



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

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

November 3, 1999

TO: File

THRU: Daron Haddock, Permit Supervisor *DRZ*

THRU: Pamela Grubaugh-Littig, Permit Supervisor *PL*

FROM: Paul Baker, Reclamation Biologist *PB*

RE: Revised Permit Area, Nevada Electric Investment Company, Wellington Preparation Plant, ACT/007/012, Folder #2, Carbon County, Utah

SUMMARY:

On November 1, 1999, Nevada Electric Investment Company (NEICO) submitted an amendment in response to reviews associated with three permitting actions. These are the permit renewal (PR99), an amendment dealing with a berm and topsoil (99B), and a reduction in the permit area (99C). In addition, the amendment includes a proposal to change the operator from Earthco to NEICO. This review considers the adequacy of proposed changes previously associated with amendments 99B and 99C.

TECHNICAL ANALYSIS:

OPERATION PLAN

MAPS, PLANS AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: R645-301-521.130

Analysis:

Affected Area Maps

The applicant has proposed to delete all areas north of Ridge Road from the permit area. These areas have never been affected by coal mining and reclamation operations, and they are not included in the current plan for any future operations, such as topsoil borrow. The concept of deleting the area north of Ridge Road from the permit area is acceptable.

Maps E9-3341 and E9-3333 have been revised to show what would be the new permit area. These maps show the permit area, surface facilities, and disturbed area. The permit refers to map E3341 in connection with the legal description of the permit area. Several other maps in the operation and reclamation plan also show the permit area boundaries, but most are environmental resource maps that do not need to be updated.

Revised Permit Area
ACT/007/012-AM99C
November 2, 1999
Page 2

The applicant has revised the introduction of the operation and reclamation plan to include new acreage figures. The permit area would be 1573.5 acres, and the disturbed area would remain at 392.0 acres.

Findings:

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

OPERATION AND RECLAMATION PLANS

SOILS

Regulatory Reference: R645-301-230, R645-301-521.160, R645-301-240

Analysis:

The Division's July 12, 1999, review of amendment 99B had a deficiency requiring the applicant to show how coaly material in the coal handling area would be reclaimed. The application says recent soils sampling suggests there may be elevated boron levels that might affect plant growth at the time of final revegetation. The application further states that prior to implementing revegetation techniques in the area and if the material has not been sold or removed as a product, additional soil sampling will be done. If data suggest there is a boron problem, the coal material will be placed on the coarse refuse pile adjacent to the coal storage and processing area. Otherwise, the plan says the area will be covered with six inches of topsoil.

Results from sampling the coal material were submitted in an earlier amendment proposal that was returned, so the plan and application do not contain this information. Although the applicant has supplied the information for the Division's use, this information needs to be included in the plan so the Division can compare the results with both acceptability standards and with undisturbed soils. This needs to include a description of the sampling methodology and a map showing from where the samples were taken.

The 1999 sampling was done thoroughly and objectively, and there should be no reason to repeat it. Each of five samples was a composite of five subsamples. Analysis of the data using a one-sided t-test with $\alpha=.90$ indicates the mean, 5.63 ppm, is greater than the Division's upper limit for boron concentration (5 ppm). The lower limit of the confidence interval is 5.17. If another set of samples indicated boron levels were not as high as previously shown, it would probably be necessary to sample a third time to confirm one of the other sets of data.

Removing the coal material to the refuse pile where it would be covered with four feet of soil is acceptable and probably the best solution to the problem short of selling this material.

Even if the material is determined not to be toxic, covering it with six inches of soil is not

acceptable unless the applicant can demonstrate that reclamation is feasible using this plan. In the Division's experience, using only six inches of topsoil over refuse does not result in adequate vegetation. The Division has analyzed reclamation techniques and results at several mines in Utah and found that successful revegetation was not achieved in areas with low rainfall (about eight inches annually) or with less than about two feet of soil.

Revegetation will be difficult at the Wellington Preparation Plant site. Six inches of soil does not provide enough water holding capacity to support a plant community comparable to the undisturbed vegetation in this environment. The coal is coarse enough that it would hold little water.

Findings:

Information provided in the proposal is not adequate to meet the requirements of this section of the regulations. Prior to final approval, the applicant must supply the following in accordance with:

R645-301-R645-301-230, R645-301-521.160, R645-301-240, The reclamation plan for the coal storage and processing area is not adequate. Even if the coaly material in this area is ultimately shown to be non-toxic, covering it with six inches of soil is not likely to result in adequate vegetation.

R645-301-230, The application needs to include laboratory results for the coal or coal refuse material in the coal handling and storage area. This needs to include a description of the sampling methodology

RECOMMENDATIONS:

The reclamation plan for the coal storage and processing area is not adequate and should not be approved. Other reviewed parts of this amendment can be approved.