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**COMMENT AND RESPONSE DOCUMENT FOR THE LONG-TERM
SURVEILLANCE PLAN FOR THE COLLINS RANCH
DISPOSAL SITE, LAKEVIEW, OREGON**

August 1994

**Prepared for
U.S. Department of Energy
UMTRA Project Office
Albuquerque, New Mexico**

**Prepared by
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UMTRA DOCUMENT REVIEW FORM

SECTION 1

(8)

Site: Lakeview, Oregon Date: 2/18/94
Document: Long-Term Surveillance Plan
Reviewer: U.S. Nuclear Regulatory Commission
Comment:

If 50 percent or more of the contaminated materials were placed wet of optimum, there exists a potential for millions of gallons of excess water to be present in the cell. "Pressure equilibration" would presumably be in the form of squeezing the water from the voids of the tailings, thus creating a strong potential for seepage, likely through the embankment toe. The Department of Energy (DOE) should include procedures in the LTSP for specific surveillance of the presence or absence of seepage from the disposal cell toe.

SECTION 2

Response: Page: N/A By: J. Crain Date: 8/2/94

Primary consolidation, in which water is squeezed out of a material's pore spaces, occurs rapidly even in very thick slime layers. Based on settlement data collected at other UMTRA disposal sites, including Falls City, Texas, and Ambrosia Lake, New Mexico, primary consolidation of slime and sandy-slime tailings is completed within 3 years or less. Likewise, the settlement plates in the Lakeview disposal cell were monitored for over a year after the disposal cell was completed in 1989; primary consolidation of the wet tailings was determined to be complete on the basis of recorded settlement plate displacement. Additionally, the Grand Junction Projects Office has been conducting annual surveillance visits to the site, and they have reported no evidence of seepage from the toe or sides of the disposal cell. As a general site surveillance requirement, the DOE observes all disposal cells for vertical or lateral seepage as stated throughout the long-term surveillance plan. The DOE believes there is nothing problematic about the placement moisture content of material in the Lakeview disposal cell. Considering that the disposal cell was completed 6 years ago and no seepage has been observed during this period, a specific requirement for monitoring lateral seepage is unnecessary.

Plans for Implementation:

None.

UMTRA DOCUMENT REVIEW FORM

SECTION 1

(18)

Site: Lakeview, Oregon Date: 2/18/94
Document: Long-Term Surveillance Plan
Reviewer: U.S. Nuclear Regulatory Commission
Comment:

DOE recommends expanding the monitoring frequency of the Point of Compliance (POC) wells to once every five years. DOE also plans to reevaluate the monitoring program once every five years. DOE's recommended monitoring schedule would allow only one set of monitoring results beyond the post-closure baseline before the program would be reevaluated. DOE's recommendation is based on engineering design and siting considerations at the disposal site. Given that one purpose of the post-closure monitoring is to verify that the disposal cell is performing according to design, one set of sampling results beyond the baseline is not adequate for a credible reevaluation. DOE should revise the LTSP to indicate that POC monitoring will be performed on an annual schedule, then reevaluate the sampling schedule after five-years.

SECTION 2

Response: Page: 5-11 By: K. Monks Date: 8/2/94

The U.S. Nuclear Regulatory Commission has recommended sampling the point of compliance (POC) wells at the Lakeview Collins Ranch disposal site for a total of 5 years and then reevaluating the sampling schedule. The POC wells have been sampled on six occasions over the past 4 years. As a result, the DOE will conduct one additional sampling round in the summer of 1994 (for a total of 5 years) and will then reevaluate the sampling schedule. If no significant statistical changes are noted in either background or downgradient water quality at the POC, a long-term sampling frequency of once every 5 years will be recommended, consistent with the sampling frequency recommended in Section 5.3.1 of the Lakeview Long-Term Surveillance Plan.

Plans for Implementation:

None.

UMTRA DOCUMENT REVIEW FORM

SECTION 1

(22)

Site: Lakeview, Oregon Date: 2/18/94
Document: Long-Term Surveillance Plan
Reviewer: U.S. Nuclear Regulatory Commission
Comment:

DOE must include copies of the agency notification agreements in the LTSP. These agreements with the appropriate Federal and State agencies describe the circumstances and DOE notification procedures for reporting unusual events which could impact the integrity of the disposal cell.

SECTION 2

Response: Page: Attachment 7 By: C. Silva Date: 8/2/94

The responses of the National Weather Service Office and the U.S. National Earthquake Information Center to the DOE's notification agreement request have been included in Attachment 7.

Plans for Implementation:

Attachment 7 has been updated to include the National Weather Service Office and the U.S. National Earthquake Information Center notification agreements.

UMTRA DOCUMENT REVIEW FORM

SECTION 1

(23)

Site: Lakeview, Oregon

Date: 2/18/94

Document: Long-Term Surveillance Plan

Reviewer: U.S. Nuclear Regulatory Commission

Comment:

Based on the erosion problems that have occurred at the toe of the disposal cell, the staff concludes that specific measures for observing erosion should be included in the LTSP. The staff is aware that significant erosion has occurred at the toe of the cell; based on photographs, the erosion appears to have occurred to the full 3-foot depth of the rock toe. Therefore, it appears that a near-design condition resulted from normal rainfall and runoff, without the occurrence of any severe design rainfall event. This makes careful observation of the toe and the ditch outlet very important. In addition, it is not clear how much erosion resistance is provided by the trench drains, where surface water may also tend to concentrate. Therefore, observations of erosion in these specific trench areas are also important. DOE should revise the LTSP to provide surveillance of these specific features of the site.

SECTION 2

Response: Page: N/A By: J. Crain Date: 8/2/94

Shortly after the disposal cell was completed, a few gullies and rills appeared at the toe apron of the disposal cell. Two or three of the gullies were incised to depths of about 1 foot (0.3 m) or less in the area downslope of toe. The problem of headcutting at the toe apron was corrected in mid to late 1992. Additional riprap was added to the toe apron; the area immediately south of the disposal cell was graded and the rills and gullies filled; the affected area also was covered with filter fabric and reseeded with native species of grass. The grasses were well established as of August 1993.

The trench drains are sized to prevent runoff from the topslope and sideslope of the disposal cell from overtopping the riprap of the toe apron during an on-site probable maximum precipitation event. The area immediately downslope of the drain outlets is relatively flat and covered with grass.

The DOE believes that all surface-water erosion problems at the Lakeview disposal site are remedied and that erosion is no longer an active maintenance issue. Thus, specific guidelines for monitoring erosion in the trench areas, ditch outlet, and along the toe of the disposal cell are unwarranted.

Plans for Implementation:

None.

UMTRA DOCUMENT REVIEW FORM

SECTION 1

(36)

Site: Lakeview, Oregon Date: 2/18/94
Document: Long-Term Surveillance Plan
Reviewer: U.S. Nuclear Regulatory Commission
Comment:

The text indicates that the Army Corps of Engineers will coordinate with the State of Oregon on the actual transfer of title, after NRC concurs that remedial action is complete. NRC has concurred in the completion of remedial action, as shown in Attachment 2 of the LTSP. DOE must provide the court house recording information in the LTSP. Until this action occurs and transfer is recorded, DOE has no title.

SECTION 2

Response: Page: N/A By: P. Martinez Date: 8/2/94

Once the title transfer process has been completed, the U.S. Army Corps of Engineers will have the deeds recorded in the Lake County Clerk's office on behalf of the DOE. At that time, the DOE will provide copies of the recorded deed information to the U.S. Nuclear Regulatory Commission to complete the title transfer requirements. The DOE's site licensing logic provides for the completion of the long-term surveillance plan (LTSP) preparation and review process in parallel with the title transfer process. The NRC may accept the final LTSP pending completion of the title transfer and inclusion of the courthouse recordation. The NRC may then license the site.

Plans for Implementation:

None.

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