



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

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October 10, 2000

TO: [REDACTED]

FROM: Priscilla Burton, Soils Reclamation Specialist & Team Lead *PB*

RE: Response to Deficiencies. Reclamation Plan, Part 4, PacifiCorp, Cottonwood/Wilburg Mine, ACT [REDACTED] AM00B-2

SUMMARY:

On August 3, 2000, Dennis Oakley of PacifiCorp, came up to the Salt Lake office to conduct a side-by-side review of the MRP. PacifiCorp's copy of the MRP was compared with the copies in the Salt Lake Public Information Center and in the Price Field Office. Several inconsistencies were found. Several items were corrected immediately. The Division still lacks nine plates associated with Appendix III (overland tube) and map 3 of Appendix XII.

A separate issue raised in the last review of this amendment was the location of the soil sampling information referred to on page 21, Item #7 of Part 4. PacifiCorp has indicated that the soil sampling has not been conducted as described, but that it was being conducted during the 2000 field season.

TECHNICAL ANALYSIS:

WRITTEN FINDINGS FOR PERMIT APPLICATION APPROVAL

COMPLETE AND ACCURATE

Regulatory Reference: R645-300-133.100.

TECHNICAL MEMO

Analysis:

The revised Introduction, Table of Contents for the MRP, and Table of Contents for the Appendices volumes (dated 5/24/2000) are to replace those found in the Introduction section of Volume 1 (dated 12/20/99 and approved under amendment AM00A) . The latest information includes Volumes 8 - 11 in the Table of Contents list. The Division files were checked for accuracy against the Table of Contents. The following has been noted:

- The information listed as existing in Volume 2 is now being presented in two volumes: Volume 2 and the recently submitted volume entitled "Part 4 - Reclamation Plan" (dated 1/17/00, yet to be incorporated). Once Part 4 has been approved, it will be incorporated into Volume 2.
- Volume 4 was not empty; it contains Maps 2-7, 2-10, 2-11, 2-12, and 2-13. According to this submittal, several, but not all, of these maps (2-7, 2-10, and 2-11) should have been moved to Volume 8 in 1993.
- Volume 7 is not included in the Table of Contents. It does not exist in the files either. This could be a source of confusion.
- Volume 9 has been followed by Volumes 9A and Volume 9B. Three volumes in all.
- Appendix XX should have been moved to volume 9, according to this submittal.
- The Appendices are found in three unlabeled volumes:

Appendix I through X
Appendix XI through XIX
Appendix XX and XXII.

The Division still is missing the following plates:

App III, all 9 plates associated with overland tube
App XII, map 3

Findings:

The above noted maps along with a revised Table of Contents which list Volumes 9A, 9B, and the Appendices will be resubmitted, in accordance with the requirements of: **R645-300-133.100.**

ENVIRONMENTAL RESOURCE INFORMATION

SOILS RESOURCE INFORMATION

Regulatory Reference: R645-301-411, -301-220.

Analysis:

Soils information for the mine is located as follows:

Old Waste Rock site (UTU 37642)
Appendix VII and Part 4 (Reclamation Plan) Appendix D, page 32.

New Waste Rock site (UTU-65027)
Volume 10 and Part 4 (Reclamation Plan) Appendix D, page 34.

Cottonwood Mine Facilities
Volume 1 Part 2, pages 2-143 to 2-158

Drawing CE 1047 WB General Soil Map of the Cottonwood/Wilburg Mine Permit Area (designated by the Division as Map 2-17)

Drawing CE 10346 - WB Mine Plan Area Soils Map (designated by the Division as Map 2-18).

At present, the reclamation plan describes using the top 18 inches of soil from interim fill slopes which were seeded in 1988 (see Part 4, pages 18 - 21). These slopes are shown in green on Drawing KS1217D, 1993 Vegetation Monitoring Map, dated 4/18/94 and on Figure 3 of Appendix D, Soil Physical and Chemical Analysis. Prior to seeding, the soil in the fill slopes was sampled in 1980 and 1983 and the results of that sampling is included in Appendix D.

To be assured of the appropriateness of this plan, it was decided to monitor soil development over time through sampling and laboratory analysis of the fill slopes. The reporting was to be conducted at 5 year intervals (1993, 1998) to record productivity changes on the slopes with the ultimate goal of creating substitute topsoil from the fill. At five year intervals pH, EC, SAR, O<%, SP%, AWC, and soil fertility (P, K) analyses were to have been performed on five composite samples from five fill slopes.

Mr. Charles Semborski of PacifiCorps has indicated that this sampling was not conducted as described, but was being conducted during the 2000 field season. Data will be analyzed as described and interpretations will be included in Part 4 Appendix D. The MRP, Part 4, page 21, item #7 should be changed to reflect the actual date of sampling.

TECHNICAL MEMO

Findings:

Soil testing did not occur as described in Part 4, page 21, item #7. What has actually occurred should be reflected in the MRP. The date of actual soil testing should be indicated on page 21. When soil samples and consultants interpretations are received, Part 4 Appendix D should be updated. The permittee must provide the following, prior to approval, in accordance with the requirements of:

R645-300-143, Indicate the actual dates of soil testing in Part 4, page 21, item #7 and update Appendix D with soil testing analysis and interpretative information when it is received.

RECOMMENDATION:

This submittal was reviewed for reformatting changes only. It can not yet receive Division approval. This submittal should be reviewed by the reclamation staff for its content, when the reorganization and reformatting has been completed.

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