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

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October 15, 1999

TO: File

THRU: Daron Haddock, Permit Supervisor *DORZ*

FROM: Jim Smith, Reclamation Specialist *JDS*

RE: Midterm Review, Canyon Fuel Company, Soldier Canyon Mine, ACT/007/018-MT99, File #2, Carbon County, Utah

SUMMARY

A midterm review of the applicable portions of the MRP has found that the plan contains a commitment that appropriate sediment control measures will be designed, constructed and maintained using the Best Technology Currently Available (BTCA)¹ to:

- Prevent, to the extent possible, additional contributions of sediment to stream flow or to runoff outside the permit area;
- Meet the effluent limitations under R645-301-751; and
- Minimize erosion to the extent possible. additional contributions of suspended solids to stream flows outside of the permit area.

Design and as-built information in the MRP indicates that the BTCA is being used at the Soldier Canyon Mine.

¹ BTCA means equipment, devices, systems, methods, or techniques that are currently available anywhere (even if they are not in routine use); that will prevent, to the extent possible, additional contributions of suspended solids to stream flow or runoff outside the permit area; that will minimize disturbances and adverse impacts on fish, wildlife, and related environmental values; and that will achieve enhancement of those resources where practicable. In no event will BTCA result in contributions of suspended solids in excess of requirements set by applicable state or federal laws. Within the constraints of the state program, the Division has the discretion to determine BTCA on a case-by-case basis considering, among other things, the economic feasibility of the equipment, devices, systems, methods or techniques, as authorized by the Act and the R645 rules.

SEDIMENT CONTROL DEVICES AT THE SOLDIER CANYON MINE

Sedimentation Pond.

The only sedimentation pond is located immediately below the portal area facilities. This pond was designed by Vaughn Hansen Associates; it was constructed in 1979 and modified in 1986. It is designed and built to handle 1.62 acre-feet of runoff from a 10-year 24 hour event (1.90 inches of precipitation), plus an additional 0.27 acre-feet if needed. The runoff peak flow (13.39 cfs) from a 25-year, 6-hour storm (1.65 inches of precipitation) can be adequately passed by the primary and emergency spillways. Details are in Appendix 7-A. The as-built drawing of the pond, Drawing B-127, could not be located.

Alternate Sediment Control Areas (ASCAs)

There are 9 ASCAs within the permit area. A total of 4.90 acres is disturbed by these ASCAs.

1 - REI storage area - .42 acre. The surface of the storage area has been stabilized with gravel, the small channel off the storage area has been protected with cobble stones, a berm directs runoff from the storage area away from the topsoil pile and towards the ditch, the topsoil pile has been revegetated, and all runoff is filtered through straw bales at the bottom of the topsoil pile and at the end of the cobbled ditch.

2 - Parking lot outslope - .27 acre. The parking lot pad was constructed "pre-law". Vegetation and rip-rap protect the outslope. Additionally, the soil on this outslope has a high infiltration rate according to the MRP, but how this was determined is not described.

3 - No. 2 exhaust - 0.35 acre. There is a vegetation field-trial test plot area at this site. The rest of the disturbed area is stabilized with a gravel covering. A gravel-lined ditch and a culvert separate the fan site from the adjacent county road. Straw bales filter runoff from the gravel area and condensation from the fan ducting.

4 - North of Number 2 fan - 0.02 acre. The area, located at a road switchback, has been reseeded and an erosion blanket placed on the surface. A small berm at the top of the slope excludes runoff from the road.

5 - Portal bench disturbance - 0.43 acre. This includes the outslope of the by-pass culvert located northeast of the office building and south of the expansion area portals. Erosion control on the 0.11 acres of the culvert outslope is by riprap or by revegetation and mulch. The 0.32 acres the bench area has been reseeded and mulched, and runoff is filtered by straw bales prior to discharge

from the area.

6 - Sewage lagoons - 0.46 acre. Total containment within the sewage lagoon provides the erosion control for most of this area. The outslope of the lagoon embankment has been successfully revegetated, and the vegetative filter is adequate to treat runoff that may leave the outslope.

7 - Topsoil storage area - 2.30 acre. Berms designed for total containment of runoff have been built around the topsoil piles. Vegetation has been reestablished on all disturbed areas to minimize erosion and to filter runoff. Straw bales or silt fence are used to filter runoff along the access road. Ditches divert drainage from undisturbed areas around the site, and the entire area is fenced to prevent unnecessary disturbance.

8 - By-pass culvert inlet - 0.04 acre. Riprap provides erosion protection for this area.

9 - #3 fan exploration road - 0.61 acre. Fan construction has been indefinitely delayed and interim reclamation has been done, involving pocking the surface, fertilizing, seeding, and mulching. In addition the road surface slopes into the hill to form a flow-path in which straw bales or silt fencing provide sediment control, a berm along the outer edge of the road prevents drainage from the road to the outslope, a small sediment basin at the base of the road provides final sediment control treatment for the road runoff, and straw bales and silt fencing are placed at strategic locations.

Small Area Exemption (SAE)

There are no SAEs at the Soldier Canyon Mine.

RECOMMENDATION

At this time, there is no recommendation regarding the BTCA described in the MRP and applied at the Soldier Canyon Mine.