

NEW SITE IDENTIFICATION

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DIV. OF ENVIRONMENTAL QUALITY

Part A - To Be Completed By Observer

1. Person Initiating Report: Chris M. Haring

Phone: 526-2719

Contractor WAG Manager: Frank L. Webber

Phone: 526-8507

2. Site Title: ARA-24; Radiologically Contaminated Soil and abandoned substructures at ARA-III

3. (Describe the conditions that indicate a possible inactive or unreported waste site. Include location and description of suspicious condition, amount or extent of condition and date observed. A location map and/or diagram identifying the site against controlled survey points or global positioning system descriptors shall be included to help with the site visit. Include any known common names or location descriptors for the waste site.)

The proposed site consists of potentially contaminated soils and any abandoned subsurface structures in and around the ARA-III facility. The ARA-24 site boundary is defined as the 1100 cps isopleth from the 1990 aerial survey (excluding the area defined as ARA-12, the ARA-III Radioactive Waste Leach Pond) conducted by EG&G Energy Measurements.

Historically, only three surface soil samples have been collected and analyzed for Cs-137 and one sample for actinides at ARA-24. All three samples detected Cs-137, but at concentrations less than background. In the actinide sample, Am-241, Pu-238, U-234 and U-238 were detected. Only Pu-238 was above background. A surface gamma-radiation survey was also performed using the Global Positioning Radiometric Scanner (GPRS). Approximately 13,000 in situ gamma-radiation measurements were collected at ARA-24. Data from the GPRS survey were used to compile maps showing the data-point distribution, bulk gamma radiation, and the Cs-137 concentrations. The data indicated that no surface soil areas within the ARA-24 site boundary were above background.

The ARA-24 site was evaluated in the comprehensive baseline risk assessment to determine the risk potential from Pu-238 contamination detected in the surface soils. The total risk estimated for all pathways for the future residential scenario is $2E-06$ and a hazard quotient of 0.5.

Nearly all ARA-III surface structures have been removed. Building ARA-608 was removed to approximately 20 ft below ground surface and the reactor pit foundation continued down another 10 ft. The ARA-608 building internals were decontaminated with the exception of the piping internal to the ARA-608 pit foundations and some radiologically contaminated concrete. Approximately 8 to 10 sections of piping were left within the pit foundations at ARA-608 because they could not be removed by the coring operations due to bends in the piping. The piping was empty during the D&D project but the pipes did contain residual radiological contamination. Radiological control personnel surveyed the piping with portable instrumentation and smear surveys and all results were less than 1,000 cpm beta-gamma with portable instrumentation (less than approximately 10,000 dpm). The area where the piping and concrete is buried is now marked as an underground radioactive material area.

Part B - To Be Completed By Contractor WAG Manager

4. Recommendation:

This site meets the requirements for an inactive waste site, requires investigation, and should be included in the INEEL FFA/CO Action Plan. Proposed Operable Unit assignment is recommended to be included in the FFA/CO.
WAG: 5 Operable Unit: 5-12

This site DOES NOT meet the requirements for an inactive waste site, DOES NOT require investigation and SHOULD NOT be included in the INEEL FFA/CO Action Plan.

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5. Basis for the recommendation:

Data from previous investigations indicate the possible existence of windblown soil contamination and the existence of contaminated subsurface structures (INEEL/EXT-99-00590, Final D&D Report for ARA-II).

The basis for recommendation must include: (1) source description; (2) exposure pathways; (3) potential contaminants of concern; and (4) descriptions of interfaces with other programs, as applicable (e.g., D&D, Facility Operations, etc.)

6. Contractor WAG Manager Certification: I have examined the proposed site and the information submitted in this document and believe the information to be true, accurate, and complete. My recommendation is indicated in Section 4 above.

Name: Frank L. Webber

Signature: 

Date: 11/17/99

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Part C - To Be Completed By INEEL FFA/CO WAG Managers

7. WAG Operable Unit:

DOE WAG Manager Concurrence: Concur with recommendation. Do not concur with the recommendation.

Signature: *Kim O'Neill*

Date: 11/18/99

EPA WAG Managers Concurrence: Concur with recommendation. Do not concur with the recommendation.

Signature: *Scott P. Rose*

Date: 12/6/99

State of Idaho WAG Managers Concurrence: Concur with recommendation. Do not concur with the recommendation.

Signature: *Daryl Hoch*

Date: 11/23/99

Explanation follows:

Part D - To Be Completed By The INEEL FFA/CO Responsible Program Managers (RPM's)

8. FFA/CO RPM's Concurrence:

ESH

For DOE-ID

Name: Kathleen Hain Signature: *Kathleen Hain* Date: 11/31/00 Concur Do not concur. Explanation follows:

For EPA Region X

Name: Wayne Pierre Signature: *Wayne Pierre* Date: 12/16/99 Concur Do not concur. Explanation follows:

For State of Idaho

Name: Dean Nygard Signature: *Dean Nygard* Date: 12/17/99 Concur Do not concur. Explanation follows: