

COMMENT AND RESPONSE DOCUMENT FOR THE LONG-TERM SURVEILLANCE PLAN FOR THE BODO CANYON DISPOSAL SITE DURANGO, COLORADO

November 1995

MASTER

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED *mw*

RECEIVED

DEC 12 1995

OSTI

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

UMTRA DOCUMENT REVIEW FORM

(1)

COMMENT

Site: Bodo Canyon Disposal Site, Durango, Colorado Date: June 27, 1994
Document: Draft Long-Term Surveillance Plan
Reviewer: State of Colorado

Comment: 1, Page 2-1, Section 2.1

Other histories of the Durango mill site indicate the U.S. Vanadium Corporation (USV) built and operated a uranium mill after leasing the site from American Smelting and Refining Company (ASARCO) who had operated a lead smelter at that location. This should be confirmed and, if correct, should be clarified in the first paragraph of the site history. The first paragraph seems confused about the chronology of events. It was USV not ASARCO who built and operated the vanadium mill in 1942 and who, from 1943 to the mill's closure in 1946, reprocessed vanadium tailings to provide uranium for the Manhattan Project.

RESPONSE

Page: 2-1 By: C. Saumur Date: September 1995

Section 2.1, Site History, has been rewritten to read as follows:

"In 1942, U.S. Vanadium Corporation leased the property and constructed a uranium processing mill on the site. This mill operated until 1946, when the mill was shut down."

UMTRA DOCUMENT REVIEW FORM

(2)

COMMENT

Site: Bodo Canyon Disposal Site, Durango, Colorado Date: June 27, 1994
Document: Draft Long-Term Surveillance Plan
Reviewer: State of Colorado

Comment: 2, Page 2-1, Section 2.2.1

The text indicates the top of Smelter Mountain is 85 miles from the Bodo Canyon site. While we're unsure of the exact distance, it is considerably less than this. Please provide the correct distance.

RESPONSE

Page: 2-1 By: C. Saumur Date: September 1995

The second sentence of paragraph two of Section 2.2.1 has been corrected to read as follows:

"Area elevations range from 7725 ft (2355 m) at the top of Smelter Mountain (approximately 0.85 mi [1.4 km] from the site) to about 6600 ft (2000 m) at the mouth of Bodo Canyon."

UMTRA DOCUMENT REVIEW FORM

(3)

COMMENT

Site: Bodo Canyon Disposal Site, Durango, Colorado Date: June 27, 1994
Document: Draft Long-Term Surveillance Plan
Reviewer: State of Colorado

Comment: 3, Page 2-4, Table 2.1

Because CDH possesses keys to the Bodo Canyon Cell, please add "CDH HMWMD, Grand Junction Office, (Bud Franz), (303) 248-7165. Colorado Department of Health, 222 S. 6th Street, Rm. 232, Grand Junction, CO 81501" to Table 2.1.

RESPONSE

Page: 2-5 By: C. Saumur Date: September 1995

The Colorado Department of Public Health and Environment (CDPHE) has been added to Table 2.1, Bodo Canyon disposal site access key holders.

UMTRA DOCUMENT REVIEW FORM

(4)

COMMENT

Site: Bodo Canyon Disposal Site, Durango, Colorado Date: June 27, 1994
Document: Draft Long-Term Surveillance Plan
Reviewer: State of Colorado

Comment: 4, Page 2-9

While it is agreed the toe drain and holding pond are short term, temporary structures, "short term" and "temporary" could mean as many as ten years. A plan should be devised to manage these structures for as long as they exist. This plan should be included in the LTSMP.

RESPONSE

Page: 2-9 By: G. Hartmann Date: September 1995

The plan for managing the toe drain structures is basically in place as a part of the CDPHE discharge permit self-monitoring plan, which requires the U.S. Department of Energy (DOE) Remedial Action Contractor to inspect the toe drain structures once a month.

A copy of the CDPHE monthly best management practices plan will be added to the LTSP as Attachment 4. The following was added.

"However in accordance with the requirements of the CDPHE permit, the toe drain and pond are inspected monthly. Attachment 4 contains a copy of the Bodo Canyon Toe Drain Pond Discharge Permit Management Plan."

UMTRA DOCUMENT REVIEW FORM

(5)

COMMENT

Site: Bodo Canyon Disposal Site, Durango, Colorado Date: June 12, 1994
Document: Draft Long-Term Surveillance Plan
Reviewer: State of Colorado

Comment: 5, Page 5-1, Section 5.1.2

The elevation of the valley at the extreme southeastern corner of the site is somewhere in the neighborhood of 7020 ft. above MSL rather than 7020 ft. below MSL. Please correct this typo.

RESPONSE

Page: 5-1 By: G. Hartmann Date: September 1995

The elevation has been changed to read as follows:

"6900 ft above MSL at the extreme southeastern corner of the site."

UMTRA DOCUMENT REVIEW FORM

(6)

COMMENT

Site: Bodo Canyon Disposal Site, Durango, Colorado Date: June 12, 1994
Document: Draft Long-Term Surveillance Plan
Reviewer: State of Colorado

Comment: 6

It is our understanding details of the groundwater monitoring program will be contained in the site-specific Water Sampling and Analysis Plan (WSAP). Because the WSAP may incorporate changes to the CDH concurred-upon RAP and LTSMP, CDH will need to review and approve of the WSAP. CDH requests written confirmation CDH will be given the opportunity review and approve the WSAP.

RESPONSE

Page: N/A By: Steve Cox Date: September 1995

The water sampling and analysis plan (WSAP) does contain site-specific details for the groundwater program. The long-term surveillance plan (LTSP) identifies the duration of the groundwater monitoring program and the schedule for sampling, including which monitor wells or other monitoring points that are to be sampled, in the site LTSP as required by the September 1992 long-term surveillance guidance document.

It has always been DOE's intent to have the CDPHE participate with review of The WSAP and LTSP. However, CDPHE does not have regulatory authority for LTSPs.

Section VII, Comments on the Proposed Rulemaking of 10 CFR Part 40, "Domestic Licensing of Source Material," U.S. NRC (55 FR 45591, "Custody of Long-term care of uranium and Thorium mill tailings Disposal Sites; Final Rule," October 30, 1990, states on page 45596:

[A State commentor was concerned that the rule does not provide for explicit State concurrence in an LTSP prepared by the Federal government. The proposed rule did not provide for specific State concurrence in the NRC licensing actions, because the State has no regulatory authority under the Atomic Energy Act during the long-term care period.]

UMTRA DOCUMENT REVIEW FORM

(7)

COMMENT

Site: Bodo Canyon Disposal Site, Durango, Colorado Date: June 12, 1994
Document: Draft Long-Term Surveillance Plan
Reviewer: State of Colorado

Comment: 7, Page 5-7

The Ground Water Compliance Strategy, Attachment 4, page 3, calls for groundwater quality data from the alluvium. This appears to have been eliminated from the LTSMP. To maintain consistency with previous documents, the LTSMP should require ground water quality data from the alluvium as well.

RESPONSE

Page: 5-16 By: Dick Hydenburg, Kim Smith,
Tim Jackson Date: September 1995

Section 5.2.1, Direct Ground Water Monitoring Network, has been revised to include evaluation of ground water quality from the alluvium. Results and evaluation will be included in the annual reports.

UMTRA DOCUMENT REVIEW FORM

(8)

COMMENT

Site: Bodo Canyon Disposal Site Date: June 12, 1994
Document: Draft Long-Term Surveillance Plan
Reviewer: State of Colorado

Comment: 8, Page 5-11, Section 5.2.5

Please define the term "significant exceedance." In our view, any exceedance of the MCLs is significant. Selection of monitoring strategies and instrumentation should be made with the participation of CDH.

RESPONSE

Page: 5-18 By: Tim Jackson Date: September 1995

The term "significant" has been deleted from the sentence.

It has always been DOE's intent to have the CDPHE participate in the review of the selection of monitoring strategies and instrumentation.

UMTRA DOCUMENT REVIEW FORM

(9)

COMMENT

Site: Bodo Canyon Disposal Site, Durango, Colorado Date: June 27, 1994
Document: Draft Long-Term Surveillance Plan
Reviewer: State of Colorado

Comment: 9, Page 5-13

The bulleted items do not include an evaluation of the desaturation of the alluvium.
This analysis should be included in the annual reports.

RESPONSE

Page: N/A By: Tim Jackson/Dick Hydenburg Date: September 1995

The original analysis of desaturation of the alluvium in the remedial action plan (RAP) noted that at the northeast corner of the site, recharge from offsite surface drainage basins and infiltration of runoff from the cell area would prevent desaturation of alluvium. Five years of data from wells in the northeast corner of the site support that assessment. Therefore, measurements of water levels in wells 606 and 623 are not expected to provide information on the effectiveness of the disposal cell in reducing infiltration into the alluvium. The text has been revised and water level measurements in wells 606 and 623 are no longer included as part of the LTSP. Because there are no wells located in areas beneath the cell, it is not feasible to evaluate the desaturation of the alluvium beneath the cell.

UMTRA DOCUMENT REVIEW FORM

(10)

COMMENT

Site: Bodo Canyon Disposal Site, Durango, Colorado Date: June 27, 1994
Document: Draft Long-Term Surveillance Plan
Reviewer: State of Colorado

Comment: 10, Page 6-1, Section 6.1

CDH, as well as NRC, should have concurrence authority in the review of any modifications in the frequency of inspection of the Bodo Canyon Cell.

RESPONSE

Page: N/A By: Steve Cox Date: September 1995

As stated in the response to comment number 6, CDPHE does not have regulatory authority for LTSPs. DOE will provide CDPHE copies of any modifications in the frequency of inspections at the Bodo Canyon disposal cell for review.

UMTRA DOCUMENT REVIEW FORM

(11)

COMMENT

Site: Bodo Canyon Disposal Site, Durango, Colorado Date: June 12, 1994
Document: Draft Long-Term Surveillance Plan
Reviewer: State of Colorado

Comment: 11, Page 9-1

CDH should be notified of any potential problem with the Bodo Canyon Disposal Site within 24 hours of the DOE becoming aware of such a potential problem. CDH, as well as the NRC, should review any preliminary assessment report and approve any corrective action plan.

RESPONSE

Page: 9-1 By: Steve Cox Date: September 1995

Potential problems identified during annual inspections are described in the inspection/preliminary report. This report is due to the U.S. Nuclear Regulatory Commission (NRC) within 60 days of the identification of any problem.

In an emergency situation, the local authorities will notify the DOE Grand Junction Projects Office. The DOE will immediately notify the NRC in accordance with the reporting requirements in 10 CFR §40.60.

As stated in the response to comment number 6 CDPHE does not have regulatory authority for LTSPs.

UMTRA DOCUMENT REVIEW FORM

(12)

COMMENT

Site: Bodo Canyon Disposal Site, Durango, Colorado Date: June 12, 1994

Document: Draft Long-Term Surveillance Plan

Reviewer: State of Colorado

Comment: 12, Page 10-3

CDH must have concurrence authority on any corrective action plans that repair defects in the original design concurred on by CDH. In addition, CDH should receive any reports documenting follow-up or contingency inspections at the Bodo Canyon Cell.

RESPONSE

Page: N/A By: Steve Cox Date: September 1995

The original design was concurred upon by CDPHE in the RAP. Any corrective action after the NRC grants the license falls into the long-term care period. As stated in the response to comment number 6 the state of Colorado does not have regulatory authority during the long-term care period.

UMTRA DOCUMENT REVIEW FORM

(13)

COMMENT

Site: Bodo Canyon Disposal Site, Durango, Colorado Date: June 12, 1994
Document: Draft Long-Term Surveillance Plan
Reviewer: State of Colorado

Comment: 13, Page 10-3

All reports, including groundwater data, should be reported to CDH. The first sentence of paragraph 3 should be amended to include CDH as a recipient of these reports. This would be consistent with the statement made on page 5-12, Section 5.5.

RESPONSE

Page: 10-1 By: Steve Cox Date: September 1995

This will be amended to indicate that the data and results in the evaluation reports will be provide to NRC and the state of Colorado.

UMTRA DOCUMENT REVIEW FORM

(14)

COMMENT

Site: Bodo Canyon Disposal Site, Durango, Colorado Date: June 12, 1994
Document: Draft Long-Term Surveillance Plan
Reviewer: State of Colorado

Comment: 14, Page 11-1

CDH must be notified of any emergency situation affecting the integrity of the Bodo Canyon Disposal Cell as soon as possible after such an occurrence is brought to DOE's attention and in all cases within 24 hours.

RESPONSE

Page: N/A By: Steve Cox Date: September 1995

The September 1992 long-term surveillance guidance document does not identify a specific time frame for the licensee (DOE) to notify the NRC of an emergency situation at the disposal site.

10 CFR §40.60, Reporting requirements discusses two scenarios for DOE notification to NRC; (a) immediate report - not later than 4 hours and (b) 24 - hours report.

As discussed in response to comment number 6 the DOE is not required to notify the state of Colorado in any emergency situation.

UMTRA DOCUMENT REVIEW FORM

(15)

COMMENT

Site: Bodo Canyon Disposal Site, Durango, Colorado Date: June 12, 1994
Document: Draft Long-Term Surveillance Plan
Reviewer: State of Colorado

Comment: 15, Page A3-9, 2nd full paragraph

The fourth sentence should read "The sludge will be analyzed to confirm that the characteristics have not changed."

RESPONSE

Page: A3-9 By: G. Hartmann Date: September 1995

The sentence has been revised to read as follows:

"The sludge will be analyzed to confirm that the characteristics have not changed."

UMTRA DOCUMENT REVIEW FORM

(16)

COMMENT

Site: Bodo Canyon Disposal Site, Durango, Colorado Date: June 12, 1994
Document: Draft Long-Term Surveillance Plan
Reviewer: State of Colorado

Comment: 16, Page A3-10, Section 2.1

The bulleted items should include the option of stabilization in place as illustrated in Figure A3.5.

RESPONSE

Page: A3-10, A3-11 By G. Hartmann Date: September 1995

Stabilization in place is included as the bulleted item, 40 CFR Part 192 remediation, in Section 2.1.

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.