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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

January 12, 2007

TO: Internal File

THRU: Dave Darby, Environmental Scientist III, Team Lead

FROM: Priscilla Burton, CPSSc, Environmental Scientist III

RE: Plant Overflow Pond, Savage Industries, Inc., Savage Coal Terminal, C/007/0022, Task ID #2706

SUMMARY:

An application to construct a plant overflow pond was received at the Price Field Office on November 22, 2006. The application includes the revision of page 7-87 and Plates 3-2, 7-2, and 7-4C. The application is incomplete with regard to soils information.

The following deficiencies are identified:

R645-303-223 and R645-301-222, The application is incomplete with regard to soil information. At a minimum, the application must state that during construction, the Permittee will describe the soil profile to a depth of five feet and sample the surface coal accumulation and the underlying surface soil from 0 – 6 inches, 6 – 12 inches, 12 – 24 inches, and 24 – 48 inches. The soil samples must be analyzed for texture, pH, Electrical Conductivity, and Sodium Adsorption Ratio.

R645-301-231, Plate 7-4C describes the dimensions of the plant overflow pond: 30 ft X 60 ft., with 15 ft. berms surrounding the pond adding an 30 extra ft. to each dimension. The total area for the pond will require 5,400 sq. ft. Soil removal was not described in the application. The Permittee must remove the surface foot of coal and soil from the 5,400 sq. ft. area. That will yield 200 cubic yards. This mixed soil/coal material will be stockpiled, protected and seeded as topsoil. The Permittee may elect to store this mixed soil/coal material over the flat surface and slopes of the overflow pond berm. The stored salvaged soil must be signed. • The Division recommended the use of manure rather than potassium fertilizer to establish vegetation on the topsoil and subsoil piles, the techniques and products employed should be disclosed in the MRP.

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TECHNICAL ANALYSIS:

GENERAL CONTENTS

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:

An application to construct a plant overflow pond was received at the Price Field Office on November 22, 2006. The application includes the revision of page 7-87 and Plates 3-2, 7-2, and 7-4C. Plate 3-2 shows the location of the proposed pond. Plate 8-1 soils map identifies the location as disturbed soil. A site visit on January 24, 2007 confirmed that the soil has been disturbed by its location near a material storage yards and by several inches of accumulated coal on the surface.

Based upon the 2006 soil survey of the northwest corner of the permit area, the Division expects that this disturbed land is the Billings soil series, but there has been no previous sampling of this soil. The application is incomplete with regard to soils information. At a

minimum, the application must state that during construction, the Permittee will describe the soil profile to a depth of five feet and sample the surface coal accumulation and the underlying surface soil from 0 – 6 inches, 6 – 12 inches, 12 – 24 inches, and 24 – 48 inches. The soil samples must be analyzed for texture, pH, Electrical Conductivity, and Sodium Adsorption Ratio.

Findings:

The application lacks soils information. Prior to approval, the following information must be provided in accordance with:

R645-303-223 and R645-301-222, The application is incomplete with regard to soil information. At a minimum, the application must state that during construction, the Permittee will describe the soil profile to a depth of five feet and sample the surface coal accumulation and the underlying surface soil from 0 – 6 inches, 6 – 12 inches, 12 – 24 inches, and 24 – 48 inches. The soil samples must be analyzed for texture, pH, Electrical Conductivity, and Sodium Adsorption Ratio.

OPERATION PLAN

TOPSOIL AND SUBSOIL

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

Analysis:

Topsoil Removal and Storage

Plate 7-4C describes the dimensions of the plant overflow pond: 30 ft X 60 ft., with 15 ft. berms surrounding the pond adding an 30 extra ft. to each dimension. The total area for the pond will require 5,400 sq. ft. Soil removal was not described in the application. The Permittee must remove the surface foot of coal and soil from the 5,400 sq. ft. area. That will yield 200 cubic yards. This mixed soil/coal material will be stockpiled, protected and seeded as topsoil. The Permittee may elect to store this mixed soil/coal material over the flat surface and slopes of the overflow pond berm. The stored salvaged soil must be signed.

In advance of settling pond construction, subsoil and topsoil stockpiles weres completed during the week of September 25, 2006. As-Built Plate 8-3 indicates that there is 6,514 c.y. of

subsoil and 6,514 c.y. of topsoil stored northwest of the Office. A deluge of rain was received on October 6, 2006, delaying seeding for a few weeks.

The Division recommended the use of manure rather than potassium fertilizer to establish vegetation on the topsoil and subsoil piles, the techniques and products employed should be disclosed in the MRP.

Findings:

The following information is outstanding and is required from the Permittee prior to approval of further disturbance, in accordance with:

R645-301-231, Plate 7-4C describes the dimensions of the plant overflow pond: 30 ft X 60 ft., with 15 ft. berms surrounding the pond adding an 30 extra ft. to each dimension. The total area for the pond will require 5,400 sq. ft. Soil removal was not described in the application. The Permittee must remove the surface foot of coal and soil from the 5,400 sq. ft. area. That will yield 200 cubic yards. This mixed soil/coal material will be stockpiled, protected and seeded as topsoil. The Permittee may elect to store this mixed soil/coal material over the flat surface and slopes of the overflow pond berm. The stored salvaged soil must be signed.

- The Division recommends the use of manure rather than potassium fertilizer to establish vegetation on the topsoil and subsoil piles, the techniques and products employed should be disclosed in the MRP.

RECLAMATION PLAN

TOPSOIL AND SUBSOIL

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

Analysis:

Redistribution

The salvage and redistribution of 200 cu-yds of soil from the overflow pond construction must be included in the topsoil mass balance (Table 8-9) of the reclamation plan.

Table 8-9 Topsoil Mass Balance indicates there are 62,314 cu-yds of salvaged topsoil and subsoil to reclaim the132.5 acre site. To spread six inches of soil over the entire site will require a total of 106,883 cu-yds of soil.

Changes have been made to the Topsoil Mass Balance Table 8-9 to reflect the additional 6.61 acre settling pond disturbance, however the information does not reflect the as built information in Appendix 8-1 which indicates that 49,285.93 cu-yds are currently stockpiled and the soil survey that indicates 24 inches from two soil types, but not the entire 6.61 acres can be salvaged as topsoil and subsoil . Currently the mass balance for the mine site is as follows:

- Topsoil available = 49, 285.93 cu-yds stockpiled + additional topsoil from the proposed settling pond disturbance, yet to be calculated.
- Disturbed area = 132.5 acres
- Post Law Disturbance = 55.3acres
- Topsoil required (Post Law) = 44,608 cu-yds, reflecting the commitment to re-apply six inches of topsoil to post-law areas
- Max area for 6" redistribution = 83.79 acres, reflecting the area that could be covered to a depth of six inches by the stored soil.

Findings:

The following information is outstanding and is required from the Permittee prior to approval of further disturbance, in accordance with:

R645-301-240, The salvage and redistribution of 200 cu-yds of soil from the overflow pond construction must be included in the topsoil mass balance (Table 8-9) of the reclamation plan.

RECOMMENDATIONS:

The Permittee should insure that the R645-200 rules will be addressed as described prior to approval.

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