided meets the requirements of the Utah Coal Rules.

COMPLETENESS

Regulatory Reference: 30 CFR 777.15; R645-301-150.

Analysis:

The information provided is complete although some information is outdated.

Findings:

Where information provided does not meet the requirements of the Utah Coal Rules, deficiencies have been written.

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

GENERAL

Regulatory Reference: 30 CFR 783.12; R645-301-411, -301-521, -301-721.

Analysis:

The site is located about four miles southeast of Price Utah at the following address: 2025 East 5000 South; Price Utah 84501.

The 153 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 411) and is in an industrial corridor along Ridge Road between State Hwy 10 and Wellington (Figure 7-7).

Findings:

The information provided meets the requirements of the Utah Coal Rules.

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:

The permit area soils were surveyed by James P. Walsh and Associates in July 1980 (Section 222.100). Much of the area had been previously disturbed at that time (Map 5-1). The results of the survey is included in Chapter 2 as Sections 222.300 through Section 224 and Tables 2-2, 2-3, 2-4, 2-5, 2-6 and 2-7. [Table 2-6 Seedbed Quality Material Volumes, has been updated over time.]

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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. All are gypsiferous soils formed from Mancos shale.

A topsoil thickness survey of the coal stockpile 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 2-2. Mr. Larsen confirmed that on the average six inches would be salvaged from the Chipeta soils, 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 was utilized along with the expertise of the soil scientist on site during soil salvage (Section 231.100).

Section 231.100 describes the reclamation of disturbed soils, rather than importation of soil substitutes for the 77.2 acres of pre-law disturbance. On page 29 of this section, there is a reference to Sections 8.5 and 8.6 that do not exist any longer with this reformatted plan.

A typical pedon of Disturbed land is described in Section 222.200: twelve inches of gravel fill covers light grayish brown silty clay [massive, hard, very sticky and very plastic, calcareous, with numerous gypsum crystals and threads]. This pedon description is contradicted by the laboratory analysis of disturbed land 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 (12 – 60 inch sample, Hole 6, Table 2-5). Table 2-5 also indicates that between 12 – 60 inches the disturbed land 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 (Section 231.300).

Settling Pond Construction [09082006]

In July 2006, Bruce Chessler conducted a soil survey of the 6.61 acre expansion area (Appendix 2-3). The locations of the three soil pits are shown on Figure 1. Five soil types were described. These map units along with those identified by the 2002 Larsen survey have been removed from the Soils Map 2-1 with this reformatting amendment. The soils map should portray the baseline soils information, not the extent of current disturbance. The 2006 survey expanded upon and modified the original soil survey of the area by James P. Walsh and Associates in July 1980. [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 2-1).]

The soil map unit disturbed by the settling ponds was Billings silty clay 1 – 3% slopes, moist (Plate 2-1). 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 indicates 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 information provided does not meet the requirements of the Utah Coal Rules. Prior to approval, provide the following in accordance with:

R645-301-222 and R645-301-121.200, On page 29 of this section, there is a reference to Sections 8.5 and 8.6 that do not exist any longer with this reformatted plan. • Five soil types described by Bruce Chessler in 2006 (Appendix 2-3) along with those identified by the 2002 Larsen survey have been removed from the Soils Map 2-1 with this reformatting amendment. The soils map should portray the baseline soils information, not the extent of current disturbance. [PB]

ALLUVIAL VALLEY FLOORS

Regulatory Reference: 30 CFR 785.19; 30 CFR 822; R645-302-320.

Analysis:

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

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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 [09082006]

In 1989 the Division found by reason of statutory exclusion that the site is not within an alluvial valley floor, although approximately 40 acres of the permit area was previously cropland (Section 410). Figure 7-7 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 plans. 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

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 a portion of the land at Savage Coal Terminal. The land was under cultivation, but was deemed uneconomical and abandoned (Sections 410 and 411).

Settling Pond Construction [09082006]

In June of 1980, the Soil Conservation Service determined that the site did not contain prime farmland, Figure 2-1. 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.

OPERATION PLAN

PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES

Regulatory Reference: 30 CFR784.17; R645-301-411.

Analysis:

The site is located about four miles southeast of Price Utah at the following address: 2025 East 5000 South; Price Utah 84501.

TECHNICAL MEMO

The 153 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 411) and is in an industrial corridor along Ridge Road between State Hwy 10 and Wellington (Figure 7-7). As stated in 115, no historic places or public parks are adjacent to this permit area.

Findings:

There is no effect to historic places or public parks.

AIR POLLUTION CONTROL PLAN

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

Analysis:

Appendix 4-3 contains an Air Quality Approval Order for the loadout, DAQE-ANI793003-06 (last updated in 2006). Section 420 describes the operational measures taken to reduce particulates. The plan allows for a throughput 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.

TOPSOIL AND SUBSOIL

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

Analysis:

Topsoil Removal and Storage

Plate 5-2 Surface Facility Map illustrates a topsoil and subsoil stockpile location adjacent to the Savage office. The construction of the topsoil pile is described in Sec. 231.100. The volume of soil recovered prior to settling pond construction in 2006 was 13,028 yd³. After settling pond construction in 2006, the total volume of stored topsoil is 62,314 yd³. (Table 2-6). Based upon the soil survey (Appendix 2-3) topsoils were salvaged to a depth of 12 inches and

subsoil to a depth of 24 inches (Table 2-6 and Section 231.100, p. 27). **BiBe soils were of such poor quality that they were not be salvaged.**

Section 231.400 summarizes the volume of material stored in three stockpiles at the Savage Coal Terminal. Plate 2-2 and Appendix 2-1 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 2-3 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 231.100 and seeded in October 2006.

During the 2002 construction of the coal stockpile/coal loop area (directly opposite the office), there were 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 was six inches for Chipeta and nine inches for Killpack. Subsequent information provided with the settling pond construction amendment indicated that the volume of soil recovered in 2002 was 13,028 yd³. Table 2-6 records a figure of 49,286 cubic yards for the combined yardage of topsoil salvaged from the coal stockpile/truck loop expansion and the topsoil that had been previously salvaged and stockpiled at the site.

Prior to reformatting, the MRP indicated on page 3-54 that the soil salvaged from the 2002 coal stockpile expansion would be placed between the two existing piles and then graded. The Division recommended that the topsoil and subsoil piles be regarded prior to live hauling the topsoil from the coal storage site for placement over the entire surface of the reconfigured topsoil and subsoil piles. In this manner, the seeds, propagules, microbes and nutrients available in the topsoil being salvaged would be located on the surface of the topsoil pile where the germinating and establishing plants could benefit from them. It is not known whether this procedure was followed. The reformatted plan written in 2008 refers to the construction of the topsoil/subsoil pile in Section 231.400, but does not describe whether the topsoil hauled from coal stockpile expansion area was placed "on top of" or "in between" the previously existing topsoil and subsoil stockpiles.

A qualified soil scientist will be on site during topsoil stripping to ensure adequate recovery of the soils (Section 230).

Findings:

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

TECHNICAL MEMO

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:

Coal Mine Waste

Refuse Piles

A permanent refuse pile (Section 514.100) with MSHA # 1211-UT-09-01444-01 is located on Map 5-2. [The refuse pile remained dormant until June of 2005.] As noted in section 536, the refuse pile may be re-mined for use at the Sunnyside Co-generation plant (Appendix 5-1) or may be taken off-site, cleaned using a patented air cleaning technology and the resulting higher BTU product blended with coals stored at the Savage site for shipment to cement plants was approved (Appendix 5-2). The reject from this latter enhancement process is returned to the MSHA refuse pile for final disposal.

Section 536 relates that the coal processing plant was restarted in 2006, after being idle since 1984. In 2006, Savage Industries negotiated a contract with an outside Company to wash high ash coal. Coal processing waste generated by this activity was approved for temporary storage at the Savage Coal Terminal in the permitted MSHA refuse pile. The wash plant waste from this process may be stored temporarily at the MSHA refuse pile site, but will be returned to the outside Company for final burial.

Based upon the approved operation plan, the temporary storage of this coal processing waste will 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.

Findings:

Information provided meets the requirements of the Utah Coal 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, -300-148, -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:

Acid- and Toxic-Forming Materials and Underground Development Waste

Section 536 refers to Appendix 5-1 and 5-2 for laboratory analysis of coal mine waste. Appendix 5-1 includes Attachment 5-1 which is titled Refuse Pile Analyses, but no analyses were found in this attachment. Appendix 5-2 describes sampling of waste returning to the site after air separation processing procedures. Acid/toxic parameters will be analyzed on every 5,000 Tons of waste returned to the site. Attachment 1 provides acid/toxic analysis, but does not provide those analyses that are described in Appendix 5-2.

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 this sampling will be forwarded to the Division on a quarterly basis, as well as provided with the Annual Report for the Savage Coal Terminal.

Findings:

The information provided does not meet the requirement of the Utah Coal Rules. Prior to approval, please provide the following, in accordance with:

R645-301-731.300, Provide in Attachment 1 of Appendix 5-1 the analyses referred to in Section 536. •Provide in Attachment 1 of Appendix 5-2, the acid toxic analysis of air-jig separation waste for parameters described in Appendix 5-2. [PB]

RECLAMATION PLAN

TOPSOIL AND SUBSOIL

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

TECHNICAL MEMO

Analysis:

Redistribution

Soil preparation and redistribution is described in Section 542.200. Currently, there are 132.5 acres disturbed (Table 2-9) and 62,314 cubic yards of topsoil and subsoil stored at the site (Sec. 231.400).

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 231.300.

Findings:

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

STABILIZATION OF SURFACE AREAS

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

Analysis:

Establishing vegetation at the site will be difficult due to lack of water and saline/sodic soils. A case in point is the vegetation establishment on the topsoil and subsoil stockpiles. Initially, topsoil and subsoil stockpiles 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. There was 2000 lbs/acre hay mulch incorporated into the surface with roughening and a temporary seed mix applied (Table 5-1) and treatment with 2,000 lbs/ac of wood fiber mulch and 60 lbs/acre of tackifier (prior to reformatting in 2008, these treatments were documented on page 3-54, Section 3.5.2, but this information was removed from Section 541.100, Soil Removal and Storage, pg. 41 of the reformatted plan.) This sort of

treatment was ineffective in establishing vegetation and was abandoned with reconstruction of the topsoil/subsoil stockpile in 2002 and construction of the 2006 settling pond stockpiles.

The best technology as of 2006 is described in Section 231.100. 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 2000 lbs/acre in combination with 60 lbs of Tac per acre.

Mulching is also described in Section 542.200, p. 48. However, Section 542.200 does not reflect the best technology for water harvesting (gouging). 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.

The mean annual precipitation for the site is about 10 inches (Section 724.200 and Table 7-15). Section 542.200 describes seeding after September 1 to allow for optimum growing conditions. The site receives most of its precipitation from August through September, making it a 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. Past experience with the soils at this site indicates that seeding must immediately follow topsoiling to allow good seed/soil contact, regardless of season.

Section 542.200, Recontouring, provides a commitment to stabilize rills and gullies.

Findings:

The information provided does not meet the requirements of the Utah Coal Rules. Prior to approval, the application must contain the following in accordance with:

R645-301-244 and R645-301-354 and R645-301-355, Section 542.200 must be updated with the knowledge gained from topsoil stockpiles, that the best technology for establishing vegetation is surface roughening for water harvesting and seeding immediately after topsoil placement, regardless of season. [PB]

CESSATION OF OPERATIONS

Regulatory Reference: 30 CFR Sec. 817.131, 817.132; R645-301-515, -301-541.

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

TECHNICAL MEMO

Analysis:

Section 515.322 states that a notice will be provided to the Division whenever the operation ceases for longer than 30 days. Section 515.322 provides details of the contents of that notice, in accordance with R645-301-515.320.

Findings:

The information provided meets the requirements of the Utah Coal Rules.

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:

This coal preparation and loading facility meets the R645-100 definition of coal processing plant and falls under regulation in accordance with R645-302-260.

Findings:

As noted by itemized deficiencies, the application does not meet the requirements of the Utah Coal Rules.

RECOMMENDATIONS:

Deficiencies noted in this review should be addressed before approval of the reformatted plan.