



Consolidation Coal Company
 Western Region
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DIVISION OF
 OIL, GAS & MINING

Ms. Sally Kefer
 Reclamation Hydrologist
 Division of Oil, Gas, and Mining
 State of Utah
 1588 West North Temple
 Salt Lake City, Utah 84116

Dear Ms. Kefer:

This letter accompanies Consolidation Coal Company's proposed construction permit application to upgrade the existing access road to the borehole pump. Reconstruction work will begin on this structure as soon as your office has approved the design plan.

Design plans for the reconstruction of the tank and sedimentation pond access roads are included in the preparation plant permit application submitted on September 1, 1981. The tank road will be used to access the preparation plant while the sedimentation pond road will provide access to the waste disposal area for coarse refuse haulage trucks. Plans for these two roads are described in Volume 11, section 15.3.2.2.

The above information supercedes that found in section 13.3.4 of the Emery Permit Application.

If you have any questions about any information contained herein, please contact me at the above number.

Sincerely,

Mary Jo B. Ormiston

Mary Jo Ormiston
 Civil Engineer

MJO/mcf
 Attachment
 cc: Ron Thompson

EMERY MINE
BOREHOLE PUMP FACILITY ACCESS ROAD
ROAD UPGRADE DESIGN

Introduction

The existing access road to the borehole pump facility at Consolidation Coal Company's Emery Mine requires upgrading construction. A design plan has been prepared to bring the existing road into compliance with current regulations. The plan is described in detail and construction drawings are included in the report that follows.

BOREHOLE PUMP ACCESS ROAD

Existing Conditions

The existing road is used as access to the mine dewatering pump located approximately 3/4 of a mile north of Emery Mine, as shown on Plate 1. The road is classified as a Class II structure. It was constructed prior to 1975.

A field investigation was conducted by Valley Engineering, Inc. in October of 1980 to examine the existing conditions of the access road. The results of the study are discussed in this section and the recommendations have been used to prepare this report.

Refer to Plate 2 for the plan view and profile of the existing access road. The fifteen foot wide structure follows the original terrain. The ground and roadway material at this site has been identified as decomposed Mancos shale and clay with little or no gravel. During precipitation events, travel on the saturated surface is difficult. The edges of the road are rutted due to poor drainage control. Several small cuts have been made to direct water off of the roadway, however, there are no major drainage ditches to provide for surface water runoff control.

Design Plan Summary

The proposed plan to upgrade the existing borehole pump access road is illustrated on Plate 3, and should be referred to. The reconstruction plan summary follows:

1. Stabilization. The existing material will be removed between stations 0 through 9+00 and replaced with a structural section that will assure the stabilization of the roadway, designed in accordance with Surface Mine Haulage Road Design Study, by Skelly & Loy.
2. Drainage. Parallel drainage ditches will be constructed along the roadway to provide for complete surface water runoff drainage control.
3. Reclamation. The portion of the existing road from stations 9+00 through 14+72 will be reclaimed. It is no longer necessary to maintain this portion of the access road. Instead, a gravel based turnaround area has been included in the upgrade design.

The plan to upgrade the existing borehole pump access road is in accordance with the following applicable regulations:

Coal Mining and Reclamation Permanent Program, Chapter I,
Final Rules of the Utah Board and Division of Oil, Gas, and Mining.
(Promulgated under UCA 40-10-1 et sef.).

The Permanent Regulatory Program of the U. S. Department of
the Interior, Office of Surface Mining, Reclamation, and Enforcement.

The references that were used to prepare this report follow:

Standard Specifications for Road and Bridge Construction
(State of Utah).

Hydrology and Sedimentology of Surface Mined Lands, Haan and
Barfield, 1978.

"Emery Mine Soils Report", Valley Engineers, Inc., 1980.

"Emery Permit - Roads Study", Valley Engineers, Inc., 1980.

"Emery Permit - Soil Resources Information", James P. Walsh &
Assoc., 1981.

"Surface Mine Haulage Road Design Study", Skelly & Loy, 1976.

Design Plan Details

This section describes the engineering design details of the proposed
reconstruction plan:

1. Stabilization:

The portion of the roadway between stations 0 and 9+00 will be
stabilized in the following manner:

a. Excavation.

The existing roadway and proposed turnaround area will first
be excavated to a minimum depth of 20 inches, to provide for a
stable sub-base. The nature of the existing material decomposed
shale and clay and the deteriorated condition of the surface
indicate necessary removal of the original material.

The excavated material will be stockpiled and used as replacement
fill at the time of removal of the road during the reclamation
phase of the Emery Mine. No topsoil is available for stockpiling.

Excavated material calculations:

Access Road
Length = 900 feet
Width = 15 feet
Depth = 20 inches

Turnaround

Area = 0.5 x 60 feet x 60 feet

Depth = 20 inches

Total volume removed: $(900' \times 15' \times 20''/12) + (0.5 \times 60' \times 60' \times 20''/12) = 25,500/27 = 950$ cubic yards

b. Placement of Subbase.

14 inches of pit run gravel will be placed and compacted to provide a stable subbase for the surface material.

Total gravel volume required: $(900' \times 15' \times 14''/12) + (0.5 \times 60' \times 60' \times 14''/12) = 17,850/27 = 665$ cubic yards

c. Placement of Surface Course.

6 inches of crushed aggregate will be placed and compacted for surface course. The surface will slope at 3/8 inch per foot from the centerline to the shoulder to provide drainage off the road.

Total volume crushed aggregate required:
 $(900' \times 15' \times 6''/12) + (0.5 \times 60' \times 60' \times 6''/12) = 7650/27 = 285$ cubic yards

Refer to the typical structural section illustrated on Plate 3.

2. Drainage:

Drainage ditches will be constructed on each side of this road to carry water off the road surface, and keep water from adjacent areas from flowing into the roadway. Water entering the ditches north of station 6+50 will flow generally north along the road before re-entering the normal drainage. Water entering the ditches south of station 6+50 will flow south toward the paved road. The pump road joins the paved road at such an elevation that water in the pump road ditches will flow away parallel to the paved road toward natural drainage courses in both directions. Therefore, no culvert is necessary under the pump road near the paved road.

As the plan view shows, very little water will enter the road ditches from areas adjacent to the road. Therefore, an 18" V-ditch will be capable of handling the water for this road.

3. Reclamation:

As stated, the existing road from stations 9+00 through 14+72 will be reclaimed. Since earth material was not moved to build this structure initially, and no road surfacing work was provided, reclamation will consist of disking, conditioning, and seeding this area.