

Appendix H

Facility Land Use Mater Plan Update



Department of Energy

Idaho Operations Office
850 Energy Drive
Idaho Falls, Idaho 83401-1563

August 14, 1997

Mr. Bruce Bash
Bureau of Land Management
Property Management Division
1405 Hollipark Drive

SUBJECT: OU 5-05/6-01 Draft Remedial Action Report – (OPE-ER-126-97)

Dear Mr. Bash:

From 1996 to 1997 remedial actions were completed at Operable Unit 5-05 in Township 2 North, Range 30 East, Sections 1 and 12, and Operable Unit 6-01 in Township 2 North, Range 29 East, Section 9, at the Idaho National Engineering and Environmental Laboratory (INEEL). In accordance with the Record of Decision (ROD), the selected remedy was containment by capping with an engineered long-term barrier combined with institutional controls and monitoring.

This is the official notification that the remedial action text and maps have been placed in the INEEL Facility Land Use Master Plan and the Environmental Restoration Program Administrative Record. Consistent with the ROD (section 9.1, page 53), we request that similar notification be placed in the Bureau of Land Management property management records for these sites.

If you have any questions or concerns, please contact Kevin O'Neill at 526-5455, or myself at 526-0436.

Sincerely,

A handwritten signature in cursive script that reads "Kathleen E. Hain".

Kathleen E. Hain, Director
Environmental Restoration Program

cc: Scott Reno, IDHW, DEQ
Dave Hovland, IDHW, DEQ
Wayne Pierre, EPA, Reigon X
Howard Orlean, EPA, Reigon X

PROJECT DOCUMENT REVIEW RECORD

DOCUMENT TITLE/DESCRIPTION: Draft SL-1/BORAX-I Remedial Action Report

DATE: August 25, 1997

REVIEWER: DOE-ID, Alan Dudziak

ITEM NUMBER	SECTION NUMBER	PAGE NUMBER	†CODE	COMMENT	RESOLUTION
1	Abstract	v		Check spacing.	Changed from full justified to left justified.
2	Acronyms	xi		DEQ is "Division" of Environmental Quality.	Changed to "Division."
3	Acronyms	xi		In the definitions of "IH," it is unclear what "(ist)" means. It would be clearer to say "industrial hygiene/hygienist" if that is what we mean.	Changed to "hygiene/hygienist."
4	Acronyms	xi		RADCON should be "Radiological Controls." Radiation control is only part of the battle.	Changed to "Radiological Control."
5	Acronyms	xii		STF is "Security" Training Facility.	Changed to "Security Training Facility."
6	1-1	1-2 Para. 5-6		Text says soil was "excavated and consolidated" at SL-1, but "consolidated and compacted" at BORAX-I. It is unclear why there should be a difference.	Changed to "excavated and consolidated."
7	1-1	1-2 Para. 6		It would be clearer if a new paragraph was started at "Chain-link fence with gates ..."	Started new paragraph at "Chain-link fence ..."
8	2.3	2-4 Para. 2		The text discusses total excess cancer risk "greater than" 1E-04 at SL-1, but "of" 2E-04 at BORAX-I. Why the difference in the type of comparison? (It is understood why the risk number is different).	Changed to "greater than 1E-04 at SL-1 and BORAX-I."
9	2.3.5	2-5 Para. 1		It is unclear that "two wheel loaders" are. Bicycles with buckets, perhaps? Please rephrase.	Changed to "two front-end loaders."
10	2.3.7.1	2-6 Para. 1		Text states that the pea gravel layer was "placed over the consolidated soil layer." However, the pea gravel layer was supposed to be placed over the pits and trench, and keyed into the consolidated soil berin as necessary. Please clarify.	Changed to "pits and trench."

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11	2.3.7.2	2-6 Para. 1		Few, if any, "belly dump" trucks were used for hauling cobble. Most, if not all, of the end-dump pup trailers were towed by end-dump trucks. Please clarify. (The belly dumps were used on the CFA Landfills Remedial Action.)	Changed to "end-dump trucks."
12	2.3.8	2-6 Para. 1		Suggest adding "and consolidated contaminated soils" to be end of the paragraph.	Added "and consolidated contaminated soils."
13	2.3.8.1	2-8 Para. 1		"Strategic" Training Facility should be "Security" Training Facility.	Changed to "Security."
14	2.3.8.1	2-8 Para. 2		A sentence about half way through the paragraph reads "After spreading the gravel/dirt, RADCON surveyed the road ..." It is doubtful that the RADCON organization (let alone Radiological Controls, per se) actually spread the gravel and dirt.	Changed to "radiological surveys were performed to ensure no contamination was found on the road surface ..."
15	5-05/6-01 SL-1/BX-0016	4-1 Para. 1		"Belly dump" trucks are not the issue, as they were rarely, if ever, used at SL-1. A more general statement, such as "truck with trailers," would be more appropriate.	Changed to "end-dump trucks."
16	5-05/6-01 SL-1/BX-0031	4-2 Para. 1		"Strategic" Training Facility should be "Security" Training Facility.	Removed "Strategic Training Facility" and just used acronym, "STF." Acronym was defined in Section 2 page 2-8.
17	5.7	5-2 Para. 2		"Subcontractors" equipment vendor service truck should be "Subcontractor's"	Changed to "Subcontractor's."

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18	6	6-1 Para. 2		The final inspection was COMPLETED on May 8, 1997 when EPA did its inspection. Only DOE and IDHW were present for the April 23, 1997 inspection. This is important for establishing the start date of the 60-day clock for submittal of the Draft RA Report.	Changed to "The DOE and IDHW performed an inspection on April 23, 1997, after reseeding was completed. The final inspection was completed on May 8, 1997 when EPA did its inspection."

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DATE: August 25, 1997

REVIEWER: Marcus A. Pinzel

ITEM NUMBER	SECTION NUMBER	PAGE NUMBER	†CODE	COMMENT	RESOLUTION
1	Acronyms			Include ARAR in acronym list.	Added to acronym list.
2	1.1	1-1 fourth bullet		Replace "naturally occurring" with "native geologic materials."	Changed to "native geologic materials."
3	2.2.2	2-2 first para.		Use the acronym ARAR's after applicable relevant and appropriate requirements.	Added "ARAR" "after applicable or relevant and ..."
4	2.2.2	2-2 first bullet		Use acronym ARAR instead of applicable relevant and appropriate requirements.	Comment incorporated.
5	2.3.5	2-5 last sentence of 1 st para. and 1 st sentence of 2 nd para.		Is hand-held sodium iodide detector correct? As well as sodium iodine scintillation detection instrument correct in the next sentence. Should they both be iodine or iodide?	The correct word is "iodide." Changed first sentence of second paragraph to "iodide."
6	Table 8-1	8-1		Add the bullet about Installation of the biotic barrier at SL-1. The addition of 22 inches of pea gravel and cobble will certainly help prevent exposure to any radioactive material at SL-1.	Added a bullet "Install a biotic barrier at SL-1."

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REVIEWER: EPA

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General Comments					
				The stated Remedial Action Objectives for the SL-1/BROAX-I engineered barriers are to: a) inhibit exposure to radioactive material; b) inhibit ingestion of radioactive material; c) inhibit inhalation of suspended radioactive material; d) inhibit degradation of the burial grounds; and e) inhibit adverse effects to resident species. The activities documented in the RAR demonstrate a clear effort to achieve these objectives through the installation of an engineered barrier within specifications, the installation of institutional controls, and the implementation of long term monitoring objectives.	
Specific Comments					
1	2.3.5	2-5		Please describe the action levels which were used to determine hot spots for consolidation of SL-1 soil.	The action level of 16.7 pCi/g Cs-127 was used. Notation to this effect being added. Since only a laboratory can measure and analyze in pCi/g and the sodium iodide detectors cannot, their use was deleted from this sentence. Instead their use is described in the next paragraph.
2	2.3.6	2-6		Please indicate the levels of contaminants in the investigation-derived waste, if known.	Contaminants will be indicated.

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REVIEWER: EPA

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7	4 (entire)			<p>Section 5.8 of the RD/RA Work Plan, page 5-12 outlines requirements for the RAR which includes: (1) an explanation of any modifications to the RD/RA Work Plan or to the RD during the RA phase and the results of the modification; (2) problems encountered during the RA and their resolution; (3) and final quantities of cover materials. Section 4 of the RA Report provides a listing of forty-one modifications required during the project. Minimal explanation of these modifications and their results are presented. Problems encountered during the RA were not specified. The purpose and resolution of each modification is unclear. This section should provide more detail, such as more explanation regarding why a modification was needed, and the resolution.</p>	<p>Explanation of the modifications and their results will be expanded.</p> <p>Additional paragraphs addressing problems will be included.</p> <p>Approximate quantities of cover materials used at each site are given in Section 2.3.7.</p>
8	8	8-2 Fist full para. Third sent.		<p>This sentence states that inspection and maintenance of the cover system will be implemented annually for the first five years following completion of the caps. Please change this so that inspections are conducted semi-annually during this first year and annually thereafter, in order to be consistent with page 2-1 of Operations and Maintenance Plan (Appendix G).</p>	<p>Changed as per suggestion.</p>

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REVIEWER: IDHW/DEQ

ITEM NUMBER	SECTION NUMBER	PAGE NUMBER	†CODE	COMMENT	RESOLUTION
1	2.3.7.1	2-6		Please indicate the size diameter of pea gravel used in the placement of the biotic barrier.	In the first sentence after "pea gravel," added "(0.6 to 1.3 m [1/4 to 1/2 in.] diameter)"
2	2.3.7.2	2-6		Please indicate the size diameter of cobble rock used in the placement of the biotic barrier.	In the fourth sentence after "cobble," added "(5 to 15 cm [2 to 6 in.] diameter)"
3	Figure 2-1	2-7		Please show the location of the SL-1 Burial Ground on this figure in order to show the reviewer the relative locations and distance between this location and the Lincoln Boulevard Pit, which was the source of the pea gravel.	Figure changed to show SL-1 and BORAX-I.
4	4	4-2 Second entry of page		Please be more specific regarding the discrepancy that was corrected with a specification reference. Specifically state what discrepancy was encountered, the specification with which the discrepancy occurred, and how the discrepancy was corrected.	CID-002 description expanded to included the requested information.
5	Table 8-2	8-2		In the third entry of this table, "institution of restrictions limiting land use ...", the goal implementation of updating the facility land use master plan has not been demonstrated to IDHW/DEQ. Please clarify.	Appendix H is being added to include a request from DOE that the facility land use master plan is being updated.

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REVIEWER: IDHW/DEQ

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6	8	8-2		In the first full paragraph of Page 8-2, the text states that the inspection and maintenance of the cover system will be implemented annually for the first five years following completion of the caps. The inspections should be semi-annually during the first year and annually thereafter, consistent with the O&M Plan, page 2-1 in Appendix G. Please correct.	Added "...implemented semi-annually during the first year and annually thereafter for the first five years..."
7	Appendix F	1		Entry number 6 is checked as satisfactory regarding the written notification to the facility master plan with a copy to BLM requesting that they make similar notification; however, IDHW/DEQ has not received written notification/verification that these written notifications have been performed. During the final inspection, we only reviewed a draft version of a letter. Please provide us with copies and verification that the written notification has been completed.	See Appendix "H".

PARSONS ENGINEERING SCIENCE, INC.

200 South Woodruff Avenue • P.O. Box 1625 • Idaho Falls, Idaho 83415-3954 • (208) 526-5495 • Fax (208) 526-8426

April 10, 1997

25:01:016-97

Mr. Erik A. Simpson
Lockheed Martin Idaho Technologies Company
P.O. Box 1625, MS 1061
Idaho Falls, ID 83415-1061

Subject: Transmittal of Facility Land Use Master Plan Update for the Stationary Low Powered Reactor-1 and Boiling Water Reactor Burial Grounds Engineered Barriers; OU 5-05 and 6-01.

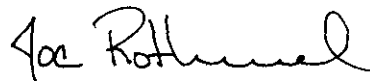
Dear Mr. Simpson:

Please find attached the text and figure insert for the Facility Land Use Master Plan. The *Record of Decision Declaration for Stationary Low Powered Reactor-1 and Boiling Water Reactor Burial Grounds Engineered Barriers; OU 5-05 and 6-01*, states "Administrative controls such as placing written notification of this remedial action in the facility land use master plan would also be required to ensure that potential future activities would not compromise the integrity of the cover. A copy of this notification would be given to the Bureau of Land Management (BLM) together with a request that a similar notification be placed in the BLM's property management records for this site."

This information should allow you to complete the above required actions. Please provide a copy of applicable documentation for inclusion in the Removal Action Report that Parsons is preparing.

If you have any questions or need additional information, please contact me at (208) 526-5776.

Sincerely,



Joseph S. Rothermel
Project Manager

JSR/cds

cc: James E. Bruce, LMITCO, MS 3921
Craig L. Jacobson, LMITCO, MS 3670
Reuel Smith, LMITCO, MS 3953
Distribution Code 4

WAG 5

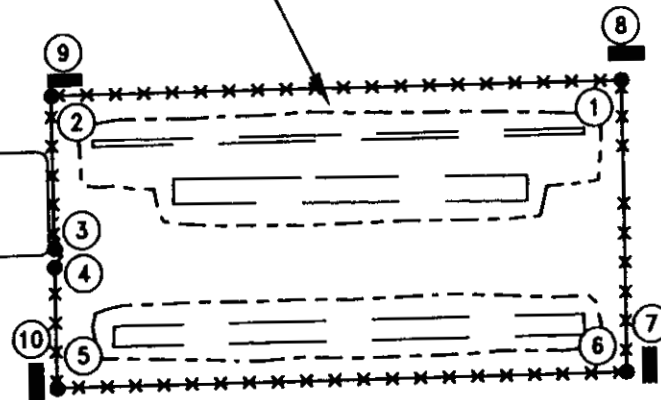
As required by the CERCLA Record of Decision for the Operable Unit 5-05 Stationary Low Power Reactor Number 1 (SL-1), an multi-layer engineered barrier was placed over the site during the summer of 1996. Figure 1 shows the new fence boundaries and this area should not be disturbed so as to protect the barrier and prevent exposure to the waste buried below the barrier. Access to the site is restricted to authorized inspections only.

WAG 6

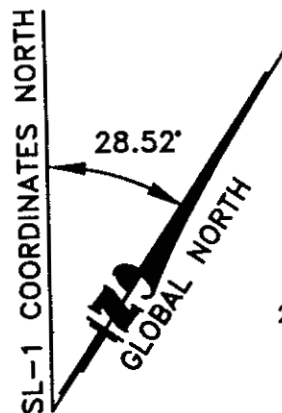
As required by the CERCLA Record of Decision for the Operable Unit 6-01 Boiling Water Reactor Experiment Number 1 (BORAX-I), a rip-rap barrier was placed over the site during the summer of 1996. Figure 1 shows the new fence boundaries and this area should not be disturbed so as to protect the barrier and prevent exposure to the waste buried below the barrier. Access to the site is restricted to authorized inspections only.

FILLMORE ROAD

SL-1 LANDFILL



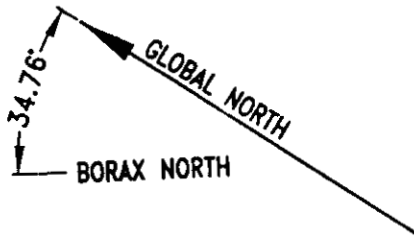
N.A.D. 1983 STATE PLANE COORDINATES FENCE & MONUMENT COORDINATE LIST		
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②	676671.92	483085.10
③	676531.61	483161.46
④	676520.26	483167.64
⑤	676408.16	483228.31
⑥	676694.78	483755.17
⑦	676711.97	483774.41
⑧	676985.40	483603.21
⑨	676689.46	483091.85
⑩	676404.92	483207.40



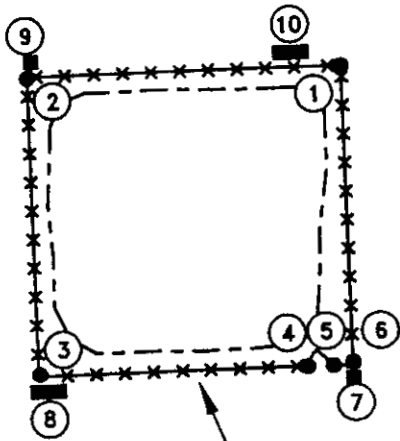
GRAPHIC SCALE



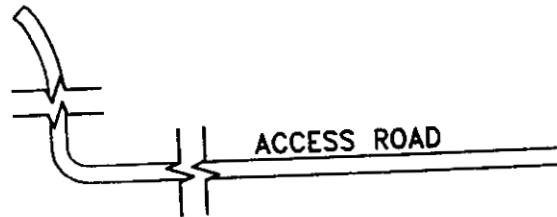
1 inch = 200 ft.



N.A.D. 1983 STATE PLANE COORDINATES FENCE & MONUMENT COORDINATE LIST		
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②	675809.67	432137.22
③	675720.25	432008.32
④	675603.69	432089.28
⑤	675593.55	432096.37
⑥	675585.42	432101.99
⑦	675582.68	432097.68
⑧	675711.56	432005.73
⑨	675811.86	432144.31
⑩	675702.39	432223.12



BORAX-I LANDFILL

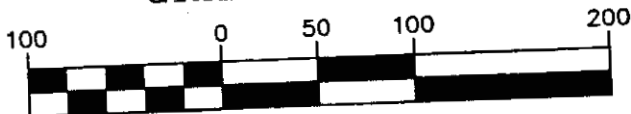


TO US HWY 20/26

VAN BUREN BLVD.

TO RWMC

GRAPHIC SCALE



1 inch = 100 ft.