GENERAL REQUIREMENTS FOR ROAD AND RAILROAD LOOP CONSTRUCTION

(1) <u>Haul Roads Passing Through Permitted Areas Must Not Delay Recontouring</u> and Revegetation

All roads, ramps and railroad loops passing through the permit area will be designed and constructed so as not to interfere with or delay recontouring and revegetation of immediately adjacent spoils, unless otherwise approved by the Department through consultation.

(2) <u>Road Construction and Design Criteria</u>

Access and mine haul roads will be graded, constructed and maintained according to sound engineering and construction practices. These practices insure appropriate limits for grade, width, surface material, surface drainage control, culvert placement and other design criteria as established by the Department. All roads will be designed and constructed in accordance with anticipated volume of traffic and the weight and speed of vehicles used.

The mine access road will be surfaced with asphaltic concrete approximately 4 inches thick. Haulroads will be surfaced with approximately 12 inches of raw or crushed scoria. Service and water supply access roads will be surfaced with approximately 6 inches of raw or crushed scoria. The railroad loop will be surfaced with clean ballast rock. Ramp roads will be designed and constructed so as to exhibit an overall slope of 7%. Construction is discussed in Section 17.24.321.

(3) <u>Cut Slopes</u>

Cut slopes of any road will not be more than 1v:1.5h in unconsolidated materials or 1v:0.25h in rock.

(4) <u>Temporary Erosion Control Measures</u>

Temporary erosion control measures such as, but not limited to, silt fence, native grass bales and traps, will be utilized as necessary during the construction of access

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roads, haul roads or railroad loops to control sedimentation and minimize erosion. These measures will be utilized until permanent control measures can be established.

(5) <u>Resoiling of Cut and Fill Slopes Resulting From Construction of Roads or Rail</u> <u>Loops</u>

Topsoil material from A, B and C horizons will be salvaged along the mine access road, railroad corridor and loop, and all other disturbed areas prior to initial construction. SCCC will insure that all cut slopes and fill slopes are stabilized.

(6) <u>Damage Caused by Roads to Fish, Wildlife and Related Environmental Values;</u> and Prevention of Degradation to Water Quality or Quantity

To the extent possible, using the best technology currently available, roads constructed and maintained by SCCC will not cause damage to fish, wildlife and related environmental values, and will not cause additional contributions of suspended solids to streamflow or to runoff outside the permit area, or otherwise degrade the quantity or quality of surface or groundwater.

SCCC will not surface any roads or railroad loops with any material which will produce a concentration of suspended solids in surface drainage. SCCC will construct drainage ditches on both sides of any access or haul road. The company will line the side slopes of some haul roads with 2 to 4 inches of 2 inch minus scoria for sediment control wherever the runoff from these haul roads intercepts any drainage ditch carrying undisturbed runoff. Ditch type cross drains will be spaced as needed according to grade, so that water can be intercepted before reaching a switchback or large fill. Should water control structures intersect a stream channel, they will be designed to have minimal effects on stream flow or sediment load.

Roads to be maintained for more than six months will have a drainage design capable of safely passing the peak runoff from a 10-year, 24-hour precipitation event.

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(7) <u>Road Construction With Waste Coal, or Acid, Acid Producing, Toxic or Toxic</u> <u>Producing Materials</u>

SCCC will not surface any roads or railroad loops with refuse coal, acid producing or toxic materials or with any material which will produce a concentration of suspended solids in surface drainage.

(8) <u>Road Construction in Accordance with Plan Approved Pursuant to Section</u> <u>17.24.321</u>

SCCC will submit to MDEQ a report prepared by a licensed professional engineer stating that roads, with the exception of ramp roads, have been constructed or reconstructed in accordance with an approved plan meeting the requirements of Section 17.24.321.

(9) Methods Employed to Prevent Dust

SCCC will maintain all roads by such means as watering, scraping or surfacing. Roads will be watered to suppress dust. Use of any chemical dust suppressant will be approved, in advance, by the appropriate regulatory agency.

Varieties of chemical dust suppressants to be tested for binding qualities and cost effectiveness include:

- Compounds of lignosulfonate (i.e., Ammonium, Sodium, and Calcium)
- (2) Calcium Magnesium Chloride
- (3) Coherex

(10) <u>Reclamation of Roads and Rail Loop, Including Erosion Prevention During</u> <u>Restoration of Natural Drainage Patterns</u>

Upon abandonment, all roads or railroad loops will be regraded to the final contour as shown on the approved post-mining contour map, Plate 4. All culverts and/or bridges will be removed with the restoration of the natural drainage pattern. Adequate measures such as, but not limited to, cross drains, dikes or water bars, will be taken to

prevent erosion during the reclamation process. Regraded areas will be deep ripped on the contour to eliminate compaction resulting from leveling. Following ripping, 18 inches of suitable soil will be spread over the reclaimed area. This newly topsoiled area will then be ripped both to remove compaction caused by topsoiling and to prepare a seedbed. The seedbed will be completed and the final revegetation mixture will be planted at the appropriate time as committed to in Section 17.24.713.

(11) Road Closure Upon Cessation of Mining and Reclamation Activities

Following the completion of operations, all roads will be removed and the affected land will be regraded and revegetated, unless the regulatory agency approves the retention of a road as part of the post-mining land use.