

cc
Cox, Mark

From: Schwartz, Geoffrey

Sent: Friday, September 16, 2005 11:10 AM

To: Dacimo, Fred; Rubin, Paul; Mayer, Don; Ventosa, John; Comiotes, Jim; Cox, Mark;
Hipschman, Thomas

Subject: FW: Tritium and wall scrapings on 9-13

Attachments: Tritium and Wall Scrapings on 9-13.doc

FYI, see attached. Note that the white material scraped from the dry crack in the Pipe Pen is 539 ppm Boron.



Tritium and Wall
Scrapings on ...

B-8

H-3 analyses on water from crack:

9-13 crack water through a TORAY filter, not distilled: 2.10E-2 uCi/ml
 9-13 crack water distilled, after a 50:7.85 ml dilution: 2.04E-2 uCi/ml

This indicates that the water seeping into the concrete is definitely pool water, but it does not necessarily pin down the absence or presence of an active leak. With a 12.35 yr half-life, this H-3 could be 12 yrs old or older, for example, if the water behind the liner seeped into that area at 0.04 uCi/ml.... This is information we have yet to collect.

Wall scrapings from 9-13 at mezzanine, Sec 1, Pipe Pen, SN 74159

Nuclide	Hlife	Decay	Uncorrected uCi/gm	Decay Corr uCi/gm	Decay Corr 1-Sigma Error	1-Sigma %Error
CO-60	5.27Y	1.00	1.157E-04	1.157E-04	0.124E-04	10.70
Total Activity :			1.157E-04	1.157E-04		

Nuclide Type : FP

Nuclide	Hlife	Decay	Uncorrected uCi/gm	Decay Corr uCi/gm	Decay Corr 1-Sigma Error	1-Sigma %Error
CS-134	2.06Y	1.00	1.465E-05	1.465E-05	0.562E-05	38.36
CS-137	30.00Y	1.00	2.954E-04	2.954E-04	0.161E-04	5.44
Total Activity :			3.100E-04	3.100E-04		
Grand Total Activity :			4.257E-04	4.257E-04		

Boron and Iron were analyzed on this sample after diluting the scrapings into hot water. This was performed in order to PRECLUDE the paint from dissolving and disturbing the analysis.

Boron = 539 ppm Fe = 19 ppm

The boron is consistent with other concrete samples, and the Fe value appears to indicate very little rust from the rebar.