J. Noggle

From: "Adler, Joseph J." <jadler@entergy.com>
To: <jdn@nrc.gov>
Date: 11/16/2006 8:24:55 AM
Subject: FW: NRC-IPEC data comparison

Jim,

For your information, results from Teledyne's investigation. We have addressed this issue with AREVA.

Jay

From: Jeter, Keith [mailto:Keith.Jeter@tbe.com]
Sent: Wednesday, November 15, 2006 11:19 AM
To: Hollenbeck, Peter
Cc: Adler, Joseph J.; Charles, Rebecca
Subject: RE: NRC-IPEC data comparison

Jay,

We have finished our first rerun of the samples below in question. In the process of our investigation we have noted the following:

TBE receives 1 - 1 gallon sample for each sample typically for gamma, Sr-90, and H-3 analysis. Since a separate sample for H-3 samples is not supplied, the sample is not acidified on receipt since this would interfere with H-3 analysis. The samples below were examined and found to have high solids content. We postulated that we could have Sr-90 settling out and being lost with the solids. To attempt to get all Sr-90 back in solution, the samples were shaken vigorously and aliquoted. The 450 ml aliquot was immediately acidified with nitric acid to pH<2 since Sr will easily convert from strontium carbonate (the likely form in the unacidified form) to strontium nitrate. The strontium nitrate is completely soluble and will remain in solution. From this point, the samples were taken through our standard procedure with no modifications. The results below in green show good agreement with the ORISE results. The errors are a little bigger than normal because of a shorter than typical counting time (50 min vs. the usual 120-200 min).

B/3

Do you know if ORISE and the state of NY lab acidify there samples on receipt? Are they also performing the H-3 and gamma analysis?

I am confident that the acidification step is the problem with our first set of results. I would recommend that a separate unacidified sample for H-3 in a glass container (~200 ml) be taken and that the 1 gallon sample be acidified with nitric acid to pH<2 at the time sampling (this would be the standard EPA protocol for sampling for radioactive analysis).

Regarding previous samples analyzed by us and why they agreed with the other labs, these samples likely had little or no solids and the Strontium remained in solution.

I will call you to follow up.

Keith Jeter

865-621-9118

From: Hollenbeck, Peter [mailto:pholl91@entergy.com]
Sent: Wednesday, November 08, 2006 12:52 PM
To: Jeter, Keith
Cc: Adler, Joseph J.
Subject: NRC-IPEC data comparison

Keith,

As we discussed, below are the results of the NRC and Teledyne split sample inter-comparison data for August. The attachment contains a list of the samples that we believe could be invalidated as a result of the data disagreement.

Jay Adler

Technical Manager IPEC GW Investigation

914-734-6606

ORISE	IPEC	LIMS #

TBE Rerun
MW-49 25' 8/1/06 11.7+1.0 4.01+1.2 L29516-1
9.04 +/- 2.06
MW-49 42' 8/1/06 19.7+1.4 2.69+1.01 L29516-2
15.4 +/- 4.02
MW-49 65' 8/1/06 16.3+1.2 3.19+1.04 L29516-3
12.9 +/- 3.02
MW-50 42' 8/1/06 4.75+0.77 2.39+1.00 L29516-4
4.31 +/- 1.61
MW-50 67' 8/1/06 30.0+1.7 3.99+1.22 L29516-5
24.0 +/- 3.26
MW-53 120' 8/30/06 16.9+1.0 3.74 L29844-1
14.0 +/- 6.67
MW-53 80' 8/23/06 8.6+0.73 2.93 L29782-3
6.26 +/- 5.33
MW-55 78' 8/25/06 28.2+1.3 5.84 L29782-4
21.6 +/- 3.73
MW-57 45' 8/24/06 21.8+1.2 3.05 L29782-5
15.7 +/- 8.04

<<samples in question.PDF>>

CC: "Croulet, Donald K" <dcroule@entergy.com>