



ATLAS CORPORATION



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RICHARD E. BLUBAUGH
Vice President Environmental
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40-3453

October 15, 1996

Mr. Daniel Gillen, Acting Chief
U.S. NUCLEAR REGULATORY COMMISSION
High-Level Waste & Uranium Projects Branch (MS T7-J9)
Division of Waste Management
Office of Nuclear Material Safety & Safeguards
Washington, D.C. 20555-0001

Re: Transmittal of Atlas Corporation Final Reclamation Plan for the Uranium Mill
and Tailings Area Located in Moab, Utah

Dear Mr. Gillen:

Enclosed are eight copies of the Final Reclamation Plan for Atlas Corporation's (Atlas) Uranium Mill and Tailings Disposal Area in Moab, Utah. The document was prepared by Smith Environmental Technologies Corporation (formerly Canonic) and consists of the following:

- Volume 1 - Text, Tables and Drawings
- Volume 2 - Appendices A through J
- Volume 3 - Appendices K through O

The document is provided in a three-ring binder format, which is more convenient if the final review process indicates that changes are necessary. Full-size drawings will be provided if specifically requested. Preparation of the Technical Specifications for construction materials and activities related to the site reclamation is in progress and will be submitted to the U.S. Nuclear Regulatory Commission (NRC) by or before the end of this month.

Atlas appreciates the status update provided by the NRC letter to Atlas dated October 02, 1996, wherein it was acknowledged that all Open Issues related to the suitability of the Moab site have been resolved at the NRC technical review level and the site is acceptable for permanent reclamation of the tailings. The Open Issues remaining and addressed in the Final Reclamation Plan include issues related to reclamation design, technical specifications, and sampling/testing plans related to coarse tailings RA-226 sampling, a gamma survey for cleanup of Moab Wash, and a sampling/testing program for the clay borrow source.

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The field exploration plan referenced to Open Issue No. 7 is not specifically provided with the Final Reclamation Plan. Instead, Atlas commits to prepare and perform this plan (page 29 of the Final Reclamation Plan). However, this plan and the scope of the field exploration activity will be based on observations made during regrading of the coarse tailings, placement of affected soil, and the results of the settlement analysis performed after placement of these cover layers. The settlement analysis is described on pages 28 and 29 of the Final Reclamation Plan. Prior to placing the radon attenuation cover, Atlas will submit the field exploration plan to the NRC for approval with the results of the settlement evaluation.

The attached Table provides a list of the remaining Open Issues and the location in the Final Reclamation Plan where each Open Issue is addressed.

We appreciate the cooperation extended by the NRC staff in developing this final document. We look forward to continuing this relationship through final approval of the reclamation design and construction. Please contact me if you have any questions.

Sincerely,

A handwritten signature in dark ink, appearing to read "Richard E. Blubaugh", with a long horizontal flourish extending to the right.

Richard E. Blubaugh

Enclosures
Attachments

ATLAS CORPORATION

Uranium Mill and Tailing Site - Moab, Utah Status of Open Issues

| Open Issues | Location in Reclamation Plan |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 7. In order to complete the characterization of the tailings and the settlement analysis, the licensee needs to submit additional piezocone information. Prior to final approval of the settlement evaluation, the licensee should submit a field exploration plan for the piezocone exploration program. | Pages 28 and 29. This plan will be submitted to the NRC for approval with the settlement evaluation, prior to placing the radon attenuation cover. |
| 9. The licensee is currently re-evaluating the liquefaction potential for the site. The staff's liquefaction analysis review has been suspended until the licensee's re-evaluation is complete and the results are made available. Thus, the staff cannot conclude that there is adequate assurance of safety with respect to liquefaction damage. | Requires completion of field exploration activity (Open Issue No. 7) to confirm liquefaction analysis assumptions. |
| 10. The licensee should provide adequate, detailed construction specifications (or a quality assurance program) for field testing the moisture content of the radon barrier soils when lift placement is interrupted. | Preparation of the Technical Specifications is in progress. |
| 11. Portions of the technical specifications have been superseded by later submittals, such as the revised cover design; however, the specifications have not been updated to reflect these revisions. The technical specifications need to be consistent with the reclamation plan. | Preparation of the Technical Specifications is in progress. |
| 12. The specifications permit the placement of fill in 18-inch-thick lifts; however, such lift thickness make uniform compaction difficult to achieve. The licensee should either specify more workable lift thickness or describe applicable procedures for verifying that thorough compaction has been achieved. | Preparation of the Technical Specifications is in progress. |
| 13. The licensee has not formally submitted revisions to erosion protection features that have been revised; subsequently, inconsistencies with previous submittals exist. Additionally, details of layer thicknesses and gradations have not been provided. | Section 5 (pages 30 - 48) |
| 18. The licensee must provide a sampling plan for RA-226 analysis of the upper 3 to 4 feet of coarse tailings and the technical basis for modeling the coarse tailings on the sideslopes as being homogenous (i.e., a single layer) for RA-226 concentration. | Page 21 and Appendix D |
| 19. The licensee must provide the gamma survey and sampling procedures for verification of tailings cleanup in the Moab Wash sandy soil borrow area for the NRC approval. Also provide revised Reclamation Plan specifications (Section 1.14 and 5.3.3) and Page 40 of the text to indicate that the background soil RA-226 value is the average value approved by the NRC to demonstrate that the radon barrier will comply with Criterion 6 (5). | Page 16 and Appendix D |
| 20. The licensee must include in the testing program for the clay borrow material, analysis and/or gamma surveys determine its RA-226 value, to demonstrate that the radon barrier will comply with Criterion 6 (5). | Page 19 |