

**From:** [REDACTED]  
[REDACTED]  
[REDACTED]  
**Subject:** RE: Request for RIR spectral data re abandoned drum 01, sample ID DRUM1-2451 ... (UNCLASSIFIED)  
**Date:** Friday, June 17, 2011 10:47:21 AM  
**Attachments:** [REDACTED]

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Classification: UNCLASSIFIED  
Caveats: NONE

Hello [REDACTED]

Attached are all results (including sample RS-DRUM01-3368) from the drum01 location in the database.

Sample RS-DRUM01-3368 is also listed in Appendix AA of the 2007 RI (Under Drum Samples - see Table "Appendix\_4.3-B\_Drum\_Samples.xls). Also, Table 3-2 in the NFSS RI (2007) mentions sample RS-DRUM01-3368.

However, this drum residue sample was originally collected for purposes of disposal. Only the surface and subsurface soil collected immediately beneath the drum was included in the Baseline Risk Assessment since the drum was disposed of and the soil underneath would more accurately depict the impacts to other media from this drum.

The results from the 17 samples re-analyzed for plutonium and missing from the RI (but included in the RIR Addendum) are listed in Table 11-3 of the RIR Addendum (2011). Attached are the data (from the database) associated with these samples.

Also attached is the DOE's response to us in regard to KAPL materials in the IWCS.

This closes out our action items from the teleconference in regard to drum01 and KAPL. We continue to research the purpose and current status of the pipeline exiting Building 409 to the east.

We look forward to receiving your annotated map of potential sample locations to further investigate this area. Please submit any additional requests for data through [REDACTED] our Freedom of Information Act Officer.

Thank you,  
[REDACTED]

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[REDACTED]

Sent: Thursday, June 16, 2011 5:05 AM

Subject: Re: Request for RIR spectral data re.abandoned drum 01, sample ID DRUM1-2451 ...

[REDACTED]

Thank you for the information. Please could you tell me where in the RI analytical data base I can find sample RS-DRUM01-3368? I have located sample SSRUM01-3369 which was sampled on 7/8/2003 (surface soil beneath the drum was removed and analyzed for strontium-90 and plutonium) but am struggling to find the plutonium analysis for the drum contents in the RIR or RI appendices.

At previous RAB technical meetings, we had been advised that the americium-241 detect of 9.88 pCi/g was likely to be a false positive. Has USACE reviewed the spectra for the drum sample and now confirmed that americium-241 is present? I just want to be clear on this point.

Also, is the complete analytical data available for the 17 samples, analyzed for plutonium, which were inadvertently omitted from the RI? I am reviewing plutonium re-evaluation for the NFSS and would like to have all the relevant data.

Thank you,

In a message dated 6/15/2011 3:26:57 P.M. Eastern Daylight Time,

Classification: UNCLASSIFIED

Caveats: NONE

Hello

Sample number DRUM1-2451\_011119 (Lab ID 52355001 and formerly named UNKNOWN1-2451) was residue collected on 11/19/2001 from a deteriorated drum.

This sample was analyzed by gamma spectroscopy for several radionuclides,

including Americium-241 (resulting in an Am-241 detection of 9.88 pCi/g).

The raw data for this sample is found in sample delivery group S-4-22.

Attached is the associated raw data for the Am-241.

In regard to the plutonium results associated with drum 01, in July 2003

(after review of the initial 2001 results from the drum 01), additional

sampling of the drum residue (see sample number RS-DRUM01-3368 in the

database) for plutonium and strontium was conducted. Neither plutonium, nor

strontium was detected in the drum residue. The deteriorated drum was

subsequently disposed of at Waste Control Specialists in Andrews, Texas.

We are continuing to look at Building 409 drain lines leaving the building;

however, after reviewing the geophysical report, there is not enough resolution to distinguish whether this line still exists or not.

-----Original Message-----

Sent: Wednesday, June 15, 2011 10:23 AM

Subject: Request for RIR spectral data re.abandoned drum 01, sample ID  
DRUM1-2451

I would like to make a second request for data. At the June 2, 2011 conference call, I requested the spectral data for a specific abandoned drum, sample DRUM1-2451 and was told that the data would be sent to me.

However, I  
have not yet received the spectral data.

The drum contained high levels of uranium and, according to the published analytical data ( RIR Table 4-3, Dec 2007) americium-241.) Please confirm whether any further review of the spectra was carried out to confirm or discredit the americium-241 detection. Given the USACE use of americium-241 as an indicator of other transuranics, was any subsequent analysis for plutonium carried out on this specific drum sample?

Thank you,

[REDACTED]

Classification: UNCLASSIFIED  
Caveats: NONE

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Caveats: NONE

Transmitted by email

June 6, 2011

[REDACTED]  
US Army Corps of Engineers  
1776 Niagara Street  
Buffalo, NY 14207

Subject: Response to Stakeholder Inquiry regarding KAPL Materials in the Interim Waste Containment Structure at the Niagara Falls Storage Site, Lewiston, NY.

Reference: [REDACTED]

Dear [REDACTED]

You conveyed a question from a stakeholder asking if waste materials from Knolls Atomic Power Laboratory (KAPL) were placed in the Interim Waste Containment Structure (IWCS) on the Niagara Falls Storage Site (NFSS). The U.S. Department of Energy (DOE) Office of Legacy Management has reviewed assessment, remediation, and verification records which indicate that KAPL waste materials were sent to Oak Ridge, Tennessee between 1958 and 1960 for disposal. However, some residual KAPL constituents remained in the surface soils and were remediated with other radiological contamination and placed in the IWCS. KAPL waste was typically stored in containers and residuals were not widespread. Records indicate that approximately 134,500 cubic meters of contaminated soils from the NFSS and the associated vicinity properties were remediated and placed into the IWCS. The contaminated soils comprise the largest volume of materials in the IWCS but contain lower average concentrations of radionuclides in comparison to the uranium processing residues that are also contained in the IWCS. The remaining KAPL residuals would not constitute a large fraction of the total volume of contaminated soil.

As stated during previous interactions with NFSS stakeholders, DOE will continue to solicit information and will address any information indicating changed radiological conditions appropriately to ensure the continued protection of human health and the environment. If you have questions or need additional information please contact me by return email or at [REDACTED]

Very Respectfully,

[REDACTED]

## References

U.S. Department of Energy, 2011. *Assessment of Historical Knolls Atomic Power Laboratory Waste Storage Locations Niagara Falls Storage Site, FUSRAP Site Lewiston, New York*, S06763, in internal review.

U.S. Department of Energy, 1986. *Environmental Impact Statement*, DOE/EIS-0109F, Washington D.C., April. (see BNI Calculation No. 158-CV-16 and 158-CV-17)