Appendix C

Leachate Generation Calculations 15-Year Operations Period

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Table C-1. ICDF parameters.

Porous Media Assumptions:					
Particle Density (kg/L)	2.6500E+00				
Porosity	2.66E-01				
Bulk Density (kg/L)	1.9463E+00				
Volumetric Moisture Content at 6% Gravimetric Moisture Content	1.1678E-01	Saturation at 6% Gravimetric Moisture Content	4.3976E-01		
Volume of H2O to saturate 1 kg soil (L)	1.3644E-01	Release site design soil volume (m^3)	389923	Release site design soil volume (yd^3)	510,000
Release site soil mass (kg)	5.8504E+08	Release site soil volume at compacted bulk density (m^3)	300590		
Volume of H2O to Saturate Release Site (L)	7.9822E+07	Height of H2O above rectangle to Saturate Release Site (m)	2.57E+00	Initial Volume of H2O (L) at 6% Gravimetric Moisture Content	3.5102E+07
Release Area (m^2)	31040				
Recharge Rate of H2O in Release Site (Infiltration [m/yr] * 1.74)	0.0174	Infiltration Rate of H2O in Release Site (m/yr)	0.01		
Volume of H2O Exiting Release Site per Year (L)	540,096	Percentage of Annual Leachate to Release Site Initial Volume of H2O	1.54%		

Table C-2. Model calculations (Design Inv.)

See Excel file Appendix_C
tab Model Calcs (Design Inv.)

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Table C.2 Model calculations (Design Inv.).

	Kd (mL/g) or (L/kg)	Half-Life in years	Isotope Specific Activity (Ci/g)	Design Inventory mg/kg from non-rads	pCi/kg from rads	Total Inventory (kg)	Initial Soil Water Concentration (mg/L)	Initial Soil Concentration (mg/kg)	Initial Contaminant Mass in Soil Water (mg)	Initial Contaminant Mass on Soil (mg)	Remaining ICDF Contaminant Mass (mg) (0 Yr)	Leachate Concentration (mg/L) (1 Yr)	Remaining ICDF Contaminant Mass (mg) (1 Yr)	Leachate Concentration (mg/L) (2 Yr)	Remaining ICDF Contaminant Mass (mg) (2 Yr)	Leachate Concentration (mg/L) (3 Yr)	Remaining ICDF Contaminant Mass (mg) (3 Yr)
INORGANICS																	
Aluminum	250			7.08E+03		4.1405E+06	2.8303E+01	7.0757E+03	9.9349E+08	4.1396E+12	4.1405E+12	2.8303E+01	4.1405E+12	2.8303E+01	4.1405E+12	2.8303E+01	4.1405E+12
Antimony	50			5.83E+00		3.4107E+03	1.1646E-01	5.8230E+00	4.0880E+06	3.4066E+09	3.4107E+09	1.1646E-01	3.4107E+09	1.1646E-01	3.4106E+09	1.1646E-01	3.4105E+09
Arsenic	3			5.65E+00		3.3066E+03	1.8470E+00	5.5411E+00	6.4835E+07	3.2418E+09	3.3066E+09	1.8470E+00	3.3056E+09	1.8465E+00	3.3046E+09	1.8459E+00	3.3036E+09
Barium	50			1.79E+02		1.0499E+05	3.5848E+00	1.7924E+02	1.2583E+08	1.0486E+11	1.0499E+11	3.5848E+00	1.0498E+11	3.5847E+00	1.0498E+11	3.5846E+00	1.0498E+11
Beryllium	250			2.87E-01		1.6811E+02	1.1491E-03	2.8728E-01	4.0337E+04	1.6807E+08	1.6811E+08	1.1491E-03	1.6811E+08	1.1491E-03	1.6811E+08	1.1491E-03	1.6811E+08
Boron	5			1.85E+02		1.0797E+05	3.6473E+01	1.8236E+02	1.2803E+09	1.0669E+11	1.0797E+11	3.6473E+01	1.0795E+11	3.6466E+01	1.0793E+11	3.6460E+01	1.0791E+11
Cadmium	6			3.59E+00		2.0978E+03	5.9170E-01	3.5502E+00	2.0770E+07	2.0770E+09	2.0978E+09	5.9170E-01	2.0974E+09	5.9161E-01	2.0971E+09	5.9152E-01	2.0968E+09
Calcium	5			2.04E+04		1.1945E+07	4.0350E+03	2.0175E+04	1.4164E+11	1.1803E+13	1.1945E+13	4.0350E+03	1.1943E+13	4.0343E+03	1.1940E+13	4.0335E+03	1.1938E+13
Chloride	0			1.87E+00		1.0919E+03	3.1106E+01	0.0000E+00	1.0919E+09	0.0000E+00	1.0919E+09	3.1106E+01	1.0751E+09	3.0627E+01	1.0585E+09	3.0156E+01	1.0423E+09
Chromium	30			4.12E+01		2.4078E+04	1.3691E+00	4.1074E+01	4.8059E+07	2.4030E+10	2.4078E+10	1.3691E+00	2.4077E+10	1.3691E+00	2.4076E+10	1.3690E+00	2.4075E+10
Cobalt	10			6.04E+00		3.5308E+03	5.9992E-01	5.9992E+00	2.1059E+07	3.5098E+09	3.5308E+09	5.9992E-01	3.5305E+09	5.9987E-01	3.5302E+09	5.9981E-01	3.5298E+09
Copper	20			2.99E+01		1.7493E+04	1.4906E+00	2.9812E+01	5.2324E+07	1.7441E+10	1.7493E+10	1.4906E+00	1.7493E+10	1.4905E+00	1.7492E+10	1.4905E+00	1.7491E+10
Cyanide	0.022255			3.37E-01		1.9697E+02	4.0932E+00	9.1093E-02	1.4368E+08	5.3293E+07	1.9697E+08	4.0932E+00	1.9476E+08	4.0472E+00	1.9257E+08	4.0018E+00	1.9041E+08
Dysprosium	240			5.93E+01		3.4715E+04	2.4718E-01	5.9324E+01	8.6767E+06	3.4707E+10	3.4715E+10	2.4718E-01	3.4715E+10	2.4718E-01	3.4715E+10	2.4718E-01	3.4715E+10
Fluoride	0			3.87E+00		2.2618E+03	6.4434E+01	0.0000E+00	2.2618E+09	0.0000E+00	2.2618E+09	6.4434E+01	2.2270E+09	6.3443E+01	2.1927E+09	6.2467E+01	2.1590E+09
Iron	220			1.02E+04		5.9933E+06	4.6553E+01	1.0242E+04	1.6341E+09	5.9917E+12	5.9933E+12	4.6553E+01	5.9933E+12	4.6553E+01	5.9933E+12	4.6552E+01	5.9933E+12
Lead	100			5.76E+01		3.3679E+04	5.7533E-01	5.7533E+01	2.0195E+07	3.3659E+10	3.3679E+10	5.7533E-01	3.3679E+10	5.7532E-01	3.3678E+10	5.7532E-01	3.3678E+10
Magnesium	5			4.47E+03		2.6168E+06	8.8398E+02	4.4199E+03	3.1030E+10	2.5858E+12	2.6168E+12	8.8398E+02	2.6164E+12	8.8382E+02	2.6159E+12	8.8366E+02	2.6154E+12
Manganese	50			2.07E+02		1.2096E+05	4.1300E+00	2.0650E+02	1.4497E+08	1.2081E+11	1.2096E+11	4.1300E+00	1.2095E+11	4.1300E+00	1.2095E+11	4.1299E+00	1.2095E+11
Mercury	0.13			9.45E+00		5.5271E+03	4.9723E+01	6.4640E+00	1.7454E+09	3.7817E+09	5.5271E+09	4.9723E+01	5.5002E+09	4.9482E+01	5.4735E+09	4.9241E+01	5.4469E+09
Molybdenum	10			1.02E+01		5.9543E+03	1.0117E+00	1.0117E+01	3.5513E+07	5.9188E+09	5.9543E+09	1.0117E+00	5.9538E+09	1.0116E+00	5.9532E+09	1.0115E+00	5.9527E+09
Nickel	100			1.97E+01		1.1499E+04	1.9643E-01	1.9643E+01	6.8951E+06	1.1492E+10	1.1499E+10	1.9643E-01	1.1499E+10	1.9643E-01	1.1498E+10	1.9643E-01	1.1498E+10
Nitrate	0			3.93E+00		2.2972E+03	6.5443E+01	0.0000E+00	2.2972E+09	0.0000E+00	2.2972E+09	6.5443E+01	2.2618E+09	6.4436E+01	2.2270E+09	6.3445E+01	2.1928E+09
Nitrate/Nitrite-N	0			2.22E-01		1.2980E+02	3.6979E+00	0.0000E+00	1.2980E+08	0.0000E+00	1.2980E+08	3.6979E+00	1.2781E+08	3.6410E+00	1.2584E+08	3.5850E+00	1.2390E+08
Nitrite	0			8.49E-03		4.9651E+00	1.4145E-01	0.0000E+00	4.9651E+06	0.0000E+00	4.9651E+06	1.4145E-01	4.8887E+06	1.3927E-01	4.8135E+06	1.3713E-01	4.7394E+06
Phosphorus	5			9.74E+01		5.6983E+04	1.9249E+01	9.6246E+01	6.7569E+08	5.6307E+10	5.6983E+10	1.9249E+01	5.6973E+10	1.9246E+01	5.6962E+10	1.9242E+01	5.6952E+10
Potassium	15			1.13E+03		6.5976E+05	7.4882E+01	1.1232E+03	2.6285E+09	6.5713E+11	6.5976E+11	7.4882E+01	6.5972E+11	7.4877E+01	6.5968E+11	7.4873E+01	6.5964E+11
Selenium	4			8.46E-01		4.9489E+02	2.0835E-01	8.3342E-01	7.3137E+06	4.8758E+08	4.9489E+08	2.0835E-01	4.9478E+08	2.0831E-01	4.9467E+08	2.0826E-01	4.9455E+08
Silver	90			9.84E+00		5.7549E+03	1.0923E-01	9.8304E+00	3.8341E+06	5.7511E+09	5.7549E+09	1.0923E-01	5.7549E+09	1.0923E-01	5.7548E+09	1.0922E-01	5.7548E+09
Sodium	76			2.11E+02		1.2333E+05	2.7716E+00	2.1064E+02	9.7290E+07	1.2323E+11	1.2333E+11	2.7716E+00	1.2333E+11	2.7716E+00	1.2333E+11	2.7716E+00	1.2333E+11
Strontium	12			1.82E+01		1.0650E+04	1.5094E+00	1.8113E+01	5.2984E+07	1.0597E+10	1.0650E+10	1.5094E+00	1.0649E+10	1.5093E+00	1.0648E+10	1.5092E+00	1.0647E+10
Sulfate	0			2.05E+01		1.2009E+04	3.4212E+02	0.0000E+00	1.2009E+10	0.0000E+00	1.2009E+10	3.4212E+02	1.1824E+10	3.3685E+02	1.1642E+10	3.3167E+02	1.1463E+10
Sulfide	0			7.59E+02		4.4376E+05	1.2642E+04	0.0000E+00	4.4376E+11	0.0000E+00	4.4376E+11	1.2642E+04	4.3693E+11	1.2447E+04	4.3020E+11	1.2256E+04	4.2359E+11
Terbium	240			5.73E+02		3.3519E+05	2.3867E+00	5.7280E+02	8.3777E+07	3.3511E+11	3.3519E+11	2.3867E+00	3.3519E+11	2.3867E+00	3.3519E+11	2.3866E+00	3.3519E+11
Thallium	100			3.70E-01		2.1662E+02	3.7005E-03	3.7005E-01	1.2990E+05	2.1649E+08	2.1662E+08	3.7005E-03	2.1662E+08	3.7005E-03	2.1662E+08	3.7005E-03	2.1662E+08
Vanadium	6			2.12E+01		1.2431E+04	3.5063E+00	2.1038E+01	1.2308E+08	1.2308E+10	1.2431E+10	3.5063E+00	1.2429E+10	3.5058E+00	1.2427E+10	3.5052E+00	1.2425E+10
Ytterbium	240			1.95E+02		1.1409E+05	8.1235E-01	1.9496E+02	2.8515E+07	1.1406E+11	1.1409E+11	8.1235E-01	1.1409E+11	8.1235E-01	1.1409E+11	8.1235E-01	1.1409E+11
Zinc	16			2.08E+02		1.2166E+05	1.2949E+01	2.0718E+02	4.5452E+08	1.2121E+11	1.2166E+11	1.2949E+01	1.2165E+11	1.2948E+01	1.2165E+11	1.2947E+01	1.2164E+11
Zirconium	600			6.91E+01		4.0398E+04	1.1508E-01	6.9046E+01	4.0394E+06	4.0394E+10	4.0398E+10	1.1508E-01	4.0398E+10	1.1508E-01	4.0398E+10	1.1508E-01	4.0398E+10
ORGANICS																	
1,1,1-Trichloroethane	1.98E-01	9.40E-01		1.57E-02		9.1755E+00	6.0907E-02	1.2029E-02	2.1380E+06	7.0375E+06	9.1755E+06	2.9129E-02	4.3725E+06	1.3881E-02	2.0837E+06	6.6151E-03	9.9297E+05
1,1,2,2-Tetrachloroethane	1.88E-01	1.54E-01		4.95E-05		2.8939E-02	1.9986E-04	3.7473E-05	7.0154E+03	2.1923E+04	2.8939E+04	2.1898E-06	3.1589E+02	2.3903E-08	3.4482E+00	2.6092E-10	3.7640E-02
1,1,2-Trichloroethane	1.33E-01	1.19E+00		2.42E-04		1.4162E-01	1.2575E-03	1.6662E-04	4.4141E+04	9.7478E+04	1.4162E+05	7.0104E-04	7.8572E+04	3.8894E-04	4.3593E+04	2.1579E-04	2.4186E+04
1,1-Dichloroethane	1.63E-01	5.70E-01		2.34E-03		1.3690E+00	1.0517E-02	1.7090E-03	3.6917E+05	9.9982E+05	1.3690E+06	3.1163E-03	4.0397E+05	9.1957E-04	1.1920E+05	2.7135E-04	3.5175E+04
1,1-Dichloroethene	4.15E+00	2.66E-01		1.48E-03		8.6545E-01	3.5159E-04	1.4582E-03	1.2342E+04	8.5311E+05	8.6545E+05	2.5942E-05	6.3844E+04	1.9137E-06	4.7097E+03	1.4117E-07	3.4743E+02
1,2,4-Trichlorobenzene	9.48E-01	5.77E-01		1.14E-02		6.6559E+00	1.1292E-02	1.0699E-02	3.9638E+05	6.2595E+06	6.6559E+06	3.3947E-03	1.9991E+06	1.0196E-03	6.0042E+05	3.0623E-04	1.8034E+05
1,2-Dichlorobenzene	9.50E-02	1.10E-02		1.14E-02		6.6559E+00	7.3399E-02	6.9729E-03	2.5765E+06	4.0794E+06	6.6559E+06	2.4929E-29	2.2471E-21	8.4163E-57	7.5865E-49	2.8415E-84	2.5613E-76
1,2-Dichloroethane	7.19E-03	6.37E-01		5.38E-06		3.1471E-03	8.0067E-05	5.7532E-07	2.8105E+03	3.3658E+02	3.1471E+03	2.6969E-05	1.0455E+03	8.9593E-06	3.4731E+02	2.9763E-06	1.1538E+02
1,2-Dichloroethene (total)	9.48E-01	1.10E+00		3.24E-04		1.8964E-01	3.2173E-04	3.0484E-04	1.1293E+04	1.7834E+05	1.8964E+05	1.7092E-04	1.0065E+05	9.0723E-05	5.3425E+04	4.8154E-05	2.8357E+04

Table C.2 Model calculations (Design Inv.).

	Leachate Concentration (mg/L) (4 Yr)	Remaining ICDF Contaminant Mass (mg) (4 Yr)	Leachate Concentration (mg/L) (5 Yr)	Remaining ICDF Contaminant Mass (mg) (5 Yr)	Leachate Concentration (mg/L) (6 Yr)	Remaining ICDF Contaminant Mass (mg) (6 Yr)	Leachate Concentration (mg/L) (7 Yr)	Remaining ICDF Contaminant Mass (mg) (7 Yr)	Leachate Concentration (mg/L) (8 Yr)	Remaining ICDF Contaminant Mass (mg) (8 Yr)	Leachate Concentration (mg/L) (9 Yr)	Remaining ICDF Contaminant Mass (mg) (9 Yr)	Leachate Concentration (mg/L) (10 Yr)	Remaining ICDF Contaminant Mass (mg) (10 Yr)	Leachate Concentration (mg/L) (11 Yr)	Remaining ICDF Contaminant Mass (mg) (11 Yr)
INORGANICS																
Aluminum	2.8303E+01	4.1405E+12	2.8302E+01	4.1405E+12	2.8302E+01	4.1405E+12	2.8302E+01	4.1404E+12	2.8302E+01	4.1404E+12	2.8302E+01	4.1404E+12	2.8302E+01	4.1404E+12	2.8302E+01	4.1404E+12
Antimony	1.1645E-01	3.4105E+09	1.1645E-01	3.4104E+09	1.1645E-01	3.4104E+09	1.1645E-01	3.4103E+09	1.1644E-01	3.4102E+09	1.1644E-01	3.4102E+09	1.1644E-01	3.4101E+09	1.1644E-01	3.4100E+09
Arsenic	1.8454E+00	3.3026E+09	1.8448E+00	3.3016E+09	1.8443E+00	3.3006E+09	1.8437E+00	3.2996E+09	1.8431E+00	3.2986E+09	1.8426E+00	3.2976E+09	1.8420E+00	3.2966E+09	1.8415E+00	3.2956E+09
Barium	3.5846E+00	1.0498E+11	3.5845E+00	1.0498E+11	3.5844E+00	1.0498E+11	3.5844E+00	1.0497E+11	3.5843E+00	1.0497E+11	3.5842E+00	1.0497E+11	3.5842E+00	1.0497E+11	3.5841E+00	1.0497E+11
Beryllium	1.1491E-03	1.6811E+08	1.1491E-03	1.6811E+08	1.1491E-03	1.6811E+08	1.1491E-03	1.6811E+08	1.1491E-03	1.6811E+08	1.1491E-03	1.6811E+08	1.1491E-03	1.6810E+08	1.1491E-03	1.6810E+08
Boron	3.6453E+01	1.0789E+11	3.6446E+01	1.0787E+11	3.6440E+01	1.0785E+11	3.6433E+01	1.0783E+11	3.6426E+01	1.0781E+11	3.6420E+01	1.0779E+11	3.6413E+01	1.0777E+11	3.6406E+01	1.0775E+11
Cadmium	5.9143E-01	2.0965E+09	5.9134E-01	2.0962E+09	5.9125E-01	2.0958E+09	5.9116E-01	2.0955E+09	5.9107E-01	2.0952E+09	5.9098E-01	2.0949E+09	5.9089E-01	2.0946E+09	5.9080E-01	2.0943E+09
Calcium	4.0328E+03	1.1936E+13	4.0321E+03	1.1934E+13	4.0313E+03	1.1932E+13	4.0306E+03	1.1930E+13	4.0299E+03	1.1927E+13	4.0291E+03	1.1925E+13	4.0284E+03	1.1923E+13	4.0277E+03	1.1921E+13
Chloride	2.9692E+01	1.0262E+09	2.9235E+01	1.0104E+09	2.8786E+01	9.9489E+08	2.8343E+01	9.7958E+08	2.7907E+01	9.6451E+08	2.7477E+01	9.4967E+08	2.7054E+01	9.3506E+08	2.6638E+01	9.2067E+08
Chromium	1.3690E+00	2.4075E+10	1.3690E+00	2.4074E+10	1.3689E+00	2.4073E+10	1.3689E+00	2.4073E+10	1.3688E+00	2.4072E+10	1.3688E+00	2.4071E+10	1.3687E+00	2.4070E+10	1.3687E+00	2.4070E+10
Cobalt	5.9976E-01	3.5295E+09	5.9970E-01	3.5292E+09	5.9965E-01	3.5289E+09	5.9959E-01	3.5285E+09	5.9954E-01	3.5282E+09	5.9948E-01	3.5279E+09	5.9943E-01	3.5276E+09	5.9937E-01	3.5272E+09
Copper	1.4904E+00	1.7490E+10	1.4903E+00	1.7489E+10	1.4903E+00	1.7489E+10	1.4902E+00	1.7488E+10	1.4901E+00	1.7487E+10	1.4901E+00	1.7486E+10	1.4900E+00	1.7485E+10	1.4899E+00	1.7485E+10
Cyanide	3.9569E+00	1.8828E+08	3.9125E+00	1.8616E+08	3.8686E+00	1.8407E+08	3.8251E+00	1.8201E+08	3.7822E+00	1.7997E+08	3.7398E+00	1.7795E+08	3.6978E+00	1.7595E+08	3.6563E+00	1.7397E+08
Dysprosium	2.4718E-01	3.4715E+10	2.4718E-01	3.4715E+10	2.4718E-01	3.4715E+10	2.4718E-01	3.4714E+10	2.4718E-01	3.4714E+10	2.4718E-01	3.4714E+10	2.4717E-01	3.4714E+10	2.4717E-01	3.4714E+10
Fluoride	6.1505E+01	2.1258E+09	6.0559E+01	2.0930E+09	5.9627E+01	2.0608E+09	5.8710E+01	2.0291E+09	5.7807E+01	1.9979E+09	5.6917E+01	1.9672E+09	5.6041E+01	1.9369E+09	5.5179E+01	1.9071E+09
Iron	4.6552E+01	5.9932E+12	4.6552E+01	5.9932E+12	4.6552E+01	5.9932E+12	4.6552E+01	5.9932E+12	4.6551E+01	5.9931E+12	4.6551E+01	5.9931E+12	4.6551E+01	5.9931E+12	4.6551E+01	5.9931E+12
Lead	5.7531E-01	3.3678E+10	5.7531E-01	3.3677E+10	5.7530E-01	3.3677E+10	5.7530E-01	3.3677E+10	5.7529E-01	3.3676E+10	5.7529E-01	3.3676E+10	5.7528E-01	3.3676E+10	5.7528E-01	3.3676E+10
Magnesium	8.8350E+02	2.6149E+12	8.8334E+02	2.6145E+12	8.8318E+02	2.6140E+12	8.8302E+02	2.6135E+12	8.8286E+02	2.6130E+12	8.8269E+02	2.6125E+12	8.8253E+02	2.6121E+12	8.8237E+02	2.6116E+12
Manganese	4.1298E+00	1.2095E+11	4.1297E+00	1.2094E+11	4.1297E+00	1.2094E+11	4.1296E+00	1.2094E+11	4.1295E+00	1.2094E+11	4.1294E+00	1.2094E+11	4.1294E+00	1.2093E+11	4.1293E+00	1.2093E+11
Mercury	4.9002E+01	5.4205E+09	4.8764E+01	5.3941E+09	4.8527E+01	5.3679E+09	4.8291E+01	5.3418E+09	4.8057E+01	5.3159E+09	4.7823E+01	5.2900E+09	4.7591E+01	5.2643E+09	4.7360E+01	5.2388E+09
Molybdenum	1.0114E+00	5.9521E+09	1.0113E+00	5.9516E+09	1.0112E+00	5.9510E+09	1.0111E+00	5.9505E+09	1.0110E+00	5.9499E+09	1.0110E+00	5.9494E+09	1.0109E+00	5.9488E+09	1.0108E+00	5.9483E+09
Nickel	1.9642E-01	1.1498E+10	1.9642E-01	1.1498E+10	1.9642E-01	1.1498E+10	1.9642E-01	1.1498E+10	1.9642E-01	1.1498E+10	1.9641E-01	1.1498E+10	1.9641E-01	1.1498E+10	1.9641E-01	1.1498E+10
Nitrate	6.2468E+01	2.1590E+09	6.1507E+01	2.1258E+09	6.0561E+01	2.0931E+09	5.9629E+01	2.0609E+09	5.8712E+01	2.0292E+09	5.7808E+01	1.9980E+09	5.6919E+01	1.9672E+09	5.6043E+01	1.9370E+09
Nitrate/Nitrite-N	3.5298E+00	1.2200E+08	3.4755E+00	1.2012E+08	3.4220E+00	1.1827E+08	3.3694E+00	1.1645E+08	3.3175E+00	1.1466E+08	3.2665E+00	1.1290E+08	3.2162E+00	1.1116E+08	3.1667E+00	1.0945E+08
Nitrite	1.3502E-01	4.6665E+06	1.3294E-01	4.5947E+06	1.3090E-01	4.5240E+06	1.2888E-01	4.4544E+06	1.2690E-01	4.3859E+06	1.2495E-01	4.3184E+06	1.2302E-01	4.2519E+06	1.2113E-01	4.1865E+06
Phosphorus	1.9239E+01	5.6941E+10	1.9235E+01	5.6931E+10	1.9232E+01	5.6921E+10	1.9228E+01	5.6910E+10	1.9225E+01	5.6900E+10	1.9221E+01	5.6889E+10	1.9218E+01	5.6879E+10	1.9214E+01	5.6869E+10
Potassium	7.4868E+01	6.5960E+11	7.4864E+01	6.5955E+11	7.4859E+01	6.5951E+11	7.4854E+01	6.5947E+11	7.4850E+01	6.5943E+11	7.4845E+01	6.5939E+11	7.4841E+01	6.5935E+11	7.4836E+01	6.5931E+11
Selenium	2.0821E-01	4.9444E+08	2.0816E-01	4.9433E+08	2.0812E-01	4.9422E+08	2.0807E-01	4.9410E+08	2.0802E-01	4.9399E+08	2.0798E-01	4.9388E+08	2.0793E-01	4.9377E+08	2.0788E-01	4.9366E+08
Silver	1.0922E-01	5.7547E+09	1.0922E-01	5.7547E+09	1.0922E-01	5.7546E+09	1.0922E-01	5.7545E+09	1.0922E-01	5.7545E+09	1.0922E-01	5.7544E+09	1.0922E-01	5.7544E+09	1.0922E-01	5.7543E+09
Sodium	2.7715E+00	1.2333E+11	2.7715E+00	1.2332E+11	2.7715E+00	1.2332E+11	2.7714E+00	1.2332E+11	2.7714E+00	1.2332E+11	2.7714E+00	1.2332E+11	2.7713E+00	1.2332E+11	2.7713E+00	1.2332E+11
Strontium	1.5091E+00	1.0646E+10	1.5089E+00	1.0646E+10	1.5088E+00	1.0645E+10	1.5087E+00	1.0644E+10	1.5086E+00	1.0643E+10	1.5085E+00	1.0642E+10	1.5084E+00	1.0642E+10	1.5083E+00	1.0641E+10
Sulfate	3.2657E+02	1.1287E+10	3.2154E+02	1.1113E+10	3.1660E+02	1.0942E+10	3.1172E+02	1.0774E+10	3.0693E+02	1.0608E+10	3.0221E+02	1.0445E+10	2.9756E+02	1.0284E+10	2.9298E+02	1.0126E+10
Sulfide	1.2067E+04	4.1707E+11	1.1882E+04	4.1065E+11	1.1699E+04	4.0433E+11	1.1519E+04	3.9811E+11	1.1342E+04	3.9199E+11	1.1167E+04	3.8595E+11	1.0995E+04	3.8002E+11	1.0826E+04	3.7417E+11
Terbium	2.3866E+00	3.3519E+11	2.3866E+00	3.3518E+11	2.3866E+00	3.3518E+11	2.3866E+00	3.3518E+11	2.3866E+00	3.3518E+11	2.3866E+00	3.3518E+11	2.3866E+00	3.3518E+11	2.3866E+00	3.3518E+11
Thallium	3.7004E-03	2.1662E+08	3.7004E-03	2.1661E+08	3.7004E-03	2.1661E+08	3.7003E-03	2.1661E+08	3.7003E-03	2.1661E+08	3.7003E-03	2.1661E+08	3.7002E-03	2.1660E+08	3.7002E-03	2.1660E+08
Vanadium	3.5047E+00	1.2423E+10	3.5042E+00	1.2422E+10	3.5036E+00	1.2420E+10	3.5031E+00	1.2418E+10	3.5026E+00	1.2416E+10	3.5020E+00	1.2414E+10	3.5015E+00	1.2412E+10	3.5010E+00	1.2410E+10
Ytterbium	8.1234E-01	1.1409E+11	8.1234E-01	1.1409E+11	8.1234E-01	1.1409E+11	8.1234E-01	1.1409E+11	8.1233E-01	1.1409E+11	8.1233E-01	1.1409E+11	8.1233E-01	1.1409E+11	8.1232E-01	1.1409E+11
Zinc	1.2946E+01	1.2163E+11	1.2946E+01	1.2163E+11	1.2945E+01	1.2162E+11	1.2944E+01	1.2161E+11	1.2943E+01	1.2160E+11	1.2943E+01	1.2160E+11	1.2942E+01	1.2159E+11	1.2941E+01	1.2158E+11
Zirconium	1.1508E-01	4.0398E+10	1.1508E-01	4.0398E+10	1.1508E-01	4.0398E+10	1.1508E-01	4.0398E+10	1.1508E-01	4.0398E+10	1.1508E-01	4.0398E+10	1.1508E-01	4.0398E+10	1.1508E-01	4.0398E+10
ORGANICS																
1,1,1-Trichloroethane	3.1524E-03	4.7319E+05	1.5022E-03	2.2550E+05	7.1588E-04	1.0746E+05	3.4115E-04	5.1209E+04	1.6257E-04	2.4403E+04	7.7473E-05	1.1629E+04	3.6919E-05	5.5418E+03	1.7594E-05	2.6409E+03
1,1,2,2-Tetrachloroethane	2.8482E-12	4.1087E-04	3.1090E-14	4.4850E-06	3.3938E-16	4.8957E-08	3.7046E-18	5.3441E-10	4.0439E-20	5.8335E-12	4.4142E-22	6.3678E-14	4.8185E-24	6.9510E-16	5.2598E-26	7.5876E-18
1,1,2-Trichloroethane	1.1972E-04	1.3418E+04	6.6424E-05	7.4447E+03	3.6853E-05	4.1304E+03	2.0446E-05	2.2916E+03	1.1344E-05	1.2714E+03	6.2936E-06	7.0539E+02	3.4918E-06	3.9136E+02	1.9373E-06	2.1713E+02
1,1-Dichloroethane	8.0070E-05	1.0380E+04	2.3627E-05	3.0628E+03	6.9721E-06	9.0379E+02	2.0573E-06	2.6669E+02	6.0709E-07	7.8697E+01	1.7914E-07	2.3222E+01	5.2861E-08	6.8524E+00	1.5599E-08	2.0220E+00
1,1-Dichloroethene	1.0414E-08	2.5629E+01	7.6825E-10	1.8907E+00	5.6673E-11	1.3947E-01	4.1807E-12	1.0289E-02	3.0841E-13	7.5898E-04	2.2751E-14	5.5989E-05	1.6783E-15	4.1303E-06	1.2381E-16	3.0469E-07
1,2,4-Trichlorobenzene	9.1977E-05	5.4164E+04	2.7625E-05	1.6268E+04	8.2972E-06	4.8861E+03	2.4921E-06	1.4675E+03	7.4849E-07	4.4077E+02	2.2481E-07	1.3238E+02	6.7520E-08	3.9762E+01	2.0280E-08	1.1942E+01
1,2-Dichlorobenzene	9.5931E-112	8.6473E-104	3.2388E-139	2.9194E-131	1.0934E-166	9.8564E-159	3.6916E-194	3.3276E-186	1.2463E-221	1.1234E-213	4.2078E-249	3.7929E-241	1.4206E-276	1.2805E-268	4.7961E-304	4.3232E-296
1,2-Dichloroethane	9.8875E-07	3.8330E+01	3.2847E-07	1.2733E+01	1.0912E-07	4.2301E+00	3.6250E-08	1.4053E+00	1.2042E-08	4.6683E-01	4.0005E-09	1.5508E-01	1.3290E-09	5.1520E-02	4.4150E-10	1.7115E-02
1,2-Dichloroethene (total)	2.5559E-05	1.5051E+04	1.3566E-05	7.9888E+03	7.2005E-06	4.2403E+03	3.8219E-06	2.2506E+03	2.0286E-06	1.1946E+03	1.0767E-06	6.3406E+02	5.7150E-07	3.3654E+02	3.0334E-07	1.7863E+02

Table C.2 Model calculations (Design Inv.).

	Leachate Concentration (mg/L) (12 Yr)	Remaining ICDF Contaminant Mass (mg) (12 Yr)	Leachate Concentration (mg/L) (13 Yr)	Remaining ICDF Contaminant Mass (mg) (13 Yr)	Leachate Concentration (mg/L) (14 Yr)	Remaining ICDF Contaminant Mass (mg) (14 Yr)	Leachate Concentration (mg/L) (15 Yr)	Remaining ICDF Contaminant Mass (mg) (15 Yr)
INORGANICS								
Aluminum	2.8302E+01	4.1404E+12	2.8302E+01	4.1403E+12	2.8302E+01	4.1403E+12	2.8301E+01	4.1403E+12
Antimony	1.1644E-01	3.4100E+09	1.1643E-01	3.4099E+09	1.1643E-01	3.4099E+09	1.1643E-01	3.4098E+09
Arsenic	1.8409E+00	3.2946E+09	1.8404E+00	3.2936E+09	1.8398E+00	3.2927E+09	1.8393E+00	3.2917E+09
Barium	3.5840E+00	1.0496E+11	3.5840E+00	1.0496E+11	3.5839E+00	1.0496E+11	3.5838E+00	1.0496E+11
Beryllium	1.1491E-03	1.6810E+08	1.1491E-03	1.6810E+08	1.1491E-03	1.6810E+08	1.1491E-03	1.6810E+08
Boron	3.6400E+01	1.0773E+11	3.6393E+01	1.0771E+11	3.6386E+01	1.0769E+11	3.6380E+01	1.0767E+11
Cadmium	5.9071E-01	2.0939E+09	5.9062E-01	2.0936E+09	5.9053E-01	2.0933E+09	5.9044E-01	2.0930E+09
Calcium	4.0269E+03	1.1919E+13	4.0262E+03	1.1916E+13	4.0255E+03	1.1914E+13	4.0247E+03	1.1912E+13
Chloride	2.6228E+01	9.0650E+08	2.5825E+01	8.9255E+08	2.5427E+01	8.7882E+08	2.5036E+01	8.6530E+08
Chromium	1.3687E+00	2.4069E+10	1.3686E+00	2.4068E+10	1.3686E+00	2.4067E+10	1.3685E+00	2.4067E+10
Cobalt	5.9932E-01	3.5269E+09	5.9926E-01	3.5266E+09	5.9921E-01	3.5263E+09	5.9915E-01	3.5260E+09
Copper	1.4899E+00	1.7484E+10	1.4898E+00	1.7483E+10	1.4897E+00	1.7482E+10	1.4896E+00	1.7481E+10
Cyanide	3.6153E+00	1.7202E+08	3.5747E+00	1.7009E+08	3.5346E+00	1.6818E+08	3.4949E+00	1.6629E+08
Dysprosium	2.4717E-01	3.4714E+10	2.4717E-01	3.4714E+10	2.4717E-01	3.4713E+10	2.4717E-01	3.4713E+10
Fluoride	5.4330E+01	1.8778E+09	5.3494E+01	1.8489E+09	5.2671E+01	1.8204E+09	5.1861E+01	1.7924E+09
Iron	4.6551E+01	5.9930E+12	4.6550E+01	5.9930E+12	4.6550E+01	5.9930E+12	4.6550E+01	5.9930E+12
Lead	5.7527E-01	3.3675E+10	5.7527E-01	3.3675E+10	5.7526E-01	3.3675E+10	5.7525E-01	3.3674E+10
Magnesium	8.8221E+02	2.6111E+12	8.8205E+02	2.6106E+12	8.8189E+02	2.6102E+12	8.8173E+02	2.6097E+12
Manganese	4.1292E+00	1.2093E+11	4.1291E+00	1.2093E+11	4.1290E+00	1.2092E+11	4.1290E+00	1.2092E+11
Mercury	4.7129E+01	5.2133E+09	4.6900E+01	5.1880E+09	4.6673E+01	5.1628E+09	4.6446E+01	5.1377E+09
Molybdenum	1.0107E+00	5.9477E+09	1.0106E+00	5.9472E+09	1.0105E+00	5.9467E+09	1.0104E+00	5.9461E+09
Nickel	1.9641E-01	1.1497E+10	1.9641E-01	1.1497E+10	1.9641E-01	1.1497E+10	1.9640E-01	1.1497E+10
Nitrate	5.5181E+01	1.9072E+09	5.4332E+01	1.8778E+09	5.3496E+01	1.8489E+09	5.2673E+01	1.8205E+09
Nitrate/Nitrite-N	3.1180E+00	1.0777E+08	3.0700E+00	1.0611E+08	3.0228E+00	1.0447E+08	2.9763E+00	1.0287E+08
Nitrite	1.1927E-01	4.1221E+06	1.1743E-01	4.0587E+06	1.1562E-01	3.9962E+06	1.1385E-01	3.9347E+06
Phosphorus	1.9211E+01	5.6858E+10	1.9207E+01	5.6848E+10	1.9204E+01	5.6838E+10	1.9200E+01	5.6827E+10
Potassium	7.4831E+01	6.5927E+11	7.4827E+01	6.5923E+11	7.4822E+01	6.5919E+11	7.4818E+01	6.5915E+11
Selenium	2.0783E-01	4.9354E+08	2.0779E-01	4.9343E+08	2.0774E-01	4.9332E+08	2.0769E-01	4.9321E+08
Silver	1.0921E-01	5.7542E+09	1.0921E-01	5.7542E+09	1.0921E-01	5.7541E+09	1.0921E-01	5.7541E+09
Sodium	2.7713E+00	1.2331E+11	2.7712E+00	1.2331E+11	2.7712E+00	1.2331E+11	2.7712E+00	1.2331E+11
Strontium	1.5081E+00	1.0640E+10	1.5080E+00	1.0639E+10	1.5079E+00	1.0638E+10	1.5078E+00	1.0637E+10
Sulfate	2.8847E+02	9.9701E+09	2.8403E+02	9.8167E+09	2.7966E+02	9.6656E+09	2.7536E+02	9.5169E+09
Sulfide	1.0659E+04	3.6841E+11	1.0495E+04	3.6274E+11	1.0334E+04	3.5716E+11	1.0175E+04	3.5167E+11
Terbium	2.3866E+00	3.3518E+11	2.3865E+00	3.3517E+11	2.3865E+00	3.3517E+11	2.3865E+00	3.3517E+11
Thallium	3.7002E-03	2.1660E+08	3.7001E-03	2.1660E+08	3.7001E-03	2.1660E+08	3.7001E-03	2.1659E+08
Vanadium	3.5004E+00	1.2408E+10	3.4999E+00	1.2406E+10	3.4994E+00	1.2405E+10	3.4988E+00	1.2403E+10
Ytterbium	8.1232E-01	1.1408E+11	8.1232E-01	1.1408E+11	8.1231E-01	1.1408E+11	8.1231E-01	1.1408E+11
Zinc	1.2940E+01	1.2158E+11	1.2940E+01	1.2157E+11	1.2939E+01	1.2156E+11	1.2938E+01	1.2156E+11
Zirconium	1.1507E-01	4.0398E+10	1.1507E-01	4.0398E+10	1.1507E-01	4.0398E+10	1.1507E-01	4.0398E+10
ORGANICS								
1,1,1-Trichloroethane	8.3841E-06	1.2585E+03	3.9954E-06	5.9973E+02	1.9040E-06	2.8580E+02	9.0732E-07	1.3620E+02
1,1,2,2-Tetrachloroethane	5.7415E-28	8.2825E-20	6.2673E-30	9.0410E-22	6.8413E-32	9.8690E-24	7.4678E-34	1.0773E-25
1,1,2-Trichloroethane	1.0748E-06	1.2047E+02	5.9632E-07	6.6836E+01	3.3085E-07	3.7081E+01	1.8356E-07	2.0573E+01
1,1-Dichloroethane	4.6029E-09	5.9667E-01	1.3582E-09	1.7607E-01	4.0079E-10	5.1955E-02	1.1827E-10	1.5331E-02
1,1-Dichloroethene	9.1331E-18	2.2476E-08	6.7374E-19	1.6581E-09	4.9701E-20	1.2231E-10	3.6664E-21	9.0229E-12
1,2,4-Trichlorobenzene	6.0910E-09	3.5869E+00	1.8294E-09	1.0773E+00	5.4946E-10	3.2357E-01	1.6503E-10	9.7184E-02
1,2-Dichlorobenzene	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
1,2-Dichloroethane	1.4667E-10	5.6857E-03	4.8724E-11	1.8888E-03	1.6186E-11	6.2748E-04	5.3772E-12	2.0845E-04
1,2-Dichloroethene (total)	1.6100E-07	9.4813E+01	8.5457E-08	5.0324E+01	4.5359E-08	2.6711E+01	2.4075E-08	1.4178E+01

Table C.2 Model calculations (Design Inv.).

	Kd (mL/g) or (L/kg)	Half-Life in years	Isotope Specific Activity (Ci/g)	Design Inventory mg/kg from non-rads	pCi/kg from rads	Total Inventory (kg)	Initial Soil Water Concentration (mg/L)	Initial Soil Concentration (mg/kg)	Initial Contaminant Mass in Soil Water (mg)	Initial Contaminant Mass on Soil (mg)	Remaining ICDF Contaminant Mass (mg) (0 Yr)	Leachate Concentration (mg/L) (1 Yr)	Remaining ICDF Contaminant Mass (mg) (1 Yr)	Leachate Concentration (mg/L) (2 Yr)	Remaining ICDF Contaminant Mass (mg) (2 Yr)	Leachate Concentration (mg/L) (3 Yr)	Remaining ICDF Contaminant Mass (mg) (3 Yr)
1,3-Dichlorobenzene	1.54E+00	5.77E-01		1.14E-02		6.6559E+00	7.1106E-03	1.0950E-02	2.4960E+05	6.4063E+06	6.6559E+06	2.1376E-03	1.9998E+06	6.4224E-04	6.0083E+05	1.9296E-04	1.8052E+05
1,4-Dichlorobenzene	2.77E-02	5.77E-01		4.50E-01		2.6327E+02	5.1303E+00	1.4220E-01	1.8008E+08	8.3190E+07	2.6327E+08	1.5423E+00	7.8314E+07	4.5877E-01	2.3295E+07	1.3647E-01	6.9294E+06
1,4-Dioxane	4.00E+00	5.70E-01		1.88E-05		1.0999E-02	4.6308E-06	1.8523E-05	1.6255E+02	1.0837E+04	1.0999E+04	1.3722E-06	3.2585E+03	4.0650E-07	9.6531E+02	1.2042E-07	2.8597E+02
2,4,5-Trichlorophenol	9.53E-01	2.56E+00		4.46E-02		2.6093E+01	4.4050E-02	4.1958E-02	1.5463E+06	2.4547E+07	2.6093E+07	3.3590E-02	1.9879E+07	2.5590E-02	1.5144E+07	1.9496E-02	1.1538E+07
2,4,6-Trichlorophenol	3.68E-01	2.52E+00		1.83E-02		1.0679E+01	4.2700E-02	1.5692E-02	1.4988E+06	9.1804E+06	1.0679E+07	3.2429E-02	8.0930E+06	2.4575E-02	6.1330E+06	1.8623E-02	4.6477E+06
2,4-Dichlorophenol	5.23E-01	6.65E-02		2.16E-02		1.2635E+01	3.7077E-02	1.9373E-02	1.3015E+06	1.1334E+07	1.2635E+07	1.1016E-06	3.7482E+02	3.2679E-11	1.1119E-02	9.6939E-16	3.2983E-07
2,4-Dimethylphenol	2.50E-05	2.19E-02		1.83E-02		1.0679E+01	3.0411E-01	7.6027E-06	1.0675E+07	4.4478E+03	1.0679E+07	5.6045E-15	1.9378E-07	1.0170E-28	3.5163E-21	1.8454E-42	6.3807E-35
2,4-Dinitrophenol	2.39E-01	7.24E-01		5.09E-02		2.9796E+01	1.7048E-01	4.0702E-02	5.9842E+06	2.3812E+07	2.9796E+07	6.5484E-02	1.1410E+07	2.5075E-02	4.3691E+06	9.6020E-03	1.6731E+06
2,4-Dinitrotoluene	1.73E-01	5.03E-01		1.14E-02		6.6559E+00	4.8828E-02	8.4472E-03	1.7140E+06	4.9419E+06	6.6559E+06	1.2300E-02	1.6699E+06	3.0859E-03	4.1899E+05	7.7425E-04	1.0512E+05
2,6-Dinitrotoluene	1.13E-02	5.03E-01		2.07E-02		1.2099E+01	2.9026E-01	3.2655E-03	1.0189E+07	1.9104E+06	1.2099E+07	7.3116E-02	3.0083E+06	1.8179E-02	7.4795E+05	4.5199E-03	1.8596E+05
2-Butanone	3.88E+00	2.19E-02		2.47E-02		1.4460E+01	6.2810E-03	2.4339E-02	2.2048E+05	1.4239E+07	1.4460E+07	1.1575E-16	2.6642E-07	2.1328E-30	4.9087E-21	3.9296E-44	9.0442E-35
2-Chloronaphthalene	9.95E-01	1.89E-01		1.14E-02		6.6559E+00	1.0784E-02	1.0730E-02	3.7853E+05	6.2773E+06	6.6559E+06	2.7565E-04	1.6999E+05	7.0401E-06	4.3415E+03	1.7980E-07	1.1088E+02
2-Chlorophenol	3.78E-02	8.47E-01		1.83E-02		1.0679E+01	1.8671E-01	7.0512E-03	6.5541E+06	4.1252E+06	1.0679E+07	8.2337E-02	4.6648E+06	3.5966E-02	2.0376E+06	1.5710E-02	8.9007E+05
2-Hexanone	2.13E+01	NA		2.70E-03		1.5776E+00	1.2654E-04	2.6890E-03	4.4419E+03	1.5732E+06	1.5776E+06	1.2654E-04	1.5775E+06	1.2654E-04	1.5775E+06	1.2653E-04	1.5774E+06
2-Methylnaphthalene	2.28E-01	NA		5.12E-01		2.9944E+02	1.7772E+00	4.0520E-01	6.2384E+07	2.3706E+08	2.9944E+08	1.7772E+00	2.9848E+08	1.7715E+00	2.9753E+08	1.7658E+00	2.9657E+08
2-Methylphenol	4.25E-02	3.84E-02		2.06E-02		1.2072E+01	2.0141E-01	8.5500E-03	7.0701E+06	5.0021E+06	1.2072E+07	2.8563E-09	1.6966E-01	4.0142E-17	2.3843E-09	5.6413E-25	3.3508E-17
2-Nitroaniline	9.75E-02	NA		2.72E-02		1.5916E+01	1.7277E-01	1.6840E-02	6.0645E+06	9.8517E+06	1.5916E+07	1.7277E-01	1.5823E+07	1.7175E-01	1.5730E+07	1.7075E-01	1.5638E+07
2-Nitrophenol	1.81E+00	5.75E-02		1.83E-02		1.0679E+01	9.7615E-03	1.7668E-02	3.4265E+05	1.0337E+07	1.0679E+07	5.7191E-08	6.2537E+01	3.3491E-13	3.6622E-04	1.9612E-18	2.1445E-09
3,3'-Dichlorobenzidine	NA	5.70E-01		1.14E-02		6.6559E+00	1.8961E-01	0.0000E+00	6.6559E+06	0.0000E+00	6.6559E+06	5.6185E-02	1.9419E+06	1.6392E-02	5.6655E+05	4.7825E-03	1.6529E+05
3-Methyl Butanal	4.25E-02	NA		2.23E-04		1.3060E-01	2.1790E-03	9.2500E-05	7.6489E+04	5.4116E+04	1.3060E+05	2.1790E-03	1.2943E+05	2.1594E-03	1.2826E+05	2.1399E-03	1.2711E+05
3-Nitroaniline	1.58E+00	NA		2.72E-02		1.5916E+01	1.6548E-02	2.6213E-02	5.8087E+05	1.5335E+07	1.5916E+07	1.6548E-02	1.5907E+07	1.6539E-02	1.5898E+07	1.6529E-02	1.5889E+07
4,6-Dinitro-2-methylphenol	4.25E+01	1.12E-01		4.46E-02		2.6093E+01	1.0480E-03	4.4538E-02	3.6785E+04	2.6056E+07	2.6093E+07	2.1721E-06	5.4081E+04	4.5019E-09	1.1209E+02	9.3308E-12	2.3232E-01
4-Bromophenyl-phenylether	1.25E-01	NA		1.14E-02		6.6559E+00	6.1497E-02	7.6871E-03	2.1587E+06	4.4972E+06	6.6559E+06	6.1497E-02	6.6227E+06	6.1190E-02	6.5896E+06	6.0884E-02	6.5567E+06
4-Chloro-3-methylphenol	1.65E-01	NA		1.83E-02		1.0679E+01	8.1039E-02	1.3392E-02	2.8446E+06	7.8346E+06	1.0679E+07	8.1039E-02	1.0636E+07	8.0707E-02	1.0592E+07	8.0376E-02	1.0549E+07
4-Chloroaniline	7.76E+00	NA		4.08E-02		2.3865E+01	5.2148E-03	4.0480E-02	1.8305E+05	2.3682E+07	2.3865E+07	5.2148E-03	2.3862E+07	5.2142E-03	2.3860E+07	5.2136E-03	2.3857E+07
4-Chlorophenyl-phenylether	3.35E-01	NA		1.14E-02		6.6559E+00	2.8802E-02	9.6487E-03	1.0110E+06	5.6449E+06	6.6559E+06	2.8802E-02	6.6403E+06	2.8735E-02	6.6248E+06	2.8668E-02	6.6093E+06
4-Methyl-2-Pentanone	2.02E-01	3.84E-02		2.96E-02		1.7336E+01	1.1313E-01	2.2846E-02	3.9710E+06	1.3366E+07	1.7336E+07	1.6043E-09	2.4499E-01	2.2671E-17	3.4620E-09	3.2037E-25	4.8923E-17
4-Methylphenol	4.25E-02	3.84E-02		3.86E-02		2.2569E+01	3.7655E-01	1.5985E-02	1.3218E+07	9.3516E+06	2.2569E+07	5.3400E-09	3.1718E-01	7.5046E-17	4.4575E-09	1.0547E-24	6.2644E-17
4-Nitroaniline	9.75E-02	NA		2.72E-02		1.5916E+01	1.7277E-01	1.6840E-02	6.0645E+06	9.8517E+06	1.5916E+07	1.7277E-01	1.5823E+07	1.7175E-01	1.5730E+07	1.7075E-01	1.5638E+07
4-Nitrophenol	1.77E+01	1.55E-02		5.16E-02		3.0161E+01	2.9028E-03	5.1379E-02	1.0189E+05	3.0059E+07	3.0161E+07	1.0369E-22	1.0773E-12	3.7038E-42	3.8482E-32	1.3230E-61	1.3746E-51
Acenaphthene	5.00E+00	3.14E-01		2.02E-01		1.1832E+02	3.9931E-02	1.9984E-01	1.4017E+06	1.1691E+08	1.1832E+08	4.3823E-03	1.2982E+07	4.8084E-04	1.4245E+06	5.2760E-05	1.5630E+05
Acenaphthylene	1.44E-03	2.81E-01		2.07E-02		1.2099E+01	3.3662E-01	4.8390E-04	1.1816E+07	2.8310E+05	1.2099E+07	2.8522E-02	1.0098E+06	2.3804E-03	8.4273E+04	1.9866E-04	7.0332E+03
Acetone	3.90E-02	2.19E-02		6.20E-01		3.6300E+02	6.2674E+00	2.4443E-01	2.2000E+08	1.4300E+08	3.6300E+08	1.1550E-13	6.6274E-06	2.1088E-27	1.2100E-19	3.8501E-41	2.2091E-33
Acetonitrile	5.30E-02	5.12E-01		1.88E-05		1.0999E-02	1.6638E-04	8.8182E-06	5.8403E+03	5.1590E+03	1.0999E+04	4.3006E-05	2.8199E+03	1.1025E-05	7.2293E+02	2.8266E-06	1.8534E+02
Acrolein	2.13E-03	9.59E-02		9.06E-06		5.2997E-03	1.4581E-04	3.0985E-07	5.1184E+03	1.8128E+02	5.2997E+03	1.0580E-07	3.7882E+00	7.5626E-11	2.7078E-03	5.4058E-14	1.9355E-06
Acrylonitrile	7.38E+01	6.64E-02		9.06E-06		5.2997E-03	1.2273E-07	9.0513E-06	4.3081E+00	5.2953E+03	5.2997E+03	3.6140E-12	1.5605E-01	1.0642E-16	4.5952E-06	3.1336E-21	1.3531E-10
Anthracene	3.88E+01	1.39E+00		3.20E-01		1.8737E+02	8.2522E-03	3.1977E-01	2.8967E+05	1.8708E+08	1.8737E+08	5.0064E-03	1.1367E+08	3.0372E-03	6.8960E+07	1.8426E-03	4.1836E+07
Aramite	8.25E+01	NA		1.15E-04		6.6996E-02	1.3871E-06	1.1443E-04	4.8689E+01	6.6947E+04	6.6996E+04	1.3871E-06	6.6995E+04	1.3870E-06	6.6994E+04	1.3870E-06	6.6993E+04
Aroclor-1016	5.00E+02	1.17E-02		7.69E-03		4.4967E+00	1.5371E-05	7.6853E-03	5.3954E+02	4.4962E+06	4.4967E+06	2.7593E-31	8.0725E-20	4.9535E-57	1.4492E-45	8.8924E-83	2.6015E-71
Aroclor-1254	7.25E+02	1.28E-02		1.28E-01		7.5100E+01	1.7705E-04	1.2836E-01	6.2147E+03	7.5094E+07	7.5100E+07	5.3640E-28	2.2753E-16	1.6251E-51	6.8936E-40	4.9237E-75	2.0886E-63
Aroclor-1260	8.25E+01	3.88E-02		7.21E-01		4.2160E+02	8.7286E-03	7.2011E-01	3.0639E+05	4.2129E+08	4.2160E+08	1.4913E-10	7.2031E+00	2.5480E-18	1.2307E-07	4.3533E-26	2.1026E-15
Aroclor-1268	1.55E-01	1.18E-01		6.22E-02		3.6370E+01	2.8915E-01	4.4818E-02	1.0150E+07	2.6220E+07	3.6370E+07	8.1286E-04	1.0181E+05	2.2753E-06	2.8497E+02	6.3691E-09	7.9768E-01
Benzene	3.87E-01	1.00E+00		6.03E-01		3.5296E+02	1.3491E+00	5.2236E-01	4.7355E+07	3.0560E+08	3.5296E+08	6.7453E-01	1.7611E+08	3.3657E-01	8.7875E+07	1.6794E-01	4.3847E+07
Benzidine	9.95E+02	2.74E-02		2.91E-04		1.6999E-01	2.9200E-07	2.9054E-04	1.0250E+01	1.6998E+05	1.6999E+05	3.0047E-18	1.7491E-06	3.0917E-29	1.7998E-17	3.1813E-40	1.8520E-28
Benzo(a)anthracene	2.55E+03	2.14E+00		2.53E-01		1.4803E+02	9.9224E-05	2.5302E-01	3.4830E+03	1.4803E+08	1.4803E+08	7.1819E-05	1.0715E+08	5.1983E-05	7.7553E+07	3.7626E-05	5.6133E+07
Benzo(a)pyrene	3.08E+03	1.61E+00		1.05E-01		6.1336E+01	3.4094E-05	1.0484E-01	1.1968E+03	6.1335E+07	6.1336E+07	2.2144E-05	3.9838E+07	1.4383E-05	2.5875E+07	9.3415E-06	1.6806E+07
Benzo(b)fluoranthene	9.65E+03	2.66E+00		1.79E-01		1.0499E+02	1.8606E-05	1.7946E-01	6.5310E+02	1.0499E+08	1.0499E+08	1.4331E-05	8.0867E+07	1.1038E-05	6.2286E+07	8.5016E-06	4.7974E+07
Benzo(g,h,i)perylene	3.08E+03	3.40E+00		1.14E-02		6.6559E+00	3.6997E-06	1.1377E-02	1.2987E+02	6.6558E+06	6.6559E+06	3.0174E-06	5.4283E+06	2.4609E-06	4.4272E+06	2.0070E-06	3.6107E+06
Benzo(k)fluoranthene	1.50E-03	8.35E+00		1.86E-02		1.0880E+01	3.0239E-01	4.5359E-04	1.0615E+07	2.6537E+05	1.0880E+07	2.7830E-01	9.8630E+06	2.5229E-01	8.9410E+06	2.2871E-01	8.1053E+06
Benzoic acid	1.37E-02	1.92E-02		8.56E-03		5.0064E+00	1.1617E-01	1.5870E-03	4.0779E+06	9.2844E+05	5.0064E+06	2.3364E-17	9.9422E-10	4.6398E-33	1.9744E-25	9.2142E-49	3.9210E-41
bis(2-Chloroethoxy)methane	1.90E-01	NA		1.14E-02		6.6559E+00	4.5508E-02	8.6464E-03	1.5974E+06	5.0585E+06	6.6559E+06	4.5508E-02	6.6313E+06	4.5339E-02	6.6068E+06	4.5172E-02	6.5824E+06
bis(2-Chloroethyl)ether	1.53E-01	5.77E-01		1.14E-02		6.6559E+00	5.3538E-02	8.1646E-03	1.8793E+06	4.7766E+06	6.6559E+06	1.6095E-02	1.9922E+06	4.8175E-03	5.9631E+05	1.4420E-03	1.7849E+05

Table C.2 Model calculations (Design Inv.).

	Leachate Concentration (mg/L) (4 Yr)	Remaining ICDF Contaminant Mass (mg) (4 Yr)	Leachate Concentration (mg/L) (5 Yr)	Remaining ICDF Contaminant Mass (mg) (5 Yr)	Leachate Concentration (mg/L) (6 Yr)	Remaining ICDF Contaminant Mass (mg) (6 Yr)	Leachate Concentration (mg/L) (7 Yr)	Remaining ICDF Contaminant Mass (mg) (7 Yr)	Leachate Concentration (mg/L) (8 Yr)	Remaining ICDF Contaminant Mass (mg) (8 Yr)	Leachate Concentration (mg/L) (9 Yr)	Remaining ICDF Contaminant Mass (mg) (9 Yr)	Leachate Concentration (mg/L) (10 Yr)	Remaining ICDF Contaminant Mass (mg) (10 Yr)	Leachate Concentration (mg/L) (11 Yr)	Remaining ICDF Contaminant Mass (mg) (11 Yr)
1,3-Dichlorobenzene	5.7976E-05	5.4237E+04	1.7419E-05	1.6296E+04	5.2335E-06	4.8960E+03	1.5724E-06	1.4710E+03	4.7243E-07	4.4197E+02	1.4194E-07	1.3279E+02	4.2647E-08	3.9897E+01	1.2813E-08	1.1987E+01
1,4-Dichlorobenzene	4.0593E-02	2.0612E+06	1.2075E-02	6.1313E+05	3.5918E-03	1.8238E+05	1.0684E-03	5.4251E+04	3.1781E-04	1.6138E+04	9.4536E-05	4.8003E+03	2.8121E-05	1.4279E+03	8.3648E-06	4.2474E+02
1,4-Dioxane	3.5675E-08	8.4717E+01	1.0568E-08	2.5097E+01	3.1309E-09	7.4349E+00	9.2750E-10	2.2025E+00	2.7477E-10	6.5249E-01	8.1399E-11	1.9330E-01	2.4114E-11	5.7264E-02	7.1437E-12	1.6964E-02
2,4,5-Trichlorophenol	1.4852E-02	8.7898E+06	1.1315E-02	6.6964E+06	8.6204E-03	5.1016E+06	6.5674E-03	3.8866E+06	5.0033E-03	2.9610E+06	3.8117E-03	2.2558E+06	2.9039E-03	1.7186E+06	2.2123E-03	1.3093E+06
2,4,6-Trichlorophenol	1.4113E-02	3.5221E+06	1.0695E-02	2.6691E+06	8.1051E-03	2.0227E+06	6.1422E-03	1.5329E+06	4.6547E-03	1.1616E+06	3.5274E-03	8.8031E+05	2.6731E-03	6.6711E+05	2.0258E-03	5.0555E+05
2,4-Dichlorophenol	2.8756E-20	9.7841E-12	8.5303E-25	2.9024E-16	2.5305E-29	8.6097E-21	7.5064E-34	2.5540E-25	2.2267E-38	7.5763E-30	6.6054E-43	2.2474E-34	1.9594E-47	6.6669E-39	5.8125E-52	1.9777E-43
2,4-Dimethylphenol	3.3486E-56	1.1578E-48	6.0762E-70	2.1010E-62	1.1026E-83	3.8123E-76	2.0007E-97	6.9178E-90	3.6304E-111	1.2553E-103	6.5877E-125	2.2778E-117	1.1954E-138	4.1333E-131	2.1691E-152	7.5001E-145
2,4-Dinitrophenol	3.6769E-03	6.4066E+05	1.4080E-03	2.4532E+05	5.3915E-04	9.3941E+04	2.0645E-04	3.5972E+04	7.9057E-05	1.3775E+04	3.0273E-05	5.2747E+03	1.1592E-05	2.0198E+03	4.4390E-06	7.7344E+02
2,4-Dinitrotoluene	1.9426E-04	2.6375E+04	4.8739E-05	6.6174E+03	1.2228E-05	1.6603E+03	3.0681E-06	4.1657E+02	7.6978E-07	1.0452E+02	1.9314E-07	2.6223E+01	4.8457E-08	6.5792E+00	1.2158E-08	1.6507E+00
2,6-Dinitrotoluene	1.1238E-03	4.6237E+04	2.7941E-04	1.1496E+04	6.9470E-05	2.8583E+03	1.7273E-05	7.1066E+02	4.2945E-06	1.7669E+02	1.0678E-06	4.3931E+01	2.6548E-07	1.0923E+01	6.6006E-08	2.7157E+00
2-Butanone	7.2402E-58	1.6664E-48	1.3340E-71	3.0703E-62	2.4579E-85	5.6570E-76	4.5286E-99	1.0423E-89	8.3439E-113	1.9204E-103	1.5374E-126	3.5383E-117	2.8326E-140	6.5193E-131	5.2189E-154	1.2012E-144
2-Chloronaphthalene	4.5921E-09	2.8318E+00	1.1728E-10	7.2323E-02	2.9953E-12	1.8471E-03	7.6499E-14	4.7175E-05	1.9537E-15	1.2048E-06	4.9898E-17	3.0771E-08	1.2744E-18	7.8587E-10	3.2547E-20	2.0071E-11
2-Chlorophenol	6.8624E-03	3.8879E+05	2.9976E-03	1.6983E+05	1.3094E-03	7.4183E+04	5.7195E-04	3.2404E+04	2.4983E-04	1.4154E+04	1.0913E-04	6.1828E+03	4.7669E-05	2.7007E+03	2.0822E-05	1.1797E+03
2-Hexanone	1.2653E-04	1.5773E+06	1.2652E-04	1.5773E+06	1.2651E-04	1.5772E+06	1.2651E-04	1.5771E+06	1.2650E-04	1.5771E+06	1.2650E-04	1.5770E+06	1.2649E-04	1.5769E+06	1.2649E-04	1.5769E+06
2-Methylnaphthalene	1.7602E+00	2.9562E+08	1.7545E+00	2.9467E+08	1.7489E+00	2.9373E+08	1.7433E+00	2.9279E+08	1.7377E+00	2.9185E+08	1.7321E+00	2.9091E+08	1.7266E+00	2.8998E+08	1.7211E+00	2.8905E+08
2-Methylphenol	7.9281E-33	4.7090E-25	1.1142E-40	6.6179E-33	1.5658E-48	9.3005E-41	2.2005E-56	1.3070E-48	3.0925E-64	1.8369E-56	4.3461E-72	2.5815E-64	6.1079E-80	3.6279E-72	8.5837E-88	5.0985E-80
2-Nitroaniline	1.6975E-01	1.5546E+07	1.6875E-01	1.5455E+07	1.6776E-01	1.5365E+07	1.6678E-01	1.5274E+07	1.6580E-01	1.5185E+07	1.6483E-01	1.5096E+07	1.6386E-01	1.5007E+07	1.6290E-01	1.4919E+07
2-Nitrophenol	1.1485E-23	1.2558E-14	6.7254E-29	7.3541E-20	3.9384E-34	4.3065E-25	2.3063E-39	2.5219E-30	1.3506E-44	1.4768E-35	7.9088E-50	8.6481E-41	4.6313E-55	5.0643E-46	2.7121E-60	2.9656E-51
3,3'-Dichlorobenzidine	1.3953E-03	4.8225E+04	4.0709E-04	1.4070E+04	1.1877E-04	4.1049E+03	3.4651E-05	1.1976E+03	1.0110E-05	3.4941E+02	2.9495E-06	1.0194E+02	8.6053E-07	2.9742E+01	2.5106E-07	8.6773E+00
3-Methyl Butanal	2.1207E-03	1.2596E+05	2.1016E-03	1.2483E+05	2.0826E-03	1.2370E+05	2.0638E-03	1.2259E+05	2.0452E-03	1.2148E+05	2.0268E-03	1.2039E+05	2.0086E-03	1.1930E+05	1.9905E-03	1.1823E+05
3-Nitroaniline	1.6520E-02	1.5881E+07	1.6511E-02	1.5872E+07	1.6501E-02	1.5863E+07	1.6492E-02	1.5854E+07	1.6483E-02	1.5845E+07	1.6474E-02	1.5836E+07	1.6464E-02	1.5827E+07	1.6455E-02	1.5818E+07
4,6-Dinitro-2-methylphenol	1.9339E-14	4.8152E-04	4.0084E-17	9.9802E-07	8.3079E-20	2.0685E-09	1.7219E-22	4.2873E-12	3.5689E-25	8.8861E-15	7.3971E-28	1.8418E-17	1.5331E-30	3.8173E-20	3.1776E-33	7.9119E-23
4-Bromophenyl-phenylether	6.0581E-02	6.5240E+06	6.0278E-02	6.4915E+06	5.9977E-02	6.4591E+06	5.9678E-02	6.4268E+06	5.9380E-02	6.3948E+06	5.9084E-02	6.3629E+06	5.8789E-02	6.3311E+06	5.8496E-02	6.2995E+06
4-Chloro-3-methylphenol	8.0047E-02	1.0505E+07	7.9719E-02	1.0462E+07	7.9392E-02	1.0419E+07	7.9067E-02	1.0377E+07	7.8743E-02	1.0334E+07	7.8420E-02	1.0292E+07	7.8098E-02	1.0250E+07	7.7778E-02	1.0208E+07
4-Chloroaniline	5.2130E-03	2.3854E+07	5.2123E-03	2.3851E+07	5.2117E-03	2.3848E+07	5.2111E-03	2.3846E+07	5.2105E-03	2.3843E+07	5.2099E-03	2.3840E+07	5.2093E-03	2.3837E+07	5.2087E-03	2.3834E+07
4-Chlorophenyl-phenylether	2.8601E-02	6.5939E+06	2.8534E-02	6.5785E+06	2.8467E-02	6.5631E+06	2.8401E-02	6.5477E+06	2.8334E-02	6.5324E+06	2.8268E-02	6.5172E+06	2.8202E-02	6.5019E+06	2.8136E-02	6.4867E+06
4-Methyl-2-Pentanone	4.5273E-33	6.9135E-25	6.3976E-41	9.7698E-33	9.0408E-49	1.3806E-40	1.2776E-56	1.9510E-48	1.8054E-64	2.7570E-56	2.5513E-72	3.8960E-64	3.6053E-80	5.5056E-72	5.0948E-88	7.7802E-80
4-Methylphenol	1.4822E-32	8.8037E-25	2.0830E-40	1.2372E-32	2.9274E-48	1.7388E-40	4.1140E-56	2.4436E-48	5.7816E-64	3.4341E-56	8.1253E-72	4.8261E-64	1.1419E-79	6.7825E-72	1.6048E-87	9.5318E-80
4-Nitroaniline	1.6975E-01	1.5546E+07	1.6875E-01	1.5455E+07	1.6776E-01	1.5365E+07	1.6678E-01	1.5274E+07	1.6580E-01	1.5185E+07	1.6483E-01	1.5096E+07	1.6386E-01	1.5007E+07	1.6290E-01	1.4919E+07
4-Nitrophenol	4.7257E-81	4.9099E-71	1.6880E-100	1.7538E-90	6.0295E-120	6.2645E-110	2.1537E-139	2.2376E-129	7.6930E-159	7.9928E-149	2.7479E-178	2.8550E-168	9.8154E-198	1.0198E-187	3.5060E-217	3.6427E-207
Acenaphthene	5.7891E-06	1.7150E+04	6.3521E-07	1.8818E+03	6.9699E-08	2.0648E+02	7.6477E-09	2.2656E+01	8.3914E-10	2.4859E+00	9.2075E-11	2.7277E-01	1.0103E-11	2.9929E-02	1.1085E-12	3.2840E-03
Acenaphthylene	1.6580E-05	5.8697E+02	1.3837E-06	4.8987E+01	1.1548E-07	4.0883E+00	9.6376E-09	3.4120E-01	8.0433E-10	2.8476E-02	6.7127E-11	2.3765E-03	5.6022E-12	1.9834E-04	4.6755E-13	1.6553E-05
Acetone	7.0292E-55	4.0333E-47	1.2833E-68	7.3637E-61	2.3431E-82	1.3444E-74	4.2778E-96	2.4545E-88	7.8101E-110	4.4813E-102	1.4259E-123	8.1817E-116	2.6034E-137	1.4938E-129	4.7530E-151	2.7272E-143
Acetonitrile	7.2465E-07	4.7514E+01	1.8578E-07	1.2181E+01	4.7628E-08	3.1229E+00	1.2210E-08	8.0061E-01	3.1303E-09	2.0525E-01	8.0252E-10	5.2620E-02	2.0574E-10	1.3490E-02	5.2746E-11	3.4585E-03
Acrolein	3.8640E-17	1.3835E-09	2.7620E-20	9.8895E-13	1.9743E-23	7.0690E-16	1.4112E-26	5.0529E-19	1.0087E-29	3.6118E-22	7.2105E-33	2.5817E-25	5.1541E-36	1.8454E-28	3.6841E-39	1.3191E-31
Acrylonitrile	9.2271E-26	3.9844E-15	2.7170E-30	1.1732E-19	8.0006E-35	3.4547E-24	2.3559E-39	1.0173E-28	6.9371E-44	2.9955E-33	2.0427E-48	8.8206E-38	6.0149E-53	2.5973E-42	1.7712E-57	7.6481E-47
Anthracene	1.1178E-03	2.5380E+07	6.7816E-04	1.5397E+07	4.1142E-04	9.3411E+06	2.4959E-04	5.6669E+06	1.5142E-04	3.4379E+06	9.1862E-05	2.0857E+06	5.5729E-05	1.2653E+06	3.3809E-05	7.6763E+05
Aramite	1.3870E-06	6.6993E+04	1.3870E-06	6.6992E+04	1.3870E-06	6.6991E+04	1.3870E-06	6.6990E+04	1.3869E-06	6.6990E+04	1.3869E-06	6.6989E+04	1.3869E-06	6.6988E+04	1.3869E-06	6.6987E+04
Aroclor-1016	1.5964E-108	4.6702E-97	2.8658E-134	8.3839E-123	5.1446E-160	1.5051E-148	9.2355E-186	2.7019E-174	1.6579E-211	4.8503E-200	2.9763E-237	8.7073E-226	5.3430E-263	1.5631E-251	9.5917E-289	2.8061E-277
Aroclor-1254	1.4917E-98	6.3277E-87	4.5195E-122	1.9171E-110	1.3693E-145	5.8083E-134	4.1486E-169	1.7598E-157	1.2569E-192	5.3316E-181	3.8080E-216	1.6153E-204	1.1537E-239	4.8939E-228	3.4955E-263	1.4827E-251
Aroclor-1260	7.4377E-34	3.5924E-23	1.2708E-41	6.1378E-31	2.1711E-49	1.0487E-38	3.7095E-57	1.7917E-46	6.3377E-65	3.0611E-54	1.0828E-72	5.2300E-62	1.8500E-80	8.9357E-70	3.1609E-88	1.5267E-77
Aroclor-1268	1.7828E-11	2.2328E-03	4.9904E-14	6.2501E-06	1.3969E-16	1.7495E-08	3.9102E-19	4.8972E-11	1.0945E-21	1.3708E-13	3.0638E-24	3.8371E-16	8.5760E-27	1.0741E-18	2.4006E-29	3.0065E-21
Benzene	8.3795E-02	2.1878E+07	4.1811E-02	1.0917E+07	2.0862E-02	5.4470E+06	1.0410E-02	2.7179E+06	5.1941E-03	1.3561E+06	2.5917E-03	6.7667E+05	1.2932E-03	3.3763E+05	6.4525E-04	1.6847E+05
Benzidine	3.2735E-51	1.9056E-39	3.3683E-62	1.9608E-50	3.4659E-73	2.0177E-61	3.5663E-84	2.0761E-72	3.6697E-95	2.1363E-83	3.7760E-106	2.1982E-94	3.8854E-117	2.2619E-105	3.9980E-128	2.3274E-116
Benzo(a)anthracene	2.7234E-05	4.0630E+07	1.9712E-05	2.9408E+07	1.4268E-05	2.1286E+07	1.0327E-05	1.5407E+07	7.4749E-06	1.1152E+07	5.4104E-06	8.0716E+06	3.9161E-06	5.8423E+06	2.8345E-06	4.2287E+06
Benzo(a)pyrene	6.0673E-06	1.0915E+07	3.9407E-06	7.0894E+06	2.5595E-06	4.6046E+06	1.6624E-06	2.9907E+06	1.0797E-06	1.9424E+06	7.0127E-07	1.2616E+06	4.5548E-07	8.1941E+05	2.9583E-07	5.3220E+05
Benzo(b)fluoranthene	6.5481E-06	3.6951E+07	5.0435E-06	2.8460E+07	3.8847E-06	2.1921E+07	2.9921E-06	1.6884E+07	2.3046E-06	1.3004E+07	1.7750E-06	1.0016E+07	1.3672E-06	7.7149E+06	1.0530E-06	5.9422E+06
Benzo(g,h,i)perylene	1.6369E-06	2.9448E+06	1.3350E-06	2.4017E+06	1.0888E-06	1.9587E+06	8.8798E-07	1.5975E+06	7.2421E-07	1.3029E+06	5.9064E-07	1.0626E+06	4.8171E-07	8.6661E+05	3.9287E-07	7.0678E+05
Benzo(k)fluoranthene	2.0733E-01	7.3476E+06	1.8795E-01	6.6608E+06	1.7038E-01	6.0382E+06	1.5445E-01	5.4738E+06	1.4002E-01	4.9621E+06	1.2693E-01	4.4983E+06	1.1506E-01	4.0778E+06	1.0431E-01	3.6966E+06
Benzoic acid	1.8299E-64	7.7867E-57	3.6339E-80	1.5464E-72	7.2166E-96	3.0710E-88	1.4332E-111	6.0986E-104	2.8461E-127	1.2111E-119	5.6521E-143	2.4052E-135	1.1225E-158	4.7765E-151	2.2291E-174	9.4856E-167
bis(2-Chloroethoxy)methane	4.5005E-02	6.5581E+06	4.4839E-02	6.5339E+06	4.4673E-02	6.5098E+06	4.4508E-02	6.4857E+06	4.4344E-02	6.4618E+06	4.4180E-02	6.4379E+06	4.4017E-02	6.4141E+06	4.3855E-02	6.3905E+06
bis(2-Chloroethyl)ether	4.3161E-04	5.3424E+04	1.2919E-04	1.5991E+04	3.8668E-05	4.7863E+03	1.1574E-05	1.4326E+03	3.4643E-06	4.2882E+02	1.0369E-06	1.2835E+02	3.1037E-07	3.8418E+01	9.2901E-08	1.1499E+01

Table C.2 Model calculations (Design Inv.).

	Leachate Concentration (mg/L) (12 Yr)	Remaining ICDF Contaminant Mass (mg) (12 Yr)	Leachate Concentration (mg/L) (13 Yr)	Remaining ICDF Contaminant Mass (mg) (13 Yr)	Leachate Concentration (mg/L) (14 Yr)	Remaining ICDF Contaminant Mass (mg) (14 Yr)	Leachate Concentration (mg/L) (15 Yr)	Remaining ICDF Contaminant Mass (mg) (15 Yr)
1,3-Dichlorobenzene	3.8498E-09	3.6015E+00	1.1567E-09	1.0821E+00	3.4752E-10	3.2511E-01	1.0441E-10	9.7680E-02
1,4-Dichlorobenzene	2.4882E-06	1.2634E+02	7.4014E-07	3.7582E+01	2.2016E-07	1.1179E+01	6.5489E-08	3.3254E+00
1,4-Dioxane	2.1163E-12	5.0255E-03	6.2694E-13	1.4888E-03	1.8573E-13	4.4105E-04	5.5021E-14	1.3066E-04
2,4,5-Trichlorophenol	1.6854E-03	9.9745E+05	1.2840E-03	7.5990E+05	9.7822E-04	5.7892E+05	7.4525E-04	4.4104E+05
2,4,6-Trichlorophenol	1.5352E-03	3.8312E+05	1.1634E-03	2.9033E+05	8.8162E-04	2.2002E+05	6.6811E-04	1.6674E+05
2,4-Dichlorophenol	1.7242E-56	5.8666E-48	5.1149E-61	1.7403E-52	1.5173E-65	5.1625E-57	4.5009E-70	1.5314E-61
2,4-Dimethylphenol	3.9360E-166	1.3610E-158	7.1422E-180	2.4696E-172	1.2960E-193	4.4812E-186	2.3517E-207	8.1315E-200
2,4-Dinitrophenol	1.6998E-06	2.9617E+02	6.5090E-07	1.1341E+02	2.4925E-07	4.3428E+01	9.5443E-08	1.6630E+01
2,4-Dinitrotoluene	3.0504E-09	4.1416E-01	7.6533E-10	1.0391E-01	1.9202E-10	2.6071E-02	4.8177E-11	6.5412E-03
2,6-Dinitrotoluene	1.6411E-08	6.7522E-01	4.0804E-09	1.6788E-01	1.0145E-09	4.1741E-02	2.5224E-10	1.0378E-02
2-Butanone	9.6158E-168	2.2132E-158	1.7717E-181	4.0777E-172	3.2644E-195	7.5131E-186	6.0145E-209	1.3843E-199
2-Chloronaphthalene	8.3124E-22	5.1260E-13	2.1230E-23	1.3092E-14	5.4220E-25	3.3436E-16	1.3848E-26	8.5394E-18
2-Chlorophenol	9.0955E-06	5.1531E+02	3.9730E-06	2.2509E+02	1.7355E-06	9.8323E+01	7.5807E-07	4.2949E+01
2-Hexanone	1.2648E-04	1.5768E+06	1.2648E-04	1.5767E+06	1.2647E-04	1.5767E+06	1.2647E-04	1.5766E+06
2-Methylnaphthalene	1.7155E+00	2.8813E+08	1.7100E+00	2.8720E+08	1.7046E+00	2.8628E+08	1.6991E+00	2.8536E+08
2-Methylphenol	1.2063E-95	7.1652E-88	1.6953E-103	1.0070E-95	2.3825E-111	1.4151E-103	3.3483E-119	1.9888E-111
2-Nitroaniline	1.6195E-01	1.4832E+07	1.6100E-01	1.4745E+07	1.6005E-01	1.4659E+07	1.5912E-01	1.4573E+07
2-Nitrophenol	1.5882E-65	1.7366E-56	9.3004E-71	1.0170E-61	5.4462E-76	5.9553E-67	3.1893E-81	3.4874E-72
3,3'-Dichlorobenzidine	7.3249E-08	2.5316E+00	2.1371E-08	7.3861E-01	6.2349E-09	2.1549E-01	1.8191E-09	6.2870E-02
3-Methyl Butanal	1.9725E-03	1.1716E+05	1.9547E-03	1.1611E+05	1.9371E-03	1.1506E+05	1.9197E-03	1.1402E+05
3-Nitroaniline	1.6446E-02	1.5809E+07	1.6437E-02	1.5800E+07	1.6427E-02	1.5792E+07	1.6418E-02	1.5783E+07
4,6-Dinitro-2-methylphenol	6.5861E-36	1.6398E-25	1.3651E-38	3.3988E-28	2.8293E-41	7.0445E-31	5.8641E-44	1.4601E-33
4-Bromophenyl-phenylether	5.8204E-02	6.2681E+06	5.7914E-02	6.2368E+06	5.7625E-02	6.2057E+06	5.7337E-02	6.1747E+06
4-Chloro-3-methylphenol	7.7460E-02	1.0166E+07	7.7142E-02	1.0124E+07	7.6826E-02	1.0083E+07	7.6511E-02	1.0041E+07
4-Chloroaniline	5.2080E-03	2.3831E+07	5.2074E-03	2.3829E+07	5.2068E-03	2.3826E+07	5.2062E-03	2.3823E+07
4-Chlorophenyl-phenylether	2.8070E-02	6.4716E+06	2.8005E-02	6.4565E+06	2.7939E-02	6.4414E+06	2.7874E-02	6.4263E+06
4-Methyl-2-Pentanone	7.1997E-96	1.0995E-87	1.0174E-103	1.5537E-95	1.4377E-111	2.1956E-103	2.0317E-119	3.1026E-111
4-Methylphenol	2.2553E-95	1.3396E-87	3.1695E-103	1.8826E-95	4.4542E-111	2.6457E-103	6.2598E-119	3.7181E-111
4-Nitroaniline	1.6195E-01	1.4832E+07	1.6100E-01	1.4745E+07	1.6005E-01	1.4659E+07	1.5912E-01	1.4573E+07
4-Nitrophenol	1.2523E-236	1.3011E-226	4.4733E-256	4.6476E-246	1.5978E-275	1.6601E-265	5.7075E-295	5.9299E-285
Acenaphthene	1.2163E-13	3.6034E-04	1.3346E-14	3.9538E-05	1.4644E-15	4.3383E-06	1.6068E-16	4.7602E-07
Acenaphthylene	3.9020E-14	1.3814E-06	3.2565E-15	1.1529E-07	2.7178E-16	9.6218E-09	2.2682E-17	8.0301E-10
Acetone	8.6778E-165	4.9792E-157	1.5843E-178	9.0906E-171	2.8926E-192	1.6597E-184	5.2811E-206	3.0302E-198
Acetonitrile	1.3522E-11	8.8664E-04	3.4667E-12	2.2731E-04	8.8875E-13	5.8275E-05	2.2785E-13	1.4940E-05
Acrolein	2.6334E-42	9.4291E-35	1.8824E-45	6.7399E-38	1.3455E-48	4.8177E-41	9.6178E-52	3.4437E-44
Acrylonitrile	5.2154E-62	2.2521E-51	1.5357E-66	6.6314E-56	4.5221E-71	1.9527E-60	1.3316E-75	5.7499E-65
Anthracene	2.0511E-05	4.6570E+05	1.2443E-05	2.8252E+05	7.5490E-06	1.7140E+05	4.5797E-06	1.0398E+05
Aramite	1.3869E-06	6.6987E+04	1.3869E-06	6.6986E+04	1.3869E-06	6.6985E+04	1.3868E-06	6.6984E+04
Aroclor-1016	0.0000E+00	5.0374E-303	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Aroclor-1254	1.0590E-286	4.4922E-275	0.0000E+00	1.3610E-298	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Aroclor-1260	5.4004E-96	2.6084E-85	9.2268E-104	4.4565E-93	1.5764E-111	7.6141E-101	2.6934E-119	1.3009E-108
Aroclor-1268	6.7196E-32	8.4158E-24	1.8809E-34	2.3557E-26	5.2650E-37	6.5941E-29	1.4738E-39	1.8458E-31
Benzene	3.2196E-04	8.4060E+04	1.6065E-04	4.1943E+04	8.0158E-05	2.0928E+04	3.9996E-05	1.0443E+04
Benzidine	4.1138E-139	2.3948E-127	4.2330E-150	2.4642E-138	4.3557E-161	2.5356E-149	4.4819E-172	2.6091E-160
Benzo(a)anthracene	2.0516E-06	3.0608E+06	1.4850E-06	2.2154E+06	1.0748E-06	1.6035E+06	7.7799E-07	1.1607E+06
Benzo(a)pyrene	1.9214E-07	3.4567E+05	1.2480E-07	2.2451E+05	8.1055E-08	1.4582E+05	5.2645E-08	9.4709E+04
Benzo(b)fluoranthene	8.1107E-07	4.5768E+06	6.2471E-07	3.5252E+06	4.8117E-07	2.7152E+06	3.7061E-07	2.0913E+06
Benzo(g,h,i)perylene	3.2041E-07	5.7643E+05	2.6132E-07	4.7012E+05	2.1312E-07	3.8341E+05	1.7382E-07	3.1270E+05
Benzo(k)fluoranthene	9.4558E-02	3.3511E+06	8.5719E-02	3.0379E+06	7.7707E-02	2.7539E+06	7.0443E-02	2.4965E+06
Benzoic acid	4.4267E-190	1.8838E-182	8.7911E-206	3.7410E-198	1.7458E-221	7.4292E-214	3.4671E-237	1.4754E-229
bis(2-Chloroethoxy)methane	4.3693E-02	6.3669E+06	4.3531E-02	6.3433E+06	4.3371E-02	6.3199E+06	4.3211E-02	6.2966E+06
bis(2-Chloroethyl)ether	2.7807E-08	3.4419E+00	8.3231E-09	1.0302E+00	2.4913E-09	3.0837E-01	7.4568E-10	9.2300E-02

Table C.2 Model calculations (Design Inv.).

	Kd (mL/g) or (L/kg)	Half-Life in years	Isotope Specific Activity (Ci/g)	Design Inventory mg/kg from non-rads	pCi/kg from rads	Total Inventory (kg)	Initial Soil Water Concentration (mg/L)	Initial Soil Concentration (mg/kg)	Initial Contaminant Mass in Soil Water (mg)	Initial Contaminant Mass on Soil (mg)	Remaining ICDF Contaminant Mass (mg) (0 Yr)	Leachate Concentration (mg/L) (1 Yr)	Remaining ICDF Contaminant Mass (mg) (1 Yr)	Leachate Concentration (mg/L) (2 Yr)	Remaining ICDF Contaminant Mass (mg) (2 Yr)	Leachate Concentration (mg/L) (3 Yr)	Remaining ICDF Contaminant Mass (mg) (3 Yr)
bis(2-Chloroisopropyl)ether	3.78E+04	5.42E-01		1.14E-02		6.6559E+00	3.0137E-07	1.1377E-02	1.0579E+01	6.6559E+06	6.6559E+06	8.3980E-08	1.8547E+06	2.3402E-08	5.1683E+05	6.5211E-09	1.4402E+05
bis(2-Ethylhexyl)phthalate	1.98E-01	5.47E-01		1.47E-01		8.6079E+01	5.7140E-01	1.1285E-01	2.0057E+07	6.6022E+07	8.6079E+07	1.6076E-01	2.4131E+07	4.5068E-02	6.7649E+06	1.2634E-02	1.8965E+06
Butane,1,1,3,4-Tetrachloro-	1.44E+02	1.54E-01		7.89E-03		4.6151E+00	5.4854E-05	7.8852E-03	1.9255E+03	4.6131E+06	4.6151E+06	6.0102E-07	5.0566E+04	6.5851E-09	5.5403E+02	7.2151E-11	6.0703E+00
Butylbenzylphthalate	8.48E+00	2.49E-01		6.79E-02		3.9728E+01	7.9564E-03	6.7430E-02	2.7929E+05	3.9449E+07	3.9728E+07	4.9350E-04	2.4639E+06	3.0606E-05	1.5281E+05	1.8982E-06	9.4771E+03
Carbazole	1.14E-01	NA		3.23E-02		1.8923E+01	1.8563E-01	2.1208E-02	6.5160E+06	1.2407E+07	1.8923E+07	1.8563E-01	1.8823E+07	1.8465E-01	1.8723E+07	1.8367E-01	1.8624E+07
Carbon Disulfide	5.60E-01	4.11E-03		4.55E-02		2.6636E+01	7.3433E-02	4.1122E-02	2.5776E+06	2.4058E+07	2.6636E+07	4.1234E-75	1.4934E-66	2.3119E-148	8.3734E-140	1.2963E-221	4.6949E-213
Chlorobenzene	3.68E-02	5.97E-01		6.57E-03		3.8442E+00	6.7916E-02	2.4959E-03	2.3840E+06	1.4602E+06	3.8442E+06	2.1279E-02	1.1930E+06	6.6034E-03	3.7020E+05	2.0492E-03	1.1488E+05
Chloroethane	8.75E-02	4.43E-03		3.02E-06		1.7648E-03	2.0451E-05	1.7894E-06	7.1787E+02	1.0469E+03	1.7648E+03	2.7144E-73	2.3277E-65	3.5803E-141	3.0702E-133	4.7223E-209	4.0495E-201
Chloromethane	9.95E+02	NA		3.53E-04		2.0637E-01	3.5450E-07	3.5272E-04	1.2444E+01	2.0636E+05	2.0637E+05	3.5450E-07	2.0637E+05	3.5450E-07	2.0637E+05	3.5450E-07	2.0637E+05
Chrysene	NA	3.76E+00		2.65E-01		1.5515E+02	4.4199E+00	0.0000E+00	1.5515E+08	0.0000E+00	1.5515E+08	3.6758E+00	1.2704E+08	3.0099E+00	1.0403E+08	2.4647E+00	8.5185E+07
Decane, 3,4-Dimethyl	3.35E-01	NA		1.61E-04		9.4413E-02	4.0856E-04	1.3687E-04	1.4341E+04	8.0072E+04	9.4413E+04	4.0856E-04	9.4192E+04	4.0760E-04	9.3972E+04	4.0665E-04	9.3753E+04
Diacetone alcohol	9.50E+03	3.84E-02		4.32E+00		2.5276E+03	4.5478E-04	4.3205E+00	1.5964E+04	2.5276E+09	2.5276E+09	6.4495E-12	3.5845E+01	9.1462E-20	5.0834E-07	1.2971E-27	7.2089E-15
Dibenz(a,h)anthracene	1.94E+01	3.57E+00		1.14E-02		6.6559E+00	5.8463E-04	1.1342E-02	2.0522E+04	6.6354E+06	6.6559E+06	4.8133E-04	5.4795E+06	3.9626E-04	4.5111E+06	3.2623E-04	3.7138E+06
Dibenzofuran	7.20E-01	5.94E-02		3.24E-01		1.8965E+02	4.1559E-01	2.9923E-01	1.4588E+07	1.7506E+08	1.8965E+08	3.5275E-06	1.6078E+03	2.9906E-11	1.3631E-02	2.5354E-16	1.1556E-07
Diethylphthalate	NA	1.62E-01		1.14E-02		6.6591E+00	1.8971E-01	0.0000E+00	6.6591E+06	0.0000E+00	6.6591E+06	2.6048E-03	9.0028E+04	3.5216E-05	1.2171E+03	4.7610E-07	1.6455E+01
Dimethyl Disulfide	1.72E-01	NA		2.96E-03		1.7309E+00	1.2733E-02	2.1946E-03	4.4696E+05	1.2839E+06	1.7309E+06	1.2733E-02	1.7240E+06	1.2683E-02	1.7172E+06	1.2632E-02	1.7104E+06
Dimethylphthalate	8.48E+01	2.19E-02		1.14E-02		6.6559E+00	1.3415E-04	1.1369E-02	4.7088E+03	6.6512E+06	6.6559E+06	2.4722E-18	1.2266E-07	4.5560E-32	2.2605E-21	8.3963E-46	4.1659E-35
Di-n-butylphthalate	2.08E+05	5.00E-01		2.39E-02		1.3954E+01	1.1467E-07	2.3851E-02	4.0251E+00	1.3954E+07	1.3954E+07	2.8667E-08	3.4884E+06	7.1667E-09	8.7210E+05	1.7917E-09	2.1802E+05
Di-n-octylphthalate	NA	5.19E-01		2.62E-02		1.5339E+01	4.3698E-01	0.0000E+00	1.5339E+07	0.0000E+00	1.5339E+07	1.1499E-01	3.9741E+06	2.9791E-02	1.0296E+06	7.7185E-03	2.6677E+05
Eicosane	NA	7.19E-02		2.83E-03		1.6567E+00	4.7196E-02	0.0000E+00	1.6567E+06	0.0000E+00	1.6567E+06	3.0699E-06	1.0610E+02	1.9661E-10	6.7951E-03	1.2592E-14	4.3519E-07
Ethyl cyanide	5.10E-01	NA		1.88E-05		1.0999E-02	3.2984E-05	1.6822E-05	1.1578E+03	9.8415E+03	1.0999E+04	3.2984E-05	1.0981E+04	3.2931E-05	1.0964E+04	3.2878E-05	1.0946E+04
Ethylbenzene	1.05E+00	3.21E-01		7.81E-02		4.5678E+01	7.0498E-02	7.3847E-02	2.4746E+06	4.3203E+07	4.5678E+07	8.1109E-03	5.2509E+06	9.3239E-04	6.0361E+05	1.0718E-04	6.9388E+04
Famphur	2.68E+02	3.15E-01		5.81E-05		3.3998E-02	2.1719E-07	5.8099E-05	7.6240E+00	3.3990E+04	3.3998E+04	2.4066E-08	3.7671E+03	2.6666E-09	4.1741E+02	2.9547E-10	4.6251E+01
Fluoranthene	3.45E+01	1.60E+00		7.62E-01		4.4606E+02	2.2061E-02	7.6112E-01	7.7440E+05	4.4528E+08	4.4606E+08	1.4305E-02	2.8922E+08	9.2754E-03	1.8753E+08	6.0142E-03	1.2160E+08
Fluorene	NA	2.52E-01		1.84E-01		1.0739E+02	3.0594E+00	0.0000E+00	1.0739E+08	0.0000E+00	1.0739E+08	1.9558E-01	6.7598E+06	1.2311E-02	4.2550E+05	7.7492E-04	2.6783E+04
Heptadecane, 2,6,10,15-Tetra	1.38E+02	NA		3.44E-03		2.0117E+00	2.4997E-05	3.4371E-03	8.7745E+02	2.0108E+06	2.0117E+06	2.4997E-05	2.0117E+06	2.4997E-05	2.0117E+06	2.4997E-05	2.0117E+06
Hexachlorobenzene	1.34E+02	8.35E+00		1.14E-02		6.6559E+00	8.4706E-05	1.1372E-02	2.9734E+03	6.6529E+06	6.6559E+06	7.7958E-05	6.1256E+06	7.1748E-05	5.6376E+06	6.6032E-05	5.1885E+06
Hexachlorobutadiene	5.00E+02	5.70E-01		2.07E-02		1.2099E+01	4.1358E-05	2.0679E-02	1.4517E+03	1.2098E+07	1.2099E+07	1.2255E-05	3.5852E+06	3.6312E-06	1.0623E+06	1.0760E-06	3.1478E+05
Hexachlorocyclopentadiene	4.45E+00	8.66E-02		1.14E-02		6.6559E+00	2.5226E-03	1.1226E-02	8.8548E+04	6.5673E+06	6.6559E+06	8.4182E-07	2.2207E+03	2.8087E-10	7.4092E-01	9.3709E-14	2.4720E-04
Hexachloroethane	8.68E+03	5.70E-01		1.14E-02		6.6559E+00	1.3114E-06	1.1377E-02	4.6035E+01	6.6558E+06	6.6559E+06	3.8860E-07	1.9722E+06	1.1515E-07	5.8439E+05	3.4119E-08	1.7316E+05
Indeno(1,2,3-cd)pyrene	1.18E-02	3.64E+00		1.14E-02		6.6559E+00	1.5855E-01	1.8639E-03	5.5654E+06	1.0905E+06	6.6559E+06	1.3108E-01	5.4321E+06	1.0698E-01	4.4333E+06	8.7312E-02	3.6182E+06
Isobutyl alcohol	1.17E-01	2.47E-02		1.88E-05		1.0999E-02	1.0622E-04	1.2428E-05	3.7286E+03	7.2707E+03	1.0999E+04	6.5731E-17	6.7710E-09	4.0463E-29	4.1682E-21	2.4909E-41	2.5659E-33
Isophorone	2.24E-03	9.59E-02		1.14E-02		6.6583E+00	1.8287E-01	4.0903E-04	6.4190E+06	2.3929E+05	6.6583E+06	1.3268E-04	4.7595E+03	9.4846E-08	3.4022E+00	6.7798E-11	2.4319E-03
Isopropyl Alcohol/2-propanol	1.38E+02	2.15E-02		2.12E-03		1.2413E+00	1.5424E-05	2.1208E-03	5.4141E+02	1.2407E+06	1.2413E+06	1.5139E-19	1.2184E-08	1.4860E-33	1.1959E-22	1.4586E-47	1.1738E-36
Kepone	3.35E-01	2.83E+00		9.92E-02		5.8035E+01	2.5114E-01	8.4131E-02	8.8155E+06	4.9220E+07	5.8035E+07	1.9654E-01	4.5311E+07	1.5345E-01	3.5377E+07	1.1980E-01	2.7621E+07
Mesityl oxide	5.50E-03	3.84E-02		8.48E-02		4.9582E+01	1.2939E+00	7.1165E-03	4.5419E+07	4.1634E+06	4.9582E+07	1.8349E-08	6.9324E-01	2.5655E-16	9.6925E-09	3.5870E-24	1.3551E-16
Methyl Acetate	2.50E-02	NA		4.84E-04		2.8324E-01	5.6958E-03	1.4239E-04	1.9993E+05	8.3306E+04	2.8324E+05	5.6958E-03	2.8016E+05	5.6339E-03	2.7712E+05	5.5727E-03	2.7411E+05
Methylene Chloride	5.00E+00	2.77E-03		8.36E-02		4.8918E+01	1.6525E-02	8.2624E-02	5.8006E+05	4.8338E+07	4.8918E+07	2.9849E-111	8.8345E-102	5.3907E-220	1.5955E-210	0.0000E+00	0.0000E+00
Naphthalene	1.62E-01	3.55E-01		4.25E-01		2.4872E+02	1.9193E+00	3.0997E-01	6.7372E+07	1.8134E+08	2.4872E+08	2.7207E-01	3.5110E+07	3.8407E-02	4.9562E+06	5.4217E-03	6.9964E+05
Nitrobenzene	6.00E-02	5.43E-01		1.14E-02		6.6559E+00	9.4807E-02	5.6884E-03	3.3279E+06	3.3279E+06	6.6559E+06	2.6436E-02	1.8416E+06	7.3146E-03	5.0957E+05	2.0239E-03	1.4099E+05
N-Nitroso-di-n-propylamine	3.23E+00	5.58E-01		1.14E-02		6.6559E+00	3.4633E-03	1.1169E-02	1.2157E+05	6.5343E+06	6.6559E+06	9.9898E-04	1.9193E+06	2.8807E-04	5.5348E+05	8.3071E-05	1.5960E+05
N-Nitrosodiphenylamine	NA	1.21E-01		1.14E-02		6.6559E+00	1.8961E-01	0.0000E+00	6.6559E+06	0.0000E+00	6.6559E+06	6.0352E-04	2.0859E+04	1.8914E-06	6.5370E+01	5.9274E-09	2.0486E-01
Octane,2,3,7-Trimethyl	NA	NA		1.61E-04		9.4413E-02	2.6897E-03	0.0000E+00	9.4413E+04	0.0000E+00	9.4413E+04	2.6897E-03	9.2960E+04	2.6483E-03	9.1530E+04	2.6075E-03	9.0122E+04
o-Toluenesulfonamide	1.48E+00	NA		5.06E-03		2.9584E+00	3.2836E-03	4.8597E-03	1.1526E+05	2.8431E+06	2.9584E+06	3.2836E-03	2.9566E+06	3.2816E-03	2.9548E+06	3.2797E-03	2.9531E+06
Pentachlorophenol	1.20E+01	2.15E+00		5.59E-02		3.2699E+01	4.6313E-03	5.5614E-02	1.6257E+05	3.2536E+07	3.2699E+07	3.3526E-03	2.3669E+07	2.4267E-03	1.7132E+07	1.7565E-03	1.2401E+07
Phenanthrene	7.20E-02	5.94E-01		1.17E+00		6.8344E+02	8.8500E+00	6.3720E-01	3.1065E+08	3.7278E+08	6.8344E+08	2.7543E+00	2.1122E+08	8.5123E-01	6.5276E+07	2.6307E-01	2.0173E+07
Phenol	5.23E-01	1.03E-02		7.98E-02		4.6674E+01	1.3696E-01	7.1563E-02	4.8077E+06	4.1867E+07	4.6674E+07	6.8604E-31	2.3342E-22	3.4309E-60	1.1673E-51	1.7158E-89	5.8379E-81
Phenol,2,6-Bis(1,1-Dimethyl)	NA	2.19E-02		4.05E-03		2.3667E+00	6.7423E-02	0.0000E+00	2.3667E+06	0.0000E+00	2.3667E+06	1.2426E-15	4.2945E-08	2.2547E-29	7.7927E-22	4.0913E-43	1.4140E-35
p-Toluenesulfonamide	2.63E+02	NA		5.06E-03		2.9584E+00	1.9259E-05	5.0556E-03	6.7605E+02	2.9577E+06	2.9584E+06	1.9259E-05	2.9584E+06	1.9259E-05	2.9584E+06	1.9259E-05	2.9583E+06
Pyrene	1.79E-02	5.78E+00		2.53E-01		1.4817E+02	3.2501E+00	5.8255E-02	1.1409E+08	3.4081E+07	1.4817E+08	2.8825E+00	1.2985E+08	2.5262E+00	1.1380E+08	2.2140E+00	9.9735E+07
RDX	2.28E+00	NA		0.00E+00		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Styrene	6.63E-01	3.08E-01		1.03E-06		5.9996E-04	1.4194E-06	9.4035E-07	4.9824E+01	5.5014E+02	5.9996E+02	1.4920E-07	6.2983E+01	1.5662E-08	6.6118E+00	1.6442E-09	6.9409E-01

Table C.2 Model calculations (Design Inv.).

	Leachate Concentration (mg/L) (4 Yr)	Remaining ICDF Contaminant Mass (mg) (4 Yr)	Leachate Concentration (mg/L) (5 Yr)	Remaining ICDF Contaminant Mass (mg) (5 Yr)	Leachate Concentration (mg/L) (6 Yr)	Remaining ICDF Contaminant Mass (mg) (6 Yr)	Leachate Concentration (mg/L) (7 Yr)	Remaining ICDF Contaminant Mass (mg) (7 Yr)	Leachate Concentration (mg/L) (8 Yr)	Remaining ICDF Contaminant Mass (mg) (8 Yr)	Leachate Concentration (mg/L) (9 Yr)	Remaining ICDF Contaminant Mass (mg) (9 Yr)	Leachate Concentration (mg/L) (10 Yr)	Remaining ICDF Contaminant Mass (mg) (10 Yr)	Leachate Concentration (mg/L) (11 Yr)	Remaining ICDF Contaminant Mass (mg) (11 Yr)
bis(2-Chloroisopropyl)ether	1.8171E-09	4.0132E+04	5.0636E-10	1.1183E+04	1.4110E-10	3.1162E+03	3.9319E-11	8.6836E+02	1.0957E-11	2.4198E+02	3.0531E-12	6.7429E+01	8.5078E-13	1.8789E+01	2.3708E-13	5.2358E+00
bis(2-Ethylhexyl)phthalate	3.5419E-03	5.3166E+05	9.9292E-04	1.4904E+05	2.7835E-04	4.1783E+04	7.8034E-05	1.1713E+04	2.1876E-05	3.2837E+03	6.1327E-06	9.2055E+02	1.7192E-06	2.5807E+02	4.8197E-07	7.2346E+01
Butane,1,1,3,4-Tetrachloro-	7.9053E-13	6.6510E-02	8.6615E-15	7.2872E-04	9.4901E-17	7.9844E-06	1.0398E-18	8.7482E-08	1.1393E-20	9.5850E-10	1.2483E-22	1.0502E-11	1.3677E-24	1.1507E-13	1.4985E-26	1.2607E-15
Butylbenzylphthalate	1.1772E-07	5.8776E+02	7.3011E-09	3.6452E+01	4.5281E-10	2.2607E+00	2.8083E-11	1.4021E-01	1.7417E-12	8.6956E-03	1.0802E-13	5.3930E-04	6.6990E-15	3.3447E-05	4.1547E-16	2.0743E-06
Carbazole	1.8269E-01	1.8526E+07	1.8173E-01	1.8427E+07	1.8076E-01	1.8330E+07	1.7981E-01	1.8233E+07	1.7885E-01	1.8136E+07	1.7791E-01	1.8040E+07	1.7696E-01	1.7944E+07	1.7603E-01	1.7849E+07
Carbon Disulfide	7.2681E-295	2.6324E-286	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Chlorobenzene	6.3593E-04	3.5651E+04	1.9734E-04	1.1064E+04	6.1241E-05	3.4333E+03	1.9005E-05	1.0654E+03	5.8976E-06	3.3063E+02	1.8302E-06	1.0260E+02	5.6796E-07	3.1841E+01	1.7625E-07	9.8810E+00
Chloroethane	6.2287E-277	5.3412E-269	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Chloromethane	3.5450E-07	2.0637E+05	3.5450E-07	2.0637E+05	3.5450E-07	2.0637E+05	3.5450E-07	2.0637E+05	3.5449E-07	2.0637E+05	3.5449E-07	2.0637E+05	3.5449E-07	2.0637E+05	3.5449E-07	2.0637E+05
Chrysene	2.0182E+00	6.9754E+07	1.6526E+00	5.7118E+07	1.3532E+00	4.6771E+07	1.1081E+00	3.8298E+07	9.0737E-01	3.1361E+07	7.4300E-01	2.5680E+07	6.0841E-01	2.1028E+07	4.9820E-01	1.7219E+07
Decane, 3,4-Dimethyl	4.0570E-04	9.3534E+04	4.0475E-04	9.3315E+04	4.0380E-04	9.3097E+04	4.0286E-04	9.2879E+04	4.0192E-04	9.2662E+04	4.0098E-04	9.2446E+04	4.0004E-04	9.2230E+04	3.9911E-04	9.2014E+04
Diacetone alcohol	1.8394E-35	1.0223E-22	2.6085E-43	1.4498E-30	3.6992E-51	2.0560E-38	5.2460E-59	2.9157E-46	7.4396E-67	4.1348E-54	1.0550E-74	5.8638E-62	1.4962E-82	8.3156E-70	2.1218E-90	1.1793E-77
Dibenz(a,h)anthracene	2.6857E-04	3.0575E+06	2.2110E-04	2.5171E+06	1.8203E-04	2.0722E+06	1.4986E-04	1.7060E+06	1.2337E-04	1.4045E+06	1.0157E-04	1.1563E+06	8.3616E-05	9.5191E+05	6.8838E-05	7.8367E+05
Dibenzofuran	2.1495E-21	9.7971E-13	1.8223E-26	8.3059E-18	1.5449E-31	7.0416E-23	1.3098E-36	5.9698E-28	1.1104E-41	5.0612E-33	9.4140E-47	4.2908E-38	7.9811E-52	3.6377E-43	6.7663E-57	3.0840E-48
Diethylphthalate	6.4367E-09	2.2246E-01	8.7021E-11	3.0076E-03	1.1765E-12	4.0662E-05	1.5905E-14	5.4973E-07	2.1503E-16	7.4320E-09	2.9072E-18	1.0048E-10	3.9303E-20	1.3584E-12	5.3136E-22	1.8365E-14
Dimethyl Disulfide	1.2582E-02	1.7036E+06	1.2532E-02	1.6968E+06	1.2482E-02	1.6901E+06	1.2433E-02	1.6833E+06	1.2383E-02	1.6766E+06	1.2334E-02	1.6700E+06	1.2285E-02	1.6634E+06	1.2236E-02	1.6567E+06
Dimethylphthalate	1.5473E-59	7.6774E-49	2.8516E-73	1.4149E-62	5.2552E-87	2.6074E-76	9.6848E-101	4.8053E-90	1.7848E-114	8.8556E-104	3.2892E-128	1.6320E-117	6.0618E-142	3.0076E-131	1.1171E-155	5.5427E-145
Di-n-butylphthalate	4.4792E-10	5.4506E+04	1.1198E-10	1.3627E+04	2.7995E-11	3.4066E+03	6.9987E-12	8.5166E+02	1.7497E-12	2.1291E+02	4.3742E-13	5.3229E+01	1.0936E-13	1.3307E+01	2.7339E-14	3.3268E+00
Di-n-octylphthalate	1.9998E-03	6.9116E+04	5.1811E-04	1.7907E+04	1.3424E-04	4.6395E+03	3.4779E-05	1.2020E+03	9.0108E-06	3.1143E+02	2.3346E-06	8.0688E+01	6.0486E-07	2.0905E+01	1.5671E-07	5.4162E+00
Eicosane	8.0641E-19	2.7871E-11	5.1646E-23	1.7850E-15	3.3076E-27	1.1432E-19	2.1183E-31	7.3214E-24	1.3567E-35	4.6889E-28	8.6886E-40	3.0030E-32	5.5645E-44	1.9232E-36	3.5638E-48	1.2317E-40
Ethyl cyanide	3.2824E-05	1.0928E+04	3.2771E-05	1.0910E+04	3.2718E-05	1.0893E+04	3.2665E-05	1.0875E+04	3.2612E-05	1.0858E+04	3.2559E-05	1.0840E+04	3.2507E-05	1.0822E+04	3.2454E-05	1.0805E+04
Ethylbenzene	1.2321E-05	7.9765E+03	1.4164E-06	9.1694E+02	1.6282E-07	1.0541E+02	1.8717E-08	1.2117E+01	2.1516E-09	1.3929E+00	2.4733E-10	1.6012E-01	2.8432E-11	1.8407E-02	3.2684E-12	2.1159E-03
Famphur	3.2739E-11	5.1247E+00	3.6277E-12	5.6784E-01	4.0196E-13	6.2919E-02	4.4539E-14	6.9717E-03	4.9351E-15	7.7249E-04	5.4682E-16	8.5595E-05	6.0590E-17	9.4843E-06	6.7136E-18	1.0509E-06
Fluoranthene	3.8996E-03	7.8844E+07	2.5285E-03	5.1123E+07	1.6395E-03	3.3148E+07	1.0631E-03	2.1493E+07	6.8929E-04	1.3936E+07	4.4694E-04	9.0363E+06	2.8980E-04	5.8592E+06	1.8790E-04	3.7991E+06
Fluorene	4.8777E-05	1.6858E+03	3.0703E-06	1.0612E+02	1.9326E-07	6.6795E+00	1.2165E-08	4.2044E-01	7.6572E-10	2.6465E-02	4.8198E-11	1.6658E-03	3.0338E-12	1.0486E-04	1.9096E-13	6.6001E-06
Heptadecane, 2,6,10,15-Tetra	2.4996E-05	2.0116E+06	2.4996E-05	2.0116E+06	2.4996E-05	2.0116E+06	2.4996E-05	2.0116E+06	2.4996E-05	2.0116E+06	2.4996E-05	2.0116E+06	2.4995E-05	2.0116E+06	2.4995E-05	2.0115E+06
Hexachlorobenzene	6.0771E-05	4.7752E+06	5.5930E-05	4.3947E+06	5.1474E-05	4.0446E+06	4.7374E-05	3.7224E+06	4.3600E-05	3.4259E+06	4.0126E-05	3.1529E+06	3.6929E-05	2.9018E+06	3.3987E-05	2.6706E+06
Hexachlorobutadiene	3.1883E-07	9.3273E+04	9.4472E-08	2.7638E+04	2.7993E-08	8.1895E+03	8.2947E-09	2.4266E+03	2.4578E-09	7.1904E+02	7.2828E-10	2.1306E+02	2.1580E-10	6.3133E+01	6.3944E-11	1.8707E+01
Hexachlorocyclopentadiene	3.1266E-17	8.2478E-08	1.0432E-20	2.7518E-11	3.4804E-24	9.1812E-15	1.1612E-27	3.0633E-18	3.8743E-31	1.0220E-21	1.2926E-34	3.4100E-25	4.3128E-38	1.1377E-28	1.4389E-41	3.7959E-32
Hexachloroethane	1.0110E-08	5.1311E+04	2.9957E-09	1.5204E+04	8.8767E-10	4.5051E+03	2.6303E-10	1.3349E+03	7.7939E-11	3.9556E+02	2.3094E-11	1.1721E+02	6.8431E-12	3.4730E+01	2.0277E-12	1.0291E+01
Indeno(1,2,3-cd)pyrene	7.1259E-02	2.9530E+06	5.8157E-02	2.4100E+06	4.7464E-02	1.9669E+06	3.8737E-02	1.6053E+06	3.1615E-02	1.3101E+06	2.5802E-02	1.0692E+06	2.1058E-02	8.7264E+05	1.7186E-02	7.1219E+05
Isobutyl alcohol	1.5333E-53	1.5795E-45	9.4391E-66	9.7233E-58	5.8106E-78	5.9856E-70	3.5769E-90	3.6846E-82	2.2019E-102	2.2682E-94	1.3555E-114	1.3963E-106	8.3441E-127	8.5954E-119	5.1366E-139	5.2912E-131
Isophorone	4.8463E-14	1.7384E-06	3.4642E-17	1.2426E-09	2.4763E-20	8.8827E-13	1.7701E-23	6.3495E-16	1.2653E-26	4.5388E-19	9.0447E-30	3.2444E-22	6.4653E-33	2.3192E-25	4.6216E-36	1.6578E-28
Isopropyl Alcohol/2-propanol	1.4316E-61	1.1521E-50	1.4052E-75	1.1309E-64	1.3793E-89	1.1100E-78	1.3538E-103	1.0895E-92	1.3288E-117	1.0694E-106	1.3043E-131	1.0496E-120	1.2802E-145	1.0303E-134	1.2566E-159	1.0112E-148
Kepone	9.3538E-02	2.1565E+07	7.3030E-02	1.6837E+07	5.7019E-02	1.3146E+07	4.4518E-02	1.0263E+07	3.4757E-02	8.0133E+06	2.7137E-02	6.2564E+06	2.1187E-02	4.8847E+06	1.6542E-02	3.8138E+06
Mesityl oxide	5.0151E-32	1.8947E-24	7.0119E-40	2.6491E-32	9.8037E-48	3.7038E-40	1.3707E-55	5.1785E-48	1.9164E-63	7.2403E-56	2.6795E-71	1.0123E-63	3.7463E-79	1.4153E-71	5.2379E-87	1.9789E-79
Methyl Acetate	5.5122E-03	2.7113E+05	5.4523E-03	2.6819E+05	5.3931E-03	2.6528E+05	5.3345E-03	2.6239E+05	5.2766E-03	2.5954E+05	5.2193E-03	2.5673E+05	5.1626E-03	2.5394E+05	5.1065E-03	2.5118E+05
Methylene Chloride	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Naphthalene	7.6534E-04	9.8764E+04	1.0804E-04	1.3942E+04	1.5251E-05	1.9681E+03	2.1529E-06	2.7782E+02	3.0391E-07	3.9218E+01	4.2901E-08	5.5362E+00	6.0561E-09	7.8151E-01	8.5490E-10	1.1032E-01
Nitrobenzene	5.6000E-04	3.9012E+04	1.5495E-04	1.0794E+04	4.2872E-05	2.9867E+03	1.1862E-05	8.2639E+02	3.2823E-06	2.2866E+02	9.0817E-07	6.3267E+01	2.5128E-07	1.7506E+01	6.9529E-08	4.8437E+00
N-Nitroso-di-n-propylamine	2.3955E-05	4.6025E+04	6.9079E-06	1.3272E+04	1.9920E-06	3.8273E+03	5.7443E-07	1.1037E+03	1.6565E-07	3.1826E+02	4.7768E-08	9.1776E+01	1.3775E-08	2.6465E+01	3.9722E-09	7.6317E+00
N-Nitrosodiphenylamine	1.8576E-11	6.4202E-04	5.8215E-14	2.0120E-06	1.8244E-16	6.3055E-09	5.7174E-19	1.9761E-11	1.7918E-21	6.1928E-14	5.6153E-24	1.9408E-16	1.7598E-26	6.0822E-19	5.5150E-29	1.9061E-21
Octane,2,3,7-Trimethyl	2.5674E-03	8.8735E+04	2.5279E-03	8.7370E+04	2.4890E-03	8.6025E+04	2.4507E-03	8.4702E+04	2.4130E-03	8.3399E+04	2.3759E-03	8.2115E+04	2.3393E-03	8.0852E+04	2.3033E-03	7.9608E+04
o-Toluenesulfonamide	3.2777E-03	2.9513E+06	3.2757E-03	2.9495E+06	3.2738E-03	2.9478E+06	3.2718E-03	2.9460E+06	3.2698E-03	2.9442E+06	3.2679E-03	2.9425E+06	3.2659E-03	2.9407E+06	3.2640E-03	2.9389E+06
Pentachlorophenol	1.2714E-03	8.9762E+06	9.2031E-04	6.4973E+06	6.6615E-04	4.7030E+06	4.8219E-04	3.4042E+06	3.4902E-04	2.4641E+06	2.5264E-04	1.7836E+06	1.8287E-04	1.2910E+06	1.3237E-04	9.3449E+05
Phenanthrene	8.1302E-02	6.2346E+06	2.5126E-02	1.9268E+06	7.7652E-03	5.9547E+05	2.3998E-03	1.8403E+05	7.4167E-04	5.6874E+04	2.2921E-04	1.7577E+04	7.0837E-05	5.4321E+03	2.1892E-05	1.6788E+03
Phenol	8.5807E-119	2.9195E-110	4.2912E-148	1.4601E-139	2.1460E-177	7.3018E-169	1.0732E-206	3.6516E-198	5.3673E-236	1.8262E-227	2.6842E-265	9.1328E-257	1.3424E-294	4.5673E-286	0.0000E+00	0.0000E+00
Phenol,2,6-Bis(1,1-Dimethyl)	7.4239E-57	2.5659E-49	1.3471E-70	4.6559E-63	2.4444E-84	8.4484E-77	4.4356E-98	1.5330E-90	8.0486E-112	2.7818E-104	1.4605E-125	5.0477E-118	2.6501E-139	9.1594E-132	4.8088E-153	1.6620E-145
p-Toluenesulfonamide	1.9259E-05	2.9583E+06	1.9259E-05	2.9583E+06	1.9259E-05	2.9583E+06	1.9259E-05	2.9583E+06	1.9259E-05	2.9583E+06	1.9259E-05	2.9583E+06	1.9259E-05	2.9583E+06	1.9259E-05	2.9583E+06
Pyrene	1.9403E+00	8.7407E+07	1.7005E+00	7.6603E+07	1.4903E+00	6.7134E+07	1.3061E+00	5.8835E+07	1.1446E+00	5.1563E+07	1.0031E+00	4.5189E+07	8.7913E-01	3.9603E+07	7.7047E-01	3.4708E+07
RDX	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Styrene	1.7260E-10	7.2864E-02	1.8119E-11	7.6491E-03	1.9021E-12	8.0298E-04	1.9968E-13	8.4295E-05	2.0962E-14	8.8491E-06	2.2006E-15	9.2896E-07	2.3101E-16	9.7520E-08	2.4251E-17	1.0237E-08

Table C.2 Model calculations (Design Inv.).

	Leachate Concentration (mg/L) (12 Yr)	Remaining ICDF Contaminant Mass (mg) (12 Yr)	Leachate Concentration (mg/L) (13 Yr)	Remaining ICDF Contaminant Mass (mg) (13 Yr)	Leachate Concentration (mg/L) (14 Yr)	Remaining ICDF Contaminant Mass (mg) (14 Yr)	Leachate Concentration (mg/L) (15 Yr)	Remaining ICDF Contaminant Mass (mg) (15 Yr)
bis(2-Chloroisopropyl)ether	6.6063E-14	1.4590E+00	1.8409E-14	4.0656E-01	5.1298E-15	1.1329E-01	1.4295E-15	3.1570E-02
bis(2-Ethylhexyl)phthalate	1.3511E-07	2.0281E+01	3.7878E-08	5.6857E+00	1.0619E-08	1.5939E+00	2.9768E-09	4.4684E-01
Butane,1,1,3,4-Tetrachloro-	1.6418E-28	1.3813E-17	1.7989E-30	1.5135E-19	1.9710E-32	1.6583E-21	2.1596E-34	1.8169E-23
Butylbenzylphthalate	2.5767E-17	1.2865E-07	1.5980E-18	7.9786E-09	9.9109E-20	4.9483E-10	6.1466E-21	3.0689E-11
Carbazole	1.7509E-01	1.7755E+07	1.7416E-01	1.7661E+07	1.7324E-01	1.7567E+07	1.7232E-01	1.7474E+07
Carbon Disulfide	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Chlorobenzene	5.4695E-08	3.0663E+00	1.6973E-08	9.5156E-01	5.2673E-09	2.9529E-01	1.6346E-09	9.1638E-02
Chloroethane	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Chloromethane	3.5449E-07	2.0637E+05	3.5449E-07	2.0637E+05	3.5449E-07	2.0637E+05	3.5449E-07	2.0637E+05
Chrysene	4.0795E-01	1.4100E+07	3.3405E-01	1.1545E+07	2.7354E-01	9.4540E+06	2.2398E-01	7.7414E+06
Decane, 3,4-Dimethyl	3.9818E-04	9.1799E+04	3.9724E-04	9.1584E+04	3.9632E-04	9.1370E+04	3.9539E-04	9.1157E+04
Diacetone alcohol	3.0090E-98	1.6724E-85	4.2672E-106	2.3716E-93	6.0514E-114	3.3633E-101	8.5817E-122	4.7696E-109
Dibenz(a,h)anthracene	5.6672E-05	6.4517E+05	4.6656E-05	5.3114E+05	3.8410E-05	4.3727E+05	3.1622E-05	3.5999E+05
Dibenzofuran	5.7364E-62	2.6146E-53	4.8633E-67	2.2166E-58	4.1230E-72	1.8792E-63	3.4955E-77	1.5932E-68
Diethylphthalate	7.1838E-24	2.4829E-16	9.7122E-26	3.3567E-18	1.3130E-27	4.5381E-20	1.7752E-29	6.1353E-22
Dimethyl Disulfide	1.2188E-02	1.6502E+06	1.2139E-02	1.6436E+06	1.2091E-02	1.6371E+06	1.2043E-02	1.6306E+06
Dimethylphthalate	2.0587E-169	1.0215E-158	3.7941E-183	1.8825E-172	6.9921E-197	3.4692E-186	1.2886E-210	6.3934E-200
Di-n-butylphthalate	6.8347E-15	8.3170E-01	1.7087E-15	2.0792E-01	4.2717E-16	5.1981E-02	1.0679E-16	1.2995E-02
Di-n-octylphthalate	4.0602E-08	1.4033E+00	1.0519E-08	3.6357E-01	2.7254E-09	9.4196E-02	7.0612E-10	2.4405E-02
Eicosane	2.2824E-52	7.8883E-45	1.4617E-56	5.0520E-49	9.3615E-61	3.2355E-53	5.9955E-65	2.0722E-57
Ethyl cyanide	3.2401E-05	1.0787E+04	3.2349E-05	1.0770E+04	3.2297E-05	1.0752E+04	3.2244E-05	1.0735E+04
Ethylbenzene	3.7572E-13	2.4324E-04	4.3191E-14	2.7961E-05	4.9650E-15	3.2143E-06	5.7075E-16	3.6950E-07
Famphur	7.4390E-19	1.1644E-07	8.2427E-20	1.2902E-08	9.1332E-21	1.4296E-09	1.0120E-21	1.5841E-10
Fluoranthene	1.2184E-04	2.4633E+06	7.9000E-05	1.5972E+06	5.1224E-05	1.0357E+06	3.3214E-05	6.7152E+05
Fluorene	1.2020E-14	4.1545E-07	7.5662E-16	2.6150E-08	4.7626E-17	1.6460E-09	2.9978E-18	1.0361E-10
Heptadecane, 2,6,10,15-Tetra	2.4995E-05	2.0115E+06	2.4995E-05	2.0115E+06	2.4995E-05	2.0115E+06	2.4995E-05	2.0115E+06
Hexachlorobenzene	3.1280E-05	2.4578E+06	2.8788E-05	2.2620E+06	2.6494E-05	2.0818E+06	2.4384E-05	1.9160E+06
Hexachlorobutadiene	1.8947E-11	5.5431E+00	5.6143E-12	1.6425E+00	1.6636E-12	4.8669E-01	4.9294E-13	1.4421E-01
Hexachlorocyclopentadiene	4.8009E-45	1.2665E-35	1.6018E-48	4.2255E-39	5.3443E-52	1.4098E-42	1.7831E-55	4.7037E-46
Hexachloroethane	6.0083E-13	3.0494E+00	1.7803E-13	9.0356E-01	5.2754E-14	2.6774E-01	1.5632E-14	7.9334E-02
Indeno(1,2,3-cd)pyrene	1.4026E-02	5.8124E+05	1.1447E-02	4.7438E+05	9.3426E-03	3.8715E+05	7.6248E-03	3.1597E+05
Isobutyl alcohol	3.1620E-151	3.2572E-143	1.9465E-163	2.0051E-155	1.1982E-175	1.2343E-167	7.3762E-188	7.5983E-180
Isophorone	3.3036E-39	1.1850E-31	2.3615E-42	8.4707E-35	1.6880E-45	6.0551E-38	1.2066E-48	4.3283E-41
Isopropyl Alcohol/2-propanol	1.2334E-173	9.9258E-163	1.2106E-187	9.7426E-177	1.1883E-201	9.5627E-191	1.1663E-215	9.3862E-205
Kepone	1.2915E-02	2.9776E+06	1.0084E-02	2.3248E+06	7.8729E-03	1.8151E+06	6.1468E-03	1.4171E+06
Mesityl oxide	7.3233E-95	2.7667E-87	1.0239E-102	3.8683E-95	1.4316E-110	5.4085E-103	2.0016E-118	7.5618E-111
Methyl Acetate	5.0511E-03	2.4845E+05	4.9962E-03	2.4575E+05	4.9419E-03	2.4308E+05	4.8883E-03	2.4044E+05
Methylene Chloride	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Naphthalene	1.2068E-10	1.5573E-02	1.7036E-11	2.1984E-03	2.4048E-12	3.1033E-04	3.3948E-13	4.3808E-05
Nitrobenzene	1.9238E-08	1.3402E+00	5.3230E-09	3.7082E-01	1.4728E-09	1.0260E-01	4.0752E-10	2.8390E-02
N-Nitroso-di-n-propylamine	1.1454E-09	2.2007E+00	3.3031E-10	6.3462E-01	9.5251E-11	1.8301E-01	2.7467E-11	5.2773E-02
N-Nitrosodiphenylamine	1.7283E-31	5.9735E-24	5.4164E-34	1.8720E-26	1.6975E-36	5.8668E-29	5.3197E-39	1.8386E-31
Octane,2,3,7-Trimethyl	2.2679E-03	7.8383E+04	2.2330E-03	7.7177E+04	2.1986E-03	7.5990E+04	2.1648E-03	7.4820E+04
o-Toluenesulfonamide	3.2620E-03	2.9372E+06	3.2601E-03	2.9354E+06	3.2581E-03	2.9336E+06	3.2561E-03	2.9319E+06
Pentachlorophenol	9.5811E-05	6.7641E+05	6.9351E-05	4.8961E+05	5.0199E-05	3.5440E+05	3.6336E-05	2.5653E+05
Phenanthrene	6.7658E-06	5.1883E+02	2.0910E-06	1.6034E+02	6.4621E-07	4.9554E+01	1.9971E-07	1.5315E+01
Phenol	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Phenol,2,6-Bis(1,1-Dimethyl)	8.7259E-167	3.0159E-159	1.5834E-180	5.4725E-173	2.8731E-194	9.9301E-187	5.2135E-208	1.8019E-200
p-Toluenesulfonamide	1.9259E-05	2.9583E+06	1.9259E-05	2.9582E+06	1.9259E-05	2.9582E+06	1.9258E-05	2.9582E+06
Pyrene	6.7523E-01	3.0418E+07	5.9176E-01	2.6658E+07	5.1862E-01	2.3363E+07	4.5451E-01	2.0475E+07
RDX	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Styrene	2.5458E-18	1.0747E-09	2.6725E-19	1.1282E-10	2.8056E-20	1.1844E-11	2.9452E-21	1.2433E-12

Table C.2 Model calculations (Design Inv.).

	Kd (mL/g) or (L/kg)	Half-Life in years	Isotope Specific Activity (Ci/g)	Design Inventory mg/kg from non-rads	pCi/kg from rads	Total Inventory (kg)	Initial Soil Water Concentration (mg/L)	Initial Soil Concentration (mg/kg)	Initial Contaminant Mass in Soil Water (mg)	Initial Contaminant Mass on Soil (mg)	Remaining ICDF Contaminant Mass (mg) (0 Yr)	Leachate Concentration (mg/L) (1 Yr)	Remaining ICDF Contaminant Mass (mg) (1 Yr)	Leachate Concentration (mg/L) (2 Yr)	Remaining ICDF Contaminant Mass (mg) (2 Yr)	Leachate Concentration (mg/L) (3 Yr)	Remaining ICDF Contaminant Mass (mg) (3 Yr)
Tetrachloroethene	3.50E-01	1.48E+00		9.64E-03		5.6376E+00	2.3503E-02	8.2262E-03	8.2502E+05	4.8126E+06	5.6376E+06	1.4711E-02	3.5208E+06	9.1876E-03	2.1988E+06	5.7379E-03	1.3732E+06
Toluene	NA	4.79E-02		9.82E-01		5.7450E+02	1.6367E+01	0.0000E+00	5.7450E+08	0.0000E+00	5.7450E+08	8.6165E-06	2.9780E+02	4.4666E-12	1.5437E-04	2.3153E-18	8.0022E-11
Tributylphosphate	2.36E-01	1.16E+00		3.64E-01		2.1268E+02	1.2292E+00	2.8978E-01	4.3147E+07	1.6953E+08	2.1268E+08	6.7625E-01	1.1664E+08	3.7088E-01	6.3972E+07	2.0341E-01	3.5085E+07
Trichloroethene	2.50E-03	2.70E+00		7.20E-02		4.2145E+01	1.1526E+00	2.8832E-03	4.0458E+07	1.6868E+06	4.2145E+07	8.9196E-01	3.2133E+07	6.8008E-01	2.4500E+07	5.1853E-01	1.8680E+07
Trinitrotoluene	NA	5.32E-01		0.00E+00		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Undecane,4,6-Dimethyl-	4.90E-01	NA		1.61E-04		9.4413E-02	2.9342E-04	1.4377E-04	1.0300E+04	8.4113E+04	9.4413E+04	2.9342E-04	9.4255E+04	2.9293E-04	9.4096E+04	2.9243E-04	9.3938E+04
Xylene (ortho)	4.90E-01	5.12E-01		3.88E-03		2.2716E+00	7.0596E-03	3.4592E-03	2.4781E+05	2.0238E+06	2.2716E+06	1.8248E-03	5.8617E+05	4.7088E-04	1.5126E+05	1.2151E-04	3.9032E+04
Xylene (total)	0.49	5.12E-01		3.45E+00		2.0209E+03	6.2805E+00	3.0774E+00	2.2046E+08	1.8004E+09	2.0209E+09	1.6234E+00	5.2148E+08	4.1891E-01	1.3457E+08	1.0810E-01	3.4724E+07
RADIONUCLIDES																	
Ac225	450	2.74E-02	5.804E+04		5.1214E-05	5.1626E-16	1.9607E-21	8.8232E-19	6.8825E-14	5.1619E-10	5.1626E-10	2.0175E-32	5.3121E-21	2.0760E-43	5.4661E-32	2.1361E-54	5.6244E-43
Ac227	450	2.18E+01	7.229E+01		2.0440E-02	1.6541E-10	6.2822E-16	2.8270E-13	2.2052E-08	1.6539E-04	1.6541E-04	6.0856E-16	1.6023E-04	5.8951E-16	1.5522E-04	5.7106E-16	1.5036E-04
Ac228	450	7.00E-04	2.242E+06		1.5228E-07	3.9732E-20	1.5090E-25	6.7905E-23	5.2969E-18	3.9727E-14	3.9732E-14	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ag106	90	4.57E-05	7.399E+07		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ag108	90	4.51E-06	7.354E+08		3.6944E-06	2.9392E-21	5.5785E-26	5.0206E-24	1.9582E-18	2.9372E-15	2.9392E-15	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ag108m	90	1.27E+02	2.611E+01		7.9954E+02	1.7916E-05	3.4003E-10	3.0603E-08	1.1936E-02	1.7904E+01	1.7916E+01	3.3818E-10	1.7818E+01	3.3634E-10	1.7721E+01	3.3450E-10	1.7624E+01
Ag109m	90	1.26E-06	2.616E+09		4.9170E-09	1.0995E-24	2.0867E-29	1.8780E-27	7.3248E-22	1.0987E-18	1.0995E-18	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ag110	90	7.80E-07	4.173E+09		5.1771E-08	7.2574E-24	1.3774E-28	1.2397E-26	4.8351E-21	7.2526E-18	7.2574E-18	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ag110m	90	6.85E-01	4.753E+03		5.5459E-06	6.8263E-16	1.2956E-20	1.1660E-18	4.5478E-13	6.8217E-10	6.8263E-10	4.7094E-21	2.4813E-10	1.7118E-21	9.0192E-11	6.2223E-22	3.2784E-11
Ag111	90	2.04E-02	1.581E+05		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Am241	340	4.32E+02	3.436E+00		2.3833E+04	4.0582E-03	2.0398E-08	6.9354E-06	7.1602E-01	4.0575E+03	4.0582E+03	2.0366E-08	4.0517E+03	2.0333E-08	4.0451E+03	2.0300E-08	4.0386E+03
Am242	340	1.83E-03	8.093E+05		4.5322E-02	3.2763E-14	1.6468E-19	5.5993E-17	5.7808E-12	3.2758E-08	3.2763E-08	2.5277E-184	5.0288E-173	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Am242m	340	1.52E+02	9.725E+00		4.5186E-02	2.7184E-09	1.3664E-14	4.6457E-12	4.7963E-07	2.7179E-03	2.7184E-03	1.3602E-14	2.7060E-03	1.3540E-14	2.6937E-03	1.3478E-14	2.6814E-03
Am243	340	7.38E+03	1.995E-01		3.3402E-01	9.7970E-07	4.9244E-12	1.6743E-09	1.7286E-04	9.7952E-01	9.7970E-01	4.9239E-12	9.7960E-01	4.9235E-12	9.7951E-01	4.9230E-12	9.7941E-01
Am245	340	2.34E-04	6.239E+06		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Am246	340	7.42E-05	1.960E+07		1.3823E-22	4.1269E-36	2.0743E-41	7.0528E-39	7.2814E-34	4.1261E-30	4.1269E-30	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
At217	0	1.02E-09	1.610E+12		5.1214E-05	1.8612E-23	5.3023E-25	0.0000E+00	1.8612E-17	0.0000E+00	1.8612E-17	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ba136m	50	9.77E-09	2.696E+11		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ba137m	50	4.85E-06	5.387E+08		2.3114E+07	2.5103E-08	8.5715E-13	4.2857E-11	3.0088E-05	2.5073E-02	2.5103E-02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ba140	50	3.48E-02	7.350E+04		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Be 10	250	1.52E+06	2.351E-02		1.1421E-03	2.8424E-08	1.9429E-13	4.8573E-11	6.8201E-06	2.8417E-02	2.8424E-02	1.9429E-13	2.8424E-02	1.9429E-13	2.8424E-02	1.9429E-13	2.8424E-02
Bi210	100	1.37E-02	1.241E+05		1.0923E-03	5.1475E-15	8.7934E-20	8.7934E-18	3.0867E-12	5.1445E-09	5.1475E-09	1.0300E-41	6.0293E-31	1.2064E-63	7.0622E-53	1.4131E-85	8.2719E-75
Bi211	100	4.07E-06	4.165E+08		1.8310E-02	2.5719E-17	4.3934E-22	4.3934E-20	1.5422E-14	2.5703E-11	2.5719E-11	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Bi212	100	1.15E-04	1.464E+07		5.5293E-01	2.2098E-14	3.7749E-19	3.7749E-17	1.3251E-11	2.2084E-08	2.2098E-08	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Bi213	100	8.69E-05	1.932E+07		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Bi214	100	3.79E-05	4.416E+07		5.6199E-03	7.4453E-17	1.2719E-21	1.2719E-19	4.4645E-14	7.4408E-11	7.4453E-11	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Bk249	4000	8.77E-01	1.639E+03		2.1573E-18	7.7028E-28	3.2915E-34	1.3166E-30	1.1554E-26	7.7026E-22	7.7028E-22	1.4929E-34	3.4937E-22	6.7713E-35	1.5846E-22	3.0712E-35	7.1872E-23
Bk250	4000	3.68E-04	3.892E+06		7.7501E-23	1.1649E-35	4.9777E-42	1.9911E-38	1.7473E-34	1.1648E-29	1.1649E-29	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
C 14	5	5.73E+03	4.459E+00		4.6106E-02	6.0490E-09	2.0434E-12	1.0217E-11	7.1727E-05	5.9773E-03	6.0490E-03	2.0431E-12	6.0472E-03	2.0425E-12	6.0453E-03	2.0419E-12	6.0435E-03
Cd109	6	1.27E+00	2.584E+03		4.9170E-09	1.1131E-18	3.1395E-22	1.8837E-21	1.1020E-14	1.1020E-12	1.1131E-12	1.8199E-22	6.4513E-13	1.0548E-22	3.7392E-13	6.1140E-23	2.1673E-13
Cd113m	6	1.36E+01	2.330E+02		1.6204E+03	4.0684E-06	1.1476E-09	6.8853E-09	4.0281E-02	4.0281E+00	4.0684E+00	1.0905E-09	3.8657E+00	1.0362E-09	3.6730E+00	9.8455E-10	3.4900E+00
Cd115m	6	1.22E-01	2.548E+04		4.2541E-51	9.7664E-62	2.7547E-65	1.6528E-64	9.6697E-58	9.6697E-56	9.7664E-56	9.4731E-68	3.3580E-58	3.2572E-70	1.1546E-60	1.1199E-72	3.9699E-63
Ce141	500	8.90E-02	2.852E+04		1.8049E-68	3.7027E-79	1.2656E-84	6.3282E-82	4.4427E-77	3.7022E-73	3.7027E-73	5.2664E-88	1.5407E-76	2.1913E-91	6.4108E-80	9.1183E-95	2.6676E-83
Ce142	500	3.78E-03	6.669E+05		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ce144	500	7.78E-01	3.195E+03		1.8062E+00	3.3069E-10	1.1304E-15	5.6518E-13	3.9678E-08	3.3065E-04	3.3069E-04	4.6380E-16	1.3569E-04	1.9030E-16	5.5673E-05	7.8083E-17	2.2843E-05
Cf249	510	3.51E+02	4.093E+00		4.1243E-13	5.8956E-20	1.9757E-25	1.0076E-22	6.9352E-18	5.8949E-14	5.8956E-14	1.9718E-25	5.8840E-14	1.9679E-25	5.8724E-14	1.9640E-25	5.8608E-14
Cf250	510	1.31E+01	1.092E+02		2.1075E-13	1.1289E-21	3.7831E-27	1.9294E-24	1.3279E-19	1.1288E-15	1.1289E-15	3.5881E-27	1.0707E-15	3.4032E-27	1.0155E-15	3.2278E-27	9.6318E-16
Cf251	510	8.98E+02	1.587E+00		9.5176E-16	3.5088E-22	1.1759E-27	5.9969E-25	4.1275E-20	3.5084E-16	3.5088E-16	1.1750E-27	3.5061E-16	1.1740E-27	3.5034E-16	1.1731E-27	3.5007E-16
Cf252	510	2.64E+00	5.376E+02		2.2434E-17	2.4412E-26	8.1809E-32	4.1722E-29	2.8717E-24	2.4409E-20	2.4412E-20	6.2918E-32	1.8775E-20	4.8389E-32	1.4439E-20	3.7215E-32	1.1105E-20
Cm241	4000	8.99E-02	1.652E+04		1.2962E-77	4.5911E-88	1.9619E-94	7.8475E-91	6.8866E-87	4.5911E-82	4.5911E-82	8.7659E-98	2.0514E-85	3.9167E-101	9.1657E-89	1.7500E-104	4.0953E-92
Cm242	4000	4.47E-01	3.310E+03		5.3933E-14	9.5327E-24	4.0735E-30	1.6294E-26	1.4299E-22	9.5325E-18	9.5327E-18	8.6274E-31	2.0190E-18	1.8272E-31	4.2761E-19	3.8700E-32	9.0564E-20

Table C.2 Model calculations (Design Inv.).

	Leachate Concentration (mg/L) (4 Yr)	Remaining ICDF Contaminant Mass (mg) (4 Yr)	Leachate Concentration (mg/L) (5 Yr)	Remaining ICDF Contaminant Mass (mg) (5 Yr)	Leachate Concentration (mg/L) (6 Yr)	Remaining ICDF Contaminant Mass (mg) (6 Yr)	Leachate Concentration (mg/L) (7 Yr)	Remaining ICDF Contaminant Mass (mg) (7 Yr)	Leachate Concentration (mg/L) (8 Yr)	Remaining ICDF Contaminant Mass (mg) (8 Yr)	Leachate Concentration (mg/L) (9 Yr)	Remaining ICDF Contaminant Mass (mg) (9 Yr)	Leachate Concentration (mg/L) (10 Yr)	Remaining ICDF Contaminant Mass (mg) (10 Yr)	Leachate Concentration (mg/L) (11 Yr)	Remaining ICDF Contaminant Mass (mg) (11 Yr)
Tetrachloroethene	3.5834E-03	8.5760E+05	2.2379E-03	5.3559E+05	1.3976E-03	3.3449E+05	8.7285E-04	2.0889E+05	5.4511E-04	1.3046E+05	3.4043E-04	8.1474E+04	2.1261E-04	5.0882E+04	1.3278E-04	3.1777E+04
Toluene	1.2002E-24	4.1481E-17	6.2215E-31	2.1503E-23	3.2250E-37	1.1146E-29	1.6718E-43	5.7779E-36	8.6659E-50	2.9951E-42	4.4921E-56	1.5526E-48	2.3286E-62	8.0481E-55	1.2071E-68	4.1719E-61
Tributylphosphate	1.1156E-01	1.9242E+07	6.1184E-02	1.0553E+07	3.3556E-02	5.7879E+06	1.8404E-02	3.1744E+06	1.0093E-02	1.7410E+06	5.5357E-03	9.5482E+05	3.0360E-03	5.2367E+05	1.6651E-03	2.8720E+05
Trichloroethene	3.9536E-01	1.4243E+07	3.0144E-01	1.0860E+07	2.2984E-01	8.2800E+06	1.7524E-01	6.3131E+06	1.3361E-01	4.8134E+06	1.0187E-01	3.6700E+06	7.7674E-02	2.7982E+06	5.9223E-02	2.1335E+06
Trinitrotoluene	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Undecane,4,6-Dimethyl-	2.9194E-04	9.3781E+04	2.9145E-04	9.3623E+04	2.9096E-04	9.3466E+04	2.9048E-04	9.3309E+04	2.8999E-04	9.3153E+04	2.8950E-04	9.2996E+04	2.8902E-04	9.2840E+04	2.8853E-04	9.2684E+04
Xylene (ortho)	3.1355E-05	1.0072E+04	8.0910E-06	2.5991E+03	2.0879E-06	6.7068E+02	5.3876E-07	1.7307E+02	1.3903E-07	4.4659E+01	3.5875E-08	1.1524E+01	9.2575E-09	2.9738E+00	2.3889E-09	7.6737E-01
Xylene (total)	2.7894E-02	8.9605E+06	7.1981E-03	2.3122E+06	1.8574E-03	5.9666E+05	4.7931E-04	1.5397E+05	1.2368E-04	3.9731E+04	3.1916E-05	1.0252E+04	8.2358E-06	2.6456E+03	2.1252E-06	6.8269E+02
RADIONUCLIDES																
Ac225	2.1980E-65	5.7874E-54	2.2617E-76	5.9551E-65	2.3272E-87	6.1276E-76	2.3947E-98	6.3051E-87	2.4640E-109	6.4878E-98	2.5354E-120	6.6758E-109	2.6089E-131	6.8692E-120	2.6845E-142	7.0683E-131
Ac227	5.5319E-16	1.4566E-04	5.3588E-16	1.4110E-04	5.1910E-16	1.3668E-04	5.0286E-16	1.3240E-04	4.8712E-16	1.2826E-04	4.7187E-16	1.2424E-04	4.5711E-16	1.2036E-04	4.4280E-16	1.1659E-04
Ac228	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ag106	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ag108	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ag108m	3.3268E-10	1.7528E+01	3.3086E-10	1.7432E+01	3.2906E-10	1.7337E+01	3.2727E-10	1.7243E+01	3.2548E-10	1.7149E+01	3.2371E-10	1.7055E+01	3.2194E-10	1.6962E+01	3.2019E-10	1.6870E+01
Ag109m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ag110	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ag110m	2.2617E-22	1.1917E-11	8.2212E-23	4.3315E-12	2.9883E-23	1.5745E-12	1.0862E-23	5.7230E-13	3.9483E-24	2.0803E-13	1.4352E-24	7.5615E-14	5.2167E-25	2.7485E-14	1.8962E-25	9.9906E-15
Ag111	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Am241	2.0268E-08	4.0322E+03	2.0235E-08	4.0257E+03	2.0203E-08	4.0192E+03	2.0170E-08	4.0128E+03	2.0138E-08	4.0063E+03	2.0105E-08	3.9999E+03	2.0073E-08	3.9935E+03	2.0041E-08	3.9871E+03
Am242	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Am242m	1.3417E-14	2.6692E-03	1.3356E-14	2.6571E-03	1.3295E-14	2.6450E-03	1.3234E-14	2.6329E-03	1.3174E-14	2.6210E-03	1.3114E-14	2.6090E-03	1.3054E-14	2.5971E-03	1.2995E-14	2.5853E-03
Am243	4.9225E-12	9.7932E-01	4.9220E-12	9.7922E-01	4.9216E-12	9.7913E-01	4.9211E-12	9.7903E-01	4.9206E-12	9.7894E-01	4.9201E-12	9.7885E-01	4.9197E-12	9.7875E-01	4.9192E-12	9.7866E-01
Am245	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Am246	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
At217	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ba136m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ba137m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ba140	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Be 10	1.9429E-13	2.8423E-02	1.9429E-13	2.8423E-02	1.9429E-13	2.8423E-02	1.9429E-13	2.8423E-02	1.9429E-13	2.8423E-02	1.9429E-13	2.8423E-02	1.9429E-13	2.8423E-02	1.9428E-13	2.8423E-02
Bi210	1.6552E-107	9.6889E-97	1.9387E-129	1.1349E-118	2.2708E-151	1.3293E-140	2.6598E-173	1.5570E-162	3.1154E-195	1.8237E-184	3.6491E-217	2.1361E-206	4.2742E-239	2.5020E-228	5.0063E-261	2.9306E-250
Bi211	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Bi212	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Bi213	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Bi214	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Bk249	1.3930E-35	3.2598E-23	6.3181E-36	1.4785E-23	2.8656E-36	6.7061E-24	1.2998E-36	3.0417E-24	5.8952E-37	1.3796E-24	2.6738E-37	6.2573E-25	1.2128E-37	2.8381E-25	5.5006E-38	1.2872E-25
Bk250	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
C 14	2.0413E-12	6.0417E-03	2.0407E-12	6.0398E-03	2.0400E-12	6.0380E-03	2.0394E-12	6.0362E-03	2.0388E-12	6.0343E-03	2.0382E-12	6.0325E-03	2.0376E-12	6.0307E-03	2.0370E-12	6.0289E-03
Cd109	3.5437E-23	1.2562E-13	2.0539E-23	7.2807E-14	1.1905E-23	4.2200E-14	6.9000E-24	2.4459E-14	3.9993E-24	1.4177E-14	2.3180E-24	8.2168E-15	1.3435E-24	4.7625E-15	7.7872E-25	2.7604E-15
Cd113m	9.3548E-10	3.3161E+00	8.8886E-10	3.1508E+00	8.4457E-10	2.9938E+00	8.0248E-10	2.8446E+00	7.6249E-10	2.7028E+00	7.2449E-10	2.5681E+00	6.8838E-10	2.4402E+00	6.5408E-10	2.3186E+00
Cd115m	3.8507E-75	1.3650E-65	1.3240E-77	4.6932E-68	4.5523E-80	1.6137E-70	1.5652E-82	5.5484E-73	5.3818E-85	1.9077E-75	1.8504E-87	6.5594E-78	6.3624E-90	2.2553E-80	2.1876E-92	7.7546E-83
Ce141	3.7941E-98	1.1100E-86	1.5788E-101	4.6187E-90	6.5692E-105	1.9218E-93	2.7335E-108	7.9968E-97	1.1374E-111	3.3275E-100	4.7328E-115	1.3846E-103	1.9693E-118	5.7613E-107	8.1944E-122	2.3973E-110
Ce142	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ce144	3.2038E-17	9.3728E-06	1.3146E-17	3.8458E-06	5.3938E-18	1.5780E-06	2.2131E-18	6.4745E-07	9.0806E-19	2.6566E-07	3.7259E-19	1.0900E-07	1.5288E-19	4.4724E-08	6.2727E-20	1.8351E-08
Cf249	1.9602E-25	5.8492E-14	1.9563E-25	5.8377E-14	1.9524E-25	5.8261E-14	1.9486E-25	5.8146E-14	1.9447E-25	5.8031E-14	1.9409E-25	5.7917E-14	1.9371E-25	5.7802E-14	1.9332E-25	5.7688E-14
Cf250	3.0614E-27	9.1354E-16	2.9037E-27	8.6646E-16	2.7540E-27	8.2180E-16	2.6121E-27	7.7945E-16	2.4775E-27	7.3928E-16	2.3498E-27	7.0118E-16	2.2287E-27	6.6504E-16	2.1138E-27	6.3076E-16
Cf251	1.1722E-27	3.4980E-16	1.1713E-27	3.4953E-16	1.1704E-27	3.4926E-16	1.1695E-27	3.4899E-16	1.1686E-27	3.4872E-16	1.1677E-27	3.4845E-16	1.1668E-27	3.4818E-16	1.1659E-27	3.4791E-16
Cf252	2.8621E-32	8.5407E-21	2.2012E-32	6.5685E-21	1.6929E-32	5.0517E-21	1.3020E-32	3.8852E-21	1.0013E-32	2.9880E-21	7.7011E-33	2.2980E-21	5.9228E-33	1.7674E-21	4.5551E-33	1.3593E-21
Cm241	7.8192E-108	1.8298E-95	3.4937E-111	8.1759E-99	1.5610E-114	3.6531E-102	6.9749E-118	1.6322E-105	3.1164E-121	7.2930E-109	1.3925E-124	3.2586E-112	6.2217E-128	1.4560E-115	2.7799E-131	6.5055E-119
Cm242	8.1964E-33	1.9181E-20	1.7360E-33	4.0624E-21	3.6766E-34	8.6040E-22	7.7869E-35	1.8223E-22	1.6492E-35	3.8595E-23	3.4930E-36	8.1742E-24	7.3979E-37	1.7312E-24	1.5668E-37	3.6667E-25

Table C.2 Model calculations (Design Inv.).

	Leachate Concentration (mg/L) (12 Yr)	Remaining ICDF Contaminant Mass (mg) (12 Yr)	Leachate Concentration (mg/L) (13 Yr)	Remaining ICDF Contaminant Mass (mg) (13 Yr)	Leachate Concentration (mg/L) (14 Yr)	Remaining ICDF Contaminant Mass (mg) (14 Yr)	Leachate Concentration (mg/L) (15 Yr)	Remaining ICDF Contaminant Mass (mg) (15 Yr)
Tetrachloroethene	8.2923E-05	1.9845E+04	5.1787E-05	1.2394E+04	3.2342E-05	7.7402E+03	2.0198E-05	4.8339E+03
Toluene	6.2571E-75	2.1626E-67	3.2435E-81	1.1210E-73	1.6813E-87	5.8110E-80	8.7156E-94	3.0123E-86
Tributylphosphate	9.1322E-04	1.5752E+05	5.0085E-04	8.6389E+04	2.7469E-04	4.7380E+04	1.5065E-04	2.5985E+04
Trichloroethene	4.5155E-02	1.6267E+06	3.4428E-02	1.2403E+06	2.6250E-02	9.4567E+05	2.0015E-02	7.2103E+05
Trinitrotoluene	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Undecane,4,6-Dimethyl-	2.8805E-04	9.2529E+04	2.8756E-04	9.2374E+04	2.8708E-04	9.2218E+04	2.8660E-04	9.2064E+04
Xylene (ortho)	6.1644E-10	1.9802E-01	1.5907E-10	5.1098E-02	4.1048E-11	1.3186E-02	1.0592E-11	3.4025E-03
Xylene (total)	5.4841E-07	1.7617E+02	1.4152E-07	4.5459E+01	3.6518E-08	1.1731E+01	9.4232E-09	3.0270E+00
RADIONUCLIDES								
Ac225	2.7623E-153	7.2730E-142	2.8423E-164	7.4838E-153	2.9246E-175	7.7006E-164	3.0094E-186	7.9237E-175
Ac227	4.2894E-16	1.1294E-04	4.1552E-16	1.0941E-04	4.0251E-16	1.0598E-04	3.8991E-16	1.0266E-04
Ac228	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ag106	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ag108	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ag108m	3.1844E-10	1.6778E+01	3.1670E-10	1.6686E+01	3.1498E-10	1.6595E+01	3.1326E-10	1.6505E+01
Ag109m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ag110	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ag110m	6.8925E-26	3.6315E-15	2.5053E-26	1.3200E-15	9.1067E-27	4.7981E-16	3.3102E-27	1.7441E-16
Ag111	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Am241	2.0009E-08	3.9807E+03	1.9976E-08	3.9743E+03	1.9944E-08	3.9679E+03	1.9912E-08	3.9615E+03
Am242	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Am242m	1.2936E-14	2.5736E-03	1.2877E-14	2.5618E-03	1.2818E-14	2.5502E-03	1.2760E-14	2.5386E-03
Am243	4.9187E-12	9.7856E-01	4.9182E-12	9.7847E-01	4.9178E-12	9.7837E-01	4.9173E-12	9.7828E-01
Am245	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Am246	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
At217	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ba136m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ba137m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ba140	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Be 10	1.9428E-13	2.8422E-02	1.9428E-13	2.8422E-02	1.9428E-13	2.8422E-02	1.9428E-13	2.8422E-02
Bi210	5.8639E-283	3.4326E-272	6.8684E-305	4.0207E-294	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Bi211	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Bi212	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Bi213	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Bi214	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Bk249	2.4949E-38	5.8384E-26	1.1316E-38	2.6481E-26	5.1324E-39	1.2011E-26	2.3279E-39	5.4477E-27
Bk250	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
C 14	2.0363E-12	6.0270E-03	2.0357E-12	6.0252E-03	2.0351E-12	6.0234E-03	2.0345E-12	6.0215E-03
Cd109	4.5135E-25	1.5999E-15	2.6160E-25	9.2733E-16	1.5163E-25	5.3748E-16	8.7884E-26	3.1153E-16
Cd113m	6.2148E-10	2.2030E+00	5.9051E-10	2.0932E+00	5.6108E-10	1.9889E+00	5.3312E-10	1.8898E+00
Cd115m	7.5217E-95	2.6663E-85	2.5862E-97	9.1675E-88	8.8922E-100	3.1521E-90	3.0574E-102	1.0838E-92
Ce141	3.4097E-125	9.9752E-114	1.4188E-128	4.1507E-117	5.9036E-132	1.7271E-120	2.4565E-135	7.1866E-124
Ce142	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ce144	2.5737E-20	7.5295E-09	1.0560E-20	3.0894E-09	4.3330E-21	1.2676E-09	1.7779E-21	5.2012E-10
Cf249	1.9294E-25	5.7574E-14	1.9256E-25	5.7461E-14	1.9218E-25	5.7347E-14	1.9180E-25	5.7234E-14
Cf250	2.0049E-27	5.9826E-16	1.9015E-27	5.6742E-16	1.8035E-27	5.3818E-16	1.7106E-27	5.1044E-16
Cf251	1.1650E-27	3.4764E-16	1.1641E-27	3.4737E-16	1.1632E-27	3.4710E-16	1.1623E-27	3.4683E-16
Cf252	3.5033E-33	1.0454E-21	2.6943E-33	8.0398E-22	2.0721E-33	6.1833E-22	1.5936E-33	4.7555E-22
Cm241	1.2421E-134	2.9067E-122	5.5498E-138	1.2987E-125	2.4797E-141	5.8029E-129	1.1080E-144	2.5928E-132
Cm242	3.3185E-38	7.7658E-26	7.0283E-39	1.6448E-26	1.4886E-39	3.4835E-27	3.1527E-40	7.3778E-28

Table C.2 Model calculations (Design Inv.).

	Kd (mL/g) or (L/kg)	Half-Life in years	Isotope Specific Activity (Ci/g)	Design Inventory mg/kg from non-rads	pCi/kg from rads	Total Inventory (kg)	Initial Soil Water Concentration (mg/L)	Initial Soil Concentration (mg/kg)	Initial Contaminant Mass in Soil Water (mg)	Initial Contaminant Mass on Soil (mg)	Remaining ICDF Contaminant Mass (mg) (0 Yr)	Leachate Concentration (mg/L) (1 Yr)	Remaining ICDF Contaminant Mass (mg) (1 Yr)	Leachate Concentration (mg/L) (2 Yr)	Remaining ICDF Contaminant Mass (mg) (2 Yr)	Leachate Concentration (mg/L) (3 Yr)	Remaining ICDF Contaminant Mass (mg) (3 Yr)
Cm243	4000	2.85E+01	5.165E+01		3.5533E-03	4.0247E-11	1.7198E-17	6.8792E-14	6.0369E-10	4.0246E-05	4.0247E-05	1.6785E-17	3.9280E-05	1.6382E-17	3.8336E-05	1.5988E-17	3.7415E-05
Cm244	4000	1.81E+01	8.100E+01		1.8038E+00	1.3029E-08	5.5676E-15	2.2270E-11	1.9543E-07	1.3029E-02	1.3029E-02	5.3584E-15	1.2540E-02	5.1571E-15	1.2068E-02	4.9633E-15	1.1615E-02
Cm245	4000	8.50E+03	1.718E-01		8.0220E-05	2.7323E-10	1.1676E-16	4.6702E-13	4.0984E-09	2.7322E-04	2.7323E-04	1.1675E-16	2.7321E-04	1.1674E-16	2.7318E-04	1.1673E-16	2.7316E-04
Cm246	4000	4.73E+03	3.074E-01		1.7902E-06	3.4069E-12	1.4558E-18	5.8234E-15	5.1103E-11	3.4069E-06	3.4069E-06	1.4556E-18	3.4064E-06	1.4554E-18	3.4059E-06	1.4552E-18	3.4054E-06
Cm247	4000	1.56E+07	9.283E-05		6.3904E-13	4.0273E-15	1.7209E-21	6.8838E-18	6.0409E-14	4.0273E-09	4.0273E-09	1.7209E-21	4.0273E-09	1.7209E-21	4.0273E-09	1.7209E-21	4.0273E-09
Cm248	4000	3.39E+05	4.255E-03		1.9534E-13	2.6860E-17	1.1478E-23	4.5911E-20	4.0290E-16	2.6860E-11	2.6860E-11	1.1478E-23	2.6860E-11	1.1478E-23	2.6860E-11	1.1478E-23	2.6860E-11
Cm250	4000	9.70E+03	1.475E-01		5.5293E-22	2.1931E-27	9.3715E-34	3.7486E-30	3.2896E-26	2.1931E-21	2.1931E-21	9.3709E-34	2.1929E-21	9.3702E-34	2.1928E-21	9.3695E-34	2.1926E-21
Co-57	10	7.42E-01	8.464E+03		3.6921E+00	2.5520E-10	4.3362E-14	4.3362E-13	1.5221E-06	2.5368E-04	2.5520E-04	1.7047E-14	1.0032E-04	6.7015E-15	3.9438E-05	2.6344E-15	1.5503E-05
Co-58	10	1.94E-01	3.184E+04		5.8778E-14	1.0801E-24	1.8351E-28	1.8351E-27	6.4417E-21	1.0736E-18	1.0801E-18	5.1492E-30	3.0303E-20	1.4447E-31	8.5021E-22	4.0534E-33	2.3854E-23
Co-60	10	5.27E+00	1.133E+03		1.9338E+05	9.9871E-05	1.6969E-08	1.6969E-07	5.9565E-01	9.9275E+01	9.9871E+01	1.4878E-08	8.7555E+01	1.3043E-08	7.6757E+01	1.1434E-08	6.7291E+01
Cr-51	30	7.59E-02	9.255E+04		2.3026E-51	1.4556E-62	8.2771E-67	2.4831E-65	2.9055E-59	1.4527E-56	1.4556E-56	8.9380E-71	1.5718E-60	9.6513E-75	1.6972E-64	1.0422E-78	1.8327E-68
Cs132	500	1.78E-02	1.528E+05		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Cs134	500	2.06E+00	1.297E+03		1.1213E+04	5.0575E-06	1.7288E-11	8.6438E-09	6.0683E-04	5.0569E+00	5.0575E+00	1.2348E-11	3.6125E+00	8.8201E-12	2.5803E+00	6.3000E-12	1.8431E+00
Cs135	500	2.30E+06	1.153E-03		3.5813E+01	1.8169E-02	6.2107E-08	3.1053E-05	2.1801E+00	1.8167E+04	1.8169E+04	6.2107E-08	1.8169E+04	6.2107E-08	1.8169E+04	6.2106E-08	1.8169E+04
Cs136	500	3.59E-02	7.335E+04		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Cs137	500	3.00E+01	8.712E+01		2.4434E+07	1.6409E-01	5.6088E-07	2.8044E-04	1.9688E+01	1.6407E+05	1.6409E+05	5.4807E-07	1.6034E+05	5.3555E-07	1.5668E+05	5.2332E-07	1.5310E+05
Er169	240	2.55E-02	8.313E+04		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Eu150	340	1.44E-03	1.659E+06		1.7301E-05	6.1001E-18	3.0662E-23	1.0425E-20	1.0763E-15	6.0990E-12	6.1001E-12	1.5815E-232	3.1464E-221	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Eu152	340	1.33E+01	1.771E+02		9.6756E+05	3.1966E-03	1.6068E-08	5.4630E-06	5.6401E-01	3.1961E+03	3.1966E+03	1.5252E-08	3.0343E+03	1.4477E-08	2.8802E+03	1.3742E-08	2.7339E+03
Eu154	340	8.80E+00	2.642E+02		8.2083E+05	1.8180E-03	9.1379E-09	3.1069E-06	3.2076E-01	1.8176E+03	1.8180E+03	8.4457E-09	1.6802E+03	7.8060E-09	1.5530E+03	7.2147E-09	1.4353E+03
Eu155	340	4.96E+00	4.656E+02		1.7643E+05	2.2167E-04	1.1142E-09	3.7883E-07	3.9111E-02	2.2163E+02	2.2167E+02	9.6888E-10	1.9276E+02	8.4252E-10	1.6762E+02	7.3263E-10	1.4575E+02
Eu156	340	4.16E-02	5.510E+04		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Fe-59	220	1.22E-01	4.980E+04		4.5106E-32	5.2992E-43	4.1161E-48	9.0555E-46	1.4449E-40	5.2978E-37	5.2992E-37	1.3975E-50	1.7992E-39	4.7451E-53	6.1089E-42	1.6111E-55	2.0742E-44
Fr221	500	9.13E-06	1.773E+08		5.1214E-05	1.6902E-19	5.7774E-25	2.8887E-22	2.0280E-17	1.6900E-13	1.6902E-13	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Fr223	500	4.15E-05	3.868E+07		2.8236E-04	4.2706E-18	1.4598E-23	7.2988E-21	5.1241E-16	4.2700E-12	4.2706E-12	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Gd152	240	1.08E+14	2.181E-11		2.7193E-11	7.2952E-07	5.1944E-12	1.2466E-09	1.8233E-04	7.2933E-01	7.2952E-01	5.1944E-12	7.2951E-01	5.1943E-12	7.2951E-01	5.1943E-12	7.2951E-01
Gd153	240	6.63E-01	3.529E+03		2.0117E-08	3.3350E-18	2.3746E-23	5.6991E-21	8.3355E-16	3.3342E-12	3.3350E-12	8.3477E-24	1.1724E-12	2.9345E-24	4.1213E-13	1.0316E-24	1.4488E-13
H 3	0	1.24E+01	9.567E+03		4.9562E+04	3.0308E-06	8.6342E-08	0.0000E+00	3.0308E+00	0.0000E+00	3.0308E+00	8.1648E-08	2.8219E+00	7.6021E-08	2.6274E+00	7.0782E-08	2.4464E+00
Hf-181	450	1.16E-01	1.702E+04		7.8000E-34	2.6808E-44	1.0182E-49	4.5817E-47	3.5740E-42	2.6805E-38	2.6808E-38	2.6086E-52	6.8684E-41	6.6832E-55	1.7597E-43	1.7123E-57	4.5084E-46
Ho166m	250	3.06E-03	7.048E+05		2.7002E-03	2.2413E-15	1.5321E-20	3.8301E-18	5.3778E-13	2.2408E-09	2.2413E-09	6.1504E-119	8.9976E-108	2.4690E-217	3.6120E-206	0.0000E+00	1.4500E-304
I129	0	1.57E+07	1.768E-04		1.2980E+03	4.2952E+00	1.2236E-01	0.0000E+00	4.2952E+06	0.0000E+00	4.2952E+06	1.2236E-01	4.2292E+06	1.2048E-01	4.1641E+06	1.1863E-01	4.1000E+06
I131	0	2.20E-02	1.241E+05		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
In114	390	2.28E-06	1.378E+09		1.8859E-51	8.0078E-67	3.5091E-72	1.3686E-69	1.2318E-64	8.0066E-61	8.0078E-61	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
In114m	390	1.36E-01	2.316E+04		1.9747E-51	4.9876E-62	2.1857E-67	8.5240E-65	7.6721E-60	4.9869E-56	4.9876E-56	1.3178E-69	3.0073E-58	7.9460E-72	1.8133E-60	4.7910E-74	1.0933E-62
In115	390	5.10E+15	6.106E-13		5.7786E-09	5.5369E-03	2.4264E-08	9.4628E-06	8.5170E-01	5.5361E+03	5.5369E+03	2.4264E-08	5.5369E+03	2.4263E-08	5.5369E+03	2.4263E-08	5.5369E+03
In115m	390	5.13E-04	6.075E+06		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
K-40	15	1.28E+09	6.995E-06		1.9170E+03	1.6034E+02	1.8199E-02	2.7298E-01	6.3881E+05	1.5970E+08	1.6034E+08	1.8199E-02	1.6033E+08	1.8197E-02	1.6032E+08	1.8196E-02	1.6031E+08
Kr81	0	2.10E+05	2.106E-02		5.3022E-06	1.4732E-10	4.1969E-12	0.0000E+00	1.4732E-04	0.0000E+00	1.4732E-04	4.1968E-12	1.4505E-04	4.1323E-12	1.4282E-04	4.0687E-12	1.4062E-04
Kr85	0	1.07E+01	3.938E+02		1.1587E+06	1.7213E-03	4.9037E-05	0.0000E+00	1.7213E+03	0.0000E+00	1.7213E+03	4.5961E-05	1.5885E+03	4.2415E-05	1.4659E+03	3.9143E-05	1.3529E+03
La138	1200	1.35E+11	1.922E-08		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
La140	1200	4.60E-03	5.559E+05		2.6479E-102	2.7868E-114	3.9693E-120	4.7632E-117	1.3933E-112	2.7866E-108	2.7868E-108	1.4585E-185	1.0240E-173	5.3592E-251	3.7626E-239	0.0000E+00	1.3825E-304
Mn-54	50	8.58E-01	7.735E+03		1.9306E-05	1.4602E-15	4.9858E-20	2.4929E-18	1.7501E-12	1.4584E-09	1.4602E-09	2.2217E-20	6.5067E-10	9.9002E-21	2.8994E-10	4.4116E-21	1.2920E-10
Nb92	100	3.70E+07	1.052E-04		6.3451E-16	3.5280E-18	6.0268E-23	6.0268E-21	2.1155E-15	3.5259E-12	3.5280E-12	6.0268E-23	3.5280E-12	6.0268E-23	3.5280E-12	6.0267E-23	3.5279E-12
Nb93m	100	1.36E+01	2.832E+02		1.3504E+01	2.7898E-08	4.7658E-13	4.7658E-11	1.6729E-05	2.7882E-02	2.7898E-02	4.5290E-13	2.6512E-02	4.3039E-13	2.5194E-02	4.0900E-13	2.3942E-02
Nb94	100	2.03E+04	1.877E-01		8.8310E-03	2.7526E-08	4.7022E-13	4.7022E-11	1.6506E-05	2.7510E-02	2.7526E-02	4.7021E-13	2.7525E-02	4.7019E-13	2.7524E-02	4.7017E-13	2.7523E-02
Nb95	100	9.64E-02	3.909E+04		4.8005E-30	7.1842E-41	1.2273E-45	1.2273E-43	4.3079E-38	7.1799E-35	7.1842E-35	9.2781E-49	5.4312E-38	7.0142E-52	4.1060E-41	5.3027E-55	3.1041E-44
Nb95m	100	9.89E-03	3.814E+05		1.8410E-32	2.8243E-44	4.8247E-49	4.8247E-47	1.6936E-41	2.8226E-38	2.8243E-38	1.7095E-79	1.0007E-68	6.0569E-110	3.5456E-99	2.1460E-140	1.2562E-129
Nd144	240	2.10E+15	1.184E-12		3.2682E-07	1.6149E-01	1.1499E-06	2.7597E-04	4.0364E+01	1.6145E+05	1.6149E+05	1.1499E-06	1.6149E+05	1.1499E-06	1.6149E+05	1.1499E-06	1.6149E+05
Nd147	240	3.01E-02	8.081E+04		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Np235	8	1.08E+00	1.403E+03		6.7983E-08	2.8346E-17	6.0114E-21	4.8091E-20	2.1101E-13	2.8135E-11	2.8346E-11	3.1733E-21	1.4962E-11	1.6749E-21	7.8971E-12	8.8407E-22	4.1682E-12
Np236	8	1.15E+05	1.318E-02		6.9343E-05	3.0778E-09	6.5271E-13	5.2217E-12	2.2912E-05	3.0549E-03	3.0778E-03	6.5271E-13	3.0774E-03	6.5263E-13	3.0770E-03	6.5255E-13	3.0767E-03
Np237	8	2.14E+06	7.053E-04		6.4305E+02	5.3338E-01	1.1311E-04	9.0491E-04	3.9706E+03	5.2941E+05	5.3338E+05	1.1311E-04	5.3332E+05	1.1310E-04	5.3326E+05	1.1309E-04	5.3319E+05

Table C.2 Model calculations (Design Inv.).

	Leachate Concentration (mg/L) (4 Yr)	Remaining ICDF Contaminant Mass (mg) (4 Yr)	Leachate Concentration (mg/L) (5 Yr)	Remaining ICDF Contaminant Mass (mg) (5 Yr)	Leachate Concentration (mg/L) (6 Yr)	Remaining ICDF Contaminant Mass (mg) (6 Yr)	Leachate Concentration (mg/L) (7 Yr)	Remaining ICDF Contaminant Mass (mg) (7 Yr)	Leachate Concentration (mg/L) (8 Yr)	Remaining ICDF Contaminant Mass (mg) (8 Yr)	Leachate Concentration (mg/L) (9 Yr)	Remaining ICDF Contaminant Mass (mg) (9 Yr)	Leachate Concentration (mg/L) (10 Yr)	Remaining ICDF Contaminant Mass (mg) (10 Yr)	Leachate Concentration (mg/L) (11 Yr)	Remaining ICDF Contaminant Mass (mg) (11 Yr)
Cm243	1.5604E-17	3.6516E-05	1.5229E-17	3.5638E-05	1.4863E-17	3.4782E-05	1.4506E-17	3.3946E-05	1.4157E-17	3.3131E-05	1.3817E-17	3.2334E-05	1.3485E-17	3.1558E-05	1.3161E-17	3.0799E-05
Cm244	4.7768E-15	1.1179E-02	4.5974E-15	1.0759E-02	4.4246E-15	1.0354E-02	4.2584E-15	9.9654E-03	4.0984E-15	9.5910E-03	3.9444E-15	9.2306E-03	3.7962E-15	8.8838E-03	3.6536E-15	8.5500E-03
Cm245	1.1672E-16	2.7314E-04	1.1671E-16	2.7312E-04	1.1670E-16	2.7309E-04	1.1669E-16	2.7307E-04	1.1668E-16	2.7305E-04	1.1667E-16	2.7303E-04	1.1666E-16	2.7301E-04	1.1665E-16	2.7298E-04
Cm246	1.4550E-18	3.4049E-06	1.4548E-18	3.4044E-06	1.4546E-18	3.4039E-06	1.4544E-18	3.4034E-06	1.4541E-18	3.4029E-06	1.4539E-18	3.4024E-06	1.4537E-18	3.4019E-06	1.4535E-18	3.4014E-06
Cm247	1.7209E-21	4.0273E-09	1.7209E-21	4.0273E-09	1.7209E-21	4.0273E-09	1.7209E-21	4.0273E-09	1.7209E-21	4.0273E-09	1.7209E-21	4.0273E-09	1.7209E-21	4.0273E-09	1.7209E-21	4.0273E-09
Cm248	1.1478E-23	2.6860E-11	1.1478E-23	2.6860E-11	1.1478E-23	2.6860E-11	1.1478E-23	2.6860E-11	1.1478E-23	2.6860E-11	1.1478E-23	2.6860E-11	1.1478E-23	2.6859E-11	1.1478E-23	2.6859E-11
Cm250	9.3689E-34	2.1925E-21	9.3682E-34	2.1923E-21	9.3675E-34	2.1922E-21	9.3668E-34	2.1920E-21	9.3662E-34	2.1918E-21	9.3655E-34	2.1917E-21	9.3648E-34	2.1915E-21	9.3642E-34	2.1914E-21
Co-57	1.0356E-15	6.0945E-06	4.0711E-16	2.3958E-06	1.6004E-16	9.4182E-07	6.2913E-17	3.7024E-07	2.4732E-17	1.4554E-07	9.7223E-18	5.7215E-08	3.8219E-18	2.2492E-08	1.5024E-18	8.8417E-09
Co-58	1.1373E-34	6.6927E-25	3.1908E-36	1.8778E-26	8.9525E-38	5.2685E-28	2.5118E-39	1.4782E-29	7.0473E-41	4.1473E-31	1.9773E-42	1.1636E-32	5.5476E-44	3.2647E-34	1.5565E-45	9.1598E-36
Co-60	1.0024E-08	5.8992E+01	8.7881E-09	5.1717E+01	7.7043E-09	4.5339E+01	6.7541E-09	3.9748E+01	5.9212E-09	3.4846E+01	5.1910E-09	3.0548E+01	4.5508E-09	2.6781E+01	3.9896E-09	2.3478E+01
Cr-51	1.1253E-82	1.9790E-72	1.2151E-86	2.1369E-76	1.3121E-90	2.3074E-80	1.4168E-94	2.4916E-84	1.5299E-98	2.6904E-88	1.6520E-102	2.9051E-92	1.7838E-106	3.1370E-96	1.9262E-110	3.3873E-100
Cs132	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Cs134	4.5000E-12	1.3165E+00	3.2142E-12	9.4033E-01	2.2959E-12	6.7166E-01	1.6399E-12	4.7975E-01	1.1713E-12	3.4268E-01	8.3666E-13	2.4477E-01	5.9761E-13	1.7483E-01	4.2686E-13	1.2488E-01
Cs135	6.2106E-08	1.8169E+04	6.2106E-08	1.8169E+04	6.2106E-08	1.8169E+04	6.2106E-08	1.8169E+04	6.2106E-08	1.8169E+04	6.2106E-08	1.8169E+04	6.2105E-08	1.8169E+04	6.2105E-08	1.8169E+04
Cs136	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Cs137	5.1137E-07	1.4960E+05	4.9969E-07	1.4618E+05	4.8827E-07	1.4285E+05	4.7712E-07	1.3958E+05	4.6622E-07	1.3639E+05	4.5557E-07	1.3328E+05	4.4517E-07	1.3023E+05	4.3500E-07	1.2726E+05
Er169	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Eu150	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Eu152	1.3044E-08	2.5951E+03	1.2382E-08	2.4633E+03	1.1753E-08	2.3382E+03	1.1156E-08	2.2195E+03	1.0589E-08	2.1067E+03	1.0052E-08	1.9998E+03	9.5412E-09	1.8982E+03	9.0567E-09	1.8018E+03
Eu154	6.6682E-09	1.3266E+03	6.1631E-09	1.2261E+03	5.6963E-09	1.1333E+03	5.2648E-09	1.0474E+03	4.8660E-09	9.6808E+02	4.4974E-09	8.9475E+02	4.1568E-09	8.2697E+02	3.8419E-09	7.6433E+02
Eu155	6.3708E-10	1.2674E+02	5.5399E-10	1.1021E+02	4.8173E-10	9.5839E+01	4.1890E-10	8.3340E+01	3.6427E-10	7.2470E+01	3.1676E-10	6.3018E+01	2.7545E-10	5.4799E+01	2.3952E-10	4.7652E+01
Eu156	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Fe-59	5.4701E-58	7.0423E-47	1.8572E-60	2.3911E-49	6.3059E-63	8.1183E-52	2.1410E-65	2.7564E-54	7.2694E-68	9.3588E-57	2.4682E-70	3.1776E-59	8.3801E-73	1.0789E-61	2.8453E-75	3.6631E-64
Fr221	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Fr223	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Gd152	5.1943E-12	7.2950E-01	5.1943E-12	7.2950E-01	5.1943E-12	7.2950E-01	5.1942E-12	7.2950E-01	5.1942E-12	7.2949E-01	5.1942E-12	7.2949E-01	5.1942E-12	7.2949E-01	5.1942E-12	7.2948E-01
Gd153	3.6263E-25	5.0929E-14	1.2748E-25	1.7903E-14	4.4812E-26	6.2935E-15	1.5753E-26	2.2124E-15	5.5376E-27	7.7772E-16	1.9467E-27	2.7339E-16	6.8431E-28	9.6107E-17	2.4056E-28	3.3785E-17
H 3	6.5904E-08	2.2778E+00	6.1362E-08	2.1208E+00	5.7133E-08	1.9746E+00	5.3196E-08	1.8386E+00	4.9530E-08	1.7119E+00	4.6117E-08	1.5939E+00	4.2939E-08	1.4840E+00	3.9979E-08	1.3818E+00
Hf-181	4.3869E-60	1.1551E-48	1.1239E-62	2.9593E-51	2.8796E-65	7.5819E-54	7.3776E-68	1.9425E-56	1.8902E-70	4.9768E-59	4.8427E-73	1.2751E-61	1.2407E-75	3.2668E-64	3.1787E-78	8.3696E-67
Ho166m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
I129	1.1680E-01	4.0369E+06	1.1501E-01	3.9748E+06	1.1324E-01	3.9137E+06	1.1149E-01	3.8534E+06	1.0978E-01	3.7942E+06	1.0809E-01	3.7358E+06	1.0643E-01	3.6783E+06	1.0479E-01	3.6217E+06
I131	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
In114	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
In114m	2.8888E-76	6.5921E-65	1.7418E-78	3.9747E-67	1.0502E-80	2.3966E-69	6.3323E-83	1.4450E-71	3.8181E-85	8.7128E-74	2.3021E-87	5.2534E-76	1.3881E-89	3.1675E-78	8.3694E-92	1.9099E-80
In115	2.4263E-08	5.5369E+03	2.4263E-08	5.5368E+03	2.4263E-08	5.5368E+03	2.4263E-08	5.5368E+03	2.4263E-08	5.5368E+03	2.4263E-08	5.5368E+03	2.4263E-08	5.5368E+03	2.4263E-08	5.5368E+03
In115m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
K-40	1.8195E-02	1.6030E+08	1.8194E-02	1.6029E+08	1.8193E-02	1.6028E+08	1.8192E-02	1.6027E+08	1.8191E-02	1.6026E+08	1.8190E-02	1.6025E+08	1.8188E-02	1.6024E+08	1.8187E-02	1.6023E+08
Kr81	4.0060E-12	1.3846E-04	3.9444E-12	1.3633E-04	3.8837E-12	1.3423E-04	3.8239E-12	1.3216E-04	3.7651E-12	1.3013E-04	3.7071E-12	1.2813E-04	3.6501E-12	1.2615E-04	3.5939E-12	1.2421E-04
Kr85	3.6123E-05	1.2485E+03	3.3336E-05	1.1522E+03	3.0764E-05	1.0633E+03	2.8391E-05	9.8125E+02	2.6201E-05	9.0555E+02	2.4179E-05	8.3569E+02	2.2314E-05	7.7121E+02	2.0592E-05	7.1172E+02
La138	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
La140	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Mn-54	1.9658E-21	5.7572E-11	8.7599E-22	2.5654E-11	3.9034E-22	1.1432E-11	1.7394E-22	5.0941E-12	7.7508E-23	2.2699E-12	3.4538E-23	1.0115E-12	1.5390E-23	4.5073E-13	6.8581E-24	2.0085E-13
Nb92	6.0267E-23	3.5279E-12	6.0266E-23	3.5279E-12	6.0265E-23	3.5278E-12	6.0265E-23	3.5278E-12	6.0264E-23	3.5278E-12	6.0264E-23	3.5277E-12	6.0263E-23	3.5277E-12	6.0263E-23	3.5277E-12
Nb93m	3.8868E-13	2.2752E-02	3.6936E-13	2.1622E-02	3.5100E-13	2.0547E-02	3.3356E-13	1.9526E-02	3.1698E-13	1.8555E-02	3.0123E-13	1.7633E-02	2.8626E-13	1.6757E-02	2.7203E-13	1.5924E-02
Nb94	4.7015E-13	2.7522E-02	4.7013E-13	2.7520E-02	4.7011E-13	2.7519E-02	4.7009E-13	2.7518E-02	4.7007E-13	2.7517E-02	4.7005E-13	2.7516E-02	4.7002E-13	2.7514E-02	4.7000E-13	2.7513E-02
Nb95	4.0088E-58	2.3467E-47	3.0307E-61	1.7741E-50	2.2912E-64	1.3412E-53	1.7321E-67	1.0140E-56	1.3095E-70	7.6655E-60	9.8997E-74	5.7951E-63	7.4841E-77	4.3811E-66	5.6580E-80	3.3121E-69
Nb95m	7.6037E-171	4.4510E-160	2.6941E-201	1.5771E-190	9.5454E-232	5.5877E-221	3.3821E-262	1.9798E-251	1.1983E-292	7.0147E-282	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Nd144	1.1499E-06	1.6149E+05	1.1499E-06	1.6149E+05	1.1499E-06	1.6149E+05	1.1499E-06	1.6149E+05	1.1499E-06	1.6149E+05	1.1499E-06	1.6149E+05	1.1498E-06	1.6149E+05	1.1498E-06	1.6149E+05
Nd147	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Np235	4.6663E-22	2.2001E-12	2.4630E-22	1.1612E-12	1.3000E-22	6.1293E-13	6.8616E-23	3.2352E-13	3.6217E-23	1.7076E-13	1.9116E-23	9.0129E-14	1.0090E-23	4.7572E-14	5.3256E-24	2.5110E-14
Np236	6.5247E-13	3.0763E-03	6.5239E-13	3.0759E-03	6.5231E-13	3.0756E-03	6.5224E-13	3.0752E-03	6.5216E-13	3.0748E-03	6.5208E-13	3.0745E-03	6.5200E-13	3.0741E-03	6.5192E-13	3.0737E-03
Np237	1.1308E-04	5.3313E+05	1.1306E-04	5.3307E+05	1.1305E-04	5.3301E+05	1.1304E-04	5.3295E+05	1.1302E-04	5.3289E+05	1.1301E-04	5.3283E+05	1.1300E-04	5.3277E+05	1.1298E-04	5.3270E+05

Table C.2 Model calculations (Design Inv.).

	Leachate Concentration (mg/L) (12 Yr)	Remaining ICDF Contaminant Mass (mg) (12 Yr)	Leachate Concentration (mg/L) (13 Yr)	Remaining ICDF Contaminant Mass (mg) (13 Yr)	Leachate Concentration (mg/L) (14 Yr)	Remaining ICDF Contaminant Mass (mg) (14 Yr)	Leachate Concentration (mg/L) (15 Yr)	Remaining ICDF Contaminant Mass (mg) (15 Yr)
Cm243	1.2845E-17	3.0059E-05	1.2536E-17	2.9337E-05	1.2235E-17	2.8632E-05	1.1941E-17	2.7944E-05
Cm244	3.5163E-15	8.2288E-03	3.3842E-15	7.9196E-03	3.2570E-15	7.6221E-03	3.1347E-15	7.3357E-03
Cm245	1.1664E-16	2.7296E-04	1.1663E-16	2.7294E-04	1.1662E-16	2.7292E-04	1.1661E-16	2.7289E-04
Cm246	1.4533E-18	3.4009E-06	1.4531E-18	3.4004E-06	1.4529E-18	3.3999E-06	1.4526E-18	3.3994E-06
Cm247	1.7209E-21	4.0273E-09	1.7209E-21	4.0273E-09	1.7209E-21	4.0273E-09	1.7209E-21	4.0273E-09
Cm248	1.1477E-23	2.6859E-11	1.1477E-23	2.6859E-11	1.1477E-23	2.6859E-11	1.1477E-23	2.6859E-11
Cm250	9.3635E-34	2.1912E-21	9.3628E-34	2.1911E-21	9.3621E-34	2.1909E-21	9.3615E-34	2.1907E-21
Co-57	5.9062E-19	3.4758E-09	2.3218E-19	1.3664E-09	9.1272E-20	5.3713E-10	3.5880E-20	2.1115E-10
Co-58	4.3670E-47	2.5699E-37	1.2252E-48	7.2105E-39	3.4377E-50	2.0230E-40	9.6450E-52	5.6760E-42
Co-60	3.4976E-09	2.0583E+01	3.0662E-09	1.8044E+01	2.6881E-09	1.5819E+01	2.3566E-09	1.3868E+01
Cr-51	2.0799E-114	3.6577E-104	2.2459E-118	3.9496E-108	2.4251E-122	4.2648E-112	2.6187E-126	4.6051E-116
Cs132	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Cs134	3.0490E-13	8.9198E-02	2.1778E-13	6.3713E-02	1.5556E-13	4.5509E-02	1.1111E-13	3.2506E-02
Cs135	6.2105E-08	1.8169E+04	6.2105E-08	1.8169E+04	6.2105E-08	1.8169E+04	6.2105E-08	1.8169E+04
Cs136	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Cs137	4.2506E-07	1.2435E+05	4.1535E-07	1.2151E+05	4.0586E-07	1.1874E+05	3.9659E-07	1.1602E+05
Er169	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Eu150	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Eu152	8.5968E-09	1.7103E+03	8.1602E-09	1.6234E+03	7.7458E-09	1.5410E+03	7.3524E-09	1.4627E+03
Eu154	3.5509E-09	7.0644E+02	3.2819E-09	6.5293E+02	3.0333E-09	6.0347E+02	2.8036E-09	5.5776E+02
Eu155	2.0828E-10	4.1437E+01	1.8112E-10	3.6033E+01	1.5749E-10	3.1333E+01	1.3695E-10	2.7246E+01
Eu156	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Fe-59	9.6605E-78	1.2437E-66	3.2800E-80	4.2228E-69	1.1137E-82	1.4338E-71	3.7812E-85	4.8680E-74
Fr221	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Fr223	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Gd152	5.1941E-12	7.2948E-01	5.1941E-12	7.2948E-01	5.1941E-12	7.2948E-01	5.1941E-12	7.2947E-01
Gd153	8.4564E-29	1.1876E-17	2.9727E-29	4.1749E-18	1.0450E-29	1.4676E-18	3.6735E-30	5.1592E-19
H 3	3.7224E-08	1.2865E+00	3.4659E-08	1.1979E+00	3.2270E-08	1.1153E+00	3.0046E-08	1.0385E+00
Hf-181	8.1440E-81	2.1443E-69	2.0865E-83	5.4938E-72	5.3458E-86	1.4075E-74	1.3696E-88	3.6062E-77
Ho166m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
I129	1.0318E-01	3.5660E+06	1.0159E-01	3.5111E+06	1.0003E-01	3.4571E+06	9.8486E-02	3.4039E+06
I131	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
In114	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
In114m	5.0463E-94	1.1516E-82	3.0427E-96	6.9434E-85	1.8346E-98	4.1865E-87	1.1062E-100	2.5243E-89
In115	2.4263E-08	5.5367E+03	2.4263E-08	5.5367E+03	2.4263E-08	5.5367E+03	2.4263E-08	5.5367E+03
In115m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
K-40	1.8186E-02	1.6022E+08	1.8185E-02	1.6021E+08	1.8184E-02	1.6020E+08	1.8183E-02	1.6019E+08
Kr81	3.5386E-12	1.2230E-04	3.4841E-12	1.2042E-04	3.4305E-12	1.1857E-04	3.3777E-12	1.1674E-04
Kr85	1.9004E-05	6.5681E+02	1.7538E-05	6.0614E+02	1.6185E-05	5.5938E+02	1.4936E-05	5.1622E+02
La138	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
La140	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Mn-54	3.0560E-24	8.9499E-14	1.3618E-24	3.9881E-14	6.0681E-25	1.7771E-14	2.7040E-25	7.9190E-15
Nb92	6.0262E-23	3.5276E-12	6.0262E-23	3.5276E-12	6.0261E-23	3.5276E-12	6.0260E-23	3.5275E-12
Nb93m	2.5851E-13	1.5133E-02	2.4566E-13	1.4381E-02	2.3345E-13	1.3666E-02	2.2185E-13	1.2987E-02
Nb94	4.6998E-13	2.7512E-02	4.6996E-13	2.7511E-02	4.6994E-13	2.7510E-02	4.6992E-13	2.7508E-02
Nb95	4.2774E-83	2.5039E-72	3.2337E-86	1.8930E-75	2.4447E-89	1.4311E-78	1.8482E-92	1.0819E-81
Nb95m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Nd144	1.1498E-06	1.6149E+05	1.1498E-06	1.6149E+05	1.1498E-06	1.6149E+05	1.1498E-06	1.6149E+05
Nd147	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Np235	2.8110E-24	1.3253E-14	1.4837E-24	6.9954E-15	7.8312E-25	3.6923E-15	4.1335E-25	1.9489E-15
Np236	6.5184E-13	3.0733E-03	6.5176E-13	3.0730E-03	6.5169E-13	3.0726E-03	6.5161E-13	3.0722E-03
Np237	1.1297E-04	5.3264E+05	1.1296E-04	5.3258E+05	1.1295E-04	5.3252E+05	1.1293E-04	5.3246E+05

Table C.2 Model calculations (Design Inv.).

	Kd (mL/g) or (L/kg)	Half-Life in years	Isotope Specific Activity (Ci/g)	Design Inventory mg/kg from non-rads	pCi/kg from rads	Total Inventory (kg)	Initial Soil Water Concentration (mg/L)	Initial Soil Concentration (mg/kg)	Initial Contaminant Mass in Soil Water (mg)	Initial Contaminant Mass on Soil (mg)	Remaining ICDF Contaminant Mass (mg) (0 Yr)	Leachate Concentration (mg/L) (1 Yr)	Remaining ICDF Contaminant Mass (mg) (1 Yr)	Leachate Concentration (mg/L) (2 Yr)	Remaining ICDF Contaminant Mass (mg) (2 Yr)	Leachate Concentration (mg/L) (3 Yr)	Remaining ICDF Contaminant Mass (mg) (3 Yr)
Np238	8	5.81E-03	2.588E+05		2.1800E-04	4.9284E-16	1.0452E-19	8.3615E-19	3.6688E-12	4.8918E-10	4.9284E-10	1.5521E-71	7.3178E-62	2.3046E-123	1.0866E-113	3.4218E-175	1.6133E-165
Np239	8	6.47E-03	2.315E+05		3.3402E-01	8.4418E-13	1.7903E-16	1.4322E-15	6.2842E-09	8.3789E-07	8.4418E-07	4.9580E-63	2.3376E-53	1.3730E-109	6.4733E-100	3.8019E-156	1.7925E-146
Np240	8	1.24E-04	1.205E+07		2.7918E-11	1.3552E-24	2.8740E-28	2.2992E-27	1.0088E-20	1.3451E-18	1.3552E-18	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Np240m	8	1.41E-05	1.059E+08		2.5380E-08	1.4026E-22	2.9745E-26	2.3796E-25	1.0441E-18	1.3921E-16	1.4026E-16	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pa231	550	3.28E+04	4.722E-02		6.9796E-02	8.6482E-07	2.6874E-12	1.4781E-09	9.4334E-05	8.6473E-01	8.6482E-01	2.6874E-12	8.6480E-01	2.6873E-12	8.6478E-01	2.6872E-12	8.6476E-01
Pa233	550	7.40E-02	2.076E+04		4.3555E+01	1.2277E-09	3.8149E-15	2.0982E-12	1.3391E-07	1.2275E-03	1.2277E-03	3.2509E-19	1.0462E-07	2.7703E-23	8.9149E-12	2.3607E-27	7.5969E-16
Pa234	550	7.65E-04	1.999E+06		2.7420E-03	8.0255E-16	2.4939E-21	1.3717E-18	8.7542E-14	8.0247E-10	8.0255E-10	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pa234m	550	2.23E-06	6.868E+08		1.7132E+00	1.4594E-15	4.5350E-21	2.4943E-18	1.5919E-13	1.4592E-09	1.4594E-09	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pb209	100	3.71E-04	4.615E+06		4.8495E-05	6.1478E-18	1.0502E-22	1.0502E-20	3.6865E-15	6.1441E-12	6.1478E-12	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pb210	100	2.23E+01	7.641E+01		1.0923E-03	8.3630E-12	1.4286E-16	1.4286E-14	5.0148E-09	8.3580E-06	8.3630E-06	1.3849E-16	8.1070E-06	1.3425E-16	7.8588E-06	1.3014E-16	7.6182E-06
Pb211	100	6.87E-05	2.469E+07		1.8310E-02	4.3386E-16	7.4114E-21	7.4114E-19	2.6016E-13	4.3359E-10	4.3386E-10	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pb212	100	1.21E-03	1.395E+06		5.5293E-01	2.3192E-13	3.9618E-18	3.9618E-16	1.3907E-10	2.3178E-07	2.3192E-07	6.6398E-267	3.8868E-256	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pb214	100	5.10E-05	3.279E+07		5.6199E-03	1.0027E-16	1.7129E-21	1.7129E-19	6.0125E-14	1.0021E-10	1.0027E-10	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pd107	55	6.50E+06	5.149E-04		6.1185E+00	6.9518E-03	2.1581E-07	1.1870E-05	7.5755E+00	6.9442E+03	6.9518E+03	2.1581E-07	6.9517E+03	2.1581E-07	6.9516E+03	2.1581E-07	6.9515E+03
Pm146	240	5.53E+00	4.431E+02		5.8103E+00	7.6718E-09	5.4626E-14	1.3110E-11	1.9175E-06	7.6699E-03	7.6718E-03	4.8195E-14	6.7686E-03	4.2521E-14	5.9718E-03	3.7515E-14	5.2688E-03
Pm147	240	2.62E+00	9.295E+02		3.8163E+05	2.4019E-04	1.7102E-09	4.1045E-07	6.0031E-02	2.4013E+02	2.4019E+02	1.3126E-09	1.8435E+02	1.0075E-09	1.4150E+02	7.7331E-10	1.0861E+02
Pm148	240	1.47E-02	1.644E+05		3.9733E-56	1.4138E-67	1.0067E-72	2.4160E-70	3.5336E-65	1.4135E-61	1.4138E-61	3.4819E-93	4.8901E-82	1.2043E-113	1.6914E-102	4.1656E-134	5.8502E-123
Pm148m	240	1.13E-01	2.138E+04		8.2300E-55	2.2523E-65	1.6037E-70	3.8488E-68	5.6293E-63	2.2517E-59	2.2523E-59	3.5050E-73	4.9225E-62	7.6603E-76	1.0758E-64	1.6742E-78	2.3513E-67
Po210	150	3.78E-01	4.507E+03		1.0152E-03	1.3179E-13	1.5011E-18	2.2517E-16	5.2693E-11	1.3173E-07	1.3179E-07	2.4001E-19	2.1070E-08	3.8372E-20	3.3687E-09	6.1349E-21	5.3859E-10
Po211	150	1.64E-08	1.036E+11		6.8436E-07	3.8630E-24	4.4003E-29	6.6004E-27	1.5446E-21	3.8615E-18	3.8630E-18	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Po212	150	9.67E-15	1.745E+17		3.2813E-01	1.1000E-24	1.2530E-29	1.8795E-27	4.3983E-22	1.0996E-18	1.1000E-18	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Po213	150	1.33E-13	1.261E+16		4.3419E-05	2.0138E-27	2.2939E-32	3.4409E-30	8.0521E-25	2.0130E-21	2.0138E-21	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Po214	150	5.20E-12	3.215E+14		5.6199E-03	1.0226E-23	1.1648E-28	1.7473E-26	4.0889E-21	1.0222E-17	1.0226E-17	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Po215	150	5.64E-11	2.948E+13		1.8310E-02	3.6332E-22	4.1384E-27	6.2077E-25	1.4527E-19	3.6317E-16	3.6332E-16	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Po216	150	4.76E-09	3.483E+11		5.5293E-01	9.2887E-19	1.0581E-23	1.5871E-21	3.7140E-16	9.2850E-13	9.2887E-13	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Po218	150	5.80E-06	2.828E+08		5.6199E-03	1.1625E-17	1.3242E-22	1.9863E-20	4.6481E-15	1.1620E-11	1.1625E-11	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pr143	240	3.73E-02	6.719E+04		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pr144	240	3.29E-05	7.554E+07		1.7718E+00	1.3723E-14	9.7713E-20	2.3451E-17	3.4299E-12	1.3720E-08	1.3723E-08	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pr144m	240	1.37E-05	1.815E+08		2.5336E-02	8.1671E-17	5.8152E-22	1.3956E-19	2.0413E-14	8.1650E-11	8.1671E-11	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pu236	140	2.85E+00	5.319E+02		5.5293E-03	6.0821E-12	7.4226E-17	1.0392E-14	2.6055E-09	6.0795E-06	6.0821E-06	5.8201E-17	4.7690E-06	4.5636E-17	3.7394E-06	3.5783E-17	2.9320E-06
Pu237	140	1.24E-01	1.216E+04		1.2101E-55	5.8211E-66	7.1041E-71	9.9457E-69	2.4937E-63	5.8186E-60	5.8211E-60	2.6668E-73	2.1852E-62	1.0011E-75	8.2029E-65	3.7579E-78	3.0792E-67
Pu238	140	8.77E+01	1.714E+01		2.3340E+05	7.9673E-03	9.7234E-08	1.3613E-05	3.4131E+00	7.9639E+03	7.9673E+03	9.6468E-08	7.9046E+03	9.5708E-08	7.8423E+03	9.4954E-08	7.7805E+03
Pu239	140	2.41E+04	6.211E-02		6.6623E+03	6.2759E-02	7.6591E-07	1.0723E-04	2.6885E+01	6.2732E+04	6.2759E+04	7.6589E-07	6.2757E+04	7.6586E-07	6.2754E+04	7.6583E-07	6.2752E+04
Pu240	140	6.54E+03	2.279E-01		1.5002E+03	3.8509E-03	4.6997E-08	6.5796E-06	1.6497E+00	3.8493E+03	3.8509E+03	4.6992E-08	3.8505E+03	4.6987E-08	3.8501E+03	4.6981E-08	3.8496E+03
Pu241	140	1.44E+01	1.031E+02		6.3904E+04	3.6270E-04	4.4265E-09	6.1970E-07	1.5538E-01	3.6255E+02	3.6270E+02	4.2184E-09	3.4566E+02	4.0202E-09	3.2941E+02	3.8312E-09	3.1393E+02
Pu242	140	3.76E+05	3.931E-03		2.4066E-01	3.5814E-05	4.3708E-10	6.1191E-08	1.5342E-02	3.5799E+01	3.5814E+01	4.3708E-10	3.5814E+01	4.3707E-10	3.5814E+01	4.3707E-10	3.5813E+01
Pu243	140	5.66E-04	2.600E+06		6.3904E-13	1.4380E-25	1.7550E-30	2.4570E-28	6.1603E-23	1.4374E-19	1.4380E-19	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pu244	140	8.26E+07	1.775E-05		2.5426E-08	8.3811E-10	1.0228E-14	1.4320E-12	3.5903E-07	8.3775E-04	8.3811E-04	1.0228E-14	8.3810E-04	1.0228E-14	8.3810E-04	1.0228E-14	8.3809E-04
Pu246	140	2.99E-02	4.869E+04		1.3823E-22	1.6609E-33	2.0270E-38	2.8378E-36	7.1151E-31	1.6602E-27	1.6609E-27	1.6846E-48	1.3803E-37	1.4000E-58	1.1471E-47	1.1635E-68	9.5334E-58
Ra222	100	1.20E-06	1.337E+09		1.1693E-113	5.1148E-129	8.7375E-134	8.7375E-132	3.0671E-126	5.1118E-123	5.1148E-123	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ra223	100	3.12E-02	5.137E+04		2.0259E-02	2.3073E-13	3.9416E-18	3.9416E-16	1.3836E-10	2.3060E-07	2.3073E-07	9.0663E-28	5.3072E-17	2.0854E-37	1.2207E-26	4.7967E-47	2.8079E-36
Ra224	100	1.00E-02	1.593E+05		5.5293E-01	2.0309E-12	3.4693E-17	3.4693E-15	1.2178E-09	2.0297E-06	2.0309E-06	3.3075E-47	1.9361E-36	3.1531E-77	1.8458E-66	3.0060E-107	1.7596E-96
Ra225	100	4.05E-02	3.921E+04		5.1214E-05	7.6406E-16	1.3052E-20	1.3052E-18	4.5816E-13	7.6360E-10	7.6406E-10	4.9163E-28	2.8779E-17	1.8517E-35	1.0840E-24	6.9747E-43	4.0829E-32
Ra226	100	1.60E+03	9.894E-01		4.7377E+02	2.8015E-04	4.7857E-09	4.7857E-07	1.6799E-01	2.7998E+02	2.8015E+02	4.7836E-09	2.8002E+02	4.7815E-09	2.7990E+02	4.7794E-09	2.7978E+02
Ra228	100	5.75E+00	2.729E+02		1.5228E-07	3.2648E-16	5.5771E-21	5.5771E-19	1.9577E-13	3.2628E-10	3.2648E-10	4.9438E-21	2.8940E-10	4.3823E-21	2.5653E-10	3.8846E-21	2.2740E-10
Rb86	55	5.12E-02	8.129E+04		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Rb87	55	4.70E+10	8.759E-08		1.1149E-02	7.4465E-02	2.3117E-06	1.2714E-04	8.1146E+01	7.4384E+04	7.4465E+04	2.3117E-06	7.4464E+04	2.3117E-06	7.4462E+04	2.3116E-06	7.4461E+04
Rh102	52	2.90E+00	1.211E+03		2.9728E-02	1.4365E-11	4.7165E-16	2.4526E-14	1.6556E-08	1.4348E-05	1.4365E-05	3.7138E-16	1.1311E-05	2.9242E-16	8.9060E-06	2.3025E-16	7.0125E-06
Rh103m	52	1.07E-04	3.258E+07		2.8257E-55	5.0747E-69	1.6662E-73	8.6642E-72	5.8487E-66	5.0689E-63	5.0747E-63	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Rh106	52	9.48E-07	3.563E+09		1.1371E+01	1.8669E-15	6.1297E-20	3.1874E-18	2.1517E-12	1.8648E-09	1.8669E-09	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Rn218	0	1.11E-09	1.479E+12		1.2600E-113	4.9846E-132	1.4200E-133	0.0000E+00	4.9846E-126	0.0000E+00	4.9846E-126	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Rn219	0	1.26E-07	1.301E+10		2.0259E-02	9.1098E-19	2.5952E-20	0.0000E+00	9.1098E-13	0.0000E+00	9.1098E-13	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Table C.2 Model calculations (Design Inv.).

	Leachate Concentration (mg/L) (4 Yr)	Remaining ICDF Contaminant Mass (mg) (4 Yr)	Leachate Concentration (mg/L) (5 Yr)	Remaining ICDF Contaminant Mass (mg) (5 Yr)	Leachate Concentration (mg/L) (6 Yr)	Remaining ICDF Contaminant Mass (mg) (6 Yr)	Leachate Concentration (mg/L) (7 Yr)	Remaining ICDF Contaminant Mass (mg) (7 Yr)	Leachate Concentration (mg/L) (8 Yr)	Remaining ICDF Contaminant Mass (mg) (8 Yr)	Leachate Concentration (mg/L) (9 Yr)	Remaining ICDF Contaminant Mass (mg) (9 Yr)	Leachate Concentration (mg/L) (10 Yr)	Remaining ICDF Contaminant Mass (mg) (10 Yr)	Leachate Concentration (mg/L) (11 Yr)	Remaining ICDF Contaminant Mass (mg) (11 Yr)
Np238	5.0808E-227	2.3955E-217	7.5441E-279	3.5569E-269	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Np239	1.0528E-202	4.9638E-193	2.9153E-249	1.3745E-239	8.0730E-296	3.8063E-286	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Np240	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Np240m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pa231	2.6872E-12	8.6474E-01	2.6871E-12	8.6472E-01	2.6870E-12	8.6470E-01	2.6870E-12	8.6468E-01	2.6869E-12	8.6466E-01	2.6869E-12	8.6464E-01	2.6868E-12	8.6462E-01	2.6867E-12	8.6460E-01
Pa233	2.0117E-31	6.4738E-20	1.7143E-35	5.5167E-24	1.4608E-39	4.7011E-28	1.2449E-43	4.0060E-32	1.0608E-47	3.4138E-36	9.0399E-52	2.9091E-40	7.7034E-56	2.4790E-44	6.5645E-60	2.1125E-48
Pa234	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pa234m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pb209	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pb210	1.2616E-16	7.3850E-06	1.2229E-16	7.1589E-06	1.1855E-16	6.9397E-06	1.1492E-16	6.7273E-06	1.1140E-16	6.5213E-06	1.0799E-16	6.3217E-06	1.0469E-16	6.1282E-06	1.0148E-16	5.9405E-06
Pb211	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pb212	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pb214	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pd107	2.1580E-07	6.9513E+03	2.1580E-07	6.9512E+03	2.1580E-07	6.9511E+03	2.1579E-07	6.9510E+03	2.1579E-07	6.9509E+03	2.1578E-07	6.9508E+03	2.1578E-07	6.9506E+03	2.1578E-07	6.9505E+03
Pm146	3.3099E-14	4.6485E-03	2.9202E-14	4.1013E-03	2.5765E-14	3.6185E-03	2.2731E-14	3.1925E-03	2.0055E-14	2.8166E-03	1.7694E-14	2.4851E-03	1.5611E-14	2.1925E-03	1.3774E-14	1.9344E-03
Pm147	5.9354E-10	8.3359E+01	4.5557E-10	6.3982E+01	3.4967E-10	4.9108E+01	2.6838E-10	3.7693E+01	2.0600E-10	2.8931E+01	1.5811E-10	2.2205E+01	1.2136E-10	1.7044E+01	9.3146E-11	1.3082E+01
Pm148	1.4408E-154	2.0235E-143	4.9834E-175	6.9989E-164	1.7237E-195	2.4208E-184	5.9619E-216	8.3731E-205	2.0621E-236	2.8961E-225	7.1325E-257	1.0017E-245	2.4670E-277	3.4647E-266	8.5329E-298	1.1984E-286
Pm148m	3.6591E-81	5.1390E-70	7.9972E-84	1.1232E-72	1.7478E-86	2.4547E-75	3.8200E-89	5.3650E-78	8.3489E-92	1.1725E-80	1.8247E-94	2.5627E-83	3.9880E-97	5.6009E-86	8.7161E-100	1.2241E-88
Po210	9.8086E-22	8.6109E-11	1.5682E-22	1.3767E-11	2.5072E-23	2.2011E-12	4.0086E-24	3.5191E-13	6.4089E-25	5.6264E-14	1.0247E-25	8.9955E-15	1.6382E-26	1.4382E-15	2.6192E-27	2.2994E-16
Po211	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Po212	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Po213	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Po214	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Po215	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Po216	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Po218	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pr143	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pr144	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pr144m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pu236	2.8058E-17	2.2990E-06	2.2000E-17	1.8027E-06	1.7250E-17	1.4135E-06	1.3526E-17	1.1083E-06	1.0606E-17	8.6903E-07	8.3160E-18	6.8141E-07	6.5206E-18	5.3429E-07	5.1128E-18	4.1894E-07
Pu237	1.4107E-80	1.1559E-69	5.2955E-83	4.3391E-72	1.9879E-85	1.6289E-74	7.4622E-88	6.1145E-77	2.8012E-90	2.2953E-79	1.0515E-92	8.6163E-82	3.9474E-95	3.2345E-84	1.4818E-97	1.2142E-86
Pu238	9.4206E-08	7.7192E+03	9.3464E-08	7.6584E+03	9.2727E-08	7.5980E+03	9.1997E-08	7.5382E+03	9.1272E-08	7.4788E+03	9.0553E-08	7.4198E+03	8.9839E-08	7.3614E+03	8.9131E-08	7.3034E+03
Pu239	7.6581E-07	6.2750E+04	7.6578E-07	6.2748E+04	7.6575E-07	6.2745E+04	7.6573E-07	6.2743E+04	7.6570E-07	6.2741E+04	7.6567E-07	6.2739E+04	7.6564E-07	6.2737E+04	7.6562E-07	6.2734E+04
Pu240	4.6976E-08	3.8492E+03	4.6971E-08	3.8488E+03	4.6966E-08	3.8483E+03	4.6960E-08	3.8479E+03	4.6955E-08	3.8475E+03	4.6950E-08	3.8470E+03	4.6944E-08	3.8466E+03	4.6939E-08	3.8462E+03
Pu241	3.6511E-09	2.9917E+02	3.4795E-09	2.8511E+02	3.3160E-09	2.7171E+02	3.1601E-09	2.5894E+02	3.0116E-09	2.4677E+02	2.8701E-09	2.3517E+02	2.7352E-09	2.2412E+02	2.6066E-09	2.1358E+02
Pu242	4.3707E-10	3.5813E+01	4.3706E-10	3.5813E+01	4.3706E-10	3.5812E+01	4.3706E-10	3.5812E+01	4.3705E-10	3.5812E+01	4.3705E-10	3.5811E+01	4.3704E-10	3.5811E+01	4.3704E-10	3.5811E+01
Pu243	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pu244	1.0228E-14	8.3808E-04	1.0228E-14	8.3808E-04	1.0228E-14	8.3807E-04	1.0228E-14	8.3807E-04	1.0228E-14	8.3806E-04	1.0228E-14	8.3806E-04	1.0228E-14	8.3805E-04	1.0228E-14	8.3805E-04
Pu246	9.6692E-79	7.9229E-68	8.0357E-89	6.5844E-78	6.6782E-99	5.4721E-88	5.5500E-109	4.5477E-98	4.6124E-119	3.7794E-108	3.8332E-129	3.1409E-118	3.1857E-139	2.6103E-128	2.6475E-149	2.1693E-138
Ra222	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ra223	1.1033E-56	6.4585E-46	2.5377E-66	1.4855E-55	5.8372E-76	3.4170E-65	1.3426E-85	7.8595E-75	3.0883E-95	1.8078E-84	7.1034E-105	4.1582E-94	1.6339E-114	9.5645E-104	3.7582E-124	2.2000E-113
Ra224	2.8657E-137	1.6775E-126	2.7320E-167	1.5992E-156	2.6045E-197	1.5246E-186	2.4829E-227	1.4535E-216	2.3671E-257	1.3856E-246	2.2566E-287	1.3210E-276	0.0000E+00	1.2593E-306	0.0000E+00	0.0000E+00
Ra225	2.6271E-50	1.5378E-39	9.8950E-58	5.7923E-47	3.7270E-65	2.1817E-54	1.4038E-72	8.2176E-62	5.2875E-80	3.0952E-69	1.9916E-87	1.1658E-76	7.5014E-95	4.3912E-84	2.8255E-102	1.6540E-91
Ra226	4.7773E-09	2.7965E+02	4.7752E-09	2.7953E+02	4.7730E-09	2.7941E+02	4.7709E-09	2.7928E+02	4.7688E-09	2.7916E+02	4.7667E-09	2.7903E+02	4.7646E-09	2.7891E+02	4.7625E-09	2.7879E+02
Ra228	3.4434E-21	2.0157E-10	3.0523E-21	1.7868E-10	2.7057E-21	1.5838E-10	2.3984E-21	1.4040E-10	2.1260E-21	1.2445E-10	1.8845E-21	1.1032E-10	1.6705E-21	9.7787E-11	1.4808E-21	8.6681E-11
Rb86	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Rb87	2.3116E-06	7.4460E+04	2.3115E-06	7.4459E+04	2.3115E-06	7.4457E+04	2.3115E-06	7.4456E+04	2.3114E-06	7.4455E+04	2.3114E-06	7.4454E+04	2.3114E-06	7.4452E+04	2.3113E-06	7.4451E+04
Rh102	1.8129E-16	5.5215E-06	1.4275E-16	4.3476E-06	1.1240E-16	3.4232E-06	8.8501E-17	2.6954E-06	6.9685E-17	2.1223E-06	5.4869E-17	1.6711E-06	4.3203E-17	1.3158E-06	3.4018E-17	1.0361E-06
Rh103m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Rh106	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Rn218	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Rn219	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Table C.2 Model calculations (Design Inv.).

	Leachate Concentration (mg/L) (12 Yr)	Remaining ICDF Contaminant Mass (mg) (12 Yr)	Leachate Concentration (mg/L) (13 Yr)	Remaining ICDF Contaminant Mass (mg) (13 Yr)	Leachate Concentration (mg/L) (14 Yr)	Remaining ICDF Contaminant Mass (mg) (14 Yr)	Leachate Concentration (mg/L) (15 Yr)	Remaining ICDF Contaminant Mass (mg) (15 Yr)
Np238	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Np239	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Np240	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Np240m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pa231	2.6867E-12	8.6458E-01	2.6866E-12	8.6456E-01	2.6866E-12	8.6454E-01	2.6865E-12	8.6453E-01
Pa233	5.5940E-64	1.8002E-52	4.7670E-68	1.5340E-56	4.0622E-72	1.3072E-60	3.4616E-76	1.1140E-64
Pa234	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pa234m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pb209	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pb210	9.8375E-17	5.7587E-06	9.5363E-17	5.5824E-06	9.2444E-17	5.4115E-06	8.9614E-17	5.2458E-06
Pb211	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pb212	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pb214	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pd107	2.1577E-07	6.9504E+03	2.1577E-07	6.9503E+03	2.1577E-07	6.9502E+03	2.1576E-07	6.9500E+03
Pm146	1.2152E-14	1.7067E-03	1.0721E-14	1.5058E-03	9.4593E-15	1.3285E-03	8.3457E-15	1.1721E-03
Pm147	7.1493E-11	1.0041E+01	5.4874E-11	7.7066E+00	4.2118E-11	5.9152E+00	3.2327E-11	4.5401E+00
Pm148	0.0000E+00	4.1450E-307	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pm148m	1.9050E-102	2.6754E-91	4.1634E-105	5.8472E-94	9.0994E-108	1.2779E-96	1.9887E-110	2.7930E-99
Po210	4.1876E-28	3.6763E-17	6.6951E-29	5.8776E-18	1.0704E-29	9.3972E-19	1.7114E-30	1.5024E-19
Po211	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Po212	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Po213	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Po214	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Po215	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Po216	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Po218	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pr143	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pr144	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pr144m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pu236	4.0090E-18	3.2849E-07	3.1434E-18	2.5757E-07	2.4648E-18	2.0196E-07	1.9326E-18	1.5836E-07
Pu237	5.5625E-100	4.5578E-89	2.0881E-102	1.7110E-91	7.8384E-105	6.4227E-94	2.9424E-107	2.4110E-96
Pu238	8.8429E-08	7.2458E+03	8.7732E-08	7.1887E+03	8.7041E-08	7.1321E+03	8.6355E-08	7.0759E+03
Pu239	7.6559E-07	6.2732E+04	7.6556E-07	6.2730E+04	7.6554E-07	6.2728E+04	7.6551E-07	6.2725E+04
Pu240	4.6934E-08	3.8457E+03	4.6929E-08	3.8453E+03	4.6923E-08	3.8449E+03	4.6918E-08	3.8444E+03
Pu241	2.4841E-09	2.0355E+02	2.3673E-09	1.9398E+02	2.2561E-09	1.8486E+02	2.1500E-09	1.7617E+02
Pu242	4.3704E-10	3.5811E+01	4.3703E-10	3.5810E+01	4.3703E-10	3.5810E+01	4.3703E-10	3.5810E+01
Pu243	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Pu244	1.0228E-14	8.3804E-04	1.0227E-14	8.3803E-04	1.0227E-14	8.3803E-04	1.0227E-14	8.3802E-04
Pu246	2.2002E-159	1.8029E-148	1.8285E-169	1.4983E-158	1.5196E-179	1.2452E-168	1.2629E-189	1.0348E-178
Ra222	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ra223	8.6444E-134	5.0602E-123	1.9883E-143	1.1639E-132	4.5734E-153	2.6772E-142	1.0520E-162	6.1579E-152
Ra224	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ra225	1.0642E-109	6.2298E-99	4.0085E-117	2.3465E-106	1.5098E-124	8.8382E-114	5.6868E-132	3.3290E-121
Ra226	4.7604E-09	2.7866E+02	4.7583E-09	2.7854E+02	4.7562E-09	2.7842E+02	4.7541E-09	2.7829E+02
Ra228	1.3126E-21	7.6837E-11	1.1635E-21	6.8110E-11	1.0314E-21	6.0375E-11	9.1424E-22	5.3518E-11
Rb86	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Rb87	2.3113E-06	7.4450E+04	2.3112E-06	7.4449E+04	2.3112E-06	7.4447E+04	2.3112E-06	7.4446E+04
Rh102	2.6785E-17	8.1578E-07	2.1090E-17	6.4233E-07	1.6606E-17	5.0576E-07	1.3076E-17	3.9823E-07
Rh103m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Rh106	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Rn218	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Rn219	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Table C.2 Model calculations (Design Inv.).

	Kd (mL/g) or (L/kg)	Half-Life in years	Isotope Specific Activity (Ci/g)	Design Inventory mg/kg from non-rads	pCi/kg from rads	Total Inventory (kg)	Initial Soil Water Concentration (mg/L)	Initial Soil Concentration (mg/kg)	Initial Contaminant Mass in Soil Water (mg)	Initial Contaminant Mass on Soil (mg)	Remaining ICDF Contaminant Mass (mg) (0 Yr)	Leachate Concentration (mg/L) (1 Yr)	Remaining ICDF Contaminant Mass (mg) (1 Yr)	Leachate Concentration (mg/L) (2 Yr)	Remaining ICDF Contaminant Mass (mg) (2 Yr)	Leachate Concentration (mg/L) (3 Yr)	Remaining ICDF Contaminant Mass (mg) (3 Yr)
Rn220	0	1.76E-06	9.224E+08		5.5293E-01	3.5069E-16	9.9906E-18	0.0000E+00	3.5069E-10	0.0000E+00	3.5069E-10	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Rn222	0	1.05E-02	1.540E+05		6.2091E-03	2.3590E-14	6.7204E-16	0.0000E+00	2.3590E-08	0.0000E+00	2.3590E-08	1.1589E-44	4.0055E-37	1.9678E-73	6.8012E-66	3.3413E-102	1.1548E-94
Ru103	55	1.08E-01	3.229E+04		2.0070E-26	3.6361E-37	1.1288E-41	6.2084E-40	3.9623E-34	3.6321E-31	3.6361E-31	1.8063E-44	5.8184E-34	2.8904E-47	9.3104E-37	4.6251E-50	1.4898E-39
Ru106	55	1.01E+00	3.351E+03		1.2141E+01	2.1198E-09	6.5806E-14	3.6193E-12	2.3099E-06	2.1174E-03	2.1198E-03	3.3090E-14	1.0659E-03	1.6638E-14	5.3594E-04	8.3661E-15	2.6949E-04
Sb124	50	1.65E-01	1.751E+04		2.0737E-37	6.9291E-48	2.3659E-52	1.1830E-50	8.3050E-45	6.9208E-42	6.9291E-42	3.5385E-54	1.0363E-43	5.2921E-56	1.5499E-45	7.9148E-58	2.3180E-47
Sb125	50	2.77E+00	1.034E+03		9.2729E+03	5.2459E-06	1.7912E-10	8.9560E-09	6.2875E-03	5.2396E+00	5.2459E+00	1.3947E-10	4.0845E+00	1.0859E-10	3.1802E+00	8.4548E-11	2.4761E+00
Sb126	50	3.40E-02	8.365E+04		2.0618E+01	1.4420E-10	4.9238E-15	2.4619E-13	1.7284E-07	1.4403E-04	1.4420E-04	6.7817E-24	1.9861E-13	9.3405E-33	2.7355E-22	1.2865E-41	3.7676E-31
Sb126m	50	3.61E-05	7.861E+07		1.4727E+02	1.0960E-12	3.7424E-17	1.8712E-15	1.3136E-09	1.0947E-06	1.0960E-06	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Sc-46	310	2.30E-01	3.391E+04		2.8457E-17	4.9092E-28	2.7063E-33	8.3897E-31	9.4999E-26	4.9083E-22	4.9092E-22	1.3219E-34	2.3980E-23	6.4572E-36	1.1713E-24	3.1541E-37	5.7214E-26
Se 79	4	6.50E+04	6.975E-02		1.6584E+02	1.3910E-03	5.8561E-07	2.3424E-06	2.0556E+01	1.3704E+03	1.3910E+03	5.8561E-07	1.3906E+03	5.8547E-07	1.3903E+03	5.8533E-07	1.3900E+03
Sm146	240	1.03E+08	2.381E-05		4.2571E-07	1.0461E-08	7.4488E-14	1.7877E-11	2.6147E-06	1.0459E-02	1.0461E-02	7.4488E-14	1.0461E-02	7.4488E-14	1.0461E-02	7.4487E-14	1.0461E-02
Sm147	240	1.06E+11	2.298E-08		4.1046E-03	1.0452E-01	7.4418E-07	1.7860E-04	2.6122E+01	1.0449E+05	1.0452E+05	7.4418E-07	1.0451E+05	7.4418E-07	1.0451E+05	7.4417E-07	1.0451E+05
Sm148	240	7.00E+15	3.456E-13		1.0089E-09	1.7080E-03	1.2161E-08	2.9187E-06	4.2689E-01	1.7076E+03	1.7080E+03	1.2161E-08	1.7080E+03	1.2161E-08	1.7080E+03	1.2161E-08	1.7080E+03
Sm149	240	1.00E+16	2.403E-13		5.1214E-09	1.2470E-02	8.8792E-08	2.1310E-05	3.1168E+00	1.2467E+04	1.2470E+04	8.8792E-08	1.2470E+04	8.8792E-08	1.2470E+04	8.8791E-08	1.2470E+04
Sm151	240	9.00E+01	2.634E+01		3.3753E+05	7.4962E-03	5.3375E-08	1.2810E-05	1.8736E+00	7.4943E+03	7.4962E+03	5.2966E-08	7.4386E+03	5.2559E-08	7.3815E+03	5.2156E-08	7.3249E+03
Sn117m	130	3.73E-02	8.214E+04		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Sn119m	130	8.03E-01	3.749E+03		1.4832E-04	2.3148E-14	3.0422E-19	3.9549E-17	1.0679E-11	2.3137E-08	2.3148E-08	1.2829E-19	9.7613E-09	5.4098E-20	4.1162E-09	2.2812E-20	1.7358E-09
Sn121m	130	5.50E+01	5.381E+01		2.6862E+01	2.9206E-07	3.8384E-12	4.9899E-10	1.3474E-04	2.9193E-01	2.9206E-01	3.7903E-12	2.8840E-01	3.7428E-12	2.8479E-01	3.6959E-12	2.8122E-01
Sn123	130	3.53E-01	8.237E+03		8.4181E-14	5.9790E-24	7.8578E-29	1.0215E-26	2.7583E-21	5.9762E-18	5.9790E-18	1.1055E-29	8.4115E-19	1.5552E-30	1.1834E-19	2.1880E-31	1.6648E-20
Sn125	130	2.64E-02	1.085E+05		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Sn126	130	1.00E+05	2.842E-02		1.4741E+02	3.0347E-03	3.9884E-08	5.1849E-06	1.4000E+00	3.0333E+03	3.0347E+03	3.9883E-08	3.0347E+03	3.9883E-08	3.0347E+03	3.9882E-08	3.0346E+03
Sr89	12	1.38E-01	2.909E+04		5.9861E-41	1.2040E-51	1.7065E-55	2.0478E-54	5.9900E-48	1.1980E-45	1.2040E-45	1.1385E-57	8.0321E-48	7.5952E-60	5.3584E-50	5.0669E-62	3.5747E-52
Sr90	12	2.91E+01	1.368E+02		2.2872E+07	9.7844E-02	1.3868E-05	1.6641E-04	4.8678E+02	9.7357E+04	9.7844E+04	1.3541E-05	9.5533E+04	1.3221E-05	9.3277E+04	1.2909E-05	9.1075E+04
Tb160	240	1.98E-01	1.129E+04		3.1766E-31	1.6454E-41	1.1716E-46	2.8118E-44	4.1125E-39	1.6450E-35	1.6454E-35	3.5403E-48	4.9722E-37	1.0698E-49	1.5025E-38	3.2329E-51	4.5404E-40
Tb161	240	1.89E-02	1.174E+05		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Tc 98	0.2	4.20E+06	8.701E-04		1.7676E-04	1.1884E-07	7.8131E-10	1.5626E-10	2.7426E-02	9.1419E-02	1.1884E-01	7.8131E-10	1.1842E-01	7.7854E-10	1.1800E-01	7.7577E-10	1.1758E-01
Tc 99	0.2	2.13E+05	1.698E-02		5.7555E+03	1.9826E-01	1.3034E-03	2.6068E-04	4.5751E+04	1.5250E+05	1.9826E+05	1.3034E-03	1.9755E+05	1.2987E-03	1.9685E+05	1.2941E-03	1.9615E+05
Te123	125	1.00E+13	2.911E-10		4.5226E-12	9.0886E-09	1.2422E-13	1.5528E-11	4.3604E-06	9.0842E-03	9.0886E-03	1.2422E-13	9.0885E-03	1.2422E-13	9.0885E-03	1.2422E-13	9.0884E-03
Te123m	125	3.29E-01	8.855E+03		2.9471E-20	1.9471E-30	2.6613E-35	3.3266E-33	9.3416E-28	1.9462E-24	1.9471E-24	3.2319E-36	2.3646E-25	3.9248E-37	2.8715E-26	4.7663E-38	3.4872E-27
Te125m	125	1.59E-01	1.803E+04		2.2667E+03	7.3563E-08	1.0054E-12	1.2568E-10	3.5293E-05	7.3527E-02	7.3563E-02	1.2822E-14	9.3808E-04	1.6350E-16	1.1963E-05	2.0850E-18	1.5255E-07
Te127	125	1.07E-03	2.642E+06		9.3590E-17	2.0728E-29	2.8331E-34	3.5413E-32	9.9447E-27	2.0718E-23	2.0728E-23	0.0000E+00	1.9144E-305	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Te127m	125	2.99E-01	9.441E+03		9.4995E-17	5.8865E-27	8.0456E-32	1.0057E-29	2.8242E-24	5.8837E-21	5.8865E-21	7.8980E-33	5.7785E-22	7.7532E-34	5.6725E-23	7.6110E-35	5.5685E-24
Te129	125	1.32E-04	2.096E+07		6.7494E-68	1.8838E-81	2.5747E-86	3.2184E-84	9.0379E-79	1.8829E-75	1.8838E-75	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Te129m	125	9.21E-02	3.015E+04		1.0715E-67	2.0789E-78	2.8414E-83	3.5518E-81	9.9741E-76	2.0779E-72	2.0789E-72	1.5255E-86	1.1161E-75	8.1903E-90	5.9924E-79	4.3972E-93	3.2172E-82
Th226	100	5.88E-05	2.693E+07		2.1800E-114	4.7365E-128	8.0912E-133	8.0912E-131	2.8402E-125	4.7336E-122	4.7365E-122	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Th227	100	5.12E-02	3.076E+04		1.8174E-02	3.4564E-13	5.9045E-18	5.9045E-16	2.0726E-10	3.4543E-07	3.4564E-07	7.8607E-24	4.6015E-13	1.0465E-29	6.1260E-19	1.3932E-35	8.1556E-25
Th228	100	1.91E+00	8.215E+02		3.2892E+01	2.3423E-08	4.0014E-13	4.0014E-11	1.4046E-05	2.3409E-02	2.3423E-02	2.7836E-13	1.6294E-02	1.9364E-13	1.1335E-02	1.3470E-13	7.8853E-03
Th229	100	7.34E+03	2.128E-01		5.1214E-05	1.4077E-10	2.4048E-15	2.4048E-13	8.4414E-08	1.4069E-04	1.4077E-04	2.4046E-15	1.4076E-04	2.4043E-15	1.4074E-04	2.4041E-15	1.4073E-04
Th230	100	7.70E+04	2.020E-02		1.7348E+02	5.0244E-03	8.5830E-08	8.5830E-06	3.0128E+00	5.0213E+03	5.0244E+03	8.5829E-08	5.0243E+03	8.5827E-08	5.0242E+03	8.5826E-08	5.0241E+03
Th231	100	2.91E-03	5.320E+05		1.6089E+02	1.7693E-10	3.0224E-15	3.0224E-13	1.0609E-07	1.7682E-04	1.7693E-04	1.1687E-118	6.8413E-108	4.5189E-222	2.6453E-211	0.0000E+00	0.0000E+00
Th232	100	1.41E+10	1.094E-07		1.5581E+02	8.3354E+02	1.4239E-02	1.4239E+00	4.9982E+05	8.3304E+08	8.3354E+08	1.4239E-02	8.3353E+08	1.4239E-02	8.3352E+08	1.4239E-02	8.3352E+08
Th234	100	6.60E-02	2.315E+04		1.7132E+00	4.3288E-11	7.3947E-16	7.3947E-14	2.5957E-08	4.3262E-05	4.3288E-05	2.0406E-20	1.1945E-09	5.6310E-25	3.2963E-14	1.5539E-29	9.0960E-19
Tl207	100	9.08E-06	1.905E+08		1.8265E-02	5.6097E-17	9.5830E-22	9.5830E-20	3.3638E-14	5.6064E-11	5.6097E-11	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Tl208	100	5.84E-06	2.945E+08		1.9806E-01	3.9341E-16	6.7205E-21	6.7205E-19	2.3590E-13	3.9317E-10	3.9341E-10	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Tl209	100	4.19E-06	4.090E+08		1.0515E-06	1.5039E-21	2.5691E-26	2.5691E-24	9.0181E-19	1.5030E-15	1.5039E-15	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Tm170	240	3.53E-01	5.957E+03		6.3777E-23	6.2631E-33	4.4595E-38	1.0703E-35	1.5654E-30	6.2615E-27	6.2631E-27	6.2739E-39	8.8112E-28	8.8264E-40	1.2396E-28	1.2417E-40	1.7439E-29
Tm171	240	1.92E+00	1.090E+03		1.5945E-09	8.5567E-19	6.0927E-24	1.4622E-21	2.1387E-16	8.5546E-13	8.5567E-13	4.2464E-24	5.9638E-13	2.9596E-24	4.1565E-13	2.0627E-24	2.8970E-13
U230	6	5.70E-02	2.729E+04		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
U232	6	7.20E+01	2.142E+01		5.3480E-01	1.4609E-08	4.1207E-12	2.4724E-11	1.4464E-04	1.4464E-02	1.4609E-02	4.0812E-12	1.4467E-02	4.0415E-12	1.4326E-02	4.0022E-12	1.4187E-02
U233	6	1.59E+05	9.656E-03		2.5607E-02	1.5514E-06	4.3760E-10	2.6256E-09	1.5361E-02	1.5361E+00	1.5514E+00	4.3759E-10	1.5512E+00	4.3752E-10	1.5509E+00	4.3746E-10	1.5507E+00
U234	6	2.45E+05	6.240E-03		6.0278E+03	5.6515E-01	1.5941E-04	9.5644E-04	5.5955E+03	5.5955E+05	5.6515E+05	1.5941E-04	5.6506E+05	1.5938E-04	5.6497E+05	1.5936E-04	5.6488E+05
U235	6	7.04E+08	2.162E-06		1.1023E+02	2.9825E+01	8.4124E-03	5.0475E-02	2.9529E+05	2.9529E+07	2.9825E+07	8.4124E-03	2.9820E+07	8.4112E-03	2.9816E+07	8.4099E-03	2.9811E+07

Table C.2 Model calculations (Design Inv.).

	Leachate Concentration (mg/L) (4 Yr)	Remaining ICDF Contaminant Mass (mg) (4 Yr)	Leachate Concentration (mg/L) (5 Yr)	Remaining ICDF Contaminant Mass (mg) (5 Yr)	Leachate Concentration (mg/L) (6 Yr)	Remaining ICDF Contaminant Mass (mg) (6 Yr)	Leachate Concentration (mg/L) (7 Yr)	Remaining ICDF Contaminant Mass (mg) (7 Yr)	Leachate Concentration (mg/L) (8 Yr)	Remaining ICDF Contaminant Mass (mg) (8 Yr)	Leachate Concentration (mg/L) (9 Yr)	Remaining ICDF Contaminant Mass (mg) (9 Yr)	Leachate Concentration (mg/L) (10 Yr)	Remaining ICDF Contaminant Mass (mg) (10 Yr)	Leachate Concentration (mg/L) (11 Yr)	Remaining ICDF Contaminant Mass (mg) (11 Yr)
Rn220	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Rn222	5.6734E-131	1.9609E-123	9.6333E-160	3.3295E-152	1.6357E-188	5.6533E-181	2.7774E-217	9.5991E-210	4.7158E-246	1.6299E-238	8.0073E-275	2.7675E-267	1.3596E-303	4.6991E-296	0.0000E+00	0.0000E+00
Ru103	7.4010E-53	2.3840E-42	1.1843E-55	3.8148E-45	1.8951E-58	6.1043E-48	3.0324E-61	9.7679E-51	4.8524E-64	1.5630E-53	7.7647E-67	2.5011E-56	1.2425E-69	4.0022E-59	1.9882E-72	6.4043E-62
Ru106	4.2067E-15	1.3550E-04	2.1152E-15	6.8135E-05	1.0636E-15	3.4260E-05	5.3480E-16	1.7227E-05	2.6891E-16	8.6620E-06	1.3522E-16	4.3555E-06	6.7990E-17	2.1900E-06	3.4187E-17	1.1012E-06
Sb124	1.1837E-59	3.4667E-49	1.7704E-61	5.1847E-51	2.6477E-63	7.7542E-53	3.9599E-65	1.1597E-54	5.9223E-67	1.7344E-56	8.8573E-69	2.5940E-58	1.3247E-70	3.8795E-60	1.9812E-72	5.8021E-62
Sb125	6.5830E-11	1.9279E+00	5.1255E-11	1.5011E+00	3.9908E-11	1.1687E+00	3.1072E-11	9.0999E-01	2.4193E-11	7.0852E-01	1.8837E-11	5.5166E-01	1.4666E-11	4.2952E-01	1.1419E-11	3.3443E-01
Sb126	1.7718E-50	5.1891E-40	2.4404E-59	7.1469E-49	3.3611E-68	9.8434E-58	4.6292E-77	1.3557E-66	6.3759E-86	1.8673E-75	8.7815E-95	2.5718E-84	1.2095E-103	3.5421E-93	1.6658E-112	4.8785E-102
Sb126m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Sc-46	1.5407E-38	2.7947E-27	7.5255E-40	1.3651E-28	3.6759E-41	6.6679E-30	1.7955E-42	3.2570E-31	8.7705E-44	1.5909E-32	4.2840E-45	7.7711E-34	2.0926E-46	3.7959E-35	1.0221E-47	1.8541E-36
Se 79	5.8519E-07	1.3896E+03	5.8505E-07	1.3893E+03	5.8491E-07	1.3890E+03	5.8477E-07	1.3887E+03	5.8463E-07	1.3883E+03	5.8449E-07	1.3880E+03	5.8435E-07	1.3877E+03	5.8421E-07	1.3873E+03
Sm146	7.4487E-14	1.0461E-02	7.4487E-14	1.0461E-02	7.4486E-14	1.0461E-02	7.4486E-14	1.0461E-02	7.4486E-14	1.0461E-02	7.4486E-14	1.0461E-02	7.4485E-14	1.0461E-02	7.4485E-14	1.0461E-02
Sm147	7.4417E-07	1.0451E+05	7.4417E-07	1.0451E+05	7.4416E-07	1.0451E+05	7.4416E-07	1.0451E+05	7.4416E-07	1.0451E+05	7.4416E-07	1.0451E+05	7.4415E-07	1.0451E+05	7.4415E-07	1.0451E+05
Sm148	1.2161E-08	1.7080E+03	1.2161E-08	1.7080E+03	1.2161E-08	1.7080E+03	1.2161E-08	1.7080E+03	1.2161E-08	1.7079E+03	1.2161E-08	1.7079E+03	1.2161E-08	1.7079E+03	1.2161E-08	1.7079E+03
Sm149	8.8791E-08	1.2470E+04	8.8791E-08	1.2470E+04	8.8790E-08	1.2470E+04	8.8790E-08	1.2470E+04	8.8790E-08	1.2470E+04	8.8789E-08	1.2470E+04	8.8789E-08	1.2470E+04	8.8788E-08	1.2470E+04
Sm151	5.1755E-08	7.2687E+03	5.1358E-08	7.2129E+03	5.0964E-08	7.1575E+03	5.0573E-08	7.1026E+03	5.0184E-08	7.0480E+03	4.9799E-08	6.9939E+03	4.9417E-08	6.9403E+03	4.9038E-08	6.8870E+03
Sn117m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Sn119m	9.6198E-21	7.3196E-10	4.0566E-21	3.0866E-10	1.7106E-21	1.3016E-10	7.2135E-22	5.4887E-11	3.0419E-22	2.3145E-11	1.2827E-22	9.7602E-12	5.4091E-23	4.1158E-12	2.2810E-23	1.7356E-12
Sn121m	3.6496E-12	2.7770E-01	3.6039E-12	2.7422E-01	3.5587E-12	2.7078E-01	3.5141E-12	2.6739E-01	3.4701E-12	2.6404E-01	3.4266E-12	2.6073E-01	3.3837E-12	2.5746E-01	3.3413E-12	2.5424E-01
Sn123	3.0781E-32	2.3421E-21	4.3304E-33	3.2950E-22	6.0922E-34	4.6355E-23	8.5708E-35	6.5215E-24	1.2058E-35	9.1747E-25	1.6963E-36	1.2907E-25	2.3865E-37	1.8159E-26	3.3574E-38	2.5546E-27
Sn125	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Sn126	3.9882E-08	3.0346E+03	3.9881E-08	3.0345E+03	3.9881E-08	3.0345E+03	3.9880E-08	3.0344E+03	3.9880E-08	3.0344E+03	3.9879E-08	3.0344E+03	3.9878E-08	3.0343E+03	3.9878E-08	3.0343E+03
Sr89	3.3803E-64	2.3848E-54	2.2551E-66	1.5909E-56	1.5044E-68	1.0613E-58	1.0036E-70	7.0805E-61	6.6953E-73	4.7236E-63	4.4666E-75	3.1512E-65	2.9798E-77	2.1022E-67	1.9879E-79	1.4024E-69
Sr90	1.2604E-05	8.8924E+04	1.2307E-05	8.6825E+04	1.2016E-05	8.4774E+04	1.1733E-05	8.2773E+04	1.1455E-05	8.0818E+04	1.1185E-05	7.8910E+04	1.0921E-05	7.7047E+04	1.0663E-05	7.5227E+04
Tb160	9.7695E-53	1.3721E-41	2.9522E-54	4.1462E-43	8.9212E-56	1.2529E-44	2.6959E-57	3.7862E-46	8.1466E-59	1.1441E-47	2.4618E-60	3.4574E-49	7.4392E-62	1.0448E-50	2.2480E-63	3.1572E-52
Tb161	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Tc 98	7.7302E-10	1.1717E-01	7.7027E-10	1.1675E-01	7.6754E-10	1.1634E-01	7.6481E-10	1.1592E-01	7.6210E-10	1.1551E-01	7.5939E-10	1.1510E-01	7.5670E-10	1.1469E-01	7.5401E-10	1.1428E-01
Tc 99	1.2895E-03	1.9545E+05	1.2849E-03	1.9476E+05	1.2804E-03	1.9407E+05	1.2758E-03	1.9338E+05	1.2713E-03	1.9269E+05	1.2668E-03	1.9200E+05	1.2623E-03	1.9132E+05	1.2578E-03	1.9064E+05
Te123	1.2422E-13	9.0883E-03	1.2422E-13	9.0883E-03	1.2422E-13	9.0882E-03	1.2422E-13	9.0881E-03	1.2422E-13	9.0881E-03	1.2421E-13	9.0880E-03	1.2421E-13	9.0879E-03	1.2421E-13	9.0879E-03
Te123m	5.7882E-39	4.2349E-28	7.0293E-40	5.1429E-29	8.5364E-41	6.2456E-30	1.0367E-41	7.5846E-31	1.2589E-42	9.2108E-32	1.5289E-43	1.1186E-32	1.8566E-44	1.3584E-33	2.2547E-45	1.6496E-34
Te125m	2.6589E-20	1.9453E-09	3.3906E-22	2.4807E-11	4.3238E-24	3.1634E-13	5.5137E-26	4.0341E-15	7.0312E-28	5.1443E-17	8.9663E-30	6.5601E-19	1.1434E-31	8.3656E-21	1.4581E-33	1.0668E-22
Te127	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Te127m	7.4714E-36	5.4664E-25	7.3344E-37	5.3661E-26	7.1998E-38	5.2677E-27	7.0678E-39	5.1711E-28	6.9381E-40	5.0762E-29	6.8109E-41	4.9831E-30	6.6860E-42	4.8917E-31	6.5633E-43	4.8020E-32
Te129	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Te129m	2.3608E-96	1.7273E-85	1.2675E-99	9.2733E-89	6.8048E-103	4.9787E-92	3.6534E-106	2.6730E-95	1.9614E-109	1.4351E-98	1.0531E-112	7.7047E-102	5.6537E-116	4.1365E-105	3.0354E-119	2.2208E-108
Th226	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Th227	1.8548E-41	1.0858E-30	2.4693E-47	1.4455E-36	3.2874E-53	1.9244E-42	4.3765E-59	2.5619E-48	5.8264E-65	3.4107E-54	7.7567E-71	4.5406E-60	1.0327E-76	6.0449E-66	1.3748E-82	8.0477E-72
Th228	9.3706E-14	5.4854E-03	6.5186E-14	3.8159E-03	4.5347E-14	2.6545E-03	3.1545E-14	1.8466E-03	2.1944E-14	1.2846E-03	1.5265E-14	8.9361E-04	1.0619E-14	6.2164E-04	7.3873E-15	4.3244E-04
Th229	2.4038E-15	1.4072E-04	2.4036E-15	1.4070E-04	2.4033E-15	1.4069E-04	2.4031E-15	1.4067E-04	2.4028E-15	1.4066E-04	2.4026E-15	1.4064E-04	2.4023E-15	1.4063E-04	2.4021E-15	1.4061E-04
Th230	8.5824E-08	5.0240E+03	8.5823E-08	5.0239E+03	8.5821E-08	5.0238E+03	8.5819E-08	5.0237E+03	8.5818E-08	5.0236E+03	8.5816E-08	5.0235E+03	8.5815E-08	5.0234E+03	8.5813E-08	5.0233E+03
Th231	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Th232	1.4239E-02	8.3351E+08	1.4239E-02	8.3350E+08	1.4238E-02	8.3349E+08	1.4238E-02	8.3349E+08	1.4238E-02	8.3348E+08	1.4238E-02	8.3347E+08	1.4238E-02	8.3346E+08	1.4238E-02	8.3346E+08
Th234	4.2878E-34	2.5100E-23	1.1832E-38	6.9264E-28	3.2651E-43	1.9113E-32	9.0099E-48	5.2743E-37	2.4863E-52	1.4554E-41	6.8609E-57	4.0162E-46	1.8932E-61	1.1083E-50	5.2244E-66	3.0583E-55
Tl207	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Tl208	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Tl209	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Tm170	1.7469E-41	2.4534E-30	2.4577E-42	3.4516E-31	3.4576E-43	4.8559E-32	4.8643E-44	6.8315E-33	6.8433E-45	9.6109E-34	9.6274E-46	1.3521E-34	1.3544E-46	1.9022E-35	1.9055E-47	2.6761E-36
Tm171	1.4377E-24	2.0191E-13	1.0020E-24	1.4072E-13	6.9836E-25	9.8080E-14	4.8673E-25	6.8358E-14	3.3924E-25	4.7643E-14	2.3644E-25	3.3206E-14	1.6479E-25	2.3143E-14	1.1485E-25	1.6130E-14
U230	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
U232	3.9632E-12	1.4049E-02	3.9246E-12	1.3912E-02	3.8864E-12	1.3777E-02	3.8486E-12	1.3643E-02	3.8112E-12	1.3510E-02	3.7741E-12	1.3378E-02	3.7374E-12	1.3248E-02	3.7010E-12	1.3119E-02
U233	4.3739E-10	1.5504E+00	4.3732E-10	1.5502E+00	4.3725E-10	1.5500E+00	4.3718E-10	1.5497E+00	4.3711E-10	1.5495E+00	4.3705E-10	1.5492E+00	4.3698E-10	1.5490E+00	4.3691E-10	1.5487E+00
U234	1.5933E-04	5.6480E+05	1.5931E-04	5.6471E+05	1.5928E-04	5.6462E+05	1.5926E-04	5.6453E+05	1.5923E-04	5.6445E+05	1.5921E-04	5.6436E+05	1.5918E-04	5.6427E+05	1.5916E-04	5.6418E+05
U235	8.4086E-03	2.9807E+07	8.4073E-03	2.9802E+07	8.4060E-03	2.9797E+07	8.4047E-03	2.9793E+07	8.4035E-03	2.9788E+07	8.4022E-03	2.9784E+07	8.4009E-03	2.9779E+07	8.3996E-03	2.9775E+07

Table C.2 Model calculations (Design Inv.).

	Leachate Concentration (mg/L) (12 Yr)	Remaining ICDF Contaminant Mass (mg) (12 Yr)	Leachate Concentration (mg/L) (13 Yr)	Remaining ICDF Contaminant Mass (mg) (13 Yr)	Leachate Concentration (mg/L) (14 Yr)	Remaining ICDF Contaminant Mass (mg) (14 Yr)	Leachate Concentration (mg/L) (15 Yr)	Remaining ICDF Contaminant Mass (mg) (15 Yr)
Rn220	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Rn222	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Ru103	3.1815E-75	1.0248E-64	5.0909E-78	1.6399E-67	8.1463E-81	2.6240E-70	1.3035E-83	4.1989E-73
Ru106	1.7190E-17	5.5372E-07	8.6436E-18	2.7842E-07	4.3462E-18	1.4000E-07	2.1854E-18	7.0394E-08
Sb124	2.9630E-74	8.6776E-64	4.4314E-76	1.2978E-65	6.6276E-78	1.9410E-67	9.9121E-80	2.9029E-69
Sb125	8.8911E-12	2.6039E-01	6.9227E-12	2.0274E-01	5.3900E-12	1.5785E-01	4.1967E-12	1.2291E-01
Sb126	2.2943E-121	6.7192E-111	3.1600E-130	9.2543E-120	4.3522E-139	1.2746E-128	5.9943E-148	1.7555E-137
Sb126m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Sc-46	4.9928E-49	9.0567E-38	2.4388E-50	4.4238E-39	1.1913E-51	2.1609E-40	5.8188E-53	1.0555E-41
Se 79	5.8407E-07	1.3870E+03	5.8394E-07	1.3867E+03	5.8380E-07	1.3863E+03	5.8366E-07	1.3860E+03
Sm146	7.4485E-14	1.0461E-02	7.4484E-14	1.0461E-02	7.4484E-14	1.0461E-02	7.4484E-14	1.0461E-02
Sm147	7.4415E-07	1.0451E+05	7.4414E-07	1.0451E+05	7.4414E-07	1.0451E+05	7.4414E-07	1.0451E+05
Sm148	1.2161E-08	1.7079E+03	1.2161E-08	1.7079E+03	1.2161E-08	1.7079E+03	1.2161E-08	1.7079E+03
Sm149	8.8788E-08	1.2470E+04	8.8788E-08	1.2470E+04	8.8787E-08	1.2470E+04	8.8787E-08	1.2470E+04
Sm151	4.8661E-08	6.8341E+03	4.8288E-08	6.7817E+03	4.7917E-08	6.7296E+03	4.7549E-08	6.6780E+03
Sn117m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Sn119m	9.6187E-24	7.3188E-13	4.0561E-24	3.0863E-13	1.7104E-24	1.3014E-13	7.2127E-25	5.4881E-14
Sn121m	3.2994E-12	2.5105E-01	3.2581E-12	2.4790E-01	3.2172E-12	2.4480E-01	3.1769E-12	2.4173E-01
Sn123	4.7233E-39	3.5939E-28	6.6450E-40	5.0561E-29	9.3484E-41	7.1131E-30	1.3152E-41	1.0007E-30
Sn125	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Sn126	3.9877E-08	3.0342E+03	3.9877E-08	3.0342E+03	3.9876E-08	3.0341E+03	3.9876E-08	3.0341E+03
Sr89	1.3262E-81	9.3560E-72	8.8471E-84	6.2416E-74	5.9021E-86	4.1639E-76	3.9374E-88	2.7778E-78
Sr90	1.0411E-05	7.3451E+04	1.0165E-05	7.1717E+04	9.9253E-06	7.0023E+04	9.6910E-06	6.8370E+04
Tb160	6.7932E-65	9.5406E-54	2.0528E-66	2.8831E-55	6.2034E-68	8.7122E-57	1.8746E-69	2.6327E-58
Tb161	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Tc 98	7.5133E-10	1.1388E-01	7.4866E-10	1.1347E-01	7.4601E-10	1.1307E-01	7.4336E-10	1.1267E-01
Tc 99	1.2533E-03	1.8996E+05	1.2489E-03	1.8929E+05	1.2444E-03	1.8862E+05	1.2400E-03	1.8795E+05
Te123	1.2421E-13	9.0878E-03	1.2421E-13	9.0877E-03	1.2421E-13	9.0877E-03	1.2421E-13	9.0876E-03
Te123m	2.7381E-46	2.0033E-35	3.3252E-47	2.4329E-36	4.0382E-48	2.9545E-37	4.9040E-49	3.5879E-38
Te125m	1.8594E-35	1.3604E-24	2.3711E-37	1.7348E-26	3.0237E-39	2.2122E-28	3.8558E-41	2.8211E-30
Te127	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Te127m	6.4430E-44	4.7139E-33	6.3248E-45	4.6275E-34	6.2088E-46	4.5426E-35	6.0949E-47	4.4593E-36
Te129	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Te129m	1.6296E-122	1.1923E-111	8.7493E-126	6.4013E-115	4.6973E-129	3.4368E-118	2.5219E-132	1.8451E-121
Th226	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Th227	1.8302E-88	1.0714E-77	2.4366E-94	1.4263E-83	3.2439E-100	1.8989E-89	4.3185E-106	2.5280E-95
Th228	5.1390E-15	3.0083E-04	3.5749E-15	2.0927E-04	2.4869E-15	1.4558E-04	1.7300E-15	1.0127E-04
Th229	2.4018E-15	1.4060E-04	2.4016E-15	1.4058E-04	2.4013E-15	1.4057E-04	2.4011E-15	1.4056E-04
Th230	8.5812E-08	5.0233E+03	8.5810E-08	5.0232E+03	8.5809E-08	5.0231E+03	8.5807E-08	5.0230E+03
Th231	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Th232	1.4238E-02	8.3345E+08	1.4238E-02	8.3344E+08	1.4237E-02	8.3343E+08	1.4237E-02	8.3343E+08
Th234	1.4417E-70	8.4392E-60	3.9782E-75	2.3288E-64	1.0978E-79	6.4262E-69	3.0293E-84	1.7733E-73
Tl207	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Tl208	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Tl209	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Tm170	2.6807E-48	3.7649E-37	3.7714E-49	5.2966E-38	5.3057E-50	7.4515E-39	7.4643E-51	1.0483E-39
Tm171	8.0048E-26	1.1242E-14	5.5791E-26	7.8354E-15	3.8884E-26	5.4610E-15	2.7101E-26	3.8062E-15
U230	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
U232	3.6650E-12	1.2991E-02	3.6293E-12	1.2865E-02	3.5940E-12	1.2740E-02	3.5590E-12	1.2616E-02
U233	4.3684E-10	1.5485E+00	4.3677E-10	1.5483E+00	4.3670E-10	1.5480E+00	4.3663E-10	1.5478E+00
U234	1.5913E-04	5.6410E+05	1.5911E-04	5.6401E+05	1.5909E-04	5.6392E+05	1.5906E-04	5.6383E+05
U235	8.3983E-03	2.9770E+07	8.3971E-03	2.9766E+07	8.3958E-03	2.9761E+07	8.3945E-03	2.9757E+07

Table C.2 Model calculations (Design Inv.).

	Kd (mL/g) or (L/kg)	Half-Life in years	Isotope Specific Activity (Ci/g)	Design Inventory mg/kg from non-rads	pCi/kg from rads	Total Inventory (kg)	Initial Soil Water Concentration (mg/L)	Initial Soil Concentration (mg/kg)	Initial Contaminant Mass in Soil Water (mg)	Initial Contaminant Mass on Soil (mg)	Remaining ICDF Contaminant Mass (mg) (0 Yr)	Leachate Concentration (mg/L) (1 Yr)	Remaining ICDF Contaminant Mass (mg) (1 Yr)	Leachate Concentration (mg/L) (2 Yr)	Remaining ICDF Contaminant Mass (mg) (2 Yr)	Leachate Concentration (mg/L) (3 Yr)	Remaining ICDF Contaminant Mass (mg) (3 Yr)
U236	6	2.34E+07	6.478E-05		2.0214E+02	1.8256E+00	5.1492E-04	3.0895E-03	1.8075E+04	1.8075E+06	1.8256E+06	5.1492E-04	1.8253E+06	5.1485E-04	1.8250E+06	5.1477E-04	1.8247E+06
U237	6	1.85E-02	8.162E+04		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
U238	6	4.47E+09	3.363E-07		1.9522E+03	3.3966E+03	9.5806E-01	5.7484E+00	3.3630E+07	3.3630E+09	3.3966E+09	9.5806E-01	3.3961E+09	9.5791E-01	3.3956E+09	9.5777E-01	3.3951E+09
U240	6	1.61E-03	9.260E+05		2.5380E-08	1.6035E-20	4.5229E-24	2.7137E-23	1.5876E-16	1.5876E-14	1.6035E-14	4.2906E-211	1.5209E-201	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Xe127	0	9.97E-02	2.827E+04		1.5806E-69	3.2707E-80	9.3177E-82	0.0000E+00	3.2707E-74	0.0000E+00	3.2707E-74	8.9277E-85	3.0856E-77	8.4224E-88	2.9109E-80	7.9457E-91	2.7462E-83
Xe129m	0	2.19E-02	1.266E+05		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Xe131m	0	3.26E-02	8.384E+04		2.6912E-109	1.8780E-120	5.3501E-122	0.0000E+00	1.8780E-114	0.0000E+00	1.8780E-114	3.1267E-131	1.0807E-123	1.7992E-140	6.2184E-133	1.0353E-149	3.5783E-142
Xe133	0	1.44E-02	1.872E+05		0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Table C.2 Model calculations (Design Inv.).

	Leachate Concentration (mg/L) (4 Yr)	Remaining ICDF Contaminant Mass (mg) (4 Yr)	Leachate Concentration (mg/L) (5 Yr)	Remaining ICDF Contaminant Mass (mg) (5 Yr)	Leachate Concentration (mg/L) (6 Yr)	Remaining ICDF Contaminant Mass (mg) (6 Yr)	Leachate Concentration (mg/L) (7 Yr)	Remaining ICDF Contaminant Mass (mg) (7 Yr)	Leachate Concentration (mg/L) (8 Yr)	Remaining ICDF Contaminant Mass (mg) (8 Yr)	Leachate Concentration (mg/L) (9 Yr)	Remaining ICDF Contaminant Mass (mg) (9 Yr)	Leachate Concentration (mg/L) (10 Yr)	Remaining ICDF Contaminant Mass (mg) (10 Yr)	Leachate Concentration (mg/L) (11 Yr)	Remaining ICDF Contaminant Mass (mg) (11 Yr)
U236	5.1469E-04	1.8245E+06	5.1461E-04	1.8242E+06	5.1453E-04	1.8239E+06	5.1445E-04	1.8236E+06	5.1438E-04	1.8233E+06	5.1430E-04	1.8231E+06	5.1422E-04	1.8228E+06	5.1414E-04	1.8225E+06
U237	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
U238	9.5762E-01	3.3946E+09	9.5748E-01	3.3940E+09	9.5733E-01	3.3935E+09	9.5718E-01	3.3930E+09	9.5704E-01	3.3925E+09	9.5689E-01	3.3920E+09	9.5675E-01	3.3915E+09	9.5660E-01	3.3909E+09
U240	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Xe127	7.4959E-94	2.5907E-86	7.0717E-97	2.4441E-89	6.6714E-100	2.3058E-92	6.2938E-103	2.1753E-95	5.9376E-106	2.0521E-98	5.6015E-109	1.9360E-101	5.2845E-112	1.8264E-104	4.9854E-115	1.7230E-107
Xe129m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Xe131m	5.9575E-159	2.0591E-151	3.4282E-168	1.1848E-160	1.9727E-177	6.8179E-170	1.1351E-186	3.9232E-179	6.5319E-196	2.2576E-188	3.7587E-205	1.2991E-197	2.1628E-214	7.4752E-207	1.2446E-223	4.3015E-216
Xe133	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Table C.2 Model calculations (Design Inv.).

	Leachate Concentration (mg/L) (12 Yr)	Remaining ICDF Contaminant Mass (mg) (12 Yr)	Leachate Concentration (mg/L) (13 Yr)	Remaining ICDF Contaminant Mass (mg) (13 Yr)	Leachate Concentration (mg/L) (14 Yr)	Remaining ICDF Contaminant Mass (mg) (14 Yr)	Leachate Concentration (mg/L) (15 Yr)	Remaining ICDF Contaminant Mass (mg) (15 Yr)
U236	5.1406E-04	1.8222E+06	5.1398E-04	1.8220E+06	5.1391E-04	1.8217E+06	5.1383E-04	1.8214E+06
U237	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
U238	9.5646E-01	3.3904E+09	9.5631E-01	3.3899E+09	9.5616E-01	3.3894E+09	9.5602E-01	3.3889E+09
U240	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Xe127	4.7032E-118	1.6255E-110	4.4370E-121	1.5335E-113	4.1859E-124	1.4467E-116	3.9489E-127	1.3648E-119
Xe129m	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Xe131m	7.1616E-233	2.4752E-225	4.1210E-242	1.4243E-234	2.3714E-251	8.1959E-244	1.3645E-260	4.7162E-253
Xe133	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Table C.2 Model calculations (Design Inv.).

	Kd (mL/g) or (L/kg)	Half-Life in years	Isotope Specific Activity (Ci/g)	Design Inventory mg/kg from non-rads	pCi/kg from rads	Total Inventory (kg)	Initial Soil Water Concentration (mg/L)	Initial Soil Concentration (mg/kg)	Initial Contaminant Mass in Soil Water (mg)	Initial Contaminant Mass on Soil (mg)	Remaining ICDF Contaminant Mass (mg) (0 Yr)	Leachate Concentration (mg/L) (1 Yr)	Remaining ICDF Contaminant Mass (mg) (1 Yr)	Leachate Concentration (mg/L) (2 Yr)	Remaining ICDF Contaminant Mass (mg) (2 Yr)	Leachate Concentration (mg/L) (3 Yr)	Remaining ICDF Contaminant Mass (mg) (3 Yr)
Y90	170	7.31E-03	5.447E+05		2.2877E+07	2.4571E-05	2.4696E-10	4.1984E-08	8.6689E-03	2.4562E+01	2.4571E+01	1.5458E-51	1.5379E-40	9.6754E-93	9.6261E-82	6.0560E-134	6.0251E-123
Y91	170	1.60E-01	2.456E+04		4.1443E-34	9.8731E-45	9.9236E-50	1.6870E-47	3.4834E-42	9.8696E-39	9.8731E-39	1.3136E-51	1.3069E-40	1.7387E-53	1.7298E-42	2.3015E-55	2.2897E-44
Zn65	16	6.68E-01	8.243E+03		2.6977E-06	1.9146E-16	2.0378E-20	3.2604E-19	7.1529E-13	1.9075E-10	1.9146E-10	7.2250E-21	6.7880E-11	2.5616E-21	2.4066E-11	9.0817E-22	8.5324E-12
Zr93	600	1.53E+06	2.517E-03		8.5659E+02	1.9909E-01	5.6712E-07	3.4027E-04	1.9907E+01	1.9907E+05	1.9909E+05	5.6712E-07	1.9909E+05	5.6712E-07	1.9909E+05	5.6712E-07	1.9909E+05
Zr95	600	1.75E-01	2.150E+04		2.9250E-22	7.9590E-33	2.2672E-38	1.3603E-35	7.9582E-31	7.9582E-27	7.9590E-27	4.3518E-40	1.5277E-28	8.3533E-42	2.9325E-30	1.6034E-43	5.6289E-32

Table C.2 Model calculations (Design Inv.).

	Leachate Concentration (mg/L) (4 Yr)	Remaining ICDF Contaminant Mass (mg) (4 Yr)	Leachate Concentration (mg/L) (5 Yr)	Remaining ICDF Contaminant Mass (mg) (5 Yr)	Leachate Concentration (mg/L) (6 Yr)	Remaining ICDF Contaminant Mass (mg) (6 Yr)	Leachate Concentration (mg/L) (7 Yr)	Remaining ICDF Contaminant Mass (mg) (7 Yr)	Leachate Concentration (mg/L) (8 Yr)	Remaining ICDF Contaminant Mass (mg) (8 Yr)	Leachate Concentration (mg/L) (9 Yr)	Remaining ICDF Contaminant Mass (mg) (9 Yr)	Leachate Concentration (mg/L) (10 Yr)	Remaining ICDF Contaminant Mass (mg) (10 Yr)	Leachate Concentration (mg/L) (11 Yr)	Remaining ICDF Contaminant Mass (mg) (11 Yr)
Y90	3.7905E-175	3.7712E-164	2.3726E-216	2.3605E-205	1.4850E-257	1.4775E-246	9.2951E-299	9.2477E-288	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Y91	3.0463E-57	3.0308E-46	4.0323E-59	4.0118E-48	5.3374E-61	5.3102E-50	7.0649E-63	7.0289E-52	9.3515E-65	9.3039E-54	1.2378E-66	1.2315E-55	1.6385E-68	1.6301E-57	2.1688E-70	2.1577E-59
Zn65	3.2198E-22	3.0251E-12	1.1415E-22	1.0725E-12	4.0472E-23	3.8024E-13	1.4349E-23	1.3481E-13	5.0873E-24	4.7796E-14	1.8036E-24	1.6945E-14	6.3946E-25	6.0078E-15	2.2671E-25	2.1300E-15
Zr93	5.6712E-07	1.9909E+05	5.6711E-07	1.9909E+05	5.6711E-07	1.9909E+05	5.6711E-07	1.9909E+05	5.6711E-07	1.9909E+05	5.6711E-07	1.9909E+05	5.6711E-07	1.9909E+05	5.6711E-07	1.9909E+05
Zr95	3.0778E-45	1.0805E-33	5.9078E-47	2.0740E-35	1.1340E-48	3.9809E-37	2.1767E-50	7.6414E-39	4.1782E-52	1.4668E-40	8.0200E-54	2.8155E-42	1.5394E-55	5.4043E-44	2.9549E-57	1.0373E-45

Table C.2 Model calculations (Design Inv.).

	Leachate Concentration (mg/L) (12 Yr)	Remaining ICDF Contaminant Mass (mg) (12 Yr)	Leachate Concentration (mg/L) (13 Yr)	Remaining ICDF Contaminant Mass (mg) (13 Yr)	Leachate Concentration (mg/L) (14 Yr)	Remaining ICDF Contaminant Mass (mg) (14 Yr)	Leachate Concentration (mg/L) (15 Yr)	Remaining ICDF Contaminant Mass (mg) (15 Yr)
Y90	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
Y91	2.8707E-72	2.8561E-61	3.7998E-74	3.7805E-63	5.0297E-76	5.0041E-65	6.6576E-78	6.6237E-67
Zn65	8.0379E-26	7.5517E-16	2.8497E-26	2.6774E-16	1.0103E-26	9.4923E-17	3.5821E-27	3.3654E-17
Zr93	5.6711E-07	1.9909E+05	5.6711E-07	1.9909E+05	5.6710E-07	1.9909E+05	5.6710E-07	1.9908E+05
Zr95	5.6720E-59	1.9912E-47	1.0887E-60	3.8221E-49	2.0898E-62	7.3365E-51	4.0114E-64	1.4082E-52