

Table F-15. Predicted Maximum Concentrations of Various Constituents at the Old F-Area Seepage Basin<sup>a,b</sup>

Constituent	Applicable standard <sup>d</sup>	Monitoring data maximum mean concentration <sup>e</sup>	PATHRAE-modeled maximum concentration <sup>c</sup>					
			No action		No waste removal and closure		Waste removal and closure	
			1-m well	100-m well	1-m well	100-m well	1-m well	100-m well
Lead	0.05	0.117 (well FNB 2)	(f)	(f)	(f)	(f)	(f)	(f)
Nickel	0.013	0.045 (well FNB 3)	(g)	(g)	(g)	(g)	(g)	(g)
Nitrate	10	77.6 (well FNB 2)	1600 (1956)	69 (1964)	1600 (1956)	69 (1964)	1600 (1956)	69 (1964)
Trichloroethylene	0.005	0.021 (well FNB 3)	0.58 (1956)	0.023 (1965)	0.58 (1956)	0.023 (1965)	0.58 (1956)	0.023 (1965)
Uranium-238	24	(h)	3600 (2312)	(f)	310 (2370)	(f)	(f)	(f)
Strontium-90	42	(h)	900 (2027)	(f)	(f)	(f)	(f)	(f)
Yttrium-90	550	(h)	900 (2027)	(f)	(f)	(f)	(f)	(f)
Radium	6	31.7 (well FNB 2)	(i)	(i)	(i)	(i)	(i)	(i)
Gross alpha	10-20	203 (well FNB 2)	(i)	(i)	(i)	(i)	(i)	(i)
Gross beta	40-60	1234 (well FNB 2)	(i)	(i)	(i)	(i)	(i)	(i)

<sup>a</sup>Source: Adapted from Odum et al., 1987.

<sup>b</sup>Concentrations are in milligrams per liter for chemicals and picocuries per liter for radionuclides.

<sup>c</sup>Year of occurrence in parentheses.

<sup>d</sup>MCLs for chemicals given in EPA, 1985b, 1987; health-based standard for nickel from EPA, 1986; for radionuclides, ICRP Publication 30 (ICRP, 1979) methodology was used to determine concentrations that yield annual effective whole-body dose of 4 millirem.

<sup>e</sup>Value listed for trichloroethylene is for TOH.

<sup>f</sup>Below applicable standard.

<sup>g</sup>Not modeled.

<sup>h</sup>Not reported.

<sup>i</sup>Not explicitly included in PATHRAE model; gross alpha and beta were modeled by estimating specific radionuclide inventory.