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State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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March 29, 2001

TO: [REDACTED]

THRU: Susan M. White, Project Lead *SMW*

FROM: Paul B. Baker, Reclamation Biologist *PB*

RE: Silo Demolition, Plateau Mining Corporation, Star Point Mine, C [REDACTED]
AM01B

SUMMARY:

On March 5, 2001, the Division received a proposal from Plateau Mining Corporation to add about one acre to the Star Point disturbed area to accommodate reclamation of the coal storage silo. The current mining and reclamation plan has limited information about the soils in this area, and the topsoil salvage commitments are not clear. Because the area is small, the existing soils information is considered adequate, but the applicant needs to clarify the soil salvage commitment.

The application does not affect most parts of the plan that deal with the general contents regulations in R645-301-100, so unaffected sections are not addressed in this review.

TECHNICAL ANALYSIS:

GENERAL CONTENTS

RIGHT OF ENTRY

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

Analysis:

According to the cover letter received with the application, the applicant has applied for a right of way from the Bureau of Land Management but has not yet received it. When the applicant originally applied for a right of way in 1984, the area proposed to be added to the

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disturbed area was included, so this area was also included when the Bureau of Land Management did its environmental assessment. However, the applicant later decided to exclude the area from the right of way, so although the environmental assessment is completed, the applicant does not have right of entry.

Findings:

Information in the proposal is not adequate to meet the requirements of this section of the regulations. Prior to final approval, the applicant must supply the following information in accordance with:

R645-301-114, The applicant needs to show it has right of entry for the area proposed to be disturbed.

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:

According to Plate 222.100d and Exhibit 222.300a of the current mining and reclamation plan, soils in the area proposed to be disturbed are classified as being in the Badland-Rubbleland-Rock outcrop complex. Limited chemical analyses of some of the soils in the area are in Table 230.200f. The sampling sites nearest the silo demolition area are sites 1 and 2. The only analyses given in this table are pH, electrical conductivity (EC), nitrate, phosphorous, potassium, and carbonate. Section 234 thru 234.320 says the soils in this area do not possess generic soil horizons but are undifferentiated geologic materials.

The Division would normally require more analyses to determine whether the soil material is suitable and how much should be salvaged. In this case, however, the Division considers the information adequate. The area to be disturbed is not large, and the chemical analyses available indicate no problems with using this soil.

Findings:

Information in the proposal is adequate to meet the requirements of this section of the regulations.

OPERATION PLAN

AIR POLLUTION CONTROL PLAN

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

Analysis:

The applicant has an Air Quality Approval Order for the Star Point Mine, but it does not specifically address the proposed demolition of the silo. According to verbal information from a representative of the Division of Air Quality, no specific approval is required. The applicant needs to minimize fugitive dust by wetting the area if it is dry and should also check to see if there is any asbestos in the silo. As part of demolition associated with reclamation, the applicant has apparently done an asbestos survey at the silo with negative results, and these results should be available to an inspector.

Findings:

Information in the application 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:

Removal and Storage

The application includes no new text, so there is no specific plan for how much soil will be salvaged in the area proposed to be disturbed. The mining and reclamation plan does not say how much soil was salvaged from the existing disturbances in the area but does say an average of six inches of soil will be applied at the time of reclamation.

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Based on the information in the plan, there is no clear boundary between horizons for the soils in the area, but there is a sharp decline in potassium content between the top twelve inches and the layer between twelve and eighteen inches. Based on this and also on verbal information from the applicant that it would probably be easier to salvage twelve inches of soil than six, the applicant should commit to salvage the upper twelve inches of soil.

The applicant should also indicate how the soil will be stored. The Division assumes the soil will be windrowed near the trench into which the silo will fall.

Findings:

R645-301-230, The applicant needs to say how much soil will be salvaged and how it will be stored.

RECLAMATION PLAN

TOPSOIL AND SUBSOIL

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

Analysis:

The reclamation plan for soils is in Section 240 of the current mining and reclamation plan, and the applicant has not proposed to change this section of the plan. According to the plan, spoil will be ripped or gouged before topsoil is replaced. Next, two tons per acre of alfalfa hay, straw, or other suitable organic amendment will be mixed into the soil either by gouging or plowing along the contour. This will be followed by seeding and application of straw mulch. The mulch will be held in place either by crimping it with trackhoe teeth or by spraying it with tackifier.

The applicant intends to apply fertilizer at the rate of 40 pounds per acre of nitrogen and 30 pounds per acre of phosphorous. This would be applied either before mixing the organic amendment into the soil or in conjunction with the seeding operation. The Division and several mine operators have found that fertilizer tends to increase the number of weeds on the reclaimed area and that it does not necessarily increase growth of desirable vegetation. The Division recommends the applicant not fertilize the area.

The applicant commits in the existing mining reclamation plan to investigate available methods of Mancos Shale soil enhancement prior to commencement of final reclamation of areas with Mancos Shale parent material. The enhancement measures may include the application of

pH-lowering substances, such as gypsum, acidic coal waste, imported soils, etc., or enhancement of the soil through mechanical means. The plan contains no further information indicating whether this has been done or what the results were if it was done. Assuming the applicant followed through with the commitment to try different soil enhancement measures, those that were successful should be incorporated into the mining and reclamation plan

Findings:

Information in the proposal is not adequate to meet the requirements of this section of the regulations. Prior to final approval, the applicant must supply the following information in accordance with:

R645-301-240, The current mining and reclamation plan contains a commitment to investigate various methods of reclaiming soils derived from Mancos Shale parent material. Assuming this has happened, the applicant need to incorporate results of this testing in the mining and reclamation plan.

The Division recommends the applicant not apply fertilizer in the reclaimed area, as this tends to increase weed growth.

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RECOMMENDATIONS:

The application should not be approved until the deficiencies discussed in this memorandum have been adequately addressed.