

TABLE III-38

Potential Dose Commitment from Waste Tank Supernate Spill
Resulting from an Explosion

Nuclide	Concentration in Supernate, Ci/l	Concentration in Savannah River Resulting from Spill, $\mu\text{Ci/ml}$	Dose Commitment, rem ^b		
			Body	Bone	LLI ^c
⁸⁹ Sr ^a	0.026	0.0005	0.00037	0.013	
⁹⁰ Sr ^a	0.026	0.0005	0.0022	0.91	
⁹⁵ Zr-Nb ^a	0.018	0.0004	-		0.014
¹⁰⁶ Ru-Rh	0.7	0.013	0.0050		2.60
¹³⁷ Cs	2.6	0.052	3.9		
¹⁴⁴ Ce-Pr ^a	0.52	0.011	0.0003		2.20
¹⁴⁷ Pm ^a	0.065	0.0013	-		0.014
²³⁸ Pu ^a	2.6×10^{-4}	5×10^{-6}	0.00013	0.0052	
²³⁹ Pu ^a	2.6×10^{-6}	5×10^{-8}	-	0.00007	
		<i>Total</i>	3.9	0.93	4.8

- a. These nuclides are present primarily in the sludge. It is assumed that these quantities are carried by the supernate due to the suspension of colloidal particles of sludge.
- b. 70-year dose commitment to an individual from ingestion of 1200 ml, the average amount of water people drink in a day.
- c. Lower large intestine.