Light Use Road Design and Construction

The Bates Portal light use road runs from the access road and parallels the conveyor corridor a distance of about 230 feet with a constant grade of 10 percent.

For construction of the Bates Portal light use roads, all vegetation material and topsoil will be removed from the design roadbed, shoulders, and surfaces where associated structures will be placed. Topsoil will be placed in one of the topsoil stockpiles located on site. Vegetation shall not be cleared for more than the width necessary to serve traffic and utility needs. Compaction on the embankment shall be required only to the extent necessary to control erosion and maintain the road.

About 0.25 miles of temporary light use road will be constructed in the lower reaches of the RDA#l expansion area in late 2011. The light use roads will be used to access boring and test pit locations. The light use roads will only be wide enough to achieve safe access of the drill rig and backhoe. Topsoil will not be salvaged. The temporary light use roads are not in an area where run-off will flow to a sediment pond. Therefore, silt fences or straw wattles will be used as necessary to prevent erosion and siltation. Portions of the access roads are constructed in the ephemeral channel. However, the upstream watershed is less than 0.10 square miles. Field design methods will be used. The main stem of the light use road is about 1,050 feet long and has an average grade of 7 percent. There are no pitch grades exceeding 20 percent longer than 300 feet. The west spur road is about 100 feet long and has a grade of 15 percent. The east spur road is about 110 feet long and has a grade of 18 percent.

Temporary erosion control measures shall be implemented during embankment construction to control sedimentation and minimize erosion until permanent control measures can be established. After construction is complete the area disturbed will be seeded and mulched to reduce the rate and volume of run-off.

Technical revision number 62 provides for the construction of three light use roads. One 0.2-mile long light use road provides access to slurry wells S2 and S3 at the west mine. The second 0.1 mile long light use road provides access from the RDA to the cell repeater. The third 0.2 mile long light use road will be used to construct the power line to the cell repeater.

Minor revision number 105 provides for the construction of two temporary light use roads located at the west mine. They will be used for access to drilling five geotechnical holes.

Technical Revision 75 provides for the construction of six roads with a total length of 10,200 feet in the Bosque del Oso lease that allows for access to five drill sites within the permit area as well as access to one drill site outside the permit area.

Light Use Road Drainage

The Bates Portal light use road is designed, and shall be maintained to have adequate drainage, using ditches and culverts. The water control system is designed to safely pass peak runoff from a 10-year, 24- hour precipitation event. The drainage design for the Bates Portal light use road is shown on Map 13a.

Drainage design for the 0.2 mile long light use road that provides access to slurry wells S2 and S3 is shown on Map 14. Drainage designs for the RDA light use roads that provide access to the cell repeater are shown on Map 13.

No surfacing will be utilized for the light use roads. The light use roads will be maintained adequate for the intended use of the roads. A light use road damaged by a catastrophic event will be repaired as soon as is practicable after the damage has occurred.

Drainage for the light use roads for the drill sites on the Bosque del Oso lease is described as an SAE, explained in **Exhibit 19-20**.

Light Use Road Reclamation

Light use roads will be reclaimed.

The Bates Portal light use road will be reclaimed in conjunction with the reclamation and backfilling of the Bates Portal.

The temporary light use road located in the lower reaches of the RDA #l expansion area will be reclaimed following its use. Test pits will be backfilled and returned to AOC. The area will be seeded and mulched.

The light use roads for the drill sites on the Bosque del Oso lease will be reclaimed following its use.

RDA Feed Belt for Development Waste Rock

This beltline transfers development waste up to the existing RDA beltline and to the RDA (Refuse Disposal Area). This belt will be removed and the surface reclaimed when the belt line is removed from service.

This belt system consists of bolt together structure mounted on stands. At locations where the beltline crosses a drainage system the belt structure will be suspended from cables that are anchored on either side of the drainage system. The belt will have spillage containment devices to prevent any spillage from entering/contaminating any drainage not reporting to Pond 007.

The belt will run from east to west starting at the RDA belt and set approximately parallel to and south of Highway 12 and north of the Purgatoire River.

(d) Remote Rail Load out at Jansen

NECC will use the existing Jansen industrial site located approximately one mile southwest of Trinidad Colorado as a temporary coal load out facility for New Elk Mine. Exhibit 40 Jansen Load out contains a detailed description of all facilities and associated modifications related to the load out facility. In general, a retaining wall, truck weight station, feed hopper, conveyor belt, and load out bin will be constructed. This load out facility will be temporary and will be used in an interim period until NECC can complete construction of the railroad to the mine. It is anticipated that this temporary load out facility would be used until 2012.

(4) Ponds, Impoundments and Diversions

The Sediment and Surface Water Control Plans are shown on Maps 13 and 14 for the East Portal and West Portal respectively. The Operator submitted these plans as a technical revision to the permit. These revisions have been necessary because of preparation plant construction; refuse area construction, and the need for more efficient routing of disturbed water as well as ease of maintenance of the overall drainage system. The area north of Ditches D11, and D19 to the Highway 12 easement were graded, covered with subsoil and topsoil, mulched and seeded during August and September of 1990.

The Operator has three sediment ponds, which collect surface disturbance runoff from the East Portal area. These ponds are 004, 007 and 008. A fourth pond, pond 005, was reclaimed in 2003, as the area serviced by this pond was never used for mining related activities. These sedimentation ponds and associated diversion ditches have been designed according to Section 4.05.6 of the DRMS Regulations. In addition, the diversion structures have been designed utilizing the requirements of 4.05.3 and 4.05.4. Typical sections of the emergency spillways and embankments of each sediment control structure are shown in Figure 3, Typical Embankment Cross Section. Typical diversion sections are provided on Map 13 Sediment and Surface Water Control Plan- East Portal. Table 20, Ditch Data, is a summary of the diversion (ditch) data relating to Map 13. Table 21, Culvert Sizing and Figure 23, Culvert Sizing Nomograph, provide backup for culvert sizing as per requested drainage modifications. Table 23, Sediment Pond Dimensions, is a summary of sediment pond dimensions.

The Operator will control West Portal drainage using ditches, containment areas and bypass culverts. All structures are shown on Map 14, Sediment and Surface Water Control Plan-West Portal. Calculations are found in Exhibit 19, Sediment Design Specifications.

Runoff from the DWDA #3 is routed through a series of diversion ditches and will be routed to Containment Area No. 2. The sedimentation control plan for the DWDA

#3 is contained in Exhibit 19(22) and was evaluated based on the 100-year, 24-hour event. Runoff from the undisturbed upland areas to the west are diverted around the pile in ditch D49. Runoff from a small-undisturbed upland area east of the pile is routed through the diversion ditches and routed to containment area 2.

Ditches 27 and 69 will direct runoff to Containment Area 2. Containment Area 2 has been designed to contain the 25-year, 24-hour event, per Rule 4.05.9(2)(e) and as such an emergency spillway system is not required. The total drainage area for Containment Area 2 is 13.14 acres. A total of 1.93 acre-feet of storage is required to handle the 25-year 24-hour event. The required water storage volume is 1.84 acre-feet, and the three-year sediment volume is 0.1 acre-feet.

Ditch 28 will direct a combination of disturbed and undisturbed runoff to