



Lockheed Idaho Technologies Company

INTERDEPARTMENTAL COMMUNICATION

Date: September 4, 1996

To: G. R. Adamson MS 7137 3-4435

From: R. S. Rice  MS 4110 6-4189

Subject: CLOSURE REPORT FOR SAMPLING OF TRA COLD WASTE POND; EMS-010-96 - RSR-79-96

Attached are copies of the data from Roy F. Weston, Inc., the Radiation Measurements Laboratory, and Paragon Analytics, Inc.; the logbooks; the Limitations and Validation reports; and the Abbreviated Sampling and Analysis Plan for Sampling TRA Cold Waste Pond; EMS-010-95 (formerly EMS-068-95).

On May 15, 1996, samples were collected from the cold waste pond at the Test Reactor Area. The samples were collected and analyzed in accordance with Abbreviated Sampling and Analysis Plan for Sampling TRA Cold Waste Pond; EMS-010-96. The samples were sent to the laboratories under full chain of custody.

Due to an error by the Sample Management Office, a portion of the data was validated by the Sample Management Office (SMO) at method validation level "A," as described in the SMO Standard Operation Procedure 12.1.1, "Levels of Method Validation." The radiological data were not validated per your request.

Liquid Samples

The metals, fluoride, sulfide and cyanide concentrations in all liquid samples were less than the Universal Treatment Standards identified in 40 CFR 268.48.

There were no gamma-emitting radionuclides detected in any of the liquid samples.

The results of the gross alpha/beta analyses are found in the following table.

SAMPLE ID	GROSS ALPHA (pCi/L)	GROSS BETA (pCi/L)
01096011R6	< 5.2 (BDL)	10.4 +/- 2.6
01096012R6	< 5.5 (BDL)	10.9 +/- 2.5
01096021R6	< 5.8 (BDL)	11.3 +/- 2.6
01096131R6	< 1.3 (BDL)	1.73 +/- 0.68

Sediment Samples

The lead concentration of 760 ug/L in the sample collected from the sediment in the discharge runoff accumulation area exceeded the UTS for lead identified in 40 CFR 268.48. The lead concentration of 378 ug/L in the background sample #3 exceeded the UTS for lead. The UTS for lead in nonwastewater is 370 ug/L. All other metals, fluoride, sulfide and cyanide concentrations were less than the UTS established for the individual analytes.

The results of the gamma-emitting radionuclide analyses are found in the following table.

SAMPLE ID	MANMADE RADIONUCLIDE	ACTIVITY (pCi/g)
01096031R4	CO-60 CS-137	(3.2 +/- 0.5)E-01 (2.6 +/- 0.4)E+00
01096032R4	CO-60 CS-137	(1.8 +/- 0.4)E-01 (5.0 +/- 1.1)E+00
01096041R4	CO-60 CS-137	(3.3 +/- 0.5)E-01 (4.8 +/- 0.7)E+00
01096051R4	CO-60 CS-137	(5.6 +/- 0.9)E-01 (3.1 +/- 0.5)E+00
01096061R4	CO-60 CS-137	(1.09 +/- 0.09)E+00 (9.2 +/- 0.7)E+00

01096071R4	CO-60 CS-137	(5.1 +/- 0.8)E-01 (2.8 +/- 0.4)E+00
01096081R4	CO-60 CS-137	(9.0 +/- 0.9)E-01 (7.3 +/- 0.7)E+00
01096091R4	CO-60 CS-137 AM-241	(2.0 +/- 0.3)E-01 (3.8 +/- 0.6)E+00 (1.4 +/- 0.4)E-01
01096101R4	CO-60 CS-137 AM-241	(2.4 +/- 0.3)E-01 (3.7 +/- 0.3)E+00 (9 +/- 3)E-02
01096111R4	CO-60 CS-137	(9.4 +/- 0.8)E-01 (5.4 +/- 0.4)E+00
01096121R4	CO-60 CS-137	(5.7 +/- 1.5)E-02 (8.8 +/- 1.4)E-01

The results of the gross alpha/beta analyses are found in the following table.

SAMPLE ID	GROSS ALPHA (pCi/g)	GROSS BETA (pCi/g)
01096031R6	3.42 +/- 0.55	9.3 +/- 1.3
01096032R6	3.63 +/- 0.48	8.31 +/- 0.97
01096041R6	3.41 +/- 0.51	3.96 +/- 0.70
01096051R6	3.59 +/- 0.49	16.4 +/- 1.9
01096061R6	2.65 +/- 0.47	19.3 +/- 2.3
01096071R6	3.62 +/- 0.55	35.9 +/- 4.0
01096081R6	1.71 +/- 0.25	11.4 +/- 1.3
01096091R6	3.78 +/- 0.50	10.6 +/- 1.2
01096101R6	6.18 +/- 0.86	72.9 +/- 7.9

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01096111R6	5.93 +/- 0.85	23.4 +/- 2.7
01096121R6	6.41 +/- 0.81	6.55 +/- 0.82

If there are any questions or if you have other sampling and analysis needs, please feel free to contact me at 6-4189.

cae

Attachments

cc: (w/o Attach)
L. V. Street, MS 4110
C. J. Kent, MS 5117

(with Attach)
T. S. Green, MS 3953
R. S. Rice File