

From: Bonser, Brian *EB*
Sent: Thursday, April 08, 2010 11:48 AM
To: Hamilton, Ruben
Subject: FW: CST sample results

For inclusion in the groundwater data base

From: Gepford, Heather
Sent: Thursday, April 08, 2010 11:25 AM
To: Wert, Leonard; Lubinski, John; Ross, Thierry; Kontz, Craig; Guthrie, Eugene
Cc: Bonser, Brian
Subject: CST sample results

Just to clarify, the values provided were reported in the units which the counting systems produce output. Because the limits are in terms of pCi/l, I have included those values as well.

A sample of the CST water was taken and analyzed, with the following results:

<u>Isotope</u>	<u>Activity (uCi/ml)</u>	<u>Activity (pCi/l)</u>	<u>LLD (pCi/l)</u>	<u>Reporting Level (pCi/l)</u>	
Tritium	2.03E-3 uCi/ml	2.03E+6 pCi/l	2000	2000	20,000
Co-60	8.90E-5 uCi/ml	8.90E+4 pCi/l	15	15	300
Co-58	3.22E-6 uCi/ml	3.22E+3 pCi/l	15	15	1000
Mn-54	3.40E-6 uCi/ml	3.40E+3 pCi/l	15	15	1000
Cs-137	3.50E-6 uCi/ml	3.50E+3 pCi/l	18	18	50

To give a relative idea of the magnitude of these numbers, I have provided the LLDs and reporting levels for surface/drinking water samples. If no drinking water pathway exists, the reporting level for tritium is 30,000 pCi/l. These numbers do not have a direct correlation to how much activity is in the soil, as a number of physical processes will affect the migration of the radioisotopes. In addition, no reporting level for soil is given in Browns Ferry's Offsite Dose Calculation Manual.

J-33