



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

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March 8, 1995

TO: File

FROM: Jess Kelley, Reclamation Engineer *JK*

RE: Overland Conveyor and Diesel Access Portal, PacifiCorp,
Cottonwood/Wilberg Mine, ACT/015/019-94G, Folder #2, Emery County,
Utah *→ #2*

SYNOPSIS

The permittee first submitted this amendment for Division review on July 27, 1994. The Division found a number of deficiencies in this first amendment submittal and notified the permittee of those deficiencies. The permittee then resubmitted the amendment to the Division on February 2, 1995. This memorandum contains this writer's analysis of the February 2 submittal. The analysis is in a form in which it can be incorporated directly into the current Technical Analysis (TA) of this site and thus update it to include the facilities and practices contained in the amendment.

By this amendment, the permittee proposes to build a conveyor to connect the Trail Mountain and Cottonwood/Wilberg mines, a conveyor portal and diesel access portal for the Cottonwood/Wilberg mine, and a small, temporary crane pad just below the conveyor portal. All of these new facilities are to be located either on or directly across Cottonwood Canyon from the Trail Mountain minesite.

The connection conveyor will be enclosed in a steel tube built atop support towers and will span the canyon between the Trail Mountain tippie and the Cottonwood/Wilberg mine. The conveyor will connect the coal handling systems of the two mines and will serve to transport run-of-mine coal from the Trail Mountain mine to the coal loadout system of the Cottonwood/Wilberg mine. The coal will then be loaded into trucks by the Cottonwood/Wilberg mine's coal handling facilities and hauled to the Hunter Power Plant.

The new conveyor portal will accommodate the connection conveyor. The new diesel access portal will provide direct access to the Cottonwood Mine from the Trail Mountain Mine. The road and pad will provide access for a crane which will be used in the construction of the conveyor.



ANALYSIS

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Existing Structures and Facilities Maps

The overland conveyor amendment (94G) consists of 5 facilities, all in Cottonwood Canyon adjacent to the Trail Mountain minesite: a diesel access portal, a belt portal, an aerial conveyor enclosed in a steel tube, and 2 steel support structures on concrete footings to support the aerial conveyor. The aerial conveyor spans Cottonwood Canyon from the Trail Mountain mine tippie to the belt portal and carries run-of-mine coal from the Trail Mountain mine to the coal loadout system of the Cottonwood/Wilberg mine. One of the conveyor support structures is on the Trail Mountain mine property and the other is on the Cottonwood/Wilberg property. The diesel access portal is on the Cottonwood/Wilberg property and provides direct access to the Cottonwood/Wilberg mine workings from the Trail Mountain property.

The overland conveyor facilities, along with the facilities of the Trail Mountain mine, are shown on Plate 3-16A--Cottonwood Fan Portal Surface Facilities Map. The overland conveyor facilities are also shown in greater detail on Plates C-5, GA-2, L-1 and L-4.

Existing Surface Configuration Maps

The surface configuration prior to the overland conveyor amendment (94G) is shown on Plate 3-16A--Cottonwood Fan Portal Surface Facilities Map and in greater detail on Plates L-1 and L-4. The predisturbance surface configuration, as it relates to the construction of the overland conveyor facilities, is also represented in detail by cross sections on Plates L-6, L-7 and L-8.

Mine Workings Maps

The only changes in the mine workings due to the overland conveyor amendment (94G) are the entries driven from the main workings to the belt portal and from the main workings to the diesel access portal. The location and alignment of these entries are shown on Plates 3-16A--Cottonwood Fan Portal Surface Facilities Map and on Plates GA-2 and L-4.

OPERATION PLAN

MINING OPERATIONS AND FACILITIES

Regulatory Reference: 30 CFR Sec. 784.2, 784.11; R645-301-231, -301-526, -301-528.

Analysis:

Facilities and Structures

The overland conveyor facilities are described on pages 3-20.1 and 3-20.1.1 of the plan. The overland conveyor facilities, along with the facilities of the Trail Mountain mine, are shown on Plate 3-16A--Cottonwood Fan Portal Surface Facilities Map. The overland conveyor facilities are also shown in greater detail on Plates C-5, GA-2, L-1 and L-4.

The overland conveyor amendment (94G) consists of 5 facilities, all in Cottonwood Canyon adjacent to the Trail Mountain minesite: a diesel access portal, a belt portal, an aerial conveyor enclosed in a steel tube, and 2 steel support structures on concrete footings to support the aerial conveyor. The aerial conveyor spans Cottonwood Canyon from the Trail Mountain mine tippie to the belt portal and carries run-of-mine coal from the Trail Mountain mine to the coal loadout system of the Cottonwood/Wilberg mine. One of the conveyor support structures is on the Trail Mountain mine property and the other is on the Cottonwood/Wilberg property. The diesel access portal is on the Cottonwood/Wilberg property and provides direct access to the Cottonwood/Wilberg mine workings from the Trail Mountain property.

No coal, overburden, excess spoil, or coal mine waste is disposed of at the overland conveyor site and no excess spoil is generated by the overland conveyor facilities. All excavated material will be used to reclaim the overland conveyor facilities area or the Cottonwood Fan Portal area. According to Plate L-8, 961 cubic yards of excess material were excavated in preparation for the construction of the overland conveyor facilities. Because of the lack of space in Cottonwood Canyon, all of this excess material, as well as material stockpiled from the Cottonwood Fan Portal area, is stored temporarily in 3 piles at the old Cottonwood Waste Rock Site. The dimensions and location of these piles are shown in Figure 5.

EXISTING STRUCTURES:

Regulatory Reference: 30 CFR Sec. 784.12; R645-301-526.

Analysis:

See MINING OPERATIONS AND FACILITIES above.

RELOCATION OR USE OF PUBLIC ROADS

Regulatory Reference: 30 CFR Sec. 784.18; R645-301-521, -301-526.

Analysis:

The overland conveyor facilities are all within 100 feet of the Emery County Cottonwood Canyon road. Emery County was notified of this and gave its approval. Since coal mining operations in connection with the Cottonwood Fan Portal were approved and conducted in this area prior to the construction of the overland conveyor facilities, it was not necessary to repeat the public notice procedures of R645-103-234 before approval of the overland conveyor amendment (94G).

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 784.24, 817.150, 817.151; R645-301-521, -301-527, -301-534, -301-732.

Analysis:

Other Transportation Facilities

One ancillary road, the Cottonwood Fan Portal road, crosses the overland conveyor facilities area. This road was used during the construction of the overland conveyor facilities to access a temporary crane pad. The road will be retained until the final reclamation of the Cottonwood Fan Portal area, at which time it will be returned to Approximate Original Contour and reclaimed.

The Cottonwood Fan Portal road is shown on Plate 3-16A--Cottonwood Fan Portal Surface Facilities Map. Its operational and reclaimed configurations are shown on Plates L-1, L-4, and GA-2. Plates L-6 and L-7 show cross sections of the operational and reclaimed configuration of the road where it crosses the sites of the overland conveyor facilities.

A conveyor, enclosed in a 10-foot diameter steel tube, spans Cottonwood Canyon from the Trail Mountain mine tipple to the belt portal and carries run-of-mine coal from the Trail Mountain mine to the coal loadout system of the Cottonwood/Wilberg mine. The conveyor tube is supported by 2 steel support structures, one of which is on the Trail Mountain mine property and the other of which is on the Cottonwood/Wilberg property.

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:

Excess spoil

No coal, overburden, excess spoil, or coal mine waste is disposed of at the overland conveyor site and no excess spoil is generated by the overland conveyor facilities. All excavated material will be used to reclaim the overland conveyor facilities area or the Cottonwood Fan Portal area. According to Plate L-8, 961 cubic yards of excess material were excavated in preparation for the construction of the overland conveyor facilities. Because of the lack of space in Cottonwood Canyon, all of this excess material, as well as material stockpiled from the Cottonwood Fan Portal area, is stored temporarily in 3 piles at the old Cottonwood Waste Rock Site. The dimensions and location of these piles are shown in Figure 5.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

See MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION above.

RECLAMATION PLAN

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-270, -301-271, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

Analysis:

At final reclamation, the overland conveyor facilities will be removed and the area will be filled, graded, and restored to Approximate Original Contour.

The final surface configuration of the overland conveyor facilities area is shown by cross sections on Plates L-6, L-7, and L-8.

BACKFILLING AND GRADING

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

Analysis:

At final reclamation, the overland conveyor facilities will be removed and the area will be filled, graded, and restored to Approximate Original Contour. The belt portal and the diesel access portal will be sealed with a block wall and backfilled for a distance of at least 25 feet out by the block seal, as approved in the original mine plan.

The final surface configuration of the overland conveyor facilities area is shown by cross sections on Plates L-6, L-7, and L-8. The reclaimed slopes will have a static stability safety factor of 2.6, as demonstrated by a stability analysis found in Appendix III. This safety factor is significantly greater than the required value of 1.3.

The material for the reclamation of the overland conveyor facilities area will be the material excavated from the area and stockpiled at the Cottonwood Waste Rock Site. It will all be hauled to the overland conveyor area and used to backfill the area. None will be left over.

MINE OPENINGS

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

Analysis:

See BACKFILLING AND GRADING above.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

Analysis:

See ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES above.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

Reclamation backfilling and grading maps.

The reclamation backfilling and grading of the overland conveyor facilities area is shown by cross sections on Plates L-6, L-7, and L-8.

Final surface configuration maps.

The final surface configuration of the overland conveyor facilities area is shown by cross sections on Plates L-6, L-7, and L-8.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

Determination of bond amount.

The estimated cost of reclaiming the overland conveyor facilities is \$26,614. This estimate is shown as Item 15 in the overall reclamation cost estimate for the site. This added reclamation cost raised the overall reclamation cost estimate to \$1,468,547, in 1999 dollars. Since the reclamation bond for this site was in the amount of \$2,071,098 at the time of the construction of the overland conveyor, it was unnecessary to revise the bond.

FINDINGS/RECOMMENDATIONS

The submittal for this amendment meets the relevant requirements of the Federal regulations and the R645 rules. The site is more than adequately bonded to cover the additional reclamation costs associated with this amendment, as demonstrated in BONDING AND INSURANCE REQUIREMENTS above. It is recommended that this amendment be approved without stipulations

CC: Daron Haddock
Pamela Grubaugh-Littig

CWCVR94G.AMD