



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005**

April 27, 2005

Mr. J. William Vinzant
Regional Environmental Manager
Corporate Environmental Affairs
Kaiser Aluminum and Chemical Corporation
9141 Interline Avenue, Suite 1A
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SUBJECT: ERRATUM TO NRC INSPECTION REPORT 040-02377/05-001

Dear Mr. Vinzant:

This letter is to correct the analytical data listed in Tables 1 and 2 and associated text on page 14 of the subject inspection report. The revision of this report was made to address errors in the reported values by ORISE due to incorrect entry of uncertainties in the calibration certificate files. Gamma spectroscopy analysis was performed again for the sample using the corrected calibration files and the corrected data are presented below. These minor corrections do not impact the original conclusions in the inspection report. Please attach this letter with the original report dated March 28, 2005.

Table 1
Concentrations of Uranium and Thorium Isotopes
In Soil Samples by Gamma Spectroscopy
CP1, Revision 14 As Reported by ORISE
Kaiser Aluminum Site

NRC Region IV Sample ID	Radionuclide Concentrations ^{a,d} (pCi/g wet weight)						
	U-238	U-235	Total U ^b	Th-228	Th-230	Th-232	Total Th ^c
NRC-05-01-01	0.72±0.47	0.06±0.07	1.50±0.67	1.04±0.08	3.5±3.4	1.18±0.16	2.22±0.18

^a The average MDC for these radionuclides ranges from 0.04 pCi/g for Th-228 by Pb-212 to 6.4 pCi/g for Th-230

^b Total uranium is the sum of ²³⁸U + ²³⁵U

^c Total Thorium is the sum of Th-228, and Th-232.

^d Uncertainties represent the 95% confidence level, based on total propagated uncertainties.

^e Wet sample, or wet weight pCi/g

According to the NRC-approved Decommissioning Plan, the land release criterion for the FOA is 3.0 pCi/g net thorium-232 with a background of 1.1 pCi/g. The gross thorium-232 sample result was 1.18 ± 0.16 pCi/g, a result that was below the limit of 4.1 pCi/g (release criteria plus background).

As a followup to Inspection Followup Item 040-02377/0402-01, NRC requested that ORISE perform analysis on the soil sample "wet" (i.e., undried), provide a percent moisture content for the sample, and then perform analysis after drying and grinding per ORISE procedure. The wet and dry thorium-232 concentration taken by the NRC inspectors, and Kaiser's wet sample result are listed in Table 2 below:

Table 2
Comparison Of Soil Samples by Gamma Spectroscopy
Th-232 by Ac-228, including background (1.1 pCi/g)

Sample ID		Sample Location	NRC Analysis (Dry) pCi/g ^a	NRC Analysis (Wet) pCi/g ^a	NRC (Wet) % Moisture	Kaiser Analysis (Wet) pCi/g	Kaiser % Moisture
NRC - RIV	Kaiser						
NRC05-01-01	K-521	FOA FSS-004	1.21±0.18	1.18±0.16	16	0.696±0.038	18.2

a Uncertainties represent the 95% confidence level, based on total propagated uncertainties.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Should you have any questions concerning this inspection, please contact Mr. Robert Evans at (817)860-8234, Ms. Beth Schlapper at (817)860-8169 or the undersigned at (817) 860-8191.

Sincerely,

/RA/

D. Blair Spitzberg, Ph.D., Branch Chief
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Docket No.: 040-02377
License No.: STB-472 (terminated)

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