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DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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December 2, 1996

TO: File

THRU: Daron Haddock, Permit Supervisor

FROM: Sharon Falvey, Senior Reclamation Hydrologist SMF

RE: Wellington Deficiency Response, October 23,1996, Nevada Electric Investment Company, Wellington Preparation Plant, ACT/007/012, Folder #2, Carbon County, Utah

SUMMARY:

The Permittee submitted the deficiency response on October 23, 1996, at the Salt Lake City Office. This submittal was prompted by issues raised in the July 25, 1996, Technical Analysis (T.A.). The Division Order 96-A and N95-39-2-2 remain as outstanding issues.

The following includes an update of the information in the technical analysis where the operators information is adequate and a re-iteration of previously identified issues.

TECHNICAL ANALYSIS:

OPERATION PLAN

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.

Permit Area boundary Maps

The permit area boundary map is shown in Exhibit E9-3341, certified on 11/10/94 by Gregory J. Poole, a Registered Professional Engineer in the State of Utah. Other maps may not represent the permit area boundary identified in the issued permit. Areas previously leased within the permit area (Costal Corporation, and Utah Power and Light) were not retained from a previous version of Exhibit E9-3339.

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:

Road Systems

Primary roads are identified as 3,700 feet of haul road, from the property boundary to the load-out facility which joins a county spur road used to access borrow pits. The spur road then joins the Carbon County Ridge Road. "As-built" design information was incorporated through a December 21, 1989, submittal and was considered part of the permit. During construction a 30 foot base was bladed for the load-out haul road. The primary haul road is 24 feet wide and has a grade from 2.4 % to 2%. Side slopes are 4:1.

The Permittee indicates primary roads are surfaced with rock, crushed gravel and asphalt or other material, and are routinely maintained. Drainage ditches run parallel to the haul road on the uphill side. Non-acid non-toxic forming substances were used in the haul road construction.

In the plan, Ancillary Roads are stated to receive a top cover of coal cleaning waste when the road crosses coal waste material. This statement meets the regulatory requirements if; the road surfacing to be applied is non-acid and non-toxic forming; the road surfacing meets other applicable regulatory requirements; and, the road surfacing is appropriately handled during the reclamation phase. Ancillary Roads are stated to be inspected monthly and repaired as needed.

The permittee has identified the following ancillary roads: the plant access road; the refuse pile access road, the material storage yard access road; the Clearwater pond access road; the dike roads. The permittee has failed to include the slurry pipeline access road, and roads adjacent to the slurry impoundment. The permittee also identified the Sluceway as a road that was used pre-SMACRA and was used to access the west side of the Price River but, was not used following county road construction. The date the "Farnham" county road on the west side of the Price River was constructed was not presented to lend credence to the claim that the Sluceway road was used pre-SMACRA.

Other Transportation Facilities

Additional transportation includes the railroad. A portion of the rail system is utilized by CVR to load rail cars, and is directly related to coal mining operations. Clarification of the portions belonging to the railroad right of way are marked on Exhibit E9-3342 (1 of 2, revised June, 1995). The rail is operated by the Denver and Rio Grande Western Railroad. No documentation of the railroad ownership was presented.

Findings:

The plan does not meet the minimum requirements of this section. The permittee must provide the following in accordance with:

R645-301-527, provide a detailed description of each road constructed used or maintained in the permit area.

HYDROLOGIC INFORMATION

Regulatory Reference: R645-301-742.300

Sediment Ponds

References to cross-sections provided for the Road Pond and Auxiliary Pond emergency spillways are found on Drawing 712d. Sediment cleanout elevations and sediment storage volumes are on the stage capacity curves for the Auxiliary, Road and Dryer sediment ponds (see Sheets 2 through 4 of 4 in the Hydrologic Appendix Watershed #4).

Engineering practices generally require cross-sections for length and width and include critical sections such as minimum embankment height. This information was provided in earlier cross section diagrams and is a more easily inspectable plan. This information was also provided for the Dryer pond. The permittee has provided sediment storage and decant elevation on the pond stage capacity curves for other ponds.

The permittee currently has the Road, Auxiliary and Dryer sedimentation ponds in series. The current operations provides design for the Dryer pond to be used without the Road and Auxiliary ponds. **The permittee has not provided adequate designs to accept removal of the Road and Auxiliary ponds. The Division therefore assumes the auxillary pond will remain until an acceptable amendment is filed at the Division.**

The design flow rates for the Road, Auxiliary, and Dryer Sediment pond spillways were derived based upon information supplied in the Hydrologic Appendix. Hydrologic calculations include: cover type (Sheet 2 of 7), Curve Numbers (Sheet 3 of 7), time of concentration (Sheets 6 & 7 of 7, 10-year 24-hour HEC-1 model printout with peak flows summarized on Sheet 13 of 13, and 25 year 6-hour HEC-1 model printout with peak flow summarized on Sheet 10 of 10).

The permittee has designed the Road Pond emergency spillway to spill out the south end of the Road Pond. The control point is set by the road elevation. The emergency spillway for the Auxiliary Pond occurs over the topographically low south portion of the pond. Although the permittee's spillway design is not conventional, it indicates the velocity across the site in a flood event is not expected to be of a significant nature to cause damage.

Because the ponds are incised and the surrounding area is flat, impacts due to failure of the pond would be negligible. Cross sections across the slurry pipeline sediment pond are found on Sheet 712c. Emergency spillway locations presented for the Auxiliary Pond and Road Pond are found on Sheet 712d.

The Dryer Sediment pond is shown to contain the 10-year 24-hour precipitation event from Watershed #4 and pass the Peak 25-year 6-hour storm event through a drop inlet spillway structure when the pond is full. The sediment storage (below the decant level) was estimated to be .036 AF per year. The clean out sediment level at 5330.31 estimated volume is 0.84 AF or approximately 23 times the computed 3 year sediment volume (not 50 times as stated in the text). Thus, sediment volume is adequate.

The operator has confirmed that the primary and emergency spillway and the 24 inch inlet are at inadequate elevations and that the water will back out of the inlet (the auxiliary pond spillway) until the elevation of the inflow exceeds the capacity of flow in the dryer pond rather than exit through the designed spillways. Currently the principle spillway elevation for the Dryer pond is at 5336.91 according to Map 712D, while the emergency spillway is at 5337.91. The current principle spillway for the Auxiliary pond is at 5335.9 (with a riser) according to Map 712D, while the emergency spillway is at 5340.6 according to the spillway designs. The current principle and emergency spillway for the Road Pond is at 5336.5 and 5339.3 respectively as show on Map 712D. Because the dryer pond primary spillway is at 5336.91 feet water will back into both the Auxiliary and Road ponds prior to spilling through the Dryer Pond primary spillway.

Thus, the permittee's proposal to remove both ponds becomes a problem during the operational phase. Relative elevations are included on Maps 712E and 712D. It is determined that the pond inlets and outlets are not a prudent design and will pond water prior to discharging out of the primary and emergency spillways. Therefore the designs do not meet the requirements of R645-301-742.300 and R645-301-742.200. If the permittee removes the Auxiliary Pond the water will spill out of the inlet before spilling through the spillway at the current configuration. *Therefore, it is recommended the permittee eliminate references to removal of the auxilliary pond from the plan and provide a commitment to remove the inlet between the dryer and road pond and re-establish the embankment at an elevation that exceeds the emergency spillway elevation of the Dryer pond. This information would be incorporated into the text of the plan.*

The Dryer Pond decant is proposed to be a continuing discharge and was demonstrated to meet the effluent limits using the SEDCAD program. The Decant is located approximately 5.3 feet below the primary spillway at 5331.62 feet. The sediment clean out level is at 5330.31 feet or 1.31 feet below the decant. (It should be noted that with the decant level close to the sediment clean out any proposal to change that elevation would require an increase in the decant elevation). Normally the soils analysis and lab data is required to determine what soil sizes exist on site. In this case the permittee has provided soil gradation without referencing where the values were obtained. Should a sample of the

discharge from the decant indicate the operator is not meeting effluent limits the permittee would be considered in violation of the permit. The UPDES permit should reflect the operators proposed decant operations.

The north west emergency exit functions as an inlet until the water reaches a 95.1 foot (map) elevation. At this point it becomes an outlet. The use of an inlet as an outlet is not considered a normal design and was not in the original approved design for construction. Since this pond is newly constructed the permittee would better meet the objectives of the regulations with the intent of meeting the design requirements of **R645-301-745.225.2**, demonstrating a single discharging spillway is adequate by showing the pond can retain the larger of the 100 year - 6 hour and 10 year - 24 hour event. The lack of a more conventional design is not expected to increase significantly environmental safety at this site as it is currently in a non-operating mode.

Findings:

The plan has not met all requirements of this section. The permittee must provide the following, in accordance with the requirements of:

R645-301-740, provide designs that meet the requirements of R645-301-740 and R645-301-742. *It is recommended that the permittee eliminate references to removal of the auxilliary pond from the plan and provide a commitment to remove the inlet/culvert between the dryer and road pond and re-establish the embankment at an elevation that exceeds the dryer pond emergency spillway elevation.*

RECLAMATION PLAN

Reclamation Drainage Diversions

Diversion	Design feature	Design Event	Function
Reach -1	Permanent	100 year - 6 hour	Collects flow from area north of the Plant refuse pile and diverts water around the pile.
UD-1A	Permanent	100 year- 6 hour	Collects flow from Watershed #2 and #3 diverts water around preparation plant area. and diverts water around the Plant refuse pile.
Siaperas Ditch	Permanent Diversion	100 year- 6 hour	Collects flow from Watershed #9 and diverts water around the Slurry Impoundments.
Permanent Diversion	Permanent	100 year- 6 hour	Collects all undisturbed flow north of the Slurry Cells and diverts water into the Siaperas ditch.

D1, D2, D3,	Permanent	100 year-6 hour	Collects flow from reclaimed slurry basins and diverts therm to the Clear water Pond.
D-3, D-4, D-5, D-6	Permanent	100 year - 6 hour	Collects drainage from south side of haulroad to CU-1 and crosses under the road.
County road culvert.	Permanent	100 year - 6 hour	Collects drainage from reclaimed slurry impoundments beneath road to the Price River.
Lower Slurry Diversion		100 year - 6 hour	Collects drainage from south east side of slurry impoundment diverts around the lower refuse basin.
Road side ditch and 2 culverts	County road	100 year 6 hour	Passes drainage along road away from coal mine waste under road to east side of drainage.

Watershed #1 is proposed to be regraded following use as a topsoil borrow area. To the best of the Divisions understanding through reviewing previous documents, this area (except changes related to the haul road and rail road spur including topsoil piles) has not been used in mining related activities to date but, will be used as a topsoil borrow area. According to the permittee and, early mining permit information, it was used by the county as a staging area and was leased to another entity at one point. The permittee should provide the information to clarify the previous historic land use of this region if this area is removed from the proposed mining reclamation activites.

The drainage surrounding the plant refuse pile is proposed for grading to blend with the surroundings. The drainage from this area will be graded such that water is not ponding at the toe of the slope and, so that, water drains to the culverts retained as part of the railroad utility.

The Proposed "Diversion Ditch" is indicated to be discharged to the clear water pond prior to grading the clear water pond embankment. Following completion of the upper, sections D-1, D-2, and D-3, and after approval for pond removal the ditch will be completed to the Price River.

Stream Buffer Zones

The only reclamation that will take place within the 100 foot buffer zone includes the removal of the slurry pipeline and the area adjacent to the pumphouse along the Price River. No additional disturbed area beyond the existing disturbance is proposed to provide for reclamation of the site. Approval or notification to the regulatory agency is recommended, and will be necessary if the retention of the wier crossing the Price River can not be approved. Prior to approval for retention the permittee must show that the owner of the right will assume liability for the structure. Sediment control measures will be employed to prevent additional contributions of sediment to surface waters.

Structure Removal

All structures are proposed for removal other than the three culverts proposed for retention associated with the Farnham road. Additionally the weir structure across the Price River near the pumphouse is to be retained. This structure is shown on map G9-3507 as a permanent point of diversion. Clarification for use and need in retaining this structure should be included in the plan as well as a memo or verification of use supplied from water rights or other authorized entity prior to approval for retention of this structure.

Findings:

The permittee has met the requirements of this section, except that, prior to approving retention of the weir crossing the Price River, a demonstration for need and permittee to the post mining land use should be included in the plan, as well as, a memo from an authorized entity, associated with the water right, to accept maintenance of the structure.

CESSATION OF OPERATIONS

Regulatory Reference: 30 CFR Sec. 817.131, 817.132; R645-301-515, -301-541.

Analysis:

A discussion on temporary cessation of operations was presented under Section 5.15 and includes the following:

- The area has been properly secured as a result of the current status of activities.
- The operator effectively supports and maintains all surface access openings to the area and has secured surface facilities where operations are expected to be resumed under an approved permit.

The permittee has committed to notify the Division if temporary cessation of operations occur for a period of 30 days or longer and, stated the notice will include a statement of the procedures to be taken when undergoing temporary cessation. The permittee has not accurately described the notification procedures specifically identified under the requirements of R645-301-515.320.

Findings:

The plan doe not meet the minimum requirements of this section. The permittee must provide the following in accordance with:

R645-301-515.300, provide an accurate description in the plan clearly reflecting the requirements of this regulation.

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:

Affected Area Boundary Maps

The disturbed area presented on the revised reclamation Map E9-3342 shows the potentially disturbed topsoil borrow areas and the proposed extent of the reclaimed surface area. The haul road, auxiliary roads, and drainages adjacent to the slurry sedimentation pond are included as regraded affected areas except for areas in question under R645-301-527.

Bonded Area Maps

The currently disturbed area is presented on Drawing E9-3333. The revised reclamation Map E9-3342 shows the potentially disturbed topsoil borrow area and other areas associated with reclamation grading. Section 5.12 of the plan states the area of the land for which a performance bond is posted is the disturbed area as shown on Dwg. E9-3333. The Bonded area should include all areas proposed to be disturbed under the reclamation plan. Other drawings may incorrectly identify the permit boundary and disturbed areas.

Reclamation Backfilling and Grading Maps

Map E9-3342 shows the proposed extent of the graded areas and includes contour information or direction of slope drainage for grading areas where topographic relief is generally flat and difficult to portray by contour lines. The haul road, auxiliary roads, and drainages adjacent to the slurry sedimentation pond are included with the exception of areas in question under R645-301-527 of this T.A.

Reclamation Facilities Maps

The Reclamation map E9-3342 shows retention of the existing diversion weir, county road culvert located between D4 and D6; four existing culverts are shown that are indicated to be associated with the railroad right-of-way.

Final Surface Configuration Maps

Map E9-3342 shows the proposed final configuration.

Reclamation Monitoring and Sampling Location Maps

See monitoring and sampling under the operations section of this T.A.

Reclamation Surface and Subsurface Manmade Features Map

No buildings are proposed for retention. The man made structures proposed to be retained include the existing Price River Diversion Weir, three culverts associated with the Farnham county road and, four culverts associated with the Railroad right-of-way as shown on E9-3342. The Weir was not demonstrated to meet the Post Mining Land Use requirements at this time.

Reclamation Treatment Map

The permittee has presented revegetation mix to be used for disturbed area reclamation on Map F9-178,179. No other reclamation treatment maps are known to exist.

Findings:

The information in the plan is adequate to meets the minimum regulatory requirements of this section except for areas in question under R645-301-527 and the requirements of R645-301-412.100 as it relates to retention of the weir crossing the Price River as a permanent feature.

Recommendations:

It is recommended that this submittal be incorporated into the plan with and a date be set for response to the remaining deficiencies. It is recommended the T.A. be updated as appropriate and the permittee be notified of remaining deficiencies.

blb
cc: Paul Baker
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