

# TECHNICAL MEMORANDUM

## Utah Coal Regulatory Program

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July 6, 2006

TO: Internal File

THRU: Wayne Hedberg, Permit Supervisor  
Dana Dean, P.E., Senior Reclamation Hydrologist, Team Lead

FROM: Priscilla Burton, CPSSc, Environmental Scientist

RE: Proposed Expansion of Disturbed Area, Task ID#2524, Savage Industries, Inc., Savage Coal Terminal, C/007/0022

### **SUMMARY:**

Savage Services Corp. proposes to construct settling ponds in the northwest corner of the permit area on 6.61 acres of undisturbed ground (near the lowland vegetation reference area). The application is recorded in the 2006 Incoming File as Record 13.

### **TECHNICAL ANALYSIS:**

## **GENERAL CONTENTS**

## **PERMIT APPLICATION FORMAT AND CONTENTS**

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

### **Analysis:**

Please correct the legend on Soils Plate 8-2 to read Sa = Saltair silty clay loam.

### **Findings**

**R645-301-121.200**, Please correct the legend on Soils Plate 8-2 to read Sa = Saltair silty clay loam.

## ENVIRONMENTAL RESOURCE INFORMATION

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

### 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 permit area 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 in 2002, the Permittee was not able to locate a copy of the original survey. Soils Map 8-2 indicates that the soil type in the vicinity of the proposed ponds is Billings salty clay 1 – 3% slopes. The Walsh soil survey sample site 3 was located near the ponds. General information on this soil type is provided in the MRP. Site specific soils information such as that required by R645-301-222 must be obtained for the 6.61 acre disturbed area.

#### Findings:

The information provided does not meet the requirements of the regulations. The Permittee must supply the following, prior to approval and in accordance with

**R645-301-222**, Site specific soils information such as that required by R645-301-222 must be obtained for the 6.61 acre disturbed area.

### ALLUVIAL VALLEY FLOORS

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

#### Analysis:

##### Alluvial Valley Floor Determination

Although, in 1989 the Division found by reason of statutory exclusion that the site is not within an alluvial valley floor, approximately 12.9% of the permit area was previously cropland (MRP, Section 9.3.2.2). According to the Carbon County soil survey information and Chapter 8 of the MRP, the Billings silty clay is found on alluvial fans and flood plans. Irrigation canals run adjacent to the permit area. Figure 7-6 “Location of Irrigation Canals” is dated 5/16/83, please provide an updated Figure.

#### Findings:

The information provided does not meet the requirements of the regulations. The Permittee must supply the following, prior to approval and in accordance with

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**R645-302-321.230**, Figure 7-6 “Location of Irrigation Canals” is dated 5/16/83, please provide an updated Figure 7-6. •The application must include a map of the adjacent farmlands.

## **PRIME FARMLAND**

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

### **Analysis:**

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.

### **Findings:**

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

## **OPERATION PLAN**

### **TOPSOIL AND SUBSOIL**

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

### **Analysis:**

#### **Topsoil Removal and Storage**

The plan indicates in Sec. 3.5.2 that the topsoil removed from the pond expansion area will be added to the existing topsoil stockpile. The volume of soil expected to be recovered prior to pond construction is calculated by the applicant in Table 8-6 to be approximately 5,977 yd<sup>3</sup>.

Volume of topsoil (13,298 yd<sup>3</sup>) and subsoil (36,177 yd<sup>3</sup>) currently stockpiled is given in Table 8-6 of the MRP (total = 49,475 yd<sup>3</sup>). This application modifies Table 8-6 to remove the separate accounting for subsoil and topsoil.

Appendix 8-1 must be updated with current as-built information for the subsoil and topsoil stockpiles created in 2002. The application indicates on page 8-34 that Plate 3-2 is an as-built, however, Plate 3-2 does not provide volumes or topography of the stockpiles. Page 8-39 of the application indicates that Plate 8-2 provides an as-built, but it pre-dates the 2002 construction.

It has been the Division's observation that the current stockpile is at capacity and has little room for expansion. The current stockpile is adjacent to the haul road where it is subjected to constant impact from haul road dust accumulations. Consequently, the soil salvaged from the pond area should be separately stockpiled, adjacent to the pond disturbance.

**Findings:**

The information provided does not meet the requirements of the regulations. The Permittee must supply the following, prior to approval and in accordance with

**R645-301-234**, Appendix 8-1 and Table 8-2 and Table 8-7 must be updated with current as-built information for the subsoil and topsoil stockpiles created in 2002 (Plate 3-2 is a surface facilities map, not an as-built as suggested on page 8-34. Page 8-39 of the application indicates that Plate 8-2 provides an as-built, but it pre-dates the 2002 construction.) •The topsoil salvaged prior to pond construction should be separately stockpiled, adjacent to the pond construction.

## RECLAMATION PLAN

### TOPSOIL AND SUBSOIL

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

**Analysis:**

**Redistribution**

Sections 8-6 and 8-8 through 8-10 describe soil redistribution and reclamation of in situ soils. Table 8-9 provides a mass-balance summary. There are 132.5 acres within the disturbed area. Of these, 55.3 are post-law. There are 44,617 yd<sup>3</sup> stockpiled which will cover 83.79 acres to a depth of six inches.

**Findings:**

The information provided meets the requirements of the Regulations.

### STABILIZATION OF SURFACE AREAS

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

**Analysis:**

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 candidate for July seeding of warm season species. A summer (July) seeding is acceptable

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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 cover letter attached with the application and Sec 3.5.5.2 indicate that seeding of reclaimed areas will take place after September 1. Section 3.5.2 of the proposal indicates that topsoil will be reclaimed contemporaneously with the first suitable growing season. Given that the climate information indicates that most of the precipitation at the site occurs August through September and that past experience with the soils at this site indicates that seeding must immediately follow topsoiling to allow good seed/soil contact, please modify the application to indicate that seeding will immediately topsoil placement regardless of season, whether on the stockpile or at final reclamation.

**Findings:**

The information provided does not meet the requirements of the regulations. The Permittee must supply the following, prior to approval and in accordance with

**R645-301-244**, Given that the climate information indicates that most of the precipitation at the site occurs August through September and that past experience with the soils at this site indicates that seeding must immediately follow topsoiling to allow good seed/soil contact, please modify the application in Sec. 3.5.1, Sec. 3.5.2 and Sec. 3.5.5.2 to indicate that seeding will immediately topsoil placement regardless of season, whether on the stockpile or at final reclamation.

**RECOMMENDATIONS:**

The application is not recommended for approval.