

From: James Noggle
To: Timothy Rice
Date: 02/23/2007 1:26:07 PM
Subject: Re: IP Dose Calculations

Dear Tim,

The groundwater dose calculation was since revised in July and most recently, December 2006 to update the Sr-90 and Cs-137 well results. Current calculated doses are: $3.13\text{E-}3$ mrem total body and $1.19\text{E-}2$ mrem max organ (bone). Both are to an adult as the most limiting age group. I will fax you the summary page for your use.

Regards,

Jim

>>> "Timothy Rice" <tbrice@gw.dec.state.ny.us> 02/23/2007 12:48 PM >>>

Hello Jim,

Have you seen any revised dose calculations from Entergy since the April '06 submission?

I thought they had done some updates since then based on their better understanding of groundwater flow and conc.

Thanks,

Tim

B/46

December 2006

IPEC Summary for Storm & Ground Water releases (H-3, Ni-63, Sr-90, Cs-137)

Adult mrem (most limiting)

Sum of IPEC monitoring well calculations for units 1, 2, & 3 (Areas 2, 3a, & 3b)

Doses, in mrem

ISOTOPE	BONE	LIVER	TOT BODY	THYROID	KIDNEY	LUNG	GI-LLI	uCi
H-3	0.00E+00	9.00E-06	9.00E-06	9.00E-06	9.00E-06	9.00E-06	9.00E-06	8.05E+05
Ni-63	1.33E-03	9.20E-05	4.45E-05	0.00E+00	0.00E+00	0.00E+00	1.92E-05	6.72E+02
Sr-90	9.79E-03	0.00E+00	2.40E-03	0.00E+00	0.00E+00	0.00E+00	2.82E-04	3.90E+02
Cs-137	7.50E-04	1.03E-03	6.72E-04	0.00E+00	3.48E-04	1.16E-04	1.98E-05	3.57E+02
totals	1.19E-02	1.13E-03	3.13E-03	9.00E-06	3.57E-04	1.25E-04	3.30E-04	8.06E+05

Storm Drain Water from Zone B, East/West Unit 2, near MH-2, going to river directly

Doses, in mrem

ISOTOPE	BONE	LIVER	TOT BODY	THYROID	KIDNEY	LUNG	GI-LLI	uCi
H-3	0.00E+00	1.63E-07	1.63E-07	1.63E-07	1.63E-07	1.63E-07	1.63E-07	1.46E+04

Storm Drain Water from Zones C and D/E (Central U2 & U1/U3) to Discharge Canal

Doses, in mrem

ISOTOPE	BONE	LIVER	TOT BODY	THYROID	KIDNEY	LUNG	GI-LLI	uCi
H-3	0.00E+00	2.82E-08	2.82E-08	2.82E-08	2.82E-08	2.82E-08	2.82E-08	1.58E+05

Totals:

Doses, in mrem

H-3 only

0.00E+00	9.19E-06	9.19E-06	9.19E-06	9.19E-06	9.19E-06	9.19E-06	9.77E+05
BONE	LIVER	TOT BODY	THYROID	KIDNEY	LUNG	GI-LLI	uCi H-3
1.19E-02	1.13E-03	3.13E-03	9.19E-06	3.57E-04	1.25E-04	3.30E-04	see above

all isotopes

% Annual Limit	0.119	0.011	0.104	0.0001	0.0036	0.0012	0.003
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