Appendix B
Risk Data Tables

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Table B-1. Miscellaneous soil pathway and groundwater pathway parameters.

COPC	Plant Uptake Factor[a] (mg/kg_{plant} per mg/kg_{soil})	Soil Dermal Absorption Factor[b] (unitless)	Water Permeability Coefficient[b] (K^w_p) (cm^3/hr)	Kd[c] (cm^3/g)	Half-life[d] (yr)
Acetone	5.33E+01	2.79E-04	5.69E-04	1.10E-03	NA
Acetonitrile	6.09E+01	1.00E-03	1.00E-03	1.10E-03	NA
Aroclor-1260	3.93E-03	7.25E-04	8.49E-01	1.50E+03	NA
bis(2-Ethylhexyl)phthalate	1.45E-01	1.00E-03	3.35E-02	1.80E+01[h]	NA
2-Butanone	2.74E+01	1.00E-03	5.00E-03	1.35E-02	NA
Butylbenzylphthalate	6.69E-02	1.00E-03	7.26E-02	2.03E-01	NA
Chloroform	2.89E+00	9.99E-04	8.92E-03	1.30E-01	NA
2,4-D	9.20E-01	1.00E-03	1.00E-03	5.58E-02	NA
Diethylphthalate	1.70E+00	1.00E-03	1.13E-02	2.08E-01	NA
Di-n-butylphthalate	8.84E-02	1.00E-03	3.30E-02	4.14E+00	NA
Di-n-octylphthalate	1.86E-04	1.04E-04	2.69E+01	2.93E+06	NA
HpCDD	4.80E-01	1.00E-03	1.00E-03	0.00E+00[g]	NA
HpCDF	4.80E-01	1.00E-03	1.00E-03	0.00E+00[g]	NA
HxCDF	4.80E-01	1.00E-03	1.00E-03	0.00E+00[g]	NA
Methylene chloride	6.86E+00	5.42E-04	4.50E-03	2.61E-02	NA
OCDD	4.80E-01	1.00E-03	1.00E-03	0.00E+00[g]	NA
OCDF	4.80E-01	1.00E-03	1.00E-03	0.00E+00[g]	NA
PeCDD	4.80E-01	1.00E-03	1.00E-03	0.00E+00[g]	NA
TCDF	4.80E-01	1.00E-03	1.00E-03	0.00E+00[g]	NA
Toluene	1.14E+00	8.87E-04	1.00E+00	1.00E+00[h]	NA
1,1,1-Trichloroethane	1.45E+00	2.62E-05	1.71E-02	3.12E-01[h]	NA
2,4,5-TP (Silvex)	1.90E-01	1.00E-03	1.00E-03	7.80E+00	NA
Antimony	5.60E-04	2.13E-04	1.00E-03	5.00E+01[h]	NA
Arsenic	4.00E-02	9.82E-04	1.00E-03	3.00E+00[h]	NA
Cadmium	5.50E-01	8.65E-04	1.00E-03	6.00E+00[h]	NA
Chromium III	1.00E-03	1.00E-03	1.00E-03	1.20E+00[h]	NA
Chromium VI	1.00E-03	1.00E-03	1.00E-03	1.20E+00[h]	NA
Cobalt	2.90E-01	6.99E-04	1.00E-03	1.00E+01[h]	NA
Copper	8.00E-01	4.51E-04	1.00E-03	2.00E+01[h]	NA
Lead	2.00E-02	1.13E-04	1.00E-03	1.00E+02[h]	NA
Mercury	9.00E-01	1.13E-04	1.00E-03	1.00E+02[h]	NA
Nickel	6.00E-02	1.13E-04	1.00E-03	1.00E+02[h]	NA
Selenium	2.50E-02	9.50E-04	1.00E-03	4.00E+00[h]	NA
Silver	1.30E-03	1.25E-04	1.00E-03	9.00E+01[h]	NA
Strontium	3.00E+00	3.93E-04	1.00E-03	2.40E+01[h]	NA
Thallium	4.00E-03	1.00E-03	1.00E-03	0.00E+00[g]	NA
Zinc	3.50E+01	5.28E-04	1.00E-03	1.00E+03[h]	NA
Chloride	1.00E+00	1.00E-03	1.00E-03	0.00E+00[g]	NA
Cyanide	1.00E+00	1.00E-03	1.00E-03	1.73E-03[g]	NA
Fluoride	1.00E+00	1.00E-03	1.00E-03	0.00E+00[g]	NA
Nitrate	1.00E+00	1.00E-03	1.00E-03	7.00E-03[g]	NA
Orthophosphate	1.00E+00	1.00E-03	1.00E-03	0.00E+00[g]	NA
Sulfate	1.00E+00	1.00E-03	1.00E-03	0.00E+00[g]	NA
Am-241	2.20E-03	3.47E-05	1.00E-03	3.40E+02[h]	4.32E+02

Table B-1. (continued).

COPC	Plant Uptake Factor[a] (mg/kg_{plant} per mg/kg_{soil})	Soil Dermal Absorption Factor[b] (unitless)	Water Permeability Coefficient[b] (K^w_p) (cm^3/hr)	Kd[c] (cm^3/g)	Half-life[d] (yr)
Cm-244	1.30E-03	1.00E-03	1.00E-03	2.00E+03[i]	1.81E+01
Co-60	2.90E-01	6.99E-04	1.00E-03	1.00E+01[h]	5.27E+00
Cs-134	4.60E-01	2.37E-05	1.00E-03	5.00E+02[h]	2.06E+00
Cs-137	4.60E-01	2.37E-05	1.00E-03	5.00E+02[h]	3.02E+01
H-3	4.80E+00	1.00E-03	1.00E-03	0.00E+00[h]	1.23E+01
Sr-90	3.00E+00	3.93E-04	1.00E-03	2.40E+01[h]	2.86E+01
U-238	1.40E-02	8.65E-04	1.00E-03	6.00E+00[h]	2.45E+05

NA = Not Applicable

a. Calculated using the equation PUF = $10^{(1.588-0.578*LogKow)}$ (Travis and Arms 1988) unless otherwise noted. Log k_{ow} used in the calculatino are shown in Table B-33.

b. Calculated using parameter values shown in Table B-33.

c. Calculated using the equation $K_d = K_{oc} * 0.003$, as shown in the INEL Track 2 Guidance Manual (DOE-ID 1994), unless otherwise noted. K_{oc} values are shown in Table B-33.

d. From EPA, 1994.

e. From IAEA, 1994.

f. From Baes et al., 1984.

g. Assumed value.

h. From DOE-ID, 1994.

i. From LITCO, 1996.

Table B-2. Volatile contaminant parameter values.

COPC	Diffusivity (cm^2/sec)	Henry's Law Constant (atm-m^3/mol)
bis(2-Ethylhexyl)phthalate	3.51E-2	1.00E-04
Chloroform	9.40E-02	2.87E-03
Methylene chloride	1.01E-01	2.60E-03
Toluene	8.70E-02	6.37E-03
1,1,1-Trichloroethane	8.00E-02	1.44E-02

a. From EPA, 1989.

b. From Montgomery and Welkom, 1990.

Table B-3. Soil concentrations by depth interval and site.

	Soil (0 to 6 inches) (mg/kg or pCi/g)										
COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	4.60E-02	5.70E-02		2.40E-02	6.90E-02			2.20E-01			
Acetonitrile								7.76E-02			
Aroclor-1260											5.50E+01
Bis(2-ethylhexyl)phthalate	9.60E-02	8.00E-03		1.20E-01				3.70E-01			
2-Butanone					1.10E-01			1.80E-01			
Butylbenzylphthalate								7.40E-02			
Chloroform					3.00E-03			4.00E-03			
2,4-D	6.40E-03			8.70E-02				9.10E-02			
Diethylphthalate	2.00E-03	4.10E-01									
Di-n-butylphthalate	1.20E-01	4.10E-01		3.50E-01				2.30E-01			
Di-n-octylphthalate	4.80E-02							5.60E-02			
HpCDD								4.04E-06			
HpCDF								4.70E-07			
HxCDF								2.90E-07			
Methylene Chloride	3.70E-02	5.50E-02		2.30E-02	1.70E-01			2.10E-01			
OCDD								9.99E-06			
OCDF								5.80E-07			
PeCDD								2.20E-07			
TCDF								4.70E-07			
Toluene					4.00E-03			4.00E-03			
1,1,1-Trichloroethane				6.00E-03	5.60E-02			5.30E-01			
2,4,5-TP (Silvex)		2.76E+01									
Antimony	5.12E+01	7.66E+00									
Arsenic	3.51E+01	1.64E+01	7.43E+00	7.63E+00	7.87E+00	8.39E+00				8.05E+00	
Cadmium		4.20E+00									
Chromium III	6.38E+02	1.03E+04	1.65E+02	1.18E+03	4.61E+01			5.07E+01	5.31E+01	5.04E+01	
Chromium VI	7.88E+01	1.14E+03	1.83E+01	1.31E+02	5.12E+00			5.63E+00	5.90E+00	5.60E+00	
Cobalt								9.18E+00			
Copper	2.85E+02	1.20E+02	5.32E+01	1.96E+02	3.81E+01			1.30E+02			
Lead	7.39E+01		3.84E+01	3.48E+01		3.53E+01			4.31E+01		
Mercury	8.83E+00	2.62E+00	3.94E+00	7.79E-01	2.90E-01	2.65E-01		3.10E-01	4.00E-01	8.60E-02	
Nickel	9.94E+01										
Selenium	2.09E+00	1.50E+00		1.29E+00	3.16E+00			9.40E-01			
Silver	2.32E+01	3.79E+01	9.30E-01	7.62E-01	9.70E-01	1.53E+00		3.52E+02			
Strontium								6.30E+01			
Thallium			9.20E-01		1.04E+00			7.00E-01			
Zinc	8.50E+02	5.01E+03	5.22E+02	1.46E+03				2.28E+02			
Chloride					3.70E+01			1.40E+00			
Cyanide	2.76E+00		4.20E-01		5.89E+00			2.53E+00			
Fluoride					7.00E+00			4.80E+00			
Nitrate					9.50E+00			2.20E+01			

Table B-3. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Orthophosphate					1.70E+01			2.50E+00			
Sulfate		1.27E+03			6.20E+02			1.40E+02			
Am-241							3.40E-02				
Cm-244		1.10E-01					6.00E-02				
Co-60		1.17E-01			2.90E-02	4.00E-02	1.98E-01	3.50E-02			
Cs-134						2.00E-02					
Cs-137		2.92E+01				1.80E+01	3.05E+01	2.00E+00			
H-3					1.69E+00			7.19E-01			
Ra-226		1.21E+00									
Sr-90		2.50E+00	4.50E+00								
U-238	2.70E+00		5.80E+00		2.10E+01		2.30E+00	2.30E+00			

Soil (0 to 4 feet)
(mg/kg or pCi/g)

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	4.60E-01	1.30E-01			6.90E-02			2.20E-01			
Acetonitrile								7.76E-02			
Aroclor-1260											5.50E+01
Bis(2-ethylhexyl)phthalate	9.60E-02	8.00E-03						3.70E-01			
2-Butanone		2.00E-01									
Butylbenzylphthalate								7.40E-02			
Chloroform		7.70E-03			1.00E-02			6.10E-03			
2,4-D	6.40E-03										
Diethylphthalate	2.00E-03	4.10E-01									
Di-n-butylphthalate	1.20E-01	4.10E-01						2.30E-01			
Di-n-octylphthalate	4.80E-02							4.00E-01			
HpCDD								4.04E-06			
HpCDF								4.70E-07			
HxCDF								2.90E-07			
Methylene Chloride	3.70E-02	2.95E-01			1.70E-01			2.10E-01			
OCDD								9.99E-06			
OCDF								5.80E-07			
PeCDD								2.20E-07			
TCDF								4.70E-07			
Toluene		1.60E-03			7.90E-03			1.00E-02			
1,1,1-Trichloroethane		1.78E-02									
2,4,5-TP (Silvex)		2.76E+01									
Antimony	1.92E+01	7.66E+00									
Arsenic	1.74E+01	2.50E+01	7.43E+00	7.80E+00	7.87E+00	9.65E+00					
Cadmium		3.76E+00									
Chromium III	2.03E+02	1.03E+04	7.15E+01	1.56E+03	4.61E+01			4.99E+01	5.31E+01	5.04E+01	
Chromium VI	2.25E+01	1.14E+03	7.94E+00	1.73E+02	5.12E+00			5.55E+00	5.90E+00	5.60E+00	

Table B-3. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Cobalt								8.83E+00			
Copper	1.00E+02	7.61E+01	3.47E+01	1.61E+02	3.81E+01			1.16E+02			
Lead	3.72E+01			2.31E+01					4.31E+01		
Mercury	1.72E+00	8.60E-01	7.19E-01	9.57E-01	2.90E-01	1.73E-01		2.40E-01	4.00E-01	8.60E-02	
Nickel											
Selenium	8.75E-01	8.41E+00			3.16E+00			7.30E-01			
Silver	6.41E+00	3.18E+01	8.62E-01	6.80E-01	9.70E-01	1.47E+00		7.30E-01			
Strontium								6.30E+01			
Thallium			7.92E-01		1.04E+00						
Zinc	2.99E+02	1.63E+03	2.43E+02	3.02E+03				2.30E+02			
Chloride		4.14E+01			3.70E+01						
Cyanide	8.60E-01		4.50E-01		5.44E+00			3.93E+00			
Fluoride		9.05E+00			7.00E+00			4.80E+00			
Nitrate		3.10E+00			9.50E+00			2.20E+01			
Orthophosphate		1.30E+00			1.70F+01			2.50E+00			
Sulfate		3.30E+03			6.20E+02			1.40E+02			
Am-241							3.40E-02				
Cm-244		1.10E-01					6.00E-02				
Co-60		1.17E-01			2.90E-02	4.00E-02	1.98E-01	3.50E-02			
Cs-134						2.00E-02					
Cs-137		2.92E+01				1.80E+01	3.05E+01	2.00E+00			
H-3					1.69E+00			7.19E-01			
Ra-226		1.21E+00									
Sr-90		2.50E+00	4.50E+00								
U-238	2.70E+00		5.80E+00		2.10E+01		2.30E+00	2.30E+00			

Soil (0 to 10 feet)
(mg/kg or pCi/g)

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	4.60E-01	1.30E-01		2.50E-02	6.90E-02			2.20E-01			
Acetonitrile								7.76E-02			
Aroclor-1260											5.50E+01
Bis(2-ethylhexyl)phthalate	9.60E-02	8.00E-03		1.20E-01				3.70E-01			
2-Butanone		2.00E-01			1.10E-01			1.80E-01			
Butylbenzylphthalate								7.40E-02			
Chloroform		7.70E-03			3.00E-03			4.00E-03			
2,4-D	6.40E-03			8.70E-02				9.1E-02			
Diethylphthalate	2.00E-03	4.10E-01									
Di-n-butylphthalate	1.20E-01	4.10E-01		3.50E-01				2.30E-01			
Di-n-octylphthalate	4.80E-02							5.60E-02			
HpCDD								4.04E-06			
HpCDF								4.70E-07			

Table B-3. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
HxCDF								2.90E-07			
Methylene Chloride	3.70E-02	2.95E-01		2.30E-02	1.70E-01			2.10E-01			
OCDD								9.99E-06			
OCDF								5.80E-07			
PeCDD								2.20E-07			
TCDF								4.70E-07			
Toluene		1.60E-03			4.00E-03			4.00E-03			
1,1,1-Trichloroethane		1.78E-02		6.00E-03	5.60E-02			5.30E-01			
2,4,5-TP (Silvex)		2.76E+01									
Antimony	1.92E+01	7.66E+00									
Arsenic	1.74E+01	2.50E+01	7.78E+00	7.80E+00	7.87E+00	9.65E+00				8.05E+00	
Cadmium		3.76E+00									
Chromium III	2.03E+02	1.03E+04	7.15E+01	1.56E+03	4.61E+01			4.99E+01	5.31E+01	5.04E+01	
Chromium VI	2.25E+01	1.14E+03	7.94E+00	1.73E+02	5.12E+00			5.55E+00	5.90E+00	5.60E+00	
Cobalt								8.83E+00			
Copper	1.00E+02	7.61E+01	3.47E+01	1.61E+02	3.81E+01			1.16E+02			
Lead	3.72E+01			2.31E+01					4.31E+01		
Mercury	1.72E+00	8.60E-01	7.19E-01	9.57E-01	2.90E-01	1.73E-01		2.40E-01	4.00E-01	8.60E-02	
Nickel											
Selenium	8.75E-01	8.41E+00		1.64E+00	3.16E+00			7.30E-01			
Silver	6.41E+00	3.18E+01	8.62E-01	6.80E-01	9.70E-01	1.47E+00		7.30E-01			
Strontium								6.30E+01			
Thallium			7.92E-01		1.04E+00			1.23E+00			
Zinc	2.99E+02	1.63E+03	2.43E+02	3.02E+03				2.30E+02			
Chloride		4.14E+01			3.70E+01			1.40E+00			
Cyanide	8.60E-01		4.50E-01		5.44E+00			3.93E+00			
Fluoride		9.05E+00			7.00E+00			4.80E+00			
Nitrate		3.10E+00			9.50E+00			2.20E+01			
Orthophosphate		1.30E+00			1.70E+01			2.50E+00			
Sulfate		3.30E+03			6.20E+02			1.40E+02			
Am-241							3.40E-02				
Cm-244		1.10E-01					6.00E-02				
Co-60		1.17E-01			2.90E-02	3.90E-02	1.98E-01	3.50E-02			
Cs-134						2.10E-02					
Cs-137		2.92E+01				1.80E+01	3.05E+01	2.00E+00			
H-3					1.69E+00			7.19E-01			
Ra-226		1.21E+00									
Sr-90		2.50E+00	4.50E+00								
U-238	2.70E+00		5.80E+00		2.10E+01		2.30E+00	2.3E+00			

Table B-4. Average radionuclide soil concentrations in pCi/g by depth and time period.

Depth = 0-6 in.
Time Period = 0-25 yr

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Am-241	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.33E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cm-244	0.00E+00	7.08E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.86E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60	0.00E+00	3.43E-02	0.00E+00	0.00E+00	8.49E-03	1.17E-02	5.80E-02	1.02E-02	0.00E+00	0.00E+00	0.00E+00
Cs-134	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.38E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	0.00E+00	2.22E+01	0.00E+00	0.00E+00	0.00E+00	1.37E+01	2.32E+01	1.52E+00	0.00E+00	0.00E+00	0.00E+00
H-3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.06E-01	0.00E+00	0.00E+00	3.86E-01	0.00E+00	0.00E+00	0.00E+00
Ra-226	0.00E+00	1.20E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sr-90	0.00E+00	1.87E+00	3.37E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
U-238	2.70E+00	0.00E+00	5.80E+00	0.00E+00	2.10E+01	0.00E+00	2.30E+00	2.30E+00	0.00E+00	0.00E+00	0.00E+00

Depth = 0-4 ft
Time Period = 0-25 yr

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Am-241	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.33E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cm-244	0.00E+00	7.08E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.86E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60	0.00E+00	3.43E-02	0.00E+00	0.00E+00	8.49E-03	1.17E-02	5.80E-02	1.02E-02	0.00E+00	0.00E+00	0.00E+00
Cs-134	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.38E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	0.00E+00	2.22E+01	0.00E+00	0.00E+00	0.00E+00	1.37E+01	2.32E+01	1.52E+00	0.00E+00	0.00E+00	0.00E+00
H-3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.06E-01	0.00E+00	0.00E+00	3.86E-01	0.00E+00	0.00E+00	0.00E+00
Ra-226	0.00E+00	1.20E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sr-90	0.00E+00	1.87E+00	3.37E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
U-238	2.70E+00	0.00E+00	5.80E+00	0.00E+00	2.10E+01	0.00E+00	2.30E+00	2.30E+00	0.00E+00	0.00E+00	0.00E+00

Depth = 0-6 in.
Time Period = 30-55 yr

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Am-241	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.18E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cm-244	0.00E+00	2.24E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60	0.00E+00	6.62E-04	0.00E+00	0.00E+00	1.64E-04	2.26E-04	1.12E-03	1.98E-04	0.00E+00	0.00E+00	0.00E+00
Cs-134	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.82E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	0.00E+00	1.12E+01	0.00E+00	0.00E+00	0.00E+00	6.88E+00	1.17E+01	7.64E-01	0.00E+00	0.00E+00	0.00E+00
H-3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.67E-01	0.00E+00	0.00E+00	7.11E-02	0.00E+00	0.00E+00	0.00E+00
Ra-226	0.00E+00	1.20E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sr-90	0.00E+00	9.06E-01	1.63E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
U-238	2.70E+00	0.00E+00	5.80E+00	0.00E+00	2.10E+01	0.00E+00	2.30E+00	2.30E+00	0.00E+00	0.00E+00	0.00E+00

Depth = 0-4 ft
Time Period = 30-55 yr

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Am-241	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.18E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cm-244	0.00E+00	2.24E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60	0.00E+00	6.62E-04	0.00E+00	0.00E+00	1.64E-04	2.26E-04	1.12E-03	1.98E-04	0.00E+00	0.00E+00	0.00E+00

Table B-4. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Cs-134	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.82E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	0.00E+00	1.12E+01	0.00E+00	0.00E+00	0.00E+00	6.88E+00	1.17E+01	7.64E-01	0.00E+00	0.00E+00	0.00E+00
H-3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.67E-01	0.00E+00	0.00E+00	7.11E-02	0.00E+00	0.00E+00	0.00E+00
Ra-226	0.00E+00	1.19E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sr-90	0.00E+00	9.06E-01	1.63E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
U-238	2.70E+00	0.00E+00	5.80E+00	0.00E+00	2.10E+01	0.00E+00	2.30E+00	2.30E+00	0.00E+00	0.00E+00	0.00E+00

Depth = 0-10 ft
Time Period = 100-130 yr

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Am-241	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.83E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cm-244	0.00E+00	1.42E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.75E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60	0.00E+00	5.64E-08	0.00E+00	0.00E+00	1.40E+08	1.88E-08	9.55E-08	1.69E-08	0.00E+00	0.00E+00	0.00E+00
Cs-134	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.07E-18	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	0.00E+00	2.13E+00	0.00E+00	0.00E+00	0.00E+00	1.31E+00	2.22E+00	1.46E-01	0.00E+00	0.00E+00	0.00E+00
H-3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.63E-03	0.00E+00	0.00E+00	1.24E-03	0.00E+00	0.00E+00	0.00E+00
Ra-226	0.00E+00	1.15E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sr-90	0.00E+00	1.57E-01	2.83E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
U-238	2.70E+00	0.00E+00	5.80E+00	0.00E+00	2.10E+01	0.00E+00	2.30E+00	2.30E+00	0.00E+00	0.00E+00	0.00E+00

Depth = 0-10 ft
Time Period = 1000-1030 yr

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Am-241	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.67E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cm-244	0.00E+00	1.53E-18	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.33E-19	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60	0.00E+00	2.20E-59	0.00E+00	0.00E+00	5.45E-60	7.33E-60	3.72E-59	6.58E-60	0.00E+00	0.00E+00	0.00E+00
Cs-134	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	0.00E+00	2.27E-09	0.00E+00	0.00E+00	0.00E+00	1.40E-09	2.38E-09	1.56E-10	0.00E+00	0.00E+00	0.00E+00
H-3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.36E-25	0.00E+00	0.00E+00	1.16E-25	0.00E+00	0.00E+00	0.00E+00
Ra-226	0.00E+00	7.80E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sr-90	0.00E+00	5.30E-11	9.54E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
U-238	2.70E+00	0.00E+00	5.80E+00	0.00E+00	2.10E+01	0.00E+00	2.30E+00	2.30E+00	0.00E+00	0.00E+00	0.00E+00

Table B-5. Contaminant concentrations (mg/kg or pCi/g) in homegrown produce.[a]

	Residential Scenario Year 100										
COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	7.83E-02	2.21E-02	0.00E+00	4.25E-03	1.17E-02	0.00E+00	0.00E+00	3.74E-02	0.00E+00	0.00E+00	0.00E+00
Acetonitrile	2.04E-02	2.04E-02	2.04E-02	2.04E-02	2.04E-02	2.04E-02	2.04E-02	3.55E-02	2.04E-02	2.04E-02	2.04E-02
Aroclor-1260	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.14E-01
Bis(2-ethylhexyl)phthalate	4.62E-02	4.35E-02	4.33E-02	4.69E-02	4.33E-02	4.33E-02	4.33E-02	5.44E-02	4.33E-02	4.33E-02	4.33E-02
2-Butanone	0.00E+00	1.83E-02	0.00E+00	0.00E+00	1.00E-02	0.00E+00	0.00E+00	1.64E-02	0.00E+00	0.00E+00	0.00E+00
Butylbenzylphthalate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.72E-05	0.00E+00	0.00E+00	0.00E+00
Chloroform	7.55E-04	8.59E-04	7.55E-04	7.55E-04	7.96E-04	7.55E-04	7.55E-04	8.09E-04	7.55E-04	7.55E-04	7.55E-04
2,4-D	6.38E-04	6.16E-04	6.16E-04	9.24E-04	6.16E-04	6.16E-04	6.16E-04	9.38E-04	6.16E-04	6.16E-04	6.16E-04
Diethylphthalate	1.89E-05	3.87E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Di-n-butylphthalate	5.37E-04	1.83E-03	0.00E+00	1.57E-03	0.00E+00	0.00E+00	0.00E+00	1.03E-03	0.00E+00	0.00E+00	0.00E+00
Di-n-octylphthalate	8.93E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E-05	0.00E+00	0.00E+00	0.00E+00
HpCDD	8.82E-11	8.82E-11	8.82E-11	8.82E-11	8.82E-11	8.82E-11	8.82E-11	1.53E-10	8.82E-11	8.82E-11	8.82E-11
HpCDF	1.03E-11	1.03E-11	1.03E-11	1.03E-11	1.03E-11	1.03E-11	1.03E-11	1.78E-11	1.03E-11	1.03E-11	1.03E-11
HxCDF	6.32E-12	6.32E-12	6.32E-12	6.32E-12	6.32E-12	6.32E-12	6.32E-12	1.10E-11	6.32E-12	6.32E-12	6.32E-12
Methylene Chloride	1.54E-01	1.60E-01	1.53E-01	1.54E-01	1.57E-01	1.53E-01	1.53E-01	1.58E-01	1.53E-01	1.53E-01	1.53E-01
OCDD	2.18E-10	2.18E-10	2.18E-10	2.18E-10	2.18E-10	2.18E-10	2.18E-10	3.79E-10	2.18E-10	2.18E-10	2.18E-10
OCDF	1.27E-11	1.27E-11	1.27E-11	1.27E-11	1.27E-11	1.27E-11	1.27E-11	2.21E-11	1.27E-11	1.27E-11	1.27E-11
PeCDD	4.80E-12	4.80E-12	4.80E-12	4.80E-12	4.80E-12	4.80E-12	4.80E-12	8.34E-12	4.80E-12	4.80E-12	4.80E-12
TCDF	1.03E-11	1.03E-11	1.03E-11	1.03E-11	1.03E-11	1.03E-11	1.03E-11	1.78E-11	1.03E-11	1.03E-11	1.03E-11
Toluene	0.00E+00	2.46E-05	0.00E+00	0.00E+00	6.14E-05	0.00E+00	0.00E+00	6.14E-05	0.00E+00	0.00E+00	0.00E+00
1,1,1-Trichloroethane	0.00E+00	1.74E-04	0.00E+00	5.86E-05	5.47E-04	0.00E+00	0.00E+00	5.18E-03	0.00E+00	0.00E+00	0.00E+00
2,4,5-TP (Silvex)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Antimony	5.14E-03	2.08E-03	4.72E-05	4.72E-05	4.72E-05	4.72E-05	4.72E-05	4.72E-05	4.72E-05	4.72E-05	4.72E-05
Arsenic	2.75E-02	3.90E-02	1.90E-02	1.31E-02	1.32E-02	1.59E-02	1.44E-03	1.44E-03	1.44E-03	1.35E-02	1.44E-03
Cadmium	3.06E-02	1.79E-01	3.06E-02	3.06E-02	3.06E-02	3.06E-02	3.06E-02	3.06E-02	3.06E-02	3.06E-02	3.06E-02
Chromium III	3.48E-03	1.74E-01	1.25E-03	2.65E-02	8.23E-04	4.35E-05	4.35E-05	8.88E-04	9.42E-04	8.96E-04	4.35E-05
Chromium VI	3.86E-04	1.93E-02	1.39E-04	2.94E-03	9.14E-05	4.83E-06	4.83E-06	9.86E-05	1.05E-04	9.96E-05	4.83E-06
Cobalt	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.62E+00	0.00E+00	0.00E+00	0.00E+00
Copper	3.57E+00	2.75E+00	1.34E+00	5.66E+00	1.45E+00	1.53E-01	1.53E-01	4.12E+00	1.53E-01	1.53E-01	1.53E-01
Lead	4.96E-01	2.11E-04	2.11E-04	3.08E-01	2.11E-04	2.11E-04	2.11E-04	2.11E-04	5.75E-01	2.11E-04	2.11E-04
Mercury	1.03E+00	5.17E-01	4.32E-01	5.75E-01	1.74E-01	1.04E-01	4.21E-04	1.44E-01	2.41E-01	5.20E-02	4.21E-04
Nickel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Selenium	4.31E-03	1.35E-02	3.24E-03	5.25E-03	7.11E-03	3.24E-03	3.24E-03	4.13E-03	3.24E-03	3.24E-03	3.24E-03
Silver	5.56E-03	2.67E-02	9.42E-04	7.90E-04	1.03E-03	1.45E-03	2.24E-04	8.32E-04	2.24E-04	2.24E-04	2.24E-04
Strontium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.11E+01	0.00E+00	0.00E+00	0.00E+00
Thallium	6.43E-06	6.43E-06	1.65E-05	6.43E-06	1.97E-05	6.43E-06	6.43E-06	2.21E-05	6.43E-06	6.43E-06	6.43E-06
Zinc	2.66E+03	1.13E+04	2.30E+03	2.03E+04	7.23E+02	7.23E+02	7.23E+02	2.22E+03	7.23E+02	7.23E+02	7.23E+02
Chloride	0.00E+00	1.32E-01	0.00E+00	0.00E+00	1.18E-01	0.00E+00	0.00E+00	4.45E-03	0.00E+00	0.00E+00	0.00E+00
Cyanide	1.05E+00	9.02E-01	9.80E-01	9.02E-01	1.84E+00	9.02E-01	9.02E-01	1.58E+00	9.02E-01	9.02E-01	9.02E-01
Fluoride	7.03E-01	7.31E-01	7.03E-01	7.03E-01	7.25E-01	7.03E-01	7.03E-01	7.18E-01	7.03E-01	7.03E-01	7.03E-01
Nitrate	9.74E-02	1.07E-01	9.74E-02	9.74E-02	1.28E-01	9.74E-02	9.74E-02	1.69E-01	9.74E-02	9.74E-02	9.74E-02
Orthophosphate	1.01E-01	1.05E-01	1.01E-01	1.01E-01	1.55E-01	1.01E-01	1.01E-01	1.09E-01	1.01E-01	1.01E-01	1.01E-01

Table B-5. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Sulfate	2.57E+02	2.67E+02	2.57E+02	2.57E+02	2.59E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02
Am-241	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.49E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cm-244	1.29E-27	4.40E-09	1.29E-27	1.29E-27	1.29E-27	1.29E-27	2.40E-09	1.29E-27	1.29E-27	1.29E-27	1.29E-27
Co-60	1.55E-06	1.55E-06	1.55E-06	1.55E-06	1.55E-06	1.55E-06	1.55E-06	1.55E-06	1.55E-06	1.55E-06	1.55E-06
Cs-134	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.32E-22	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	1.48E-07	3.88E-03	1.48E-07	1.48E-07	1.48E-07	2.39E-03	4.06E-03	2.66E-04	1.48E-07	1.48E-07	1.48E-07
H-3	4.88E-03	4.88E-03	4.88E-03	4.88E-03	4.88E-03	4.88E-03	4.88E-03	4.88E-03	4.88E-03	4.88E-03	4.88E-03
Ra-226	4.66E-05	7.49E-05	4.66E-05	4.66E-05	4.66E-05	4.66E-05	4.66E-05	4.66E-05	4.66E-05	4.66E-05	4.66E-05
Sr-90	1.40E-03	3.15E-03	4.55E-03	1.40E-03	1.40E-03	1.40E-03	1.40E-03	1.40E-03	1.40E-03	1.40E-03	1.40E-03
U-238	2.72E-03	4.11E-07	5.84E-03	4.11E-07	2.12E-02	4.11E-07	2.32E-03	2.32E-03	4.11E-07	4.11E-07	4.11E-07

Residential Scenario Year 1000

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	7.83E-02	2.21E-02	0.00E+00	4.25E-03	1.17E-02	0.00E+00	0.00E+00	3.74E-02	0.00E+00	0.00E+00	0.00E+00
Acetonitrile	2.04E-02	2.04E-02	2.04E-02	2.04E-02	2.04E-02	2.04E-02	2.04E-02	3.55E-02	2.04E-02	2.04E-02	2.04E-02
Aroclor-1260	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.14E-01
Bis(2-ethylhexyl)phthalate	4.62E-02	4.35E-02	4.33E-02	4.69E-02	4.33E-02	4.33E-02	4.33E-02	5.44E-02	4.33E-02	4.33E-02	4.33E-02
2-Butanone	0.00E+00	1.83E-02	0.00E+00	0.00E+00	1.00E-02	0.00E+00	0.00E+00	1.64E-02	0.00E+00	0.00E+00	0.00E+00
Butylbenzylphthalate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.72E-05	0.00E+00	0.00E+00	0.00E+00
Chloroform	7.55E-04	8.59E-04	7.55E-04	7.55E-04	7.96E-04	7.55E-04	7.55E-04	8.09E-04	7.55E-04	7.55E-04	7.55E-04
2,4-D	6.38E-04	6.16E-04	6.16E-04	9.24E-04	6.16E-04	6.16E-04	6.16E-04	9.38E-04	6.16E-04	6.16E-04	6.16E-04
Diethylphthalate	1.89E-05	3.87E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Di-n-butylphthalate	5.37E-04	1.83E-03	0.00E+00	1.57E-03	0.00E+00	0.00E+00	0.00E+00	1.03E-03	0.00E+00	0.00E+00	0.00E+00
Di-n-octylphthalate	8.93E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E-05	0.00E+00	0.00E+00	0.00E+00
HpCDD	8.82E-11	8.82E-11	8.82E-11	8.82E-11	8.82E-11	8.82E-11	8.82E-11	1.53E-10	8.82E-11	8.82E-11	8.82E-11
HpCDF	1.03E-11	1.03E-11	1.03E-11	1.03E-11	1.03E-11	1.03E-11	1.03E-11	1.78E-11	1.03E-11	1.03E-11	1.03E-11
HxCDF	6.32E-12	6.32E-12	6.32E-12	6.32E-12	6.32E-12	6.32E-12	6.32E-12	1.10E-11	6.32E-12	6.32E-12	6.32E-12
Methylene Chloride	1.54E-01	1.60E-01	1.53E-01	1.54E-01	1.57E-01	1.53E-01	1.53E-01	1.58E-01	1.53E-01	1.53E-01	1.53E-01
OCDD	2.18E-10	2.18E-10	2.18E-10	2.18E-10	2.18E-10	2.18E-10	2.18E-10	3.79E-10	2.18E-10	2.18E-10	2.18E-10
OCDF	1.27E-11	1.27E-11	1.27E-11	1.27E-11	1.27E-11	1.27E-11	1.27E-11	2.21E-11	1.27E-11	1.27E-11	1.27E-11
PeCDD	4.80E-12	4.80E-12	4.80E-12	4.80E-12	4.80E-12	4.80E-12	4.80E-12	8.34E-12	4.80E-12	4.80E-12	4.80E-12
TCDF	1.03E-11	1.03E-11	1.03E-11	1.03E-11	1.03E-11	1.03E-11	1.03E-11	1.78E-11	1.03E-11	1.03E-11	1.03E-11
Toluene	0.00E+00	2.46E-05	0.00E+00	0.00E+00	6.14E-05	0.00E+00	0.00E+00	6.14E-05	0.00E+00	0.00E+00	0.00E+00
1,1,1-Trichloroethane	0.00E+00	1.74E-04	0.00E+00	5.86E-05	5.47E-04	0.00E+00	0.00E+00	5.18E+03	0.00E+00	0.00E+00	0.00E+00
2,4,5-TP (Silvex)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Antimony	5.14E-03	2.08E-03	4.72E-05	4.72E-05	4.72E-05	4.72E-05	4.72E-05	4.72E-05	4.72E-05	4.72E-05	4.72E-05
Arsenic	2.73E-02	3.87E-02	1.88E-02	1.29E-02	1.30E-02	1.57E-02	1.21E-03	1.21E-03	1.21E-03	1.32E-02	1.21E-03
Cadmium	3.06E-02	1.79E-01	3.06E-02	3.06E-02	3.06E-02	3.06E-02	3.06E-02	3.06E-02	3.06E-02	3.06E-02	3.06E-02
Chromium III	1.87E-01	3.57E-01	1.84E-01	2.09E-01	1.84E-01	1.83E-01	1.83E-01	1.84E-01	1.84E-01	1.84E-01	1.83E-01
Chromium VI	2.07E-02	3.96E-02	2.05E-02	2.33E-02	2.04E-02	2.03E-02	2.03E-02	2.04E-02	2.04E-02	2.04E-02	2.03E-02
Cobalt	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.01E-01	0.00E+00	0.00E+00	0.00E+00
Copper	1.91E+01	1.47E+01	7.09E+00	3.03E+01	7.71E+00	7.29E-01	7.29E-01	2.20E+01	7.29E-01	7.29E-01	7.29E-01

Table B-5. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Lead	4.96E-01	2.11E-04	2.11E-04	3.08E-01	2.11E-04	2.11E-04	2.11E-04	2.11E-04	5.75E-01	2.11E-04	2.11E-04
Mercury	1.03E+00	5.17E-01	4.32E-01	5.75E-01	1.74E-01	1.04E-01	4.21E-04	1.44E-01	2.41E-01	5.20E-02	4.21E-04
Nickel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Selenium	4.31E-03	1.35E-02	3.24E-03	5.24E-03	7.11E-03	3.24E-03	3.24E-03	4.13E-03	3.24E-03	3.24E-03	3.24E-03
Silver	5.56E-03	2.67E-02	9.42E-04	7.90E-04	1.03E-03	1.45E-03	2.24E-04	8.32E-04	2.24E-04	2.24E-04	2.24E-04
Strontium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.11E+01	0.00E+00	0.00E+00	0.00E+00
Thallium	6.43E-06	6.43E-06	1.65E-05	6.43E-06	1.97E-05	6.43E-06	6.43E-06	2.21E-05	6.43E-06	6.43E-06	6.43E-06
Zinc	2.66E+03	1.13E+04	2.30E+03	2.03E+04	7.23E+02	7.23E+02	7.23E+02	2.22E+03	7.23E+02	7.23E+02	7.23E+02
Chloride	0.00E+00	1.32E-01	0.00E+00	0.00E+00	1.18E-01	0.00E+00	0.00E+00	4.45E-03	0.00E+00	0.00E+00	0.00E+00
Cyanide	1.05E+00	9.02E-01	9.80E-01	9.02E-01	1.84E+00	9.02E-01	9.02E-01	1.58E+00	9.02E-01	9.02E-01	9.02E-01
Fluoride	7.03E-01	7.31E-01	7.03E-01	7.03E-01	7.25E-01	7.03E-01	7.03E-01	7.18E-01	7.03E-01	7.03E-01	7.03E-01
Nitrate	9.74E-02	1.07E-01	9.74E-02	9.74E-02	1.28E-01	9.74E-02	9.74E-02	1.69E-01	9.74E-02	9.74E-02	9.74E-02
Orthophosphate	1.01E-01	1.05E-01	1.01E-01	1.01E-01	1.55E-01	1.01E-01	1.01E-01	1.09E-01	1.01E-01	1.01E-01	1.01E-01
Sulfate	2.57E+02	2.67E+02	2.57E+02	2.57E+02	2.59E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02
Am-241	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.22E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cm-244	1.29E-27	4.73E-24	1.29E-27	1.29E-27	1.29E-27	1.29E-27	2.58E-24	1.29E-27	1.29E-27	1.29E-27	1.29E-27
Co-60	1.55E-06	1.55E-06	1.55E-06	1.55E-06	1.55E-06	1.55E-06	1.55E-06	1.55E-06	1.55E-06	1.55E-06	1.55E-06
Cs-134	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	1.48E-07	1.48E-07	1.48E-07	1.48E-07	1.48E-07	1.48E-07	1.48E-07	1.48E-07	1.48E-07	1.48E-07	1.48E-07
H-3	4.88E-03	4.88E-03	4.88E-03	4.88E-03	4.88E-03	4.88E-03	4.88E-03	4.88E-03	4.88E-03	4.88E-03	4.88E-03
Ra-226	4.66E-05	4.66E-05	4.66E-05	4.66E-05	4.66E-05	4.66E-05	4.66E-05	4.66E-05	4.66E-05	4.66E-05	4.66E-05
Sr-90	1.40E-03	1.40E-03	1.40E-03	1.40E-03	1.40E-03	1.40E-03	1.40E-03	1.40E-03	1.40E-03	1.40E-03	1.40E-03
U-238	2.72E-03	4.11E-19	5.84E-03	4.11E-19	2.12E-02	4.11E-19	2.32E-03	2.32E-03	4.11E-19	4.11E-19	4.11E-19

a. The homegrown produce ingestion exposure route is not evaluated during the occupational exposure scenario.

Table B-6. COPC concentrations in fugitive dust by time period.

	Fugitive Dust Concentrations (mg/m³ or pCi/m³)			
	Occupational Scenario		Residential Scenario	
COPC	Year 0	Year 30	Year 100	Year 1000
Acetone	5.06E-10	5.06E-10	9.91E-10	9.91E-10
Acetonitrile	2.06E-11	2.06E-11	2.06E-11	2.06E-11
Aroclor-1260	2.30E-09	2.30E-09	2.30E-09	2.30E-09
Bis(2-ethylhexyl)phthalate	3.15E-10	3.15E-10	3.15E-10	3.15E-10
2-Butanone	4.77E-11	4.77E-11	1.41E-09	1.41E-09
Butylbenzylphthalate	5.59E-11	5.59E-11	1.96E-11	1.96E-11
Chloroform	4.92E-12	4.92E-12	5.59E-11	5.59E-11
2,4-D	1.08E-10	1.08E-10	1.08E-10	1.08E-10
Diethylphthalate	2.72E-09	2.72E-09	2.72E-09	2.72E-09
Di-n-butylphthalate	3.17E-09	3.17E-09	3.17E-09	3.17E-09
Di-n-octylphthalate	1.56E-10	1.56E-10	1.56E-10	1.56E-10
HpCDD	1.07E-15	1.07E-15	1.07E-15	1.07E-15
HpCDF	1.25E-16	1.25E-16	1.25E-16	1.25E-16
HxCDF	7.68E-17	7.68E-17	7.68E-17	7.68E-17
Methylene Chloride	5.18E-10	5.18E-10	2.11E-09	2.11E-09
OCDD	2.65E-15	2.65E-15	2.65E-15	2.65E-15
OCDF	1.54E-16	1.54E-16	1.54E-16	1.54E-16
PeCDD	5.83E-17	5.83E-17	5.83E-17	5.83E-17
TCDF	1.25E-16	1.25E-16	1.25E-16	1.25E-16
Toluene	5.26E-12	5.26E-12	1.59E-11	1.59E-11
1,1,1-Trichloroethane	1.64E-10	1.64E-10	2.82E-10	2.82E-10
2,4,5-TP (Silvex)	1.83E-07	1.83E-07	1.83E-07	1.83E-07
Antimony	2.85E-08	2.85E-08	1.07E-08	1.07E-08
Arsenic	1.88E-07	1.88E-07	2.43E-07	2.43E-07
Cadmium	2.78E-08	2.78E-08	2.49E-08	2.49E-08
Chromium III	6.95E-05	6.95E-05	6.96E-05	6.96E-05
Chromium VI	7.72E-06	7.72E-06	7.73E-06	7.73E-06
Cobalt	2.43E-09	2.43E-09	2.34E-09	2.34E-09
Copper	1.20E-06	1.20E-06	7.62E-07	7.62E-07
Lead	2.83E-07	2.83E-07	4.18E-08	4.18E-08
Mercury	2.57E-08	2.57E-08	8.87E-09	8.87E-09
Nickel	5.52E-08	5.52E-08	0.00E+00	0.00E+00
Selenium	1.36E-08	1.36E-08	5.74E-08	5.74E-08
Silver	3.67E-07	3.67E-07	2.24E-07	2.24E-07
Strontium	1.67E-08	1.67E-08	1.67E-08	1.67E-08
Thallium	5.87E-10	5.87E-10	5.53E-10	5.53E-10
Zinc	3.52E-05	3.52E-05	1.39E-05	1.39E-05

Table B-6. (continued).

	Occupational Scenario		Residential Scenario	
COPC	Year 0	Year 30	Year 100	Year 1000
Chloride	1.22E-08	1.22E-08	2.87E-07	2.87E-07
Cyanide	4.26E-09	4.26E-09	3.44E-09	3.44E-09
Fluoride	3.58E-09	3.58E-09	6.35E-08	6.35E-08
Nitrate	8.97E-09	8.97E-09	2.95E-08	2.95E-08
Orthophosphate	6.28E-09	6.28E-09	1.49E-08	1.49E-08
Sulfate	8.63E-06	8.63E-06	2.21E-05	2.21E-05
Am-241	4.41E-11	4.21E-11	3.74E-11	8.84E-12
Cm-244	5.20E-10	1.65E-10	1.04E-11	1.12E-26
Co-60	3.73E-10	7.21E-12	6.11E-16	2.38E-67
Cs-134	1.34E-11	5.55E-16	2.87E-26	0.00E+00
Cs-137	2.56E-07	1.28E-07	2.45E-08	2.62E-17
H-3	1.02E-10	1.88E-11	3.28E-13	3.09E-35
Sr-90	1.33E-08	6.43E-09	1.12E-09	3.76E-19
U-238	1.30E-08	1.30E-08	1.30E-08	1.30E-08

Table B-7. Airborne concentrations of volatile COPCs by time period.

	Fugitive Dust Concentrations (mg/m^3 or pCi/m^3)			
	Occupational Scenario		Residential Scenario	
COPC	Year 0	Year 30	Year 100	Year 1000
Bis(2-ethylhexyl)phthalate	4.13e-08	4.13E-08	2.81E-08	2.81E-08
Chloroform	4.00E-08	4.00E-08	1.96E-06	1.96E-06
Methylene Chloride	4.57E-05	4.57E-05	2.26E-04	2.26E-04
Toluene	2.09E-08	2.09E-08	2.20E-07	2.20E-07
1,1,1-Trichloroethane	1.95E-06	1.95E-06	6.70E-06	6.70E-06

Table B-8. Average Concentration of airborne contaminants from indoor water use.

COPC	Average Indoor Airborne Contamination (mg/m^3 or pCi/m^3) Years 100-130	Years 1000-1030
Acetone	0.00E+00	0.00E+00
Acetonitrile	8.97E-05	8.97E-05
Aroclor-1260	0.00E+00	0.00E+00
Bis(2-ethylhexyl)phthalate	1.53E-03	1.53E-03
2-Butanone	0.00E+00	0.00E+00
Butylbenzylphthalate	0.00E+00	0.00E+00
Chloroform	4.77E-05	4.77E-05
2,4-D	1.48E-04	1.48E-04
Diethylphthalate	0.00E+00	0.00E+00
Di-n-butylphthalate	0.00E+00	0.00E+00
Di-n-octylphthalate	0.00E+00	0.00E+00
HpCDD	4.68E-09	4.68E-09
HpCDF	5.44E-10	5.44E-10
HxCDF	3.35E-10	3.35E-10
Methylene Chloride	5.47E-03	5.47E-03
OCDD	1.16E-08	1.16E-08
OCDF	6.76E-10	6.76E-10
PeCDD	2.55E-10	2.55E-10
TCDF	5.44E-10	5.44E-10
Toluene	0.00E+00	0.00E+00
1,1,1-Trichloroethane	0.00E+00	0.00E+00
2,4,5-TP (Silvex)	4.03E-03	4.03E-03
Antimony	2.37E-04	2.37E-04
Arsenic	8.45E-04	7.15E-04
Cadmium	7.09E-04	7.09E-04
Chromium III	2.22E-03	2.22E-03
Chromium VI	2.47E-04	2.47E-04
Cobalt	0.00E+00	0.00E+00
Copper	4.33E-03	4.33E-03
Lead	2.35E-05	2.35E-05
Mercury	1.04E-06	1.04E-06
Nickel	0.00E+00	0.00E+00
Selenium	2.37E-03	2.37E-03
Silver	3.95E-04	3.95E-04
Strontium	0.00E+00	0.00E+00
Thallium	4.31E-04	4.31E-04
Zinc	1.16E-01	1.16E-01
Chloride	0.00E+00	0.00E+00

Table B-8. (continued).

COPC	Years 100-130	Years 1000-1030
Cyanide	4.45E-03	4.45E-03
Fluoride	1.89E-01	1.89E-01
Nitrate	2.55E-02	2.55E-02
Orthophosphate	2.71E-02	2.71E-02
Sulfate	6.89E+01	6.89E+01
Am-241	0.00E+00	0.00E+00
Cm-244	3.58E-22	3.58E-22
Co-60	6.63E-03	6.63E-03
Cs-134	0.00E+00	0.00E+00
Cs-137	6.96E-05	6.96E-05
H-3	8.06E-01	8.06E-01
Sr-90	1.08E-01	1.08E-01
U-238	3.77E-04	3.77E-16

Table B-9. Soil ingestion intake factor equation for the occupational exposure scenario.[a,b]

$$Intake\ factor = \frac{C_{air} * IR * FI * EF * ED * CF}{BW * AT}$$

		Parameter	Value
C_{soil}	=	Contaminant concentration in soil (mg/kg or pCi/g)	Contaminant Dependent
IR	=	Ingestion rate (mg/day)	50
FI	=	Fraction ingested from contaminated source	1
EF	=	Exposure frequency (day/yr)	250
ED	=	Exposure duration (yr)	25
CF	=	Conversion factor (kg/mg)	10^{-6} (nonradionuclide) or 10^{-3} (radionuclide)
BW	=	Body weight (kg)	70
AT	=	Averaging time (day)	
		Noncarcinogenic	9.13E+03
		Carcinogenic	2.55E+04

a. Equation for radionuclides does not include denominator (BW * AT).
b. Values from DOE-ID, 1994.

Table B-10. External exposure intake factor equation for the occupational exposure scenario.[a]

$$Exposure\ factor = C_{soil} * ET * EF * ED * CF$$

		Parameter	Value
C_{soil}	=	Contaminant concentration in soil (pCi/g)	Contaminant dependent
ET	=	Exposure time (hr/day)	8
EF	=	Exposure frequency (day/yr)	250
ED	=	Exposure duration (yr)	25
CF	=	Conversion factor (yr/hr)	1.14×10^{-4}

a. Values from DOE-ID, 1994.

Table B-11. Inhalation of fugitive dust intake factor equation for the occupational exposure scenario.[a,b]

$$Intake\ factor = \frac{C_{air} * IR * ET * EF * ED * CF}{BW * AT}$$

		Parameter	Value
C_{air}	=	Contaminant concentration in air (mg/m^3 or pCi/m^3)	Contaminant dependent
IR	=	Inhalation rate (m^3/day)	20
ED	=	Exposure duration (yr)	25
CF	=	Conversion factor (day/hr)	4.2E-02
EF	=	Exposure frequency (day/yr)	250
BW	=	Body weight (kg)	70
AT	=	Averaging time (day)	
		Noncarcinogenic	9.13E+03
		Carcinogenic	2.55E+04

a. Equation for radionuclides does not include denominator (BW * AT).
b. Values from DOE-ID, 1994.

Table B-12. Inhalation of volatiles intake factor equation for the occupational exposure scenario.[a,b]

$$take\ factor = \frac{C_{air} * IR * ET * EF * E}{BW * AT}$$

		Parameter	Value
C_{air}	=	Contaminant concentration in air (mg/m^3)	Contaminant dependent
IR	=	Inhalation rate (m^3/day)	20
EF	=	Exposure frequency (day/yr)	250
ED	=	Exposure duration (yr)	25
BW	=	Body weight (kg)	70
AT	=	Averaging time (day)	
		Noncarcinogenic	9.13E+03
		Carcinogenic	2.55E+04

a. Equation for radionuclides does not include denominator (BW * AT).
b. Values from DOE-ID, 1994

Table B-13. Soil ingestion intake factor equation for the future residential exposure scenario.[a,b]

$$Intake\ factor = \left[\frac{C_{soil} * FI * EF * CF}{AT}\right] * \left[\frac{IR_{adult} * ED_{adult}}{BW_{adult}} + \frac{IR_{child} * ED_{child}}{BW_{child}}\right]$$

Parameter			Value	
			Adult	Child
C_{soil}	=	Contaminant concentration in soil (mg/kg or pCi/g)	Contaminant dependent	Contaminant dependent
IR	=	Ingestion rate (mg/day)	100	200
FI	=	Fraction ingested from contaminated source	1	1
EF	=	Exposure frequency (day/yr)	350	350
ED	=	Exposure duration (yr)	24	6
CF	=	Conversion factor (kg/mg)	10^{-6} (nonradionuclide) 10^{-3} (radionuclide)	10^{-6} (nonradionuclide) 10^{-3} (radionuclide)
BW	=	Body weight (kg)	70	15
AT	=	Averaging time (day)		
		Noncarcinogenic	1.10E+04	1.10E+04
		Carcinogenic	2.55E+04	2.55E+04

a. Equation for radionuclides does not include denominator (BW * AT).
b. Values from DOE-ID, 1994.

Table B-14. Homegrown produce ingestion intake factor equation for the future residential exposure scenario.[a,b]

$$Intake\ factor = \frac{C_{produce} * IR * EF * ED * CF}{BW * AT}$$

		Parameter	Value
$C_{produce}$	=	Contaminant concentration in homegrown fruits and vegetables (mg/kg or pCi/g)	Contaminant dependent
IR	=	Ingestion rate (g/kg-d or g/d)[c]	2.76E-01 g/kg-d (nonradionuclide) 1.67E+01 g/d (radionuclide)
EF	=	Exposure frequency (day/yr)	350
ED	=	Exposure duration (yr)	30
CF	=	Conversion factor (kg/mg)	10^{-6} (nonradionuclides) or 10^{-3} (radionuclides)
AT	=	Averaging time (day)	
		Noncarcinogenic	1.10E+04
		Carcinogenic	2.55E+04

a. Equation for radionuclide does not include denominator (BW * AT).
b. Values from DOE-ID, 1994.
c. See LITCO (1996) for the derivation of these ingestion rates.

Table B-15. External exposure intake factor equation for the future residential exposure scenario.[a]

$$Intake\ factor = C_{soil} * ET * EF * ED * CF$$

		Parameter	Value
C_{soil}	=	Contaminant concentration in soil	Contaminant dependent
ET	=	Exposure time (hr/day)	24
EF	=	Exposure frequency (day/yr)	350
ED	=	Exposure duration (yr)	30
CF	=	Conversion factor (yr/hr)	1.14×10^{-4}

a. Values from DOE-ID, 1994.

Table B-16. Inhalation of fugitive dust intake factor equation for the future residential exposure scenario.[a,b]

$$\text{'ake factor} = \frac{C_{air} * IR * ET * EF * ED * (}{BW * AT}$$

		Parameter	Value
C_{air}	=	Contaminant concentration in air (mg/m^3 or pCi/m^3)	Contaminant dependent
IR	=	Inhalation rate (m^3/day)	20
ET	=	Exposure time (hr/day)	24
EF	=	Exposure frequency (days/yr)	350
ED	=	Exposure duration (yr)	30
CF	=	Conversion factor (day/hr)	4.2E-02
BW	=	Body weight (kg)	70
AT	=	Averaging time (day)	
		Noncarcinogenic	1.10E+04
		Carcinogenic	2.55E+04

a..Equation for radionuclide does not include denominator (BW * AT).
b. Values from DOE-ID, 1994.

Table B-17. Inhalation of volatiles intake factor equation for the future residential exposure scenario.[a,b,c]

$$take\ factor = \frac{C_{air} * IR * ET * EF * E}{BW * AT}$$

		Parameter	Value
C_{air}	=	Contaminant concentration in air (mg/m^3)	Contaminant dependent
IR	=	Inhalation rate (m^3/hr)	8.3E-01
ET	=	Exposure time (hr/day)	24
EF	=	Exposure frequency (day/yr)	350
ED	=	Exposure duration (yr)	30
BW	=	Body weight (kg)	70
AT	=	Averaging time (day)	
		Noncarcinogenic	1.10E+04
		Carcinogenic	2.55E+04

a. Equation remains the same for the inhalation of water vapors from indoor water use.
b. Equation for radionuclides does not include denominator (BW * AT).
c. Values from DOE-ID, 1994.

Table B-18. Ingestion of groundwater intake factor equation for the future residential exposure scenario.[a,b]

$$Intake\ factor = \frac{C_w * IR * EF * ED * FI}{BW * AT}$$

		Parameter	Value
C_w	=	Contaminant concentration in groundwater (mg/L of pCi/L)	Contaminant dependent
IR	=	Intake rate (L/day)	2
EF	=	Exposure frequency (day/yr)	350
ED	=	Exposure duration (yr)	30
FI	=	Fraction ingested from contaminated source	1
BW	=	Body weight (kg)	70
AT	=	Averaging time (day)	
		Noncarcinogenic	1.10E+04
		Carcinogenic	2.55E+04

a. Equation for radionuclides does not include denominator (BW * AT).
v. Values from DOE-ID, 1994.

Table B-19. Dermal exposure to groundwater intake factor equation for the future residential exposure scenario.[a]

$$IntakeFactor = \frac{C_w * SA * PC * ET * EF * ED * CF}{BW * AT}$$

		Parameter	Value
C_w	=	Contaminant concentration in water (mg/L)	Contaminant dependent
SA	=	Skin surface area available for contact (cm^2)	17000[b]
PC	=	Chemical specific dermal permeability constant (cm/hr)	Contaminant dependent
ET	=	Exposure time (hours/day)	2.5E-01[b]
EF	=	Exposure frequency (events/yr)	350[c]
ED	=	Exposure duration (years)	30[c]
CF	=	Volumetric conversion factor for water (1 L/1000 cm^3)	10^{-3}
BW	=	Body weight (kg)	70[c]
AT	=	Averaging time (days)	
		Noncarcinogenic	1.10E+04
		Carcinogenic	2.55E+04

a. Equation for radionuclides does not include denominator (BW * AT).
b. Values from EPA, 1992.
c. Values form DOE-ID, 1994.

Table B-20. Soil ingestion contaminant intakes (mg/kg-d or pCi) by exposure scenario.[a]

	Occupational Scenario Year 0										
COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	8.04E-09	9.96E-09	----	4.19E-09	1.21E-08	----	----	3.84E-08	----	----	----
Acetonitrile	----	----	----	----	----	----	----	1.36E-08	----	----	----
Aroclor-1260	----	----	----	----	----	----	----	----	----	----	9.61E-06
Bis(2-ethylhexyl)phthalate	1.68E-08	1.40E-09	----	2.10E-08	----	----	----	6.46E-08	----	----	----
2-Butanone	----	----	----	----	1.92E-08	----	----	3.15E-08	----	----	----
Butylbenzylphthalate	----	----	----	----	----	----	----	1.29E-08	----	----	----
Chloroform	----	----	----	----	5.24E-10	----	----	6.99E-10	----	----	----
2,4-D	1.12E-09	----	----	1.52E-08	----	----	----	1.59E-08	----	----	----
Diethylphthalate	3.49E-10	7.16E-08	----	----	----	----	----	----	----	----	----
Di-n-butylphthalate	2.10E-08	7.16E-08	----	6.12E-08	----	----	----	4.02E-08	----	----	----
Di-n-octylphthalate	8.39E-09	----	----	----	----	----	----	9.78E-09	----	----	----
HpCDD	----	----	----	----	----	----	----	7.06E-13	----	----	----
HpCDF	----	----	----	----	----	----	----	8.21E-14	----	----	----
HxCDF	----	----	----	----	----	----	----	5.07E-14	----	----	----
Methylene Chloride	6.46E-09	9.61E-09	----	4.02E-09	2.97E-08	----	----	3.67E-08	----	----	----
OCDD	----	----	----	----	----	----	----	1.75E-12	----	----	----
OCDF	----	----	----	----	----	----	----	1.01E-13	----	----	----
PeCDD	----	----	----	----	----	----	----	3.84E-14	----	----	----
TCDF	----	----	----	----	----	----	----	8.21E-14	----	----	----
Toluene	----	----	----	----	1.38E-09	----	----	6.99E-10	----	----	----
1,1,1-Trichloroethane	----	----	----	1.05E-09	9.78E-09	----	----	9.26E-08	----	----	----
2,4,5-TP (Silvex)	----	4.82E-06	----	----	----	----	----	----	----	----	----
Antimony	8.95E-06	1.34E-06	----	----	----	----	----	----	----	----	----
Arsenic	6.13E-06	2.87E-06	2.04E-06	1.33E-06	1.38E-06	1.47E-06	----	----	----	1.41E-06	----
Cadmium	----	7.34E-07	----	----	----	----	----	----	----	----	----
Chromium III	1.24E-04	1.79E-03	2.87E-05	2.05E-04	8.05E-06	----	----	8.86E-06	9.28E-06	8.81E-06	----
Chromium VI	1.38E-05	1.99E-04	3.19E-06	2.28E-05	8.95E-07	----	----	9.84E-07	1.03E-06	9.78E-07	----
Cobalt	----	----	----	----	----	----	----	1.60E-06	----	----	----
Copper	4.98E-05	2.10E-05	9.29E-06	3.42E-05	6.66E-06	----	----	2.26E-05	----	----	----
Lead	1.29E-05	----	6.70E-06	6.08E-06	----	6.16E-06	----	----	7.53E-06	----	----
Mercury	1.54E-06	4.58E-07	6.88E-07	1.36E-07	5.07E-08	4.63E-08	----	5.42E-08	6.99E-08	1.50E-08	----
Nickel	1.74E-05	----	----	----	----	----	----	----	----	----	----
Selenium	3.65E-07	2.62E-07	----	2.25E-07	5.52E-07	----	----	1.64E-07	----	----	----
Silver	4.05E-06	6.62E-06	1.62E-07	1.33E-07	1.69E-07	2.67E-07	----	6.15E-05	----	----	----
Strontium	----	----	----	----	----	----	----	1.10E-05	----	----	----
Thallium	----	----	1.61E-07	----	1.82E-07	----	----	1.22E-07	----	----	----
Zinc	1.49E-04	8.76E-04	9.12E-05	2.55E-04	----	----	----	3.98E-05	----	----	----
Chloride	----	----	----	----	6.46E-06	----	----	2.45E-07	----	----	----
Cyanide	4.82E-07	----	7.34E-08	----	1.03E-06	----	----	4.42E-07	----	----	----
Fluoride	----	----	----	----	1.22E-06	----	----	8.39E-07	----	----	----
Nitrate	----	----	----	----	1.66E-06	----	----	3.84E-06	----	----	----
Orthophosphate	----	----	----	----	2.97E-06	----	----	4.37E-07	----	----	----

Table B-20. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Sulfate	----	2.21E-04	----	----	1.08E-04	----	----	2.45E-05	----	----	----
Am-241	----	----	----	----	----	----	1.04E+01	----	----	----	----
Cm-244	----	2.21E+01	----	----	----	----	1.21E+01	----	----	----	----
Co-60	----	1.07E+01	----	----	2.65E+00	3.66E+00	1.81E+01	3.20E+00	----	----	----
Cs-134	----	----	----	----	----	7.43E-01	----	----	----	----	----
Cs-137	----	6.94E+03	----	----	----	4.28E+03	7.26E+03	4.76E+02	----	----	----
H-3	----	----	----	----	2.83E+02	----	----	1.21E+02	----	----	----
R-226	----	3.76E+02	----	----	----	----	----	----	----	----	----
Sr-90	----	5.86E+02	1.05E+03	----	----	----	----	----	----	----	----
U-238	8.44E+02	----	1.81E+03	----	6.56E+03	----	7.19E+02	7.19E+02	----	----	----

Occupational Scenario Year 30

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	8.04E-09	9.96E-09	----	4.19E-09	1.21E-08	----	----	3.84E-08	----	----	----
Acetonitrile	----	----	----	----	----	----	----	1.36E-08	----	----	----
Aroclor-1260	----	----	----	----	----	----	----	----	----	----	9.61E-06
Bis(2-ethylhexyl)phthalate	1.68E-08	1.40E-09	----	2.10E-08	----	----	----	6.46E-08	----	----	----
2-Butanone	----	----	----	----	1.92E-08	----	----	3.15E-08	----	----	----
Butylbenzylphthalate	----	----	----	----	----	----	----	1.29E-08	----	----	----
Chloroform	----	----	----	----	5.24E-10	----	----	6.99E-10	----	----	----
2,4-D	1.12E-09	----	----	1.52E-08	----	----	----	1.59E-08	----	----	----
Diethylphthalate	3.49E-10	7.16E-08	----	----	----	----	----	----	----	----	----
Di-n-butylphthalate	2.10E-08	7.16E-08	----	6.12E-08	----	----	----	4.02E-08	----	----	----
Di-n-octylphthalate	8.39E-09	----	----	----	----	----	----	9.78E-09	----	----	----
HpCDD	----	----	----	----	----	----	----	7.06E-13	----	----	----
HpCDF	----	----	----	----	----	----	----	8.21E-14	----	----	----
HxCDF	----	----	----	----	----	----	----	5.07E-14	----	----	----
Methylene Chloride	6.46E-09	9.61E-09	----	4.02E-09	2.97E-08	----	----	3.67E-08	----	----	----
OCDD	----	----	----	----	----	----	----	1.75E-12	----	----	----
OCDF	----	----	----	----	----	----	----	1.01E-13	----	----	----
PeCDD	----	----	----	----	----	----	----	3.84E-14	----	----	----
TCDF	----	----	----	----	----	----	----	8.21E-14	----	----	----
Toluene	----	----	----	----	1.38E-09	----	----	6.99E-10	----	----	----
1,1,1-Trichloroethane	----	----	----	1.05E-09	9.78E-09	----	----	9.26E-08	----	----	----
2,4,5-TP (Silvex)	----	4.82E-06	----	----	----	----	----	----	----	----	----
Antimony	8.95E-06	1.34E-06	----	----	----	----	----	----	----	----	----
Arsenic	6.13E-06	2.87E-06	2.04E-06	1.33E-06	1.38E-06	1.47E-06	----	----	----	1.41E-06	----
Cadmium	----	7.34E-07	----	----	----	----	----	----	----	----	----
Chromium III	1.24E-04	1.79E-03	2.87E-05	2.05E-04	8.05E-06	----	----	8.86E-06	9.28E-06	8.81E-06	----
Chromium VI	1.38E-05	1.99E-04	3.19E-06	2.28E-05	8.95E-07	----	----	9.84E-07	1.03E-06	9.78E-07	----
Cobalt	----	----	----	----	----	----	----	1.60E-06	----	----	----
Copper	4.98E-05	2.10E-05	9.29E-06	3.42E-05	6.66E-06	----	----	2.26E-05	----	----	----

Table B-20. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Lead	1.29E-05	---	6.70E-06	6.08E-06	---	6.16E-06	---	---	7.53E-06	---	---
Mercury	1.54E-06	4.58E-07	6.88E-07	1.36E-07	5.07E-08	4.63E-08	---	5.42E-08	6.99E-08	1.50E-08	---
Nickel	1.74E-05	---	---	---	---	---	---	---	---	---	---
Selenium	3.65E-07	2.62E-07	---	2.25E-07	5.52E-07	---	---	1.64E-07	---	---	---
Silver	4.05E-06	6.62E-06	1.62E-07	1.33E-07	1.69E-07	2.67E-07	---	6.15E-05	---	---	---
Strontium	---	---	---	---	---	---	---	1.10E-05	---	---	---
Thallium	---	---	1.61E-07	---	1.82E-07	---	---	1.22E-07	---	---	---
Zinc	1.49E-04	8.76E-04	9.12E-05	2.55E-04	---	---	---	3.98E-05	---	---	---
Chloride	---	---	---	---	6.46E-06	---	---	2.45E-07	---	---	---
Cyanide	4.82E-07	---	7.34E-08	---	1.03E-06	---	---	4.42E-07	---	---	---
Fluoride	---	---	---	---	1.22E-06	---	---	8.39E-07	---	---	---
Nitrate	---	---	---	---	1.66E-06	---	---	3.84E-06	---	---	---
Orthophosphate	---	---	---	---	2.97E-06	---	---	4.37E-07	---	---	---
Sulfate	---	2.21E-04	---	---	1.08E-04	---	---	2.45E-05	---	---	---
Am-241	---	---	---	---	---	---	1.06E+01	---	---	---	---
Cm-244	---	3.44E+01	---	---	---	---	1.88E+01	---	---	---	---
Co-60	---	3.66E+01	---	---	9.06E+00	1.25E+01	6.19E+01	1.03+01	---	---	---
Cs-134	---	---	---	---	---	6.25E+00	---	---	---	---	---
Cs-137	---	9.13E+03	---	---	---	5.63E+03	9.54E+03	6.25E+02	---	---	---
H-3	---	---	---	---	5.28E+02	---	---	2.25E+02	---	---	---
R-226	---	3.78E+02	---	---	---	---	---	---	---	---	---
Sr-90	---	7.81E+02	1.41E+03	---	---	---	---	---	---	---	---
U-238	8.44E+02	---	1.81E+03	---	6.56E+03	---	7.19E+02	7.19E+02	---	---	---

Residential Scenario Year 100

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	6.89E-07	1.95E-07	---	3.74E-08	1.03E-07	---	---	3.29E-07	---	---	---
Acetonitrile	---	---	---	---	---	---	---	1.16E-07	---	---	---
Aroclor-1260	---	---	---	---	---	---	---	---	---	---	8.23E-05
Bis(2-ethylhexyl)phthalate	1.44E-07	1.20E-08	---	1.80E-07	---	---	---	5.54E-07	---	---	---
2-Butanone	---	2.99E-07	---	---	1.65E-07	---	---	2.69E-07	---	---	---
Butylbenzylphthalate	---	---	---	---	---	---	---	1.11E-07	---	---	---
Chloroform	---	1.15E-08	---	---	4.49E-09	---	---	5.99E-09	---	---	---
2,4-D	9.58E-09	---	---	1.30E-07	---	---	---	1.36E-07	---	---	---
Diethylphthalate	2.99E-09	6.14E-07	---	---	---	---	---	---	---	---	---
Di-n-butylphthalate	1.80E-07	6.14E-07	---	5.24E-07	---	---	---	3.44E-07	---	---	---
Di-n-octylphthalate	7.19E-08	---	---	---	---	---	---	8.38E-08	---	---	---
HpCDD	---	---	---	---	---	---	---	6.05E-12	---	---	---
HpCDF	---	---	---	---	---	---	---	7.04E-13	---	---	---
HxCDF	---	---	---	---	---	---	---	4.34E-13	---	---	---
Methylene Chloride	5.54E-08	4.42E-07	---	3.44E-08	2.55E-07	---	---	3.14E-07	---	---	---
OCDD	---	---	---	---	---	---	---	1.50E-11	---	---	---

Table B-20. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
OCDF	----	----	----	----	----	----	----	8.68E-13	----	----	----
PeCDD	----	----	----	----	----	----	----	3.29E-13	----	----	----
TCDF	----	----	----	----	----	----	----	7.04E-13	----	----	----
Toluene	----	2.40E-09	----	----	5.99E-09	----	----	5.99E-09	----	----	----
1,1,1-Trichloroethane	----	2.66E-08	----	8.98E-09	8.38E-08	----	----	7.93E-07	----	----	----
2,4,5-TP (Silvex)	----	4.13E-05	----	----	----	----	----	----	----	----	----
Antimony	2.87E-05	1.15E-05	----	----	----	----	----	----	----	----	----
Arsenic	2.60E-05	3.74E-05	1.75E-05	1.17E-05	1.18E-05	1.44E-05	----	----	----	1.21E-05	----
Cadmium	----	5.63E-06	----	----	----	----	----	----	----	----	----
Chromium III	3.04E-04	1.54E-02	1.07E-04	2.34E-03	6.90E-05	----	----	7.47E-05	7.95E-05	7.55E-05	----
Chromium VI	3.37E-05	1.71E-03	1.19E-05	2.60E-04	7.66E-06	----	----	8.30E-06	8.83E-06	8.38E-06	----
Cobalt	----	----	----	----	----	----	----	1.32E-05	----	----	----
Copper	1.50E-04	1.14E-04	5.20E-05	2.42E-04	5.70E-05	----	----	1.74E-04	----	----	----
Lead	5.56E-05	----	----	3.46E-05	----	----	----	----	6.45E-05	----	----
Mercury	2.57E-06	1.29E-06	1.08E-06	1.43E-06	4.34E-07	2.59E-07	----	3.59E-07	5.99E-07	1.29E-07	----
Nickel	----	----	----	----	----	----	----	----	----	----	----
Selenium	1.31E-06	1.26E-05	----	2.46E-06	4.73E-06	----	----	1.09E-06	----	----	----
Silver	9.60E-06	4.76E-05	1.29E-06	1.02E-06	1.45E-06	2.20E-06	----	1.09E-06	----	----	----
Strontium	----	----	----	----	----	----	----	9.43E-05	----	----	----
Thallium	----	----	1.19E-06	----	1.56E-06	----	----	1.84E-06	----	----	----
Zinc	4.47E-04	2.45E-03	3.64E-04	4.52E-03	----	----	----	3.45E-04	----	----	----
Chloride	----	6.20E-05	----	----	5.54E-05	----	----	2.10E-06	----	----	----
Cyanide	1.29E-06	----	6.74E-07	----	8.14E-06	----	----	5.88E-06	----	----	----
Fluoride	----	1.35E-05	----	----	1.05E-05	----	----	7.19E-06	----	----	----
Nitrate	----	4.64E-06	----	----	1.42E-05	----	----	3.29E-05	----	----	----
Orthophosphate	----	1.95E-06	----	----	2.55E-05	----	----	3.74E-06	----	----	----
Sulfate	----	4.94E-03	----	----	9.28E-04	----	----	2.10E-04	----	----	----
Am-241	----	----	----	----	----	----	3.56E+01	----	----	----	----
Cm-244	----	1.79E+00	----	----	----	----	9.76E-01	----	----	----	----
Co-60	----	7.11E-05	----	----	1.76E-05	2.37E-05	1.20E-04	2.13E-05	----	----	----
Cs-134	----	----	----	----	----	6.39E-15	----	----	----	----	----
Cs-137	----	2.68E+03	----	----	----	1.65E+03	2.80E+03	1.84E+02	----	----	----
H-3	----	----	----	----	5.84E+00	----	----	1.56E+00	----	----	----
R-226	----	1.45E+03	----	----	----	----	----	----	----	----	----
Sr-90	----	1.98E+02	3.57E+02	----	----	----	----	----	----	----	----
U-238	3.40E+03	----	7.31E+03	----	2.65E+04	----	2.90E+03	2.90E+03	----	----	----

Residential Scenario Year 1000

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	6.89E-07	1.95E-07	----	3.74E-08	1.03E-07	----	----	3.29E-07	----	----	----
Acetonitrile	----	----	----	----	----	----	----	1.16E-07	----	----	----
Aroclor-1260	----	----	----	----	----	----	----	----	----	----	8.23E-05

Table B-20. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Bis(2-ethylhexyl)phthalate	1.44E-07	1.20E-08	---	1.80E-07	---	---	---	5.54E-07	---	---	---
2-Butanone	---	2.99E-07	---	---	1.65E-07	---	---	2.69E-07	---	---	---
Butylbenzylphthalate	---	---	---	---	---	---	---	1.11E-07	---	---	---
Chloroform	---	1.15E-08	---	---	4.49E-09	---	---	5.99E-09	---	---	---
2,4-D	9.58E-09	---	---	1.30E-07	---	---	---	1.36E-07	---	---	---
Diethylphthalate	2.99E-09	6.14E-07	---	---	---	---	---	---	---	---	---
Di-n-butylphthalate	1.80E-07	6.14E-07	---	5.24E-07	---	---	---	3.44E-07	---	---	---
Di-n-octylphthalate	7.19E-08	---	---	---	---	---	---	8.38E-08	---	---	---
HpCDD	---	---	---	---	---	---	---	6.05E-12	---	---	---
HpCDF	---	---	---	---	---	---	---	7.04E-13	---	---	---
HxCDF	---	---	---	---	---	---	---	4.34E-13	---	---	---
Methylene Chloride	5.54E-08	4.42E-07	---	3.44E-08	2.55E-07	---	---	3.14E-07	---	---	---
OCDD	---	---	---	---	---	---	---	1.50E-11	---	---	---
OCDF	---	---	---	---	---	---	---	8.68E-13	---	---	---
PeCDD	---	---	---	---	---	---	---	3.29E-13	---	---	---
TCDF	---	---	---	---	---	---	---	7.04E-13	---	---	---
Toluene	---	2.40E-09	---	---	5.99E-09	---	---	5.99E-09	---	---	
1,1,1-Trichloroethane	---	2.66E-08	---	8.98E-09	8.38E-08	---	---	7.93E-07	---	---	---
2,4,5-TP (Silvex)	---	4.13E-05	---	---	---	---	---	---	---	---	---
Antimony	2.87E-05	1.15E-05	---	---	---	---	---	---	---	---	---
Arsenic	2.60E-05	3.74E-05	1.75E-05	1.17E-05	1.18E-05	1.44E-05	---	---	---	1.21E-05	---
Cadmium	---	5.63E-06	---	---	---	---	---	---	---	---	---
Chromium III	3.04E-04	1.54E-02	1.07E-04	2.34E-03	6.90E-05	---	---	7.47E-05	7.95E-05	7.55E-05	---
Chromium VI	3.37E-05	1.71E-03	1.19E-05	2.60E-04	7.66E-06	---	---	8.30E-06	8.83E-06	8.38E-06	---
Cobalt	---	---	---	---	---	---	---	1.32E-05	---	---	---
Copper	1.50E-04	1.14E-04	5.20E-05	2.42E-04	5.70E-05	---	---	1.74E-04	---	---	---
Lead	5.56E-05	---	---	3.46E-05	---	---	---	---	6.45E-05	---	---
Mercury	2.57E-06	1.29E-06	1.08E-06	1.43E-06	4.34E-07	2.59E-07	---	3.59E-07	5.99E-07	1.29E-07	---
Nickel	---	---	---	---	---	---	---	---	---	---	---
Selenium	1.31E-06	1.26E-05	---	2.46E-06	4.73E-06	---	---	1.09E-06	---	---	---
Silver	9.60E-06	4.76E-05	1.29E-06	1.02E-06	1.45E-06	2.20E-06	---	1.09E-06	---	---	---
Strontium	---	---	---	---	---	---	---	9.43E-05	---	---	---
Thallium	---	---	1.19E-06	---	1.56E-06	---	---	1.84E-06	---	---	---
Zinc	4.47E-04	2.45E-03	3.64E-04	4.52E-03	---	---	---	3.45E-04	---	---	---
Chloride	---	6.20E-05	---	---	5.54E-05	---	---	2.10E-06	---	---	---
Cyanide	1.29E-06	---	6.74E-07	---	8.14E-06	---	---	5.88E-06	---	---	---
Fluoride	---	1.35E-05	---	---	1.05E-05	---	---	7.19E-06	---	---	---
Nitrate	---	4.64E-06	---	---	1.42E-05	---	---	3.29E-05	---	---	---
Orthophosphate	---	1.95E-06	---	---	2.55E-05	---	---	3.74E-06	---	---	---
Sulfate	---	4.94E-03	---	---	9.28E-04	---	---	2.10E-04	---	---	---
Am-241	---	---	---	---	---	---	8.41E+00	---	---	---	---
Cm-244	---	1.92E-15	---	---	---	---	1.05E-15	---	---	---	---

Table B-20. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Co-60	----	2.77E-56	----	----	6.87E-27	9.23E-57	4.69E-56	8.29E-57	----	----	----
Cs-134	----	----	----	----	----	----	----	----	----	----	----
Cs-137	----	2.86E-06	----	----	----	1.77E-06	2.99E-06	1.96E-07	----	----	----
H-3	----	----	----	----	5.49E-22	----	----	1.47E-22	----	----	----
R-226	----	9.82E+02	----	----	----	----	----	----	----	----	----
Sr-90	----	6.67E-08	1.20E-07	----	----	----	----	----	----	----	----
U-238	3.40E+03	----	7.31E+03	----	2.65E+04	----	2.90E+03	2.90E+03	----	----	----

a. The values shown are carcinogenic intakes. To calculate noncarcinogenic intakes, multiply the above occupational scenario values by 2.80 and the above residential scenario values by 2.33.
"----" means COPC was not detected at the site.

Table B-21. Homegrown produce ingestion intakes (mg/kg-d or pCi) by exposure scenario.[a]

	Residential Scenario Year 100										
COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	8.85E-06	2.50E-06	—	—	1.33E-06	—	—	4.23E-06	—	—	—
Acetonitrile	2.31E-06	2.31E-06	2.31E-06	2.31E-06	2.31E-06	2.31E-06	2.31E-06	4.01E-06	2.31E-06	2.31E-06	2.31E-06
Aroclor-1260	—	—	—	—	—	—	—	—	—	—	2.42E-05
Bis(2-ethylhexyl)phthalate	5.22E-06	4.92E-06	4.89E-06	4.89E-06	4.89E-06	4.89E-06	4.89E-06	6.15E-06	4.89E-06	4.89E-06	4.89E-06
2-Butanone	—	2.06E-06	—	—	—	—	—	—	—	—	—
Butylbenzylphthalate	—	—	—	—	—	—	—	3.08E-09	—	—	—
Chloroform	8.53E-08	9.71E-08	8.53E-08	8.53E-08	1.01E-07	8.53E-08	8.53E-08	9.47E-08	8.53E-08	8.53E-08	8.53E-08
2,4-D	7.21E-08	6.96E-08	6.96E-08	6.96E-08	6.96E-08	6.96E-08	6.96E-08	6.96E-08	6.96E-08	6.96E-08	6.96E-08
Diethylphthalate	2.13E-09	4.37E-07	—	—	—	—	—	—	—	—	—
Di-n-butylphthalate	6.06E-08	2.07E-07	—	—	—	—	—	1.16E-07	—	—	—
Di-n-octylphthalate	1.01E-09	—	—	—	—	—	—	8.41E-09	—	—	—
HpCDD	9.97E-15	9.97E-15	9.97E-15	9.97E-15	9.97E-15	9.97E-15	9.97E-15	1.73E-14	9.97E-15	9.97E-15	9.97E-15
HpCDF	1.16E-15	1.16E-15	1.16E-15	1.16E-15	1.16E-15	1.16E-15	1.16E-15	2.01E-15	1.16E-15	1.16E-15	1.16E-15
HxCDF	7.14E-16	7.14E-16	7.14E-16	7.14E-16	7.14E-16	7.14E-16	7.14E-16	1.24E-15	7.14E-16	7.14E-16	7.14E-16
Methylene Chloride	1.74E-05	1.81E-05	1.73E-05	1.73E-05	1.77E-05	1.73E-05	1.73E-05	1.79E-05	1.73E-05	1.73E-05	1.73E-05
OCDD	2.46E-14	2.46E-14	2.46E-14	2.46E-14	2.46E-14	2.46E-14	2.46E-14	4.28E-14	2.46E-14	2.46E-14	2.46E-14
OCDF	1.44E-15	1.44E-15	1.44E-15	1.44E-15	1.44E-15	1.44E-15	1.44E-15	2.49E-15	1.44E-15	1.44E-15	1.44E-15
PeCDD	5.43E-16	5.43E-16	5.43E-16	5.43E-16	5.43E-16	5.43E-16	5.43E-16	9.42E-16	5.43E-16	5.43E-16	5.43E-16
TCDF	1.16E-15	1.16E-15	1.16E-15	1.16E-15	1.16E-15	1.16E-15	1.16E-15	2.01E-15	1.16E-15	1.16E-15	1.16E-15
Toluene	—	2.78E-09	—	—	1.37E-08	—	—	1.73E-08	—	—	—
1,1,1-Trichloroethane	—	1.96E-08	—	—	—	—	—	—	—	—	—
2,4,5-TP (Silvex)	—	—	—	—	—	—	—	—	—	—	—
Antimony	5.81E-07	5.33E-09	5.33E-09	5.33E-09	5.33E-09	5.33E-09	5.33E-09	5.33E-09	5.33E-09	5.33E-09	5.33E-09
Arsenic	3.11E-06	4.40E-06	2.15E-06	1.49E-06	1.50E-06	1.80E-06	1.62E-07	1.62E-07	1.62E-07	1.62E-07	1.62E-07
Cadmium	3.45E-06	2.02E-05	3.45E-06	3.45E-06	3.45E-06	3.45E-06	3.45E-06	3.45E-06	3.45E-06	3.45E-06	3.45E-06
Chromium III	2.11E-05	4.03E-05	2.08E-05	2.37E-05	2.08E-05	2.07E-05	2.07E-05	2.08E-05	2.08E-05	2.08E-05	2.07E-05
Chromium VI	2.34E-06	4.48E-06	2.31E-06	2.63E-06	2.31E-06	2.30E-06	2.30E-06	2.31E-06	2.31E-06	2.31E-06	2.30E-06
Cobalt	—	—	—	—	—	—	—	1.83E-04	—	—	—
Copper	4.03E-04	3.11E-04	1.51E-04	6.39E-04	1.64E-04	1.73E-05	1.73E-05	4.66E-04	1.73E-05	1.73E-05	1.73E-05
Lead	5.60E-05	2.39E-08	2.39E-08	3.39E-04	2.39E-08	2.39E-08	2.39E-08	2.39E-08	6.50E-05	2.39E-08	2.39E-08
Mercury	1.17E-04	5.84E-05	4.88E-05	6.50E-05	1.97E-05	1.18E-05	4.75E-08	1.63E-05	2.72E-05	5.88E-06	4.75E-08
Nickel	—	—	—	—	—	—	—	—	—	—	—
Selenium	4.87E-07	1.53E-06	3.66E-07	3.66E-07	8.03E-07	3.66E-07	3.66E-07	4.67E-07	3.66E-07	3.66E-07	3.66E-07
Silver	6.28E-07	3.02E-06	1.06E-07	8.93E-08	1.17E-07	1.64E-07	2.53E-08	9.40E-08	2.53E-08	2.53E-08	2.53E-08
Strontium	—	—	—	—	—	—	—	5.77E-03	—	—	—
Thallium	7.26E-10	7.26E-10	1.86E-09	7.26E-10	2.22E-09	7.26E-10	7.26E-10	7.26E-10	7.26E-10	7.26E-10	7.26E-10
Zinc	3.01E-01	1.28E+00	2.60E-01	2.30E+00	8.17E-02	8.17E-02	8.17E-02	2.51E-01	8.17E-02	8.17E-02	8.17E-02
Chloride	—	1.49E-05	—	—	1.33E-05	—	—	—	—	—	—
Cyanide	1.19E-04	1.02E-04	1.11E-04	1.02E-04	2.08E-04	1.02E-04	1.02E-04	1.79E-04	1.02E-04	1.02E-04	1.02E-04
Fluoride	7.94E-05	8.27E-05	7.94E-05	7.94E-05	8.19E-05	7.94E-05	7.94E-05	8.11E-05	7.94E-05	7.94E-05	7.94E-05
Nitrate	1.10E-05	1.21E-05	1.10E-05	1.10E-05	1.45E-05	1.10E-05	1.10E-05	1.91E-05	1.10E-05	1.10E-05	1.10E-05
Orthophosphate	1.14E-05	1.19E-05	1.14E-05	1.14E-05	1.75E-05	1.14E-05	1.14E-05	1.23E-05	1.14E-05	1.14E-05	1.14E-05

Table B-21. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Sulfate	2.90E-02	3.02E-02	2.90E-02	2.90E-02	2.92E-02	2.90E-02	2.90E-02	2.91E-02	2.90E-02	2.90E-02	2.90E-02
Am-241	---	---	---	---	---	---	3.94E-10	---	---	---	---
Cm-244	1.46E-31	4.97E-13	1.46E-31	1.46E-31	1.46E-31	1.46E-31	2.71E-13	1.46E-31	1.46E-31	1.46E-31	1.46E-31
Co-60	1.75E-10	1.75E-10	1.75E-10	1.75E-10	1.75E-10	1.75E-10	1.75E-10	1.75E-10	1.75E-10	1.75E-10	1.75E-10
Cs-134	---	---	---	---	---	7.14E-26	---	---	---	---	---
Cs-137	1.67E-11	4.39E-07	1.67E-11	1.67E-11	1.67E-11	2.71E-07	4.59E-07	3.01E-08	1.67E-11	1.67E-11	1.67E-11
H-3	5.51E-07	5.51E-07	5.51E-07	5.51E-07	5.51E-07	5.51E-07	5.51E-07	5.52E-07	5.51E-07	5.51E-07	5.51E-07
Sr-90	1.58E-07	3.56E-07	5.15E-07	1.58E-07	1.58E-07	1.58E-07	1.58E-07	1.58E-07	1.58E-07	1.58E-07	1.58E-07
U-238	3.07E-07	4.65E-11	6.60E-07	4.65E-11	2.39E-06	4.65E-11	2.62E-07	4.65E-11	4.65E-11	4.65E-11	4.65E-11

Residential Scenario Year 1000

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	8.85E-06	2.50E-06	---	---	1.33E-06	---	---	4.23E-06	---	---	---
Acetonitrile	2.31E-06	2.31E-06	2.31E-06	2.31E-06	2.31E-06	2.31E-06	2.31E-06	4.01E-06	2.31E-06	2.31E-06	2.31E-06
Aroclor-1260	---	---	---	---	---	---	---	---	---	---	2.42E-05
Bis(2-ethylhexyl)phthalate	5.22E-06	4.92E-06	4.89E-06	4.89E-06	4.89E-06	4.89E-06	4.89E-06	6.15E-06	4.89E-06	4.89E-06	4.89E-06
2-Butanone	---	2.06E-06	---	---	---	---	---	---	---	---	---
Butylbenzylphthalate	---	---	---	---	---	---	---	3.08E-09	---	---	---
Chloroform	8.53E-08	9.71E-08	8.53E-08	8.53E-08	1.01E-07	8.53E-08	8.53E-08	9.47E-08	8.53E-08	8.53E-08	8.53E-08
2,4-D	7.21E-08	6.96E-08	6.96E-08	6.96E-08	6.96E-08	6.96E-08	6.96E-08	6.96E-08	6.96E-08	6.96E-08	6.96E-08
Diethylphthalate	2.13E-09	4.37E-07	---	---	---	---	---	---	---	---	---
Di-n-butylphthalate	6.06E-08	2.07E-07	---	---	---	---	---	1.16E-07	---	---	---
Di-n-octylphthalate	1.01E-09	---	---	---	---	---	---	8.41E-09	---	---	---
HpCDD	9.97E-15	9.97E-15	9.97E-15	9.97E-15	9.97E-15	9.97E-15	9.97E-15	1.73E-14	9.97E-15	9.97E-15	9.97E-15
HpCDF	1.16E-15	1.16E-15	1.16E-15	1.16E-15	1.16E-15	1.16E-15	1.16E-15	2.01E-15	1.16E-15	1.16E-15	1.16E-15
HxCDF	7.14E-16	7.14E-16	7.14E-16	7.14E-16	7.14E-16	7.14E-16	7.14E-16	1.24E-15	7.14E-16	7.14E-16	7.14E-16
Methylene Chloride	1.74E-05	1.81E-05	1.73E-05	1.73E-05	1.77E-05	1.73E-05	1.73E-05	1.79E-05	1.73E-05	1.73E-05	1.73E-05
OCDD	2.46E-14	2.46E-14	2.46E-14	2.46E-14	2.46E-14	2.46E-14	2.46E-14	4.28E-14	2.46E-14	2.46E-14	2.46E-14
OCDF	1.44E-15	1.44E-15	1.44E-15	1.44E-15	1.44E-15	1.44E-15	1.44E-15	2.49E-15	1.44E-15	1.44E-15	1.44E-15
PeCDD	5.43E-16	5.43E-16	5.43E-16	5.43E-16	5.43E-16	5.43E-16	5.43E-16	9.42E-16	5.43E-16	5.43E-16	5.43E-16
TCDF	1.16E-15	1.16E-15	1.16E-15	1.16E-15	1.16E-15	1.16E-15	1.16E-15	2.01E-15	1.16E-15	1.16E-15	1.16E-15
Toluene	---	2.78E-09	---	---	1.37E-08	---	---	1.73E-08	---	---	---
1,1,1-Trichloroethane	---	1.96E-08	---	---	---	---	---	---	---	---	---
2,4,5-TP (Silvex)	---	---	---	---	---	---	---	---	---	---	---
Antimony	5.81E-07	5.33E-09	5.33E-09	5.33E-09	5.33E-09	5.33E-09	5.33E-09	5.33E-09	5.33E-09	5.33E-09	5.33E-09
Arsenic	3.09E-06	4.38E-06	2.12E-06	1.46E-06	1.47E-06	1.77E-06	1.37E-07	1.37E-07	1.37E-07	1.37E-07	1.37E-07
Cadmium	3.45E-06	2.02E-05	3.45E-06	3.45E-06	3.45E-06	3.45E-06	3.45E-06	3.45E-06	3.45E-06	3.45E-06	3.45E-06
Chromium III	2.11E-05	4.03E-05	2.08E-05	2.37E-05	2.08E-05	2.07E-05	2.07E-05	2.08E-05	2.08E-05	2.08E-05	2.07E-05
Chromium VI	2.34E-06	4.48E-06	2.31E-06	2.63E-06	2.31E-06	2.30E-06	2.30E-06	2.31E-06	2.31E-06	2.31E-06	2.30E-06
Cobalt	---	---	---	---	---	---	---	3.40E-05	---	---	---
Copper	2.16E-03	1.66E-03	8.02E-04	3.42E-03	8.71E-04	8.24E-05	8.24E-05	2.49E-03	8.24E-05	8.24E-05	8.24E-05
Lead	5.60E-05	2.39E-08	2.39E-08	3.39E-04	2.39E-08	2.39E-08	2.39E-08	2.39E-08	6.50E-05	2.39E-08	2.39E-08

Table B-21. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Mercury	1.17E-04	5.84E-05	4.88E-05	6.50E-05	1.97E-05	1.18E-05	4.75E-08	1.63E-05	2.72E-05	5.88E-06	4.75E-08
Nickel	----	----	----	----	----	----	----	----	----	----	----
Selenium	4.87E-07	1.53E-06	3.66E-07	3.66E-07	8.03E-07	3.66E-07	3.66E-07	4.67E-07	3.66E-07	3.66E-07	3.66E-07
Silver	6.28E-07	3.02E-06	1.06E-07	8.93E-08	1.17E-07	1.64E-07	2.53E-08	9.40E-08	2.53E-08	2.53E-08	2.53E-08
Strontium	----	----	----	----	----	----	----	5.77E-03	----	----	----
Thallium	7.26E-10	7.26E-10	1.86E-09	7.26E-10	2.22E-09	7.26E-10	7.26E-10	7.26E-10	7.26E-10	7.26E-10	7.26E-10
Zinc	3.01E-01	1.28E+00	2.60E-01	2.30E+00	8.17E-02	8.17E-02	8.17E-02	2.51E-01	8.17E-02	8.17E-02	8.17E-02
Chloride	----	1.49E-05	----	----	1.33E-05	----	----	----	----	----	----
Cyanide	1.19E-04	1.02E-04	1.11E-04	1.02E-04	2.08E-04	1.02E-04	1.02E-04	1.79E-04	1.02E-04	1.02E-04	1.02E-04
Fluoride	7.94E-05	8.27E-05	7.94E-05	7.94E-05	8.19E-05	7.94E-05	7.94E-05	8.11E-05	7.94E-05	7.94E-05	7.94E-05
Nitrate	1.10E-05	1.21E-05	1.10E-05	1.10E-05	1.45E-05	1.10E-05	1.10E-05	1.91E-05	1.10E-05	1.10E-05	1.10E-05
Orthophosphate	1.14E-05	1.19E-05	1.14E-05	1.14E-05	1.75E-05	1.14E-05	1.14E-05	1.23E-05	1.14E-05	1.14E-05	1.14E-05
Sulfate	2.90E-02	3.02E-02	2.90E-02	2.90E-02	2.92E-02	2.90E-02	2.90E-02	2.91E-02	2.90E-02	2.90E-02	2.90E-02
Am-241	----	----	----	----	----	----	9.29E-11	----	----	----	----
Cm-244	1.46E-31	5.35E-28	1.46E-31	1.46E-31	1.46E-31	1.46E-31	2.92E-28	1.46E-31	1.46E-31	1.46E-31	1.46E-31
Co-60	1.75E-10	1.75E-10	1.75E-10	1.75E-10	1.75E-10	1.75E-10	1.75E-10	1.75E-10	1.75E-10	1.75E-10	1.75E-10
Cs-134	----	----	----	----	----	0.00E+00	----	----	----	----	----
Cs-137	1.67E-11	1.67E-11	1.67E-11	1.67E-11	1.67E-11	1.67E-11	1.67E-11	1.67E-11	1.67E-11	1.67E-11	1.67E-11
H-3	5.51E-07	5.51E-07	5.51E-07	5.51E-07	5.51E-07	5.51E-07	5.51E-07	5.51E-07	5.51E-07	5.51E-07	5.51E-07
Sr-90	1.58E-07	1.58E-07	1.58E-07	1.58E-07	1.58E-07	1.58E-07	1.58E-07	1.58E-07	1.58E-07	1.58E-07	1.58E-07
U-238	3.07E-07	4.65E-23	6.60E-07	4.65E-23	2.39E-06	4.65E-23	2.62E-07	4.65E-23	4.65E-23	4.65E-23	4.65E-23

a. The values shown are carcinogenic intakes. To calculate noncarcinogenic intakes, multiply the above values by 2.33.
"----" means COPC was not detected at the site.

Table B-22. External radiation exposure intakes (year per pCi/g) by exposure scenario.

Occupational Scenario Year 0

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Am-241	----	----	----	----	----	----	5.70E-01	----	----	----	----
Cm-244	----	1.21E+00	----	----	----	----	6.60E-01	----	----	----	----
Co-60	----	5.86E-01	----	----	1.45E-01	2.00E-01	9.91E-01	1.75E-01	----	----	----
Cs-134	----	----	----	----	----	4.06E-02	----	----	----	----	----
Cs-137	----	3.80E+02	----	----	----	2.34E+02	3.97E+02	2.60E+01	----	----	----
H-3	----	----	----	----	1.55E+01	----	----	6.59E+00	----	----	----
Ra-226	----	2.206+01	----	----	----	----	----	----	----	----	----
Sr-90	----	3.21E+01	5.77E+01	----	----	----	----	----	----	----	----
U-238	4.62E+01	----	9.92E+01	----	3.59E+02	----	3.93E+01	3.93E+01	----	----	----

Occupational Scenario Year 30

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Am-241	----	----	----	----	----	----	5.43E-01	----	----	----	----
Cm-244	----	3.84E-01	----	----	----	----	2.09E-01	----	----	----	----
Co-60	----	1.13E-02	----	----	2.81E-03	3.87E-03	1.92E-02	3.39E-03	----	----	----
Cs-134	----	----	----	----	----	1.68E-06	----	----	----	----	----
Cs-137	----	1.91E+02	----	----	----	1.18E+02	2.00E+02	1.31E+01	----	----	----
H-3	----	----	----	----	2.86E+00	----	----	1.22E+00	----	----	----
Ra-226	----	2.03E+01	----	----	----	----	----	----	----	----	----
Sr-90	----	1.55E+01	2.79E+01	----	----	----	----	----	----	----	----
U-238	4.62E+01	----	9.92E+01	----	3.59E+02	----	3.93E+01	3.93E+01	----	----	----

Residential Scenario Year 100

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Am-241	----	----	----	----	----	----	8.12E-01	----	----	----	----
Cm-244	----	4.08E-02	----	----	----	----	2.23E-02	----	----	----	----
Co-60	----	1.62E-06	----	----	4.22E-07	5.40E-07	2.74E-06	4.85E-07	----	----	----
Cs-134	----	----	----	----	----	1.46E-16	----	----	----	----	----
Cs-137	----	6.11E+01	----	----	----	3.77E+01	6.39E+01	4.18E+00	----	----	----
H-3	----	----	----	----	1.33E-01	----	----	3.56E-02	----	----	----
Ra-226	----	3.31E+01	----	----	----	----	----	----	----	----	----
Sr-90	----	4.52E+00	8.14E+00	----	----	----	----	----	----	----	----
U-238	7.76E+01	----	1.67E+02	----	6.03E+02	----	6.61E+01	6.61E+01	----	----	----

Residential Scenario Year 1000

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Am-241	----	----	----	----	----	----	1.92E-01	----	----	----	----
Cm-244	----	4.39E-17	----	----	----	----	2.39E-17	----	----	----	----
Co-60	----	6.32E-58	----	----	1.57E-58	2.11E-58	1.07E-57	1.89E-58	----	----	----
Cs-134	----	----	----	----	----	0.00E+00	----	----	----	----	----
Cs-137	----	6.53E-08	----	----	----	4.02E-08	6.83E-08	4.47E-09	----	----	----
H-3	----	----	----	----	1.25E-23	----	----	3.35E-24	----	----	----
Ra-226	----	2.24E+01	----	----	----	----	----	----	----	----	----
Sr-90	----	1.52E-09	2.74E-09	----	----	----	----	----	----	----	----
U-238	7.76E+01	----	1.67E+02	----	6.03E+02	----	6.61E+01	6.61E+01	----	----	----

"----" means COPC was not detected at the site.

Table B-23. Air and groundwater pathway intakes by exposure pathways.

	Occupational Scenario Year 0				
COPC	Inhalation of fugitive dust	Inhalation of volatiles	Groundwater ingestion	Dermal absorption of groundwater	Inhalation of water vapors from indoor water use
Acetone	3.52E-11	----	NA	NA	NA
Acetonitrile	1.43E-12	----	NA	NA	NA
Aroclor-1260	1.60E-10	----	NA	NA	NA
Bis(2-ethylhexyl)phthalate	2.20E-11	2.88E-09	NA	NA	NA
2-Butanone	5.85E-12	----	NA	NA	NA
Butylbenzylphthalate	3.89E-12	----	NA	NA	NA
Chloroform	3.42E-13	2.78E-09	NA	NA	NA
2,4-D	7.53E-12	----	NA	NA	NA
Diethylphthalate	1.89E-10	----	NA	NA	NA
Di-n-butylphthalate	2.20E-10	----	NA	NA	NA
Di-n-octylphthalate	1.09E-11	----	NA	NA	NA
HpCDD	7.45E-17	----	NA	NA	NA
HpCDF	8.67E-18	----	NA	NA	NA
HxCDF	5.35E-18	----	NA	NA	NA
Methylene Chloride	3.61E-11	3.18E-06	NA	NA	NA
OCDD	1.84E-16	----	NA	NA	NA
OCDF	1.07E-17	----	NA	NA	NA
PeCDD	4.06E-18	----	NA	NA	NA
TCDF	8.67E-18	----	NA	NA	NA
Toluene	3.66E-13	1.46E-09	NA	NA	NA
1,1,1-Trichloroethane	1.14E-11	1.36E-07	NA	NA	NA
2,4,5-TP (Silvex)	1.27E-08	----	NA	NA	NA
Antimony	1.98E-09	----	NA	NA	NA
Arsenic	1.31E-08	----	NA	NA	NA
Cadmium	1.94E-09	----	NA	NA	NA
Chromium III	4.84E-06	----	NA	NA	NA
Chromium VI	5.38E-07	----	NA	NA	NA
Cobalt	1.69E-10	----	NA	NA	NA
Copper	8.34E-08	----	NA	NA	NA
Lead	1.97E-08	----	NA	NA	NA
Mercury	1.79E-09	----	NA	NA	NA
Nickel	3.84E-09	----	NA	NA	NA
Selenium	9.45E-10	----	NA	NA	NA
Silver	2.55E-08	----	NA	NA	NA
Strontium	1.16E-09	----	NA	NA	NA
Thallium	4.09E-11	----	NA	NA	NA
Zinc	2.45E-06	----	NA	NA	NA
Chloride	8.51E-10	----	NA	NA	NA
Cyanide	2.97E-10	----	NA	NA	NA
Fluoride	2.50E-10	----	NA	NA	NA
Nitrate	6.24E-10	----	NA	NA	NA
Orthophosphate	4.37E-10	----	NA	NA	NA
Sulfate	6.00E-07	----	NA	NA	NA
Am-241	3.07E-12	----	NA	NA	NA
Cm-244	3.62E-11	----	NA	NA	NA
Co-60	2.59E-11	----	NA	NA	NA
Cs-134	9.36E-13	----	NA	NA	NA

Table B-23. (continued).

COPC	Inhalation of fugitive dust	Inhalation of volatiles	Groundwater ingestion	Dermal absorption of groundwater	Inhalation of water vapors from indoor water use
Cs-137	1.78E-08	----	NA	NA	NA
H-3	7.11E-12	----	NA	NA	NA
Sr-90	9.27E-10	----	NA	NA	NA
U-238	9.06E-10	----	NA	NA	NA

Occupational Scenario Year 30

COPC	Inhalation of fugitive dust	Inhalation of volatiles	Groundwater ingestion	Dermal absorption of groundwater	Inhalation of water vapors from indoor water use
Acetone	3.52E-11	----	NA	NA	NA
Acetonitrile	1.43E-12	----	NA	NA	NA
Aroclor-1260	1.60E-10	----	NA	NA	NA
Bis(2-ethylhexyl)phthalate	2.20E-11	2.88E-09	NA	NA	NA
2-Butanone	5.85E-12	----	NA	NA	NA
Butylbenzylphthalate	3.89E-12	----	NA	NA	NA
Chloroform	3.42E-13	2.78E-09	NA	NA	NA
2,4-D	7.53E-12	----	NA	NA	NA
Diethylphthalate	1.89E-10	----	NA	NA	NA
Di-n-butylphthalate	2.20E-10	----	NA	NA	NA
Di-n-octylphthalate	1.09E-11	----	NA	NA	NA
HpCDD	7.45E-17	----	NA	NA	NA
HpCDF	8.67E-18	----	NA	NA	NA
HxCDF	5.35E-18	----	NA	NA	NA
Methylene Chloride	3.61E-11	3.18E-06	NA	NA	NA
OCDD	1.84E-16	----	NA	NA	NA
OCDF	1.07E-17	----	NA	NA	NA
PeCDD	4.06E-18	----	NA	NA	NA
TCDF	8.67E-18	----	NA	NA	NA
Toluene	3.66E-13	1.46E-09	NA	NA	NA
1,1,1-Trichloroethane	1.14E-11	1.36E-07	NA	NA	NA
2,4,5-TP (Silvex)	1.27E-08	----	NA	NA	NA
Antimony	1.98E-09	----	NA	NA	NA
Arsenic	1.31E-08	----	NA	NA	NA
Cadmium	1.94E-09	----	NA	NA	NA
Chromium III	4.84E-06	----	NA	NA	NA
Chromium VI	5.38E-07	----	NA	NA	NA
Cobalt	1.69E-10	----	NA	NA	NA
Copper	8.34E-08	----	NA	NA	NA
Lead	1.97E-08	----	NA	NA	NA
Mercury	1.79E-09	----	NA	NA	NA
Nickel	3.84E-09	----	NA	NA	NA
Selenium	9.45E-10	----	NA	NA	NA
Silver	2.55E-08	----	NA	NA	NA
Strontium	1.16E-09	----	NA	NA	NA
Thallium	4.09E-11	----	NA	NA	NA
Zinc	2.45E-06	----	NA	NA	NA
Chloride	8.51E-10	----	NA	NA	NA

Table B-23. (continued).

COPC	Inhalation of fugitive dust	Inhalation of volatiles	Groundwater ingestion	Dermal absorption of groundwater	Inhalation of water vapors from indoor water use
Cyanide	2.97E-10	----	NA	NA	NA
Fluoride	2.50E-10	----	NA	NA	NA
Nitrate	6.24E-10	----	NA	NA	NA
Orthophosphate	4.37E-10	----	NA	NA	NA
Sulfate	6.00E-07	----	NA	NA	NA
Am-241	2.93E-12	----	NA	NA	NA
Cm-244	1.15E-11	----	NA	NA	NA
Co-60	5.02E-13	----	NA	NA	NA
Cs-134	3.86E-17	----	NA	NA	NA
Cs-137	8.94E-09	----	NA	NA	NA
H-3	1.31E-12	----	NA	NA	NA
Sr-90	4.48E-10	----	NA	NA	NA
U-238	9.06E-10	----	NA	NA	NA

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COPC	Inhalation of fugitive dust	Inhalation of volatiles	Groundwater ingestion	Dermal absorption of groundwater	Inhalation of water vapors from indoor water use
Acetone	1.16E-10	----	----	----	----
Acetonitrile	2.40E-12	----	1.62E-05	----	1.05E-05
Aroclor-1260	2.68E-10	----	----	----	----
Bis(2-ethylhexyl)phthalate	3.69E-11	4.83E-09	2.77E-04	1.97E-05	1.79E-04
2-Butanone	1.65E-10	----	----	----	----
Butylbenzylphthalate	2.29E-12	----	----	----	----
Chloroform	6.54E-12	2.29E-07	8.62E-06	1.63E-07	5.58E-06
2,4-D	1.27E-11	----	2.68E-05	----	1.73E-05
Diethylphthalate	3.18E-10	----	----	----	----
Di-n-butylphthalate	3.70E-10	----	----	----	----
Di-n-octylphthalate	1.83E-11	----	----	----	----
HpCDD	1.25E-16	----	8.45E-10	----	5.47E-10
HpCDF	1.46E-17	----	9.83E-11	----	6.36E-11
HxCDF	8.98E-18	----	6.06E-11	----	3.92E-11
Methylene Chloride	2.46E-10	2.65E-05	9.87E-04	9.44E-06	6.39E-04
OCDD	3.09E-16	----	2.09E-09	----	1.35E-09
OCDF	1.80E-17	----	1.22E-10	----	7.91E-11
PeCDD	6.82E-18	----	4.60E-11	----	2.98E-11
TCDF	1.46E-17	----	9.83E-11	----	6.36E-11
Toluene	1.85E-12	2.58E-08	----	----	----
1,1,1-Trichloroethane	3.30E-11	1.01E-06	----	----	----
2,4,5-TP (Silvex)	2.14E-08	----	7.28E-04	----	4.71E-04
Antimony	1.25E-09	----	4.27E-05	9.08E-08	2.77E-05
Arsenic	2.84E-08	----	1.53E-04	3.24E-07	9.88E-05
Cadmium	2.91E-09	----	1.28E-04	2.72E-07	8.29E-05
Chromium III	8.13E-06	----	1.69E+00	3.59E-03	1.09E+00
Chromium VI	9.04E-07	----	1.88E-01	3.99E-04	1.22E-01
Cobalt	2.74E-10	----	----	----	----
Copper	8.91E-08	----	7.82E-04	1.66E-06	5.06E-04

Table B-23. (continued).

COPC	Inhalation of fugitive dust	Inhalation of volatiles	Groundwater ingestion	Dermal absorption of groundwater	Inhalation of water vapors from indoor water use
Lead	4.89E-09	----	4.25E-06	9.03E-09	2.75E-06
Mercury	1.04E-09	----	1.88E-07	3.99E-10	1.22E-07
Nickel	----	----	----	----	----
Selenium	6.71E-09	----	4.27E-04	9.08E-07	2.77E-04
Silver	2.62E-08	----	7.13E-05	1.51E-07	4.61E-05
Strontium	1.95E-09	----	----	----	----
Thallium	6.47E-11	----	7.78E-05	1.65E-07	5.04E-05
Zinc	1.63E-06	----	2.09E-02	4.44E-05	1.35E-02
Chloride	3.35E-08	----	----	----	----
Cyanide	4.02E-10	----	8.04E-04	1.71E-06	5.21E-04
Fluoride	7.43E-09	----	3.41E-02	----	2.20E-02
Nitrate	3.45E-09	----	4.60E-03	----	2.98E-03
Orthophosphate	1.74E-09	----	4.90E-03	----	3.17E-03
Sulfate	2.58E-06	----	1.24E+01	----	8.06E+00
Am-241	4.38E-12	----	----	----	----
Cm-244	1.22E-12	----	6.46E-23	----	4.18E-23
Co-60	7.15E-17	----	1.20E-03	2.55E-06	7.75E-04
Cs-134	3.35E-27	----	----	----	----
Cs-137	2.86E-09	----	1.26E-05	2.67E-08	8.13E-06
H-3	3.84E-14	----	1.46E-01	3.09E-04	9.43E-02
Sr-90	1.31E-10	----	1.95E-02	4.14E-05	1.26E-02
U-238	1.52E-09	----	6.81E-05	1.45E-07	4.41E-05

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COPC	Inhalation of fugitive dust	Inhalation of volatiles	Groundwater ingestion	Dermal absorption of groundwater	Inhalation of water vapors from indoor water use
Acetone	1.16E-10	----	----	----	----
Acetonitrile	2.40E-12	----	1.62E-05	----	1.05E-05
Aroclor-1260	2.68E-10	----	----	----	----
Bis(2-ethylhexyl)phthalate	3.69E-11	4.83E-09	2.77E-04	1.97E-05	1.79E-04
2-Butanone	1.65E-10	----	----	----	----
Butylbenzylphthalate	2.29E-12	----	----	----	----
Chloroform	6.54E-12	2.29E-07	8.62E-06	1.63E-07	5.58E-06
2,4-D	1.27E-11	----	2.68E-05	----	1.73E-05
Diethylphthalate	3.18E-10	----	----	----	----
Di-n-butylphthalate	3.70E-10	----	----	----	----
Di-n-octylphthalate	1.83E-11	----	----	----	----
HpCDD	1.25E-16	----	8.45E-10	----	5.47E-10
HpCDF	1.46E-17	----	9.83E-11	----	6.36E-11
HxCDF	8.98E-18	----	6.06E-11	----	3.92E-11
Methylene Chloride	2.46E-10	2.65E-05	9.87E-04	9.44E-06	6.39E-04
OCDD	3.09E-16	----	2.09E-09	----	1.35E-09
OCDF	1.80E-17	----	1.22E-10	----	7.91E-11
PeCDD	6.82E-18	----	4.60E-11	----	2.98E-11
TCDF	1.46E-17	----	9.83E-11	----	6.36E-11
Toluene	1.85E-12	2.58E-08	----	----	----

Table B-23. (continued).

COPC	Inhalation of fugitive dust	Inhalation of volatiles	Groundwater ingestion	Dermal absorption of groundwater	Inhalation of water vapors from indoor water use
1,1,1-Trichloroethane	3.30E-11	1.01E-06	----	----	----
2,4,5-TP (Silvex)	2.14E-08	----	7.28E-04	----	4.71E-04
Antimony	1.25E-09	----	4.27E-05	9.08E-08	2.77E-05
Arsenic	2.84E-08	----	1.29E-04	2.74E-07	8.36E-05
Cadmium	2.91E-09	----	1.28E-04	2.72E-07	8.29E-05
Chromium III	8.13E-06	----	1.69E+00	3.59E-03	1.09E+00
Chromium VI	9.04E-07	----	1.88E-01	3.99E-04	1.22E-01
Cobalt	2.74E-10	----	----	----	----
Copper	8.91E-08	----	7.82E-04	1.66E-06	5.06E-04
Lead	4.89E-09	----	4.25E-06	9.03E-09	2.75E-06
Mercury	1.04E-09	----	1.88E-07	3.99E-10	1.22E-07
Nickel	----	----	----	----	----
Selenium	6.71E-09	----	4.27E-04	9.08E-07	2.77E-04
Silver	2.62E-08	----	7.13E-05	1.51E-07	4.61E-05
Strontium	1.95E-09	----	----	----	----
Thallium	6.47E-11	----	7.78E-05	1.65E-07	5.04E-05
Zinc	1.63E-06	----	2.09E-02	4.44E-05	1.35E-02
Chloride	3.35E-08	----	----	----	----
Cyanide	4.02E-10	----	8.04E-04	1.71E-06	5.21E-04
Fluoride	7.43E-09	----	3.41E-02	----	2.20E-02
Nitrate	3.45E-09	----	4.60E-03	----	2.98E-03
Orthophosphate	1.74E-09	----	4.90E-03	----	3.17E-03
Sulfate	2.58E-06	----	1.24E+01	----	8.06E+00
Am-241	1.03E-12	----	----	----	----
Cm-244	1.31E-27	----	1.16E-16	----	4.18E-23
Co-60	2.79E-68	----	2.14E+03	2.55E-06	7.75E-04
Cs-134	0.00E+00	----	----	----	----
Cs-137	3.06E-18	----	2.25E+01	2.67E-08	8.13E-06
H-3	3.61E-36	----	1.46E-01	3.09E-04	9.43E-02
Sr-90	4.40E-20	----	3.49E+04	4.14E-05	1.26E-02
U-238	1.52E-09	----	1.22E-10	1.45E-19	4.41E-17

a. The values shown are carcinogenic intakes. To calculate noncarcinogenic intakes, multiply the above values by 2.33 for the residential scenarios and 2.8 for the occupational scenarios.

NA = Not Applicable, exposure route is not evaluated for this scenario.

"----" means COPC was not detected at the site.

Table B-24. Toxicity data.

COPC	Oral RfD[a] (mg/kg-day)	Oral SF[a] $(mg/kg\text{-}day)^{-1}$	Inhalation RfD[a] (mg/kg-day)	Inhalation SF[a] $(mg/kg\text{-}day)^{-1}$	External SF[b] $(yr\text{-}pCi/g)^{-1}$
Acetone	1.00E-01	NTD	NTD	NTD	NTD
Acetonitrile	6.00E-03	NTD	NTD	NTD	NTD
Aroclor-1260	NTD	7.70E+0(	NTD	NTD	NTD
Bis(2-ethylhexyl)phthalate	2.00E-02	1.40E-02	NTD	NTD	NTD
2-Butanone	6.00E-01	NTD	2.86E-01	NTD	NTD
Butylbenzylphthalate	2.00E-01	NTD	NTD	NTD	NTD
Chloroform	1.00E-02	6.10E-03	NTD	8.05E-02	NTD
2,4-D	1.00E-02	NTD	NTD	NTD	NTD
Diethylphthalate	8.00E-01	NTD	NTD	NTD	NTD
Di-n-butylphthalate	1.00E-01	NTD	NTD	NTD	NTD
Di-n-octylphthalate	2.00E-02	NTD	NTD	NTD	NTD
HpCDD	1.50E-07	NTD	NTD	NTD	NTD
HpCDF	1.50E-07	NTD	NTD	NTD	NTD
HxCDF	1.50E-06	NTD	NTD	NTD	NTD
Methylene Chloride	6.00E-02	7.50E-03	8.60E-01	1.64E-03	NTD
OCDD	1.50E-08	NTD	NTD	NTD	NTD
OCDF	1.50E-08	NTD	NTD	NTD	NTD
PeCDD	7.50E-06	NTD	NTD	NTD	NTD
TCDF	1.50E-06	NTD	NTD	NTD	NTD
Toluene	2.00E-01	NTD	NTD	NTD	NTD
1,1,1-Trichloroethane	9.00E-02	NTD	2.90E-01	NTD	NTD
2,4,5-TP (Silvex)	8.00E-03	NTD	NTD	NTD	NTD
Antimony	4.00E-04	NTD	NTD	NTD	NTD
Arsenic	3.00E-04	1.75E+00	NTD	1.50E+01	NTD
Cadmium	5.00E-04	NTD	NTD	1.80E-03	NTD
Chromium III	1.00E+00	NTD	NTD	NTD	NTD
Chromium VI	5.00E-03	NTD	NTD	1.20E-02	NTD
Cobalt	6.00E-02	NTD	2.90E-04	NTD	NTD
Copper	3.70E-02	NTD	NTD	NTD	NTD
Lead	NTD	NTD	NTD	NTD	NTD
Mercury	3.00E-04	NTD	8.57E-05	NTD	NTD
Nickel	2.00E-02	NTD	NTD	NTD	NTD
Selenium	5.00E-03	NTD	NTD	NTD	NTD
Silver	5.00E-03	NTD	NTD	NTD	NTD
Strontium	6.00E-01	NTD	NTD	NTD	NTD
Thallium	NTD	NTD	NTD	NTD	NTD
Zinc	3.00E-01	NTD	NTD	NTD	NTD
Chloride	NTD	NTD	NTD	NTD	NTD
Cyanide	2.00E-02	NTD	NTD	NTD	NTD
Fluoride	6.00E-02	NTD	NTD	NTD	NTD
Nitrate	1.60E+00	NTD	NTD	NTD	NTD
Orthophosphate	NTD	NTD	NTD	NTD	NTD
Sulfate	NTD	NTD	NTD	NTD	NTD
Am-241	NTD	3.28E-10	NTD	3.85E-08	4.59E-09
Cm-244	NTD	2.11E-10	NTD	2.43E-08	2.07E-11
Co-60	NTD	1.89E-11	NTD	6.88E-11	9.76E-06
Cs-134	NTD	4.73E-11	NTD	2.89E-11	5.88E-06
Cs-137	NTD	3.16E-11	NTD	1.91E-11	2.09E-06
H-3	NTD	7.15E-14	NTD	9.59E-14	0.00E+00

Table B-24. (continued).

COPC	Oral RfD[a] (mg/kg-day)	Oral SF[a] $(mg/kg\text{-}day)^{-1}$	Inhalation RfD[a] (mg/kg-day)	Inhalation SF[a] $(mg/kg\text{-}day)^{-1}$	External SF[b] $(yr\text{-}pCi/g)^{-1}$
Sr-90	NTD	5.59E-11	NTD	6.93E-11	0.00E+00
U-238	NTD	6.20E-11	NTD	1.24E-08	5.25E-08

NTD = No toxicidty data.
a. Information taken from IRIS and Heast.
b. Information taken from Heast.

Table B-25. Occupational scenario year 0 risks.

	Soil Ingestion										
COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	NTD	NTD	---	NTD	NTD	---	---	NTD	---	---	---
Acetonitrile	---	---	---	---	---	---	---	NTD	---	---	---
Aroclor-1260	---	---	---	---	---	---	---	---	---	---	7E-05
Bis(2-ethylhexyl)phthalate	2E-10	2E-11	---	3E-10	---	---	---	9E-10	---	---	---
2-Butanone	---	---	---	---	NTD	---	---	NTD	---	---	---
Butylbenzylphthalate	---	---	---	---	---	---	---	NTD	---	---	---
Chloroform	---	---	---	---	3E-12	---	---	4E-12	---	---	---
2,4-D	NTD	---	---	NTD	---	---	---	NTD	---	---	---
Diethylphthalate	NTD	NTD	---	---	---	---	---	---	---	---	---
Di-n-butylphthalate	NTD	NTD	---	NTD	---	---	---	NTD	---	---	---
Di-n-octylphthalate	NTD	---	---	---	---	---	---	NTD	---	---	---
HpCDD	---	---	---	---	---	---	---	NTD	---	---	---
HpCDF	---	---	---	---	---	---	---	NTD	---	---	---
HxCDF	---	---	---	---	---	---	---	NTD	---	---	---
Methylene Chloride	5E-11	7E-11	---	3E-11	2E-10	---	---	3E-10	---	---	---
OCDD	---	---	---	---	---	---	---	NTD	---	---	---
OCDF	---	---	---	---	---	---	---	NTD	---	---	---
PeCDD	---	---	---	---	---	---	---	NTD	---	---	---
TCDF	---	---	---	---	---	---	---	NTD	---	---	---
Toluene	---	---	---	---	NTD	---	---	NTD	---	---	---
1,1,1-Trichloroethane	---	---	---	NTD	NTD	---	---	NTD	---	---	---
2,4,5-TP (Silvex)	---	NTD	---	---	---	---	---	---	---	---	---
Antimony	NTD	NTD	---	---	---	---	---	---	---	---	---
Arsenic	1E-05	5E-06	4E-06	2E-06	2E-06	3E-06	---	---	---	2E-06	---
Cadmium	---	NTD	---	---	---	---	---	---	---	---	---
Chromium III	NTD	NTD	NTD	NTD	NTD	---	---	NTD	NTD	NTD	---
Chromium VI	NTD	NTD	NTD	NTD	NTD	---	---	NTD	NTD	NTD	---
Cobalt	---	---	---	---	---	---	---	NTD	---	---	---
Copper	NTD	NTD	NTD	NTD	NTD	---	---	NTD	---	---	---
Lead	NTD	---	NTD	NTD	---	NTD	---	---	NTD	---	---
Mercury	NTD	NTD	NTD	NTD	NTD	NTD	---	NTD	NTD	NTD	---
Nickel	NTD	---	---	---	---	---	---	---	---	---	---
Selenium	NTD	NTD	---	NTD	NTD	---	---	NTD	---	---	---
Silver	NTD	NTD	NTD	NTD	NTD	NTD	---	NTD	---	---	---
Strontium	---	---	---	---	---	---	---	NTD	---	---	---
Thallium	---	---	NTD	---	NTD	---	---	NTD	---	---	---
Zinc	NTD	NTD	NTD	NTD	---	---	---	NTD	---	---	---
Chloride	---	---	---	---	NTD	---	---	NTD	---	---	---
Cyanide	NTD	---	NTD	---	NTD	---	---	NTD	---	---	---
Fluoride	---	---	---	---	NTD	---	---	NTD	---	---	---
Nitrate	---	---	---	---	NTD	---	---	NTD	---	---	---
Orthophosphate	---	---	---	---	NTD	---	---	NTD	---	---	---
Sulfate	---	NTD	---	---	NTD	---	---	NTD	---	---	---
Am-241	---	---	---	---	---	---	3E-09	---	---	---	---
Cm-244	---	5E-09	---	---	---	---	3E-09	---	---	---	---

Table B-25. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Co-60	----	2E-10	----	----	5E-11	7E-11	3E-10	6E-11	----	----	----
Cs-134	----	----	----	----	----	4E-11	----	----	----	----	----
Cs-137	----	2E-07	----	----	----	1E-07	2E-07	2E-08	----	----	----
H-3	----	----	----	----	2E-11	----	----	9E-12	----	----	----
Ra-226	----	1E-07	----	----	----	----	----	----	----	----	----
Sr-90	----	3E-08	6E-08	----	----	----	----	----	----	----	----
U-238	5E-08	----	1E-07	----	4E-07	----	4E-08	4E-08	----	----	----

External Radiation Exposure

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Am-241	----	----	----	----	----	----	3E-09	----	----	----	----
Cm-244	----	3E-11	----	----	----	----	1E-11	----	----	----	----
Co-60	----	6E-06	----	----	1E-06	2E-06	1E-05	2E-06	----	----	----
Cs-134	----	----	----	----	----	2E-07	----	----	----	----	----
Cs-137	----	8E-04	----	----	----	5E-04	8E-04	5E-05	----	----	----
H-3	----	----	----	----	----	----	----	NTD	----	----	----
Ra-226	----	1E-04	----	----	----	----	----	----	----	----	----
Sr-90	----	NTD	NTD	----	----	----	----	----	----	----	----
U-238	2E-06	----	5E-06	----	2E-05	----	2E-06	2E-06	----	----	----

Table B-25. (continued).

COPC	Other Exposure Routes	
	Inhalation of fugitive dust	Inhalation of volatiles
Acetone	NTD	----
Acetonitrile	NTD	----
Aroclor-1260	NTD	----
Bis(2-ethylhexyl)phthalate	NTD	NTD
2-Butanone	NTD	----
Butylbenzylphthalate	NTD	----
Chloroform	1E-14	9E-11
2,4-D	NTD	----
Diethylphthalate	NTD	----
Di-n-butylphthalate	NTD	----
Di-n-octylphthalate	NTD	----
HpCDD	NTD	----
HpCDF	NTD	----
HxCDF	NTD	----
Methylene Chloride	6E-14	5E-09
OCDD	NTD	----
OCDF	NTD	----
PeCDD	NTD	----
TCDF	NTD	----
Toluene	NTD	NTD
1,1,1-Trichloroethane	NTD	NTD
2,4,5-TP (Silvex)	NTD	----
Antimony	NTD	----
Arsenic	2E-07	----
Cadmium	1E-08	----
Chromium III	NTD	----
Chromium VI	6E-09	----
Cobalt	NTD	----
Copper	NTD	----
Lead	NTD	----
Mercury	NTD	----
Nickel	NTD	----
Selenium	NTD	----
Silver	NTD	----
Strontium	NTD	----
Thallium	NTD	----
Zinc	NTD	----
Chloride	NTD	----
Cyanide	NTD	----
Fluoride	NTD	----

Table B-25. (continued).

COPC	Inhalation of fugitive dust	Inhalation of volatiles
Nitrate	NTD	----
Orthophosphate	NTD	----
Sulfate	NTD	----
Am-241	1E-19	----
Cm-244	9E-19	----
Co-60	2E-21	----
Cs-134	3E-23	----
Cs-137	3E-19	----
H-3	3E-24	----
Ra-226	2E-18	----
Sr-90	5E-20	----
U-238	1E-17	----

"----" means the COPC does not contribute to risk at the release site.

NTD = No toxicity data.

Table B-26. Occupational scenario year 0 hazard quotients.

	Soil Ingestion										
COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	2E-07	3E-07	---	1E-07	3E-07	---	---	1E-06	---	---	---
Acetonitrile	---	---	---	---	---	---	---	6E-06	---	---	---
Aroclor-1260	---	---	---	---	---	---	---	---	---	---	NTD
Bis(2-ethylhexyl)phthalate	2E-06	2E-07	---	3E-06	---	---	---	9E-06	---	---	---
2-Butanone	---	---	---	---	9E-08	---	---	1E-07	---	---	---
Butylbenzylphthalate	---	---	---	---	---	---	---	2E-07	---	---	---
Chloroform	---	---	---	---	1E-07	---	---	2E-07	---	---	---
2,4-D	3E-07	---	---	4E-06	---	---	---	4E-06	---	---	---
Diethylphthalate	1E-09	3E-07	---	---	---	---	---	---	---	---	---
Di-n-butylphthalate	6E-07	2E-06	---	2E-06	---	---	---	1E-06	---	---	---
Di-n-octylphthalate	1E-06	---	---	---	---	---	---	1E-06	---	---	---
HpCDD	---	---	---	---	---	---	---	NTD	---	---	---
HpCDF	---	---	---	---	---	---	---	NTD	---	---	---
HxCDF	---	---	---	---	---	---	---	NTD	---	---	---
Methylene Chloride	3E-07	4E-07	---	2E-07	1E-06	---	---	2E-06	---	---	---
OCDD	---	---	---	---	---	---	---	NTD	---	---	---
OCDF	---	---	---	---	---	---	---	NTD	---	---	---
PeCDD	---	---	---	---	---	---	---	NTD	---	---	---
TCDF	---	---	---	---	---	---	---	NTD	---	---	---
Toluene	---	---	---	---	2E-08	---	---	1E-08	---	---	---
1,1,1-Trichloroethane	---	---	---	3E-08	3E-07	---	---	3E-06	---	---	---
2,4,5-TP (Silvex)	---	2E-03	---	---	---	---	---	---	---	---	---
Antimony	6E-02	9E-03	---	---	---	---	---	---	---	---	---
Arsenic	6E-02	3E-02	2E-02	1E-02	1E-02	1E-02	---	---	---	1E-02	---
Cadmium	---	4E-03	---	---	---	---	---	---	---	---	---
Chromium III	3E-04	5E-03	8E-05	6E-04	2E-05	---	---	2E-05	3E-05	2E-05	---
Chromium VI	8E-03	1E-01	2E-03	1E-02	5E-04	---	---	6E-04	6E-04	5E-04	---
Cobalt	---	---	---	---	---	---	---	7E-05	---	---	---
Copper	4E-03	2E-03	7E-04	3E-03	5E-04	---	---	2E-03	---	---	---
Lead	NTD	---	NTD	NTD	---	NTD	---	---	NTD	---	---
Mercury	1E-02	4E-03	6E-03	1E-03	5E-04	4E-04	---	5E-04	7E-04	1E-04	---
Nickel	2E-03	---	---	---	---	---	---	---	---	---	---
Selenium	2E-04	1E-04	---	1E-04	3E-04	---	---	9E-05	---	---	---
Silver	2E-03	4E-03	9E-05	7E-05	9E-05	1E-04	---	3E-02	---	---	---
Strontium	---	---	---	---	---	---	---	5E-05	---	---	---
Thallium	---	---	NTD	---	NTD	---	---	NTD	---	---	---
Zinc	1E-03	8E-03	9E-04	2E-03	---	---	---	4E-04	---	---	---
Chloride	---	---	---	---	NTD	---	---	NTD	---	---	---
Cyanide	7E-05	---	1E-05	---	1E-04	---	---	6E-05	---	---	---
Fluoride	---	---	---	---	6E-05	---	---	4E-05	---	---	---
Nitrate	---	---	---	---	3E-06	---	---	7E-06	---	---	---
Orthophosphate	---	---	---	---	NTD	---	---	NTD	---	---	---
Sulfate	---	NTD	---	---	NTD	---	---	NTD	---	---	---

Table B-26. (continued).

COPC	Other Exposure Routes	
	Inhalation of fugitive dust	Inhalation of volatiles
Acetone	NTD	----
Acetonitrile	NTD	----
Aroclor-1260	NTD	----
Bis(2-ethylhexyl)phthalate	NTD	NTD
2-Butanone	6E-11	----
Butylbenzylphthalate	NTD	----
Chloroform	NTD	NTD
2,4-D	NTD	----
Diethylphthalate	NTD	----
Di-n-butylphthalate	NTD	----
Di-n-octylphthalate	NTD	----
HpCDD	NTD	----
HpCDF	NTD	----
HxCDF	NTD	----
Methylene Chloride	1E-10	1E-05
OCDD	NTD	----
OCDF	NTD	----
PeCDD	NTD	----
TCDF	NTD	----
Toluene	NTD	NTD
1,1,1-Trichloroethane	1E-10	1E-06
2,4,5-TP (Silvex)	NTD	----
Antimony	NTD	----
Arsenic	NTD	----
Cadmium	NTD	----
Chromium III	NTD	----
Chromium VI	NTD	----
Cobalt	2E-06	----
Copper	NTD	----
Lead	NTD	----
Mercury	6E-05	----
Nickel	NTD	----
Selenium	NTD	----
Silver	NTD	----
Strontium	NTD	----
Thallium	NTD	----
Zinc	NTD	----
Chloride	NTD	----
Cyanide	NTD	----
Fluoride	NTD	----

Table B-26. (continued).

COPC	Inhalation of fugitive dust	Inhalation of volatiles
Nitrate	NTD	----
Orthophosphate	NTD	----
Sulfate	NTD	----

"----" means the COPC does not contribute to risk at the release site.

NTD = No toxicity data.

Table B-27. Occupational scenario year 30 risks.

	Soil Ingestion										
COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	NTD	NTD	----	NTD	NTD	----	----	NTD	----	----	----
Acetonitrile	----	----	----	----	----	----	----	NTD	----	----	----
Aroclor-1260	----	----	----	----	----	----	----	----	----	----	7E-05
Bis(2-ethylhexyl)phthalate	2E-10	2E-11	----	3E-10	----	----	----	9E-10	----	----	----
2-Butanone	----	----	----	----	NTD	----	----	NTD	----	----	----
Butylbenzylphthalate	----	----	----	----	----	----	----	NTD	----	----	----
Chloroform	----	----	----	----	3E-12	----	----	4E-12	----	----	----
2,4-D	NTD	----	----	NTD	----	----	----	NTD	----	----	----
Diethylphthalate	NTD	NTD	----	----	----	----	----	----	----	----	----
Di-n-butylphthalate	NTD	NTD	----	NTD	----	----	----	NTD	----	----	----
Di-n-octylphthalate	NTD	----	----	----	----	----	----	NTD	----	----	----
HpCDD	----	----	----	----	----	----	----	NTD	----	----	----
HpCDF	----	----	----	----	----	----	----	NTD	----	----	----
HxCDF	----	----	----	----	----	----	----	NTD	----	----	----
Methylene Chloride	5E-11	7E-11	----	3E-11	2E-10	----	----	3E-10	----	----	----
OCDD	----	----	----	----	----	----	----	NTD	----	----	----
OCDF	----	----	----	----	----	----	----	NTD	----	----	----
PeCDD	----	----	----	----	----	----	----	NTD	----	----	----
TCDF	----	----	----	----	----	----	----	NTD	----	----	----
Toluene	----	----	----	----	NTD	----	----	NTD	----	----	----
1,1,1-Trichloroethane	----	----	----	NTD	NTD	----	----	NTD	----	----	----
2,4,5-TP (Silvex)	----	NTD	----	----	----	----	----	----	----	----	----
Antimony	NTD	NTD	----	----	----	----	----	----	----	----	----
Arsenic	1E-05	5E-06	4E-06	2E-06	2E-06	3E-06	----	----	----	2E-06	----
Cadmium	----	NTD	----	----	----	----	----	----	----	----	----
Chromium III	NTD	NTD	NTD	NTD	NTD	----	----	NTD	NTD	NTD	----
Chromium VI	NTD	NTD	NTD	NTD	NTD	----	----	NTD	NTD	NTD	----
Cobalt	----	----	----	----	----	----	----	NTD	----	----	----
Copper	NTD	NTD	NTD	NTD	NTD	----	----	NTD	----	----	----
Lead	NTD	----	NTD	NTD	----	NTD	----	----	NTD	----	----
Mercury	NTD	NTD	NTD	NTD	NTD	NTD	----	NTD	NTD	NTD	----
Nickel	NTD	----	----	----	----	----	----	----	----	----	----
Selenium	NTD	NTD	----	NTD	NTD	----	----	NTD	----	----	----
Silver	NTD	NTD	NTD	NTD	NTD	NTD	----	NTD	----	----	----
Strontium	----	----	----	----	----	----	----	NTD	----	----	----
Thallium	----	----	NTD	----	NTD	----	----	NTD	----	----	----
Zinc	NTD	NTD	NTD	NTD	----	----	----	NTD	----	----	----
Chloride	----	----	----	----	NTD	----	----	NTD	----	----	----
Cyanide	NTD	----	NTD	----	NTD	----	----	NTD	----	----	----
Fluoride	----	----	----	----	NTD	----	----	NTD	----	----	----
Nitrate	----	----	----	----	NTD	----	----	NTD	----	----	----
Orthophosphate	----	----	----	----	NTD	----	----	NTD	----	----	----
Sulfate	----	NTD	----	----	NTD	----	----	NTD	----	----	----
Am-241	----	----	----	----	----	----	3E-09	----	----	----	----
Cm-244	----	7E-09	----	----	----	----	4E-09	----	----	----	----

Table B-27. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Co-60	----	7E-10	----	----	2E-10	2E-10	1E-09	2E-10	----	----	----
Cs-134	----	----	----	----	----	3E-10	----	----	----	----	----
Cs-137	----	3E-07	----	----	----	2E-07	3E-07	2E-08	----	----	----
H-3	----	----	----	----	4E-11	----	----	2E-11	----	----	----
Ra-226	----	1E-07	----	----	----	----	----	----	----	----	----
Sr-90	----	4E-08	8E-08	----	----	----	----	----	----	----	----
U-238	5E-08	----	1E-07	----	4E-07	----	4E-08	4E-08	----	----	----

External Radiation Exposure

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Am-241	----	----	----	----	----	----	2E-09	----	----	----	----
Cm-244	----	8E-12	----	----	----	----	4E-12	----	----	----	----
Co-60	----	1E-07	----	----	3E-08	4E-08	2E-07	4E-08	----	----	----
Cs-134	----	----	----	----	----	1E-11	----	----	----	----	----
Cs-137	----	4E-04	----	----	----	2E-04	4E-04	3E-05	----	----	----
H-3	----	----	----	----	----	----	----	NTD	----	----	----
Ra-226	----	1E-04	----	----	----	----	----	----	----	----	----
Sr-90	----	NTD	NTD	----	----	----	----	----	----	----	----
U-238	2E-06	----	5E-06	----	2E-05	----	2E-06	2E-06	----	----	----

Table B-27. (continued).

COPC	Other Exposure Routes	
	Inhalation of fugitive dust	Inhalation of volatiles
Acetone	NTD	----
Acetonitrile	NTD	----
Aroclor-1260	NTD	----
Bis(2-ethylhexyl)phthalate	NTD	NTD
2-Butanone	NTD	----
Butylbenzylphthalate	NTD	----
Chloroform	1E-14	9E-10
2,4-D	NTD	----
Diethylphthalate	NTD	----
Di-n-butylphthalate	NTD	----
Di-n-octylphthalate	NTD	----
HpCDD	NTD	----
HpCDF	NTD	----
HxCDF	NTD	----
Methylene Chloride	6E-14	5E-09
OCDD	NTD	----
OCDF	NTD	----
PeCDD	NTD	----
TCDF	NTD	----
Toluene	NTD	NTD
1,1,1-Trichloroethane	NTD	NTD
2,4,5-TP (Silvex)	NTD	----
Antimony	NTD	----
Arsenic	2E-07	----
Cadmium	E-08	----
Chromium III	NTD	----
Chromium VI	6E-09	----
Cobalt	NTD	----
Copper	NTD	----
Lead	NTD	----
Mercury	NTD	----
Nickel	NTD	----
Selenium	NTD	----
Silver	NTD	----
Strontium	NTD	----
Thallium	NTD	----
Zinc	NTD	----
Chloride	NTD	----
Cyanide	NTD	----
Fluoride	NTD	----

Table B-27. (continued).

COPC	Inhalation of fugitive dust	Inhalation of volatiles
Nitrate	NTD	----
Orthophosphate	NTD	----
Sulfate	NTD	----
Am-241	1E-19	----
Cm-244	3E-19	----
Co-60	3E-23	----
Cs-134	1E-27	----
Cs-137	2E-19	----
H-3	5E-25	----
Ra-226	2E-18	----
Sr-90	3E-20	----
U-238	1E-17	----

"----" means the COPC does not contribute to risk at the release site.

NTD = No toxicity data.

Table B-28. Occupational scenario year 30 hazard quotients.

	Soil Ingestion										
COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	2E-07	3E-07	—	1E-07	3E-07	—	—	1E-06	—	—	—
Acetonitrile	—	—	—	—	—	—	—	6E-06	—	—	—
Aroclor-1260	—	—	—	—	—	—	—	—	—	—	NTD
Bis(2-ethylhexyl)phthalate	2E-06	2E-07	—	3E-06	—	—	—	9E-06	—	—	—
2-Butanone	—	—	—	—	9E-08	—	—	1E-07	—	—	—
Butylbenzylphthalate	—	—	—	—	—	—	—	2E-07	—	—	—
Chloroform	—	—	—	—	1E-07	—	—	2E-07	—	—	—
2,4-D	3E-07	—	—	4E-06	—	—	—	4E-06	—	—	—
Diethylphthalate	1E-09	3E-07	—	—	—	—	—	—	—	—	—
Di-n-butylphthalate	6E-07	2E-06	—	2E-06	—	—	—	1E-06	—	—	—
Di-n-octylphthalate	1E-06	—	—	—	—	—	—	1E-06	—	—	—
HpCDD	—	—	—	—	—	—	—	NTD	—	—	—
HpCDF	—	—	—	—	—	—	—	NTD	—	—	—
HxCDF	—	—	—	—	—	—	—	NTD	—	—	—
Methylene Chloride	3E-07	4E-07	—	2E-07	1E-06	—	—	2E-06	—	—	—
OCDD	—	—	—	—	—	—	—	NTD	—	—	—
OCDF	—	—	—	—	—	—	—	NTD	—	—	—
PeCDD	—	—	—	—	—	—	—	NTD	—	—	—
TCDF	—	—	—	—	—	—	—	NTD	—	—	—
Toluene	—	—	—	—	2E-08	—	—	1E-08	—	—	—
1,1,1-Trichloroethane	—	—	—	3E-08	3E-07	—	—	3E-06	—	—	—
2,4,5-TP (Silvex)	—	2E-03	—	—	—	—	—	—	—	—	—
Antimony	6E-02	9E-03	—	—	—	—	—	—	—	—	—
Arsenic	6E-02	3E-02	2E-02	1E-02	1E-02	1E-02	—	—	—	1E-02	—
Cadmium	—	4E-03	—	—	—	—	—	—	—	—	—
Chromium III	3E-04	5E-03	8E-05	6E-04	2E-05	—	—	2E-05	3E-05	2E-05	—
Chromium VI	8E-03	1E-01	2E-03	1E-02	5E-04	—	—	6E-04	6E-04	5E-04	—
Cobalt	—	—	—	—	—	—	—	7E-05	—	—	—
Copper	4E-03	2E-03	7E-04	3E-03	5E-04	—	—	2E-03	—	—	—
Lead	NTD	—	NTD	NTD	—	NTD	—	—	NTD	—	—
Mercury	1E-02	4E-03	6E-03	1E-03	5E-04	4E-04	—	5E-04	7E-04	1E-04	—
Nickel	2E-03	—	—	—	—	—	—	—	—	—	—
Selenium	2E-04	1E-04	—	1E-04	3E-04	—	—	9E-05	—	—	—
Silver	2E-03	4E-03	9E-05	7E-05	9E-05	1E-04	—	3E-02	—	—	—
Strontium	—	—	—	—	—	—	—	5E-05	—	—	—
Thallium	—	—	NTD	—	NTD	—	—	NTD	—	—	—
Zinc	1E-03	8E-03	9E-04	2E-03	—	—	—	4E-04	—	—	—
Chloride	—	—	—	—	NTD	—	—	NTD	—	—	—
Cyanide	7E-05	—	1E-05	—	1E-04	—	—	6E-05	—	—	—
Fluoride	—	—	—	—	6E-05	—	—	4E-05	—	—	—
Nitrate	—	—	—	—	3E-06	—	—	7E-06	—	—	—
Orthophosphate	—	—	—	—	NTD	—	—	NTD	—	—	—
Sulfate	—	NTD	—	—	NTD	—	—	NTD	—	—	—

Table B-28. (continued).

COPC	Other Exposure Routes	
	Inhalation of fugitive dust	Inhalation of volatiles
Acetone	NTD	----
Acetonitrile	NTD	----
Aroclor-1260	NTD	----
Bis(2-ethylhexyl)phthalate	NTD	NTD
2-Butanone	4E-11	----
Butylbenzylphthalate	NTD	----
Chloroform	NTD	NTD
2,4-D	NTD	----
Diethylphthalate	NTD	----
Di-n-butylphthalate	NTD	----
Di-n-octylphthalate	NTD	----
HpCDD	NTD	----
HpCDF	NTD	----
HxCDF	NTD	----
Methylene Chloride	8E-11	1E-05
OCDD	NTD	----
OCDF	NTD	----
PeCDD	NTD	----
TCDF	NTD	----
Toluene	NTD	NTD
1,1,1-Trichloroethane	8E-11	1E-06
2,4,5-TP (Silvex)	NTD	----
Antimony	NTD	----
Arsenic	NTD	----
Cadmium	NTD	----
Chromium III	NTD	----
Chromium VI	NTD	----
Cobalt	1E-06	----
Copper	NTD	----
Lead	NTD	----
Mercury	4E-05	----
Nickel	NTD	----
Selenium	NTD	----
Silver	NTD	----
Strontium	NTD	----
Thallium	NTD	----
Zinc	NTD	----
Chloride	NTD	----
Cyanide	NTD	----
Fluoride	NTD	----

Table B-28. (continued).

COPC	Inhalation of fugitive dust	Inhalation of volatiles
Nitrate	NTD	----
Orthophosphate	NTD	----
Sulfate	NTD	----

"----" means the COPC does not contribute to risk at the release site.

NTD = No toxicity data.

Table B-29. Residential scenario year 100 risks.

	Soil Ingestion										
COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	NTD	NTD	—	NTD	NTD	—	—	NTD	—	—	—
Acetonitrile	—	—	—	—	—	—	—	NTD	—	—	—
Aroclor-1260	—	—	—	—	—	—	—	—	—	—	6E-04
Bis(2-ethylhexyl)phthalate	2E-09	2E-10	—	3E-09	—	—	—	8E-09	—	—	—
2-Butanone	—	NTD	—	—	NTD	—	—	NTD	—	—	—
Butylbenzylphthalate	—	—	—	—	—	—	—	NTD	—	—	—
Chloroform	—	7E-11	—	—	3E-11	—	—	4E-11	—	—	—
2,4-D	NTD	—	—	NTD	—	—	—	NTD	—	—	—
Diethylphthalate	NTD	NTD	—	—	—	—	—	—	—	—	—
Di-n-butylphthalate	NTD	NTD	—	NTD	—	—	—	NTD	—	—	—
Di-n-octylphthalate	NTD	—	—	—	—	—	—	NTD	—	—	—
HpCDD	—	—	—	—	—	—	—	NTD	—	—	—
HpCDF	—	—	—	—	—	—	—	NTD	—	—	—
HxCDF	—	—	—	—	—	—	—	NTD	—	—	—
Methylene Chloride	4E-10	3E-09	—	3E-10	2E-09	—	—	2E-09	—	—	—
OCDD	—	—	—	—	—	—	—	NTD	—	—	—
OCDF	—	—	—	—	—	—	—	NTD	—	—	—
PeCDD	—	—	—	—	—	—	—	NTD	—	—	—
TCDF	—	—	—	—	—	—	—	NTD	—	—	—
Toluene	—	NTD	—	NTD	NTD	—	—	NTD	—	—	—
1,1,1-Trichloroethane	—	NTD	—	NTD	NTD	—	—	NTD	—	—	—
2,4,5-TP (Silvex)	—	NTD	—	—	—	—	—	—	—	—	—
Antimony	NTD	NTD	—	—	—	—	—	—	—	—	—
Arsenic	5E-05	7E-05	3E-05	2E-05	2E-05	3E-05	—	—	—	2E-05	—
Cadmium	—	NTD	—	—	—	—	—	—	—	—	—
Chromium III	NTD	NTD	NTD	NTD	NTD	—	—	NTD	NTD	NTD	—
Chromium VI	NTD	NTD	NTD	NTD	NTD	—	—	NTD	NTD	NTD	—
Cobalt	—	—	—	—	—	—	—	NTD	—	—	—
Copper	NTD	NTD	NTD	NTD	NTD	—	—	NTD	—	—	—
Lead	NTD	—	—	NTD	—	—	—	—	NTD	—	—
Mercury	NTD	NTD	NTD	NTD	NTD	NTD	—	NTD	NTD	NTD	—
Nickel	—	—	—	—	—	—	—	—	—	—	—
Selenium	NTD	NTD	—	NTD	NTD	—	—	NTD	—	—	—
Silver	NTD	NTD	NTD	NTD	NTD	NTD	—	NTD	—	—	—
Strontium	—	—	—	—	—	—	—	NTD	—	—	—
Thallium	—	—	NTD	—	NTD	—	—	—	—	—	—
Zinc	NTD	NTD	NTD	NTD	—	—	—	NTD	—	—	—
Chloride	—	NTD	—	—	NTD	—	—	—	—	—	—
Cyanide	NTD	—	NTD	—	NTD	—	—	NTD	—	—	—
Fluoride	—	NTD	—	—	NTD	—	—	NTD	—	—	—
Nitrate	—	NTD	—	—	NTD	—	—	NTD	—	—	—
Orthophosphate	—	NTD	—	—	NTD	—	—	NTD	—	—	—
Sulfate	—	NTD	—	—	NTD	—	—	NTD	—	—	—
Am-241	—	—	—	—	—	—	1E-08	—	—	—	—
Cm-244	—	4E-10	—	—	—	—	2E-10	—	—	—	—

Table B-29. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Co-60	---	1E-15	---	---	3E-16	4E-16	2E-15	4E-16	---	---	---
Cs-134	---	---	---	---	---	3E-25	---	---	---	---	---
Cs-137	---	8E-08	---	---	---	5E-08	9E-08	6E-09	---	---	---
H-3	---	---	---	---	4E-13	---	---	1E-13	---	---	---
Ra-226	---	4E-07	---	---	---	---	---	---	---	---	---
Sr-90	---	1E-08	2E-08	---	---	---	---	---	---	---	---
U-238	2E-07	---	5E-07	---	2E-06	---	2E-07	2E-07	---	---	---

Homegrown Produce Ingestion

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	NTD	NTD	---	---	NTD	---	---	NTD	---	---	---
Acetonitrile	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Aroclor-1260	---	---	---	---	---	---	---	---	---	---	2E-04
Bis(2-ethylhexyl)phthalate	7E-08	7E-08	7E-08	7E-08	7E-08	7E-08	7E-08	9E-08	7E-08	7E-08	7E-08
2-Butanone	---	NTD	---	---	---	---	---	---	---	---	---
Butylbenzylphthalate	---	---	---	---	---	---	---	NTD	---	---	---
Chloroform	5E-10	6E-10	5E-10	5E-10	5E-10	5E-10	5E-10	6E-10	5E-10	5E-10	5E-10
2,4-D	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Diethylphthalate	NTD	NTD	---	---	---	---	---	---	---	---	---
Di-n-butylphthalate	NTD	NTD	---	---	---	---	---	NTD	---	---	---
Di-n-octylphthalate	NTD	---	---	---	---	---	---	NTD	---	---	---
HpCDD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
HpCDF	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
HxCDF	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Methylene Chloride	1E-07	1E-07	1E-07	1E-07	1E-07	1E-07	1E-07	1E-07	1E-07	1E-07	1E-07
OCDD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
OCDF	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
PeCDD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
TCDF	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Toluene	---	NTD	---	---	NTD	---	---	NTD	---	---	---
1,1,1-Trichloroethane	---	NTD	---	---	---	---	---	---	---	---	---
2,4,5-TP (Silvex)	---	---	---	---	---	---	---	---	---	---	---
Antimony	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Arsenic	5E-06	8E-06	4E-06	3E-06	3E-06	3E-06	3E-07	3E-07	3E-06	3E-07	3E-07
Cadmium	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Chromium III	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Chromium VI	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Cobalt	---	---	---	---	---	---	---	NTD	---	---	---
Copper	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Lead	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Mercury	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Nickel	---	---	---	---	---	---	---	---	---	---	---
Selenium	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Silver	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Strontium	---	---	---	---	---	---	---	NTD	---	---	---

Table B-29. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Thallium	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Zinc	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Chloride	----	NTD	----	----	NTD	----	----	----	----	----	----
Cyanide	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Fluoride	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Nitrate	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Orthophosphate	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Sulfate	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Am-241	----	----	----	----	----	----	1E-19	----	----	----	----
Cm-244	3E-41	1E-22	3E-41	3E-41	3E-41	3E-41	6E-23	3E-41	3E-41	3E-41	3E-41
Co-60	3E-21	3E-21	3E-21	3E-21	3E-21	3E-21	3E-21	3E-21	3E-21	3E-21	3E-21
Cs-134	----	----	----	----	----	3E-36	----	----	----	----	----
Cs-137	5E-22	1E-17	5E-22	5E-22	5E-22	9E-18	1E-17	1E-18	5E-22	5E-22	5E-22
H-3	4E-20	4E-20	4E-20	4E-20	4E-20	4E-20	4E-20	4E-20	4E-20	4E-20	4E-20
Ra-226	2E-18	4E-18	2E-18	2E-18	2E-18	2E-18	2E-18	2E-18	2E-18	2E-18	2E-18
Sr-90	9E-18	2E-17	3E-17	9E-18	9E-18	9E-18	9E-18	9E-18	9E-18	9E-18	9E-18
U-238	2E-17	3E-21	4E-17	3E-21	1E-16	3E-21	2E-17	2E-17	3E-21	3E-21	3E-21

External Radiation Exposure

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Am-241	----	----	----	----	----	----	4E-09	----	----	----	----
Cm-244	----	8E-13	----	----	----	----	5E-13	----	----	----	----
Co-60	----	2E-11	----	----	4e-12	5E-12	3E-11	5E-12	----	----	----
Cs-134	----	----	----	----	----	9E-22	----	----	----	----	----
Cs-137	----	1E-04	----	----	----	8E-05	1E-04	9E-06	----	----	----
H-3	----	----	----	----	----	----	----	NTD	----	----	----
Ra-226	----	2E-04	----	----	----	----	----	----	----	----	----
Sr-90	----	NTD	NTD	----	----	----	----	----	----	----	----
U-238	4E-06	----	9E-06	----	3E-05	----	3E-06	3E-06	----	----	----

Table B-29. (continued).

COPC	Other Exposure Routes				
	Inhalation of fugitive dust	Inhalation of volatiles	Ingestion of groundwater	Dermal absorbtion of groundwater	Inhalation of water vapors from indoor water use
Acetone	NTD	----	----	----	----
Acetonitrile	NTD	----	NTD	----	NTD
Aroclor-1260	NTD	----	----	----	----
Bis(2-ethylhexyl)phthalate	NTD	NTD	4E-06	3E-07	NTD
2-Butanone	NTD	----	----	----	----
Butylbenzylphthalate	NTD	----	----	----	----
Chloroform	5E-13	2E-08	5E-08	1E-09	4E-07
2,4-D	NTD	----	NTD	----	NTD
Diethylphthalate	NTD	----	----	----	----
Di-n-butylphthalate	NTD	----	----	----	----
Di-n-octylphthalate	NTD	----	----	----	----
HpCDD	NTD	----	NTD	----	NTD
HpCDF	NTD	----	NTD	----	NTD
HxCDF	NTD	----	NTD	----	NTD
Methylene Chloride	4E-13	4E-08	7E-06	7E-08	1E-06
OCDD	NTD	----	NTD	----	NTD
OCDF	NTD	----	NTD	----	NTD
PeCDD	NTD	----	NTD	----	NTD
TCDF	NTD	----	NTD	----	NTD
Toluene	NTD	NTD	----	----	----
1,1,1-Trichloroethane	NTD	NTD	----	----	----
2,4,5-TP (Silvex)	NTD	----	NTD	----	NTD
Antimony	NTD	----	NTD	NTD	NTD
Arsenic	4E-07	----	3E-04	6E-07	1E-03
Cadmium	5E-12	----	NTD	NTD	1E-07
Chromium III	1E-07	----	NTD	NTD	3E-06
Chromium VI	1E-08	----	NTD	NTD	3E-07
Cobalt	NTD	----	----	----	----
Copper	NTD	----	NTD	NTD	NTD
Lead	NTD	----	NTD	NTD	NTD
Mercury	NTD	----	NTD	NTD	NTD
Nickel	----	----	----	----	----
Selenium	NTD	----	NTD	NTD	NTD
Silver	NTD	----	NTD	NTD	NTD
Strontium	NTD	----	----	----	----
Thallium	NTD	----	NTD	NTD	NTD
Zinc	NTD	----	NTD	NTD	NTD
Chloride	NTD	----	----	----	----
Cyanide	NTD	----	NTD	NTD	NTD

Table B-29. (continued).

COPC	Inhalation of fugitive dust	Inhalation of volatiles	Ingestion of groundwater	Dermal absorbtion of groundwater	Inhalation of water vapors from indoor water use
Fluoride	NTD	----	NTD	----	NTD
Nitrate	NTD	----	NTD	----	NTD
Orthophosphate	NTD	----	NTD	----	NTD
Sulfate	NTD	----	NTD	----	NTD
Am-241	2E-19	----	----	----	----
Cm-244	3E-20	----	1E-32	----	1E-30
Co-60	5E-27	----	2E-14	5E-17	5E-14
Cs-134	1E-37	----	----	----	----
Cs-137	5E-20	----	4E-16	8E-19	2E-16
H-3	2E-26	----	1E-14	2E-17	9E-15
Ra-226	2E-18	----	----	----	----
Sr-90	9E-21	----	1E-12	2E-15	9E-13
U-238	2E-17	----	4E-15	9E-18	5E-13

"----" means the COPC does not contribute to risk at the release site.

NTD = No toxicity data.

Table B-30. Residential scenario year 100 hazard quotients.

Soil Ingestion											
COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	2E-05	5E-06	----	9E-07	2E-06	----	----	8E-06	----	----	----
Acetonitrile	----	----	----	----	----	----	----	5E-05	----	----	----
Aroclor-1260	----	----	----	----	----	----	----	----	----	----	NTD
Bis(2-ethylhexyl)phthalate	2E-05	1E-06	----	2E-05	----	----	----	6E-05	----	----	----
2-Butanone	----	1E-06	----	----	6E-07	----	----	1E-06	----	----	----
Butylbenzylphthalate	----	----	----	----	----	----	----	1E-06	----	----	----
Chloroform	----	3E-06	----	----	1E-06	----	----	1E-06	----	----	----
2,4-D	2E-06	----	----	3E-05	----	----	----	3E-05	----	----	----
Diethylphthalate	9E-09	2E-06	----	----	----	----	----	----	----	----	----
Di-n-butylphthalate	4E-06	1E-05	----	1E-05	----	----	----	8E-06	----	----	----
Di-n-octylphthalate	8E-06	----	----	----	----	----	----	1E-05	----	----	----
HpCDD	----	----	----	----	----	----	----	9E-05	----	----	----
HpCDF	----	----	----	----	----	----	----	1E-05	----	----	----
HxCDF	----	----	----	----	----	----	----	7E-07	----	----	----
Methylene Chloride	2E-06	2E-05	----	1E-06	1E-05	----	----	1E-05	----	----	----
OCDD	----	----	----	----	----	----	----	2E-03	----	----	----
OCDF	----	----	----	----	----	----	----	1E-04	----	----	----
PeCDD	----	----	----	----	----	----	----	1E-07	----	----	----
TCDF	----	----	----	----	----	----	----	1E-06	----	----	----
Toluene	----	3E-08	----	----	7E-08	----	----	7E-08	----	----	----
1,1,1-Trichloroethane	----	7E-07	----	2E-07	2E-06	----	----	2E-05	----	----	----
2,4,5-TP (Silvex)	----	1E-02	----	----	----	----	----	----	----	----	----
Antimony	2E-01	7E-02	----	----	----	----	----	----	----	----	----
Arsenic	2E-01	3E-01	1E-01	9E-02	9E-02	1E-01	----	----	----	9E-02	----
Cadmium	----	3E-02	----	----	----	----	----	----	----	----	----
Chromium III	7E-04	4E-02	2E-04	5E-03	2E-04	----	----	2E-04	2E-04	2E-04	----
Chromium VI	2E-02	8E-01	6E-03	1E-01	4E-03	----	----	4E-03	4E-03	4E-03	----
Cobalt	----	----	----	----	----	----	----	5E-04	----	----	----
Copper	9E-03	7E-03	3E-03	2E-02	4E-03	----	----	1E-02	----	----	----
Lead	NTD	----	----	NTD	----	----	----	----	NTD	----	----
Mercury	2E-02	1E-02	8E-03	1E-02	3E-03	2E-03	----	3E-03	5E-03	1E-03	----
Nickel	----	----	----	----	----	----	----	----	----	----	----
Selenium	6E-04	6E-03	----	1E-03	2E-03	----	----	5E-04	----	----	----
Silver	4E-03	2E-02	6E-04	5E-04	7E-04	1E-03	----	5E-04	----	----	----
Strontium	----	----	----	----	----	----	----	4E-04	----	----	----
Thallium	----	----	NTD	----	NTD	----	----	----	----	----	----
Zinc	3E-03	2E-02	3E-03	4E-02	----	----	----	3E-03	----	----	----
Chloride	----	NTD	----	----	NTD	----	----	----	----	----	----
Cyanide	2E-04	----	8E-05	----	1E-03	----	----	7E-04	----	----	----
Fluoride	----	5E-04	----	----	4E-04	----	----	3E-04	----	----	----
Nitrate	----	7E-06	----	----	2E-05	----	----	5E-05	----	----	----
Orthophosphate	----	NTD	----	----	NTD	----	----	NTD	----	----	----
Sulfate	----	NTD	----	----	NTD	----	----	NTD	----	----	----

Homegrown Produce Ingestion											
COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61

Table B-30. (continued).

Acetonitrile	9E-04	9E-04	9E-04	9E-04	9E-04	9E-04	9E-04	2E-03	9E-04	9E-04	9E-04
Aroclor-1260	—	—	—	—	—	—	—	—	—	—	NTD
Bis(2-ethylhexyl)phthalate	6E-04	6E-04	6E-04	6E-04	6E-04	6E-04	6E-04	7E-04	6E-04	6E-04	6E-04
2-Butanone	—	8E-06	—	—	4E-06	—	—	7E-06	—	—	—
Butylbenzylphthalate	—	—	—	—	—	—	—	4E-08	—	—	—
Chloroform	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05
2,4-D	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05
Diethylphthalate	6E-09	1E-06	—	—	—	—	—	—	—	—	—
Di-n-butylphthalate	1E-06	5E-06	—	4E-06	—	—	—	3E-06	—	—	—
Di-n-octylphthalate	1E-07	—	—	—	—	—	—	1E-07	—	—	—
HpCDD	2E-07	2E-07	2E-07	2E-07	2E-07	2E-07	2E-07	3E-07	2E-07	2E-07	2E-07
HpCDF	2E-08	2E-08	2E-08	2E-08	2E-08	2E-08	2E-08	3E-08	2E-08	2E-08	2E-08
HxCDF	1E-09	1E-09	1E-09	1E-09	1E-09	1E-09	1E-09	2E-09	1E-09	1E-09	1E-09
Methylene Chloride	7E-04	7E-04	7E-04	7E-04	7E-04	7E-04	7E-04	7E-04	7E-04	7E-04	7E-04
OCDD	4E-06	4E-06	4E-06	4E-06	4E-06	4E-06	4E-06	7E-06	4E-06	4E-06	4E-06
OCDF	2E-07	2E-07	2E-07	2E-07	2E-07	2E-07	2E-07	4E-07	2E-07	2E-07	2E-07
PeCDD	2E-10	2E-10	2E-10	2E-10	2E-10	2E-10	2E-10	3E-10	2E-10	2E-10	2E-10
TCDF	2E-09	2E-09	2E-09	2E-09	2E-09	2E-09	2E-09	3E-09	2E-09	2E-09	2E-09
Toluene	—	3E-08	—	—	8E-08	—	—	8E-08	—	—	—
1,1,1-Trichloroethane	—	5E-07	—	2E-07	2E-06	—	—	2E-05	—	—	—
2,4,5-TP (Silvex)	—	—	—	—	—	—	—	—	—	—	—
Antimony	3E-03	1E-03	3E-05	3E-05	3E-05	3E-05	3E-05	3E-05	3E-05	3E-05	3E-05
Arsenic	2E-02	3E-02	2E-02	1E-02	1E-02	1E-02	1E-03	1E-03	1E-03	1E-02	1E-03
Cadmium	2E-02	9E-02	2E-02	2E-02	2E-02	2E-02	2E-02	2E-02	2E-02	2E-02	2E-02
Chromium III	9E-07	5E-05	3E-07	7E-06	2E-07	1E-08	1E-08	2E-07	2E-07	2E-07	1E-08
Chromium VI	2E-05	1E-03	7E-06	2E-04	5E-06	3E-07	3E-07	5E-06	6E-06	5E-06	3E-07
Cobalt	—	—	—	—	—	—	—	7E-03	—	—	—
Copper	3E-02	2E-02	1E-02	4E-02	1E-02	1E-03	1E-03	3E-02	1E-03	1E-03	1E-03
Lead	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Mercury	9E-01	5E-01	4E-01	5E-01	2E-01	9E-02	4E-04	1E-01	2E-01	5E-02	4E-04
Nickel	—	—	—	—	—	—	—	—	—	—	—
Selenium	2E-04	7E-04	2E-04	3E-04	4E-04	2E-04	2E-04	2E-04	2E-04	2E-04	2E-04
Silver	3E-04	1E-03	5E-05	4E-05	5E-05	8E-05	1E-05	4E-05	1E-05	1E-05	1E-05
Strontium	—	—	—	—	—	—	—	2E-02	—	—	—
Thallium	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Zinc	1E-01	4E-01	9E-02	8E-01	3E-02	3E-02	3E-02	8E-02	3E-02	3E-02	3E-02
Chloride	—	NTD	—	—	NTD	—	—	—	—	—	—
Cyanide	1E-02	1E-02	1E-02	1E-02	2E-02	1E-02	1E-02	2E-02	1E-02	1E-02	1E-02
Fluoride	3E-03	3E-03	3E-03	3E-03	3E-03	3E-03	3E-03	3E-03	3E-03	3E-03	3E-03
Nitrate	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	3E-05	2E-05	2E-05	2E-05
Orthophosphate	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Sulfate	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD

Table B-30. (continued).

COPC	Other Exposure Routes				
	Inhalation of fugitive dust	Inhalation of volatiles	Ingestion of groundwater	Dermal absorbtion of groundwater	Inhalation of water vapors from indoor water use
Acetone	NTD	----	----	----	----
Acetonitrile	NTD	----	6E-03	----	----
Aroclor-1260	NTD	----	----	----	----
Bis(2-ethylhexyl)phthalate	NTD	NTD	3E-02	7E-03	NTD
2-Butanone	1E-09	----	----	----	----
Butylbenzylphthalate	NTD	----	----	----	----
Chloroform	NTD	NTD	2E-03	4E-04	NTD
2,4-D	NTD	----	6E-03	----	----
Diethylphthalate	NTD	----	----	----	----
Di-n-butylphthalate	NTD	----	----	----	----
Di-n-octylphthalate	NTD	----	----	----	----
HpCDD	NTD	----	1E-02	----	----
HpCDF	NTD	----	2E-03	----	----
HxCDF	NTD	----	9E-05	----	----
Methylene Chloride	7E-10	7E-05	4E-02	8E-03	2E-03
OCDD	NTD	----	3E-01	----	----
OCDF	NTD	----	2E-02	----	----
PeCDD	NTD	----	1E-05	----	----
TCDF	NTD	----	2E-04	----	----
Toluene	NTD	NTD	----	----	NTD
1,1,1-Trichloroethane	3E-10	8E-06	----	----	----
2,4,5-TP (Silvex)	NTD	----	2E-01	----	----
Antimony	NTD	----	2E-01	5E-03	----
Arsenic	NTD	----	1E+00	8E-02	----
Cadmium	NTD	----	6E-01	1E-02	----
Chromium III	NTD	----	9E-04	2E-05	----
Chromium VI	NTD	----	2E-02	4E-04	----
Cobalt	2E-06	----	----	----	----
Copper	NTD	----	5E-02	1E-03	----
Lead	NTD	----	NTD	NTD	----
Mercury	3E-05	----	1E-03	3E-05	----
Nickel	NTD	----	----	----	----
Selenium	NTD	----	2E-01	4E-03	----
Silver	NTD	----	3E-02	7E-04	----
Strontium	NTD	----	----	----	----
Thallium	NTD	----	NTD	NTD	----
Zinc	NTD	----	2E-01	3E-03	----
Chloride	NTD	----	----	----	----
Cyanide	NTD	----	9E-02	2E-03	----

Table B-30. (continued).

COPC	Inhalation of fugitive dust	Inhalation of volatiles	Ingestion of groundwater	Dermal absorbtion of groundwater	Inhalation of water vapors from indoor water use
Fluoride	NTD	----	1E+00	3E-01	----
Nitrate	NTD	----	7E-03	1E-03	----
Orthophosphate	NTD	----	NTD	NTD	----
Sulfate	NTD	----	NTD	NTD	----

"----" means the COPC does not contribute to risk at the release site.

NTD = No toxicity data.

Table B-31. Residential scenario year 1000 risks.

	Soil Ingestion										
COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	NTD	NTD	—	NTD	NTD	—	—	NTD	—	—	—
Acetonitrile	—	—	—	—	—	—	—	NTD	—	—	—
Aroclor-1260	—	—	—	—	—	—	—	—	—	—	6E-04
Bis(2-ethylhexyl)phthalate	2E-09	2E-10	—	3E-09	—	—	—	8E-09	—	—	—
2-Butanone	—	NTD	—	—	NTD	—	—	NTD	—	—	—
Butylbenzylphthalate	—	—	—	—	—	—	—	NTD	—	—	—
Chloroform	—	7E-11	—	—	3E-11	—	—	4E-11	—	—	—
2,4-D	NTD	—	—	NTD	—	—	—	NTD	—	—	—
Diethylphthalate	NTD	NTD	—	—	—	—	—	—	—	—	—
Di-n-butylphthalate	NTD	NTD	—	NTD	—	—	—	NTD	—	—	—
Di-n-octylphthalate	NTD	—	—	—	—	—	—	NTD	—	—	—
HpCDD	—	—	—	—	—	—	—	NTD	—	—	—
HpCDF	—	—	—	—	—	—	—	NTD	—	—	—
HxCDF	—	—	—	—	—	—	—	NTD	—	—	—
Methylene Chloride	4E-10	3E-09	—	3E-10	2E-09	—	—	2E-09	—	—	—
OCDD	—	—	—	—	—	—	—	NTD	—	—	—
OCDF	—	—	—	—	—	—	—	NTD	—	—	—
PeCDD	—	—	—	—	—	—	—	NTD	—	—	—
TCDF	—	—	—	—	—	—	—	NTD	—	—	—
Toluene	—	NTD	—	NTD	NTD	—	—	NTD	—	—	—
1,1,1-Trichloroethane	—	NTD	—	NTD	NTD	—	—	NTD	—	—	—
2,4,5-TP (Silvex)	—	NTD	—	—	—	—	—	—	—	—	—
Antimony	NTD	NTD	—	—	—	—	—	—	—	—	—
Arsenic	5E-05	7E-05	3E-05	2E-05	2E-05	3E-05	—	—	—	2E-05	—
Cadmium	—	NTD	—	—	—	—	—	—	—	—	—
Chromium III	NTD	NTD	NTD	NTD	NTD	—	—	NTD	NTD	NTD	—
Chromium VI	NTD	NTD	NTD	NTD	NTD	—	—	NTD	NTD	NTD	—
Cobalt	—	—	—	—	—	—	—	NTD	—	—	—
Copper	NTD	NTD	NTD	NTD	NTD	—	—	NTD	—	—	—
Lead	NTD	—	—	NTD	—	—	—	—	NTD	—	—
Mercury	NTD	NTD	NTD	NTD	NTD	NTD	—	NTD	NTD	NTD	—
Nickel	—	—	—	—	—	—	—	—	—	—	—
Selenium	NTD	NTD	—	NTD	NTD	—	—	NTD	—	—	—
Silver	NTD	NTD	NTD	NTD	NTD	NTD	—	NTD	—	—	—
Strontium	—	—	—	—	—	—	—	NTD	—	—	—
Thallium	—	—	NTD	—	NTD	—	—	—	—	—	—
Zinc	NTD	NTD	NTD	NTD	—	—	—	NTD	—	—	—
Chloride	—	NTD	—	—	NTD	—	—	—	—	—	—
Cyanide	NTD	—	NTD	—	NTD	—	—	NTD	—	—	—
Fluoride	—	NTD	—	—	NTD	—	—	NTD	—	—	—
Nitrate	—	NTD	—	—	NTD	—	—	NTD	—	—	—
Orthophosphate	—	NTD	—	—	NTD	—	—	NTD	—	—	—
Sulfate	—	NTD	—	—	NTD	—	—	NTD	—	—	—
Am-241	—	—	—	—	—	—	3E-09	—	—	—	—
Cm-244	—	4E-25	—	—	—	—	2E-25	—	—	—	—

Table B-31. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Co-60	—	5E-67	—	—	1E-67	2E-67	9E-67	2E-67	—	—	—
Cs-134	—	—	—	—	—	0e+00	—	—	—	—	—
Cs-137	—	9E-17	—	—	—	6E-17	9E-17	6E-18	—	—	—
H-3	—	—	—	—	4E-35	—	—	1E-35	—	—	—
Ra-226	—	3E-07	—	—	—	—	—	—	—	—	—
Sr-90	—	4E-18	7E-18	—	—	—	—	—	—	—	—
U-238	2E-07	—	5E-07	—	2E-06	—	2E-07	2E-07	—	—	—

Homegrown Produce Ingestion

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	NTD	NTD	—	NTD	NTD	—	—	NTD	—	—	—
Acetonitrile	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Aroclor-1260	—	—	—	—	—	—	—	—	—	—	2E-04
Bis(2-ethylhexyl)phthalate	7E-08	7E-08	7E-08	7E-08	7E-08	7E-08	7E-08	9E-08	7E-08	7E-08	7E-08
2-Butanone	—	NTD	—	—	—	—	—	—	—	—	—
Butylbenzylphthalate	—	—	—	—	—	—	—	NTD	—	—	—
Chloroform	5E-10	6E-10	5E-10	5E-10	5E-10	5E-10	5E-10	6E-10	5E-10	5E-10	5E-10
2,4-D	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Diethylphthalate	NTD	NTD	—	—	—	—	—	—	—	—	—
Di-n-butylphthalate	NTD	NTD	—	NTD	—	—	—	NTD	—	—	—
Di-n-octylphthalate	NTD	—	—	—	—	—	—	NTD	—	—	—
HpCDD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
HpCDF	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
HxCDF	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Methylene Chloride	1E-07	1E-07	1E-07	1E-07	1E-07	1E-07	1E-07	1E-07	1E-07	1E-07	1E-07
OCDD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
OCDF	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
PeCDD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
TCDF	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Toluene	—	NTD	—	—	NTD	—	—	NTD	—	—	—
1,1,1-Trichloroethane	—	NTD	—	NTD	NTD	—	—	NTD	—	—	—
2,4,5-TP (Silvex)	—	—	—	—	—	—	—	—	—	—	—
Antimony	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Arsenic	5E-06	8E-06	3E-06	3E-06	3E-06	3E-06	2E-07	2E-07	2E-07	3E-06	2E-07
Cadmium	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Chromium III	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Chromium VI	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Cobalt	—	—	—	—	—	—	—	NTD	—	—	—
Copper	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Lead	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Mercury	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Nickel	—	—	—	—	—	—	—	—	—	—	—
Selenium	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Silver	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Strontium	—	—	—	—	—	—	—	NTD	—	—	—

Table B-31. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Thallium	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Zinc	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Chloride	----	NTD	----	----	NTD	----	----	----	----	----	----
Cyanide	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Fluoride	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Nitrate	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Orthophosphate	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Sulfate	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Am-241	----	----	----	----	----	----	3E-20	----	----	----	----
Cm-244	3E-41	1E-37	3E-41	3E-41	3E-41	3E-41	6E-38	3E-41	3E-41	3E-41	3E-41
Co-60	3E-21	3E-21	3E-21	3E-21	3E-21	3E-21	3E-21	3E-21	3E-21	3E-21	3E-21
Cs-134	----	----	----	----	----	0e+00	----	----	----	----	----
Cs-137	5E-22	5E-22	5E-22	5E-22	5E-22	5E-22	5E-22	5E-22	5E-22	5E-22	5E-22
H-3	4E-20	4E-20	4E-20	4E-20	4E-20	4E-20	4E-20	4E-20	4E-20	4E-20	4E-20
Ra-226	2E-18	2E-18	2E-18	2E-18	2E-18	2E-18	2E-18	2E-18	2E-18	2E-18	2E-18
Sr-90	9E-18	9E-18	9E-18	9E-18	9E-18	9E-18	9E-18	9E-18	9E-18	9E-18	9E-18
U-238	2E-17	3E-33	4E-17	3E-33	1E-16	3E-33	2E-17	2E-17	3E-33	3E-33	3E-33

External Radiation Exposure

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Am-241	----	----	----	----	----	----	9E-10	----	----	----	----
Cm-244	----	9E-28	----	----	----	----	5E-28	----	----	----	----
Co-60	----	6E-63	----	----	----	2E-63	1E-62	2E-63	----	----	----
Cs-134	----	----	----	----	2E-63	----	----	----	----	----	----
Cs-137	----	1E-13	----	----	----	8E-14	1E-13	9E-15	----	----	----
H-3	----	----	----	----	----	----	----	----	----	----	----
Ra-226	----	2E-04	----	----	----	----	----	----	----	----	----
Sr-90	----	----	NTD	----	----	----	----	----	----	----	----
U-238	4E-06	----	9E-06	----	3E-05	----	3E-06	3E-06	----	----	----

Table B-31. (continued).

COPC	Other Exposure Routes				
	Inhalation of fugitive dust	Inhalation of volatiles	Ingestion of groundwater	Dermal absorbtion of groundwater	Inhalation of water vapors from indoor water use
Acetone	NTD	----	----	----	----
Acetonitrile	NTD	----	NTD	----	NTD
Aroclor-1260	NTD	----	----	----	----
Bis(2-ethylhexyl)phthalate	NTD	NTD	4E-06	3E-07	NTD
2-Butanone	NTD	----	----	----	----
Butylbenzylphthalate	NTD	----	----	----	----
Chloroform	5E-13	2E-08	5E-08	1E-09	4E-07
2,4-D	NTD	----	NTD	----	NTD
Diethylphthalate	NTD	----	----	----	----
Di-n-butylphthalate	NTD	----	----	----	----
Di-n-octylphthalate	NTD	----	----	----	----
HpCDD	NTD	----	NTD	----	NTD
HpCDF	NTD	----	NTD	----	NTD
HxCDF	NTD	----	NTD	----	NTD
Methylene Chloride	4E-13	4E-08	7E-06	7E-08	1E-06
OCDD	NTD	----	NTD	----	NTD
OCDF	NTD	----	NTD	----	NTD
PeCDD	NTD	----	NTD	----	NTD
TCDF	NTD	----	NTD	----	NTD
Toluene	NTD	NTD	----	----	----
1,1,1-Trichloroethane	NTD	NTD	----	----	----
2,4,5-TP (Silvex)	NTD	----	NTD	----	NTD
Antimony	NTD	----	NTD	NTD	NTD
Arsenic	4E-07	----	3E-04	6E-07	1E-03
Cadmium	5E-12	----	NTD	NTD	1E-07
Chromium III	1E-07	----	NTD	NTD	3E-06
Chromium VI	1E-08	----	NTD	NTD	3E-07
Cobalt	NTD	----	----	----	----
Copper	NTD	----	NTD	NTD	NTD
Lead	NTD	----	NTD	NTD	NTD
Mercury	NTD	----	NTD	NTD	NTD
Nickel	----	----	----	----	----
Selenium	NTD	----	NTD	NTD	NTD
Silver	NTD	----	NTD	NTD	NTD
Strontium	NTD	----	----	----	----
Thallium	NTD	----	NTD	NTD	NTD
Zinc	NTD	----	NTD	NTD	NTD
Chloride	NTD	----	----	----	----
Cyanide	NTD	----	NTD	NTD	NTD

Table B-31. (continued).

COPC	Inhalation of fugitive dust	Inhalation of volatiles	Ingestion of groundwater	Dermal absorbtion of groundwater	Inhalation of water vapors from indoor water use
Fluoride	NTD	----	NTD	----	NTD
Nitrate	NTD	----	NTD	----	NTD
Orthophosphate	NTD	----	NTD	----	NTD
Sulfate	NTD	----	NTD	----	NTD
Am-241	4E-20	----	----	----	----
Cm-244	3E-35	----	2E-26	----	1E-30
Co-60	0E+00	----	4E-08	5E-17	5E-14
Cs-134	0E+00	----	----	----	----
Cs-137	6E-29	----	7E-10	8E-19	2E-16
H-3	2E-48	----	1E-14	2E-17	9E-15
Ra-226	2E-18	----	----	----	----
Sr-90	3E-30	----	2E-06	2E-15	9E-13
U-238	2E-17	----	8E-21	9E-30	5E-25

"----" means the COPC does not contribute to risk at the release site.

NTD = No toxicity data.

Table B-32. Residential scenario year 1000 hazard quotients.

	Soil Ingestion										
COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	2E-05	5E-06	—	9E-07	2E-06	—	—	8E-06	—	—	—
Acetonitrile	—	—	—	—	—	—	—	5E-05	—	—	—
Aroclor-1260	—	—	—	—	—	—	—	—	—	—	NTD
Bis(2-ethylhexyl)phthalate	2E-05	1E-06	—	2E-05	—	—	—	6E-05	—	—	—
2-Butanone	—	1E-06	—	—	6E-07	—	—	1E-06	—	—	—
Butylbenzylphthalate	—	—	—	—	—	—	—	1E-06	—	—	—
Chloroform	—	3E-06	—	—	1E-06	—	—	1E-06	—	—	—
2,4-D	2E-06	—	—	3E-05	—	—	—	3E-05	—	—	—
Diethylphthalate	9E-09	2E-06	—	—	—	—	—	—	—	—	—
Di-n-butylphthalate	4E-06	1E-05	—	1E-05	—	—	—	8E-06	—	—	—
Di-n-octylphthalate	8E-06	—	—	—	—	—	—	1E-05	—	—	—
HpCDD	—	—	—	—	—	—	—	9E-05	—	—	—
HpCDF	—	—	—	—	—	—	—	1E-05	—	—	—
HxCDF	—	—	—	—	—	—	—	7E-07	—	—	—
Methylene Chloride	2E-06	2E-05	—	1E-06	1E-05	—	—	1E-05	—	—	—
OCDD	—	—	—	—	—	—	—	2E-03	—	—	—
OCDF	—	—	—	—	—	—	—	1E-04	—	—	—
PeCDD	—	—	—	—	—	—	—	1E-07	—	—	—
TCDF	—	—	—	—	—	—	—	1E-06	—	—	—
Toluene	—	3E-08	—	—	7E-08	—	—	7E-08	—	—	—
1,1,1-Trichloroethane	—	7E-07	—	2E-07	2E-06	—	—	2E-05	—	—	—
2,4,5-TP (Silvex)	—	1E-02	—	—	—	—	—	—	—	—	—
Antimony	2E-01	7E-02	—	—	—	—	—	—	—	—	—
Arsenic	2E-01	3E-01	1E-01	9E-02	9E-02	1E-01	—	—	—	9E-02	—
Cadmium	—	3E-02	—	—	—	—	—	—	—	—	—
Chromium III	7E-04	4E-02	2E-04	5E-03	2E-04	—	—	2E-04	2E-04	2E-04	—
Chromium VI	2E-02	8E-01	6E-03	1E-01	4E-03	—	—	4E-03	4E-03	4E-03	—
Cobalt	—	—	—	—	—	—	—	5E-04	—	—	—
Copper	9E-03	7E-03	3E-03	2E-02	4E-03	—	—	1E-02	—	—	—
Lead	NTD	—	—	NTD	—	—	—	—	NTD	—	—
Mercury	2E-02	1E-02	8E-03	1E-02	3E-03	2E-03	—	3E-03	5E-03	1E-03	—
Nickel	—	—	—	—	—	—	—	—	—	—	—
Selenium	6E-04	6E-03	—	1E-03	2E-03	—	—	5E-04	—	—	—
Silver	4E-03	2E-02	6E-04	5E-04	7E-04	1E-03	—	5E-04	—	—	—
Strontium	—	—	—	—	—	—	—	4E-04	—	—	—
Thallium	—	—	NTD	—	NTD	—	—	—	—	—	—
Zinc	3E-03	2E-02	3E-03	4E-02	—	—	—	3E-03	—	—	—
Chloride	—	NTD	—	—	NTD	—	—	—	—	—	—
Cyanide	2E-04	—	8E-05	—	1E-03	—	—	7E-04	—	—	—
Fluoride	—	5E-04	—	—	4E-04	—	—	3E-04	—	—	—
Nitrate	—	7E-06	—	—	2E-05	—	—	5E-05	—	—	—
Orthophosphate	—	NTD	—	—	NTD	—	—	NTD	—	—	—

Table B-32. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Homegrown Produce Ingestion											
COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Acetone	2E-04	6E-05	---	1E-05	3E-05	---	---	1E-04	---	---	---
Acetonitrile	9E-04	9E-04	9E-04	9E-04	9E-04	9E-04	9E-04	2E-03	9E-04	9E-04	9E-04
Aroclor-1260	---	---	---	---	---	---	---	---	---	---	NTD
Bis(2-ethylhexyl)phthalate	6E-04	6E-04	6E-04	6E-04	6E-04	6E-04	6E-04	7E-04	6E-04	6E-04	6E-04
2-Butanone	---	8E-06	---	---	4E-06	---	---	7E-06	---	---	---
Butylbenzylphthalate	---	---	---	---	---	---	---	4E-08	---	---	---
Chloroform	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05
2,4-D	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05
Diethylphthalate	6E-09	1E-06	---	---	---	---	---	---	---	---	---
Di-n-butylphthalate	1E-06	5E-06	---	4E-05	---	---	---	3E-06	---	---	---
Di-n-octylphthalate	1E-07	---	---	---	---	---	---	1E-07	---	---	---
HpCDD	2E-07	2E-07	2E-07	2E-07	2E-07	2E-07	2E-07	3E-07	2E-07	2E-07	2E-07
HpCDF	2E-08	2E-08	2E-08	2E-08	2E-08	2E-08	2E-08	3E-08	2E-08	2E-08	2E-08
HxCDF	1E-09	1E-09	1E-09	1E-09	1E-09	1E-09	1E-09	2E-09	1E-09	1E-09	1E-09
Methylene Chloride	7E-04	7E-04	7E-04	7E-04	7E-04	7E-04	7E-04	7E-04	7E-04	7E-04	7E-04
OCDD	4E-06	4E-06	4E-06	4E-06	4E-06	4E-06	4E-06	7E-06	4E-06	4E-06	4E-06
OCDF	2E-07	2E-07	2E-07	2E-07	2E-07	2E-07	2E-07	4E-07	2E-07	2E-07	2E-07
PeCDD	2E-10	2E-10	2E-10	2E-10	2E-10	2E-10	2E-10	3E-10	2E-10	2E-10	2E-10
TCDF	2E-09	2E-09	2E-09	2E-09	2E-09	2E-09	2E-09	3E-09	2E-09	2E-09	2E-09
Toluene	---	3E-08	---	---	8E-08	---	---	8E-08	---	---	---
1,1,1-Trichloroethane	---	5E-07	---	2E-07	2E-06	---	---	2E-05	---	---	---
2,4,5-TP (Silvex)	---	---	---	---	---	---	---	---	---	---	---
Antimony	3E-03	1E-03	3E-05	3E-05	3E-05	3E-05	3E-05	3E-05	3E-05	3E-05	3E-05
Arsenic	2E-02	3E-02	1E-02	1E-02	1E-02	1E-02	1E-03	1E-03	1E-03	1E-02	1E-03
Cadmium	2E-02	9E-02	2E-02	2E-02	2E-02	2E-02	2E-02	2E-02	2E-02	2E-02	2E-02
Chromium III	9E-07	5E-05	3E-07	7E-06	2E-07	1E-08	1E-08	2E-07	2E-07	2E-07	1E-08
Chromium VI	2E-05	1E-03	7E-06	2E-04	5E-06	3E-07	3E-07	5E-06	6E-06	5E-06	3E-07
Cobalt	---	---	---	---	---	---	---	7E-03	---	---	---
Copper	3E-02	2E-02	1E-02	4E-02	1E-02	1E-03	1E-03	3E-02	1E-03	1E-03	1E-03
Lead	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Mercury	9E-01	5E-01	4E-01	5E-01	2E-01	9E-02	4E-04	1E-01	2E-01	5E-02	4E-04
Nickel	---	---	---	---	---	---	---	---	---	---	---
Selenium	2E-04	7E-04	2E-04	3E-04	4E-04	2E-04	2E-04	2E-04	2E-04	2E-04	2E-04
Silver	3E-04	1E-03	5E-05	4E-05	5E-05	8E-05	1E-05	4E-05	1E-05	1E-05	1E-05
Strontium	---	---	---	---	---	---	---	2E-02	---	---	---
Thallium	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Zinc	1E-01	4E-01	9E-02	8E-01	3E-02	3E-02	3E-02	8E-02	3E-02	3E-02	3E-02
Chloride	---	NTD	---	---	NTD	---	---	---	---	---	---
Cyanide	1E-02	1E-02	1E-02	1E-02	2E-02	1E-02	1E-02	2E-02	1E-02	1E-02	1E-02

Table B-32. (continued).

COPC	ANL-01A	IWP	DITCH A	DITCH B	DITCH C	ANL-09	ANL-09 MOUND	NORTH DITCH	ANL-53 NORTH	ANL-53 SOUTH	ANL-61
Chloride	----	NTD	----	----	NTD	----	----	----	----	----	----
Cyanide	1E-02	1E-02	1E-02	1E-02	2E-02	1E-02	1E-02	2E-02	1E-02	1E-02	1E-02
Fluoride	3E-03	3E-03	3E-03	3E-03	3E-03	3E-03	3E-03	3E-03	3E-03	3E-03	3E-03
Nitrate	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	2E-05	3E-05	2E-05	2E-05	2E-05
Orthophosphate	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD
Sulfate	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD	NTD

Table B-32. (continued).

COPC	Other Exposure Routes				
	Inhalation of fugitive dust	Inhalation of volatiles	Ingestion of groundwater	Dermal absorbtion of groundwater	Inhalation of water vapors from indoor water use
Acetone	NTD	----	----	----	----
Acetonitrile	NTD	----	6E-03	----	----
Aroclor-1260	NTD	----	----	----	----
Bis(2-ethylhexyl)phthalate	NTD	NTD	3E-02	7E-03	NTD
2-Butanone	1E-09	----	----	----	----
Butylbenzylphthalate	NTD	----	----	----	----
Chloroform	NTD	NTD	2E-03	4E-04	NTD
2,4-D	NTD	----	6E-03	----	----
Diethylphthalate	NTD	----	----	----	----
Di-n-butylphthalate	NTD	----	----	----	----
Di-n-octylphthalate	NTD	----	----	----	----
HpCDD	NTD	----	1E-02	----	----
HpCDF	NTD	----	2E-03	----	----
HxCDF	NTD	----	9E-05	----	----
Methylene Chloride	7E-10	7E-05	4E-02	8E-03	2E-03
OCDD	NTD	----	3E-01	----	----
OCDF	NTD	----	2E-02	----	----
PeCDD	NTD	----	1E-05	----	----
TCDF	NTD	----	2E-04	----	----
Toluene	NTD	NTD	----	----	NTD
1,1,1-Trichloroethane	3E-10	8E-06	----	----	----
2,4,5-TP (Silvex)	NTD	----	2E-01	----	----
Antimony	NTD	----	2E-01	5E-03	----
Arsenic	NTD	----	1E+00	8E-02	----
Cadmium	NTD	----	6E-01	1E-02	----
Chromium III	NTD	----	9E-04	2E-05	----
Chromium VI	NTD	----	2E-02	4E-04	----
Cobalt	2E-06	----	----	----	----
Copper	NTD	----	5E-02	1E-03	----
Lead	NTD	----	NTD	NTD	----
Mercury	3E-05	----	1E-03	3E-05	----
Nickel	NTD	----	----	----	----
Selenium	NTD	----	2E-01	4E-03	----
Silver	NTD	----	3E-02	7E-04	----
Strontium	NTD	----	----	----	----
Thallium	NTD	----	NTD	NTD	----

Table B-32. (continued).

COPC	Inhalation of fugitive dust	Inhalation of volatiles	Ingestion of groundwater	Dermal absorbtion of groundwater	Inhalation of water vapors from indoor water use
Zinc	NTD	----	2E-01	3E-03	----
Chloride	NTD	----	----	----	----
Cyanide	NTD	----	9E-02	2E-03	----
Fluoride	NTD	----	1E+00	3E-01	----
Nitrate	NTD	----	7E-03	1E-03	----
Orthophosphate	NTD	----	NTD	NTD	----
Sulfate	NTD	----	NTD	NTD	----

"----" means the COPC does not contribute to risk at the release site.

NTD = No toxicity data.

Table B-33. Dermal absorption parameter values.

COPC	MW[a]	Log K_{ow}[a] (unitless)	K_{oc}[a] (ml/g)	K_H[a] (unitless)	D[c] (cm^2/s)
Acetone	5.81E+01	-2.40E-01	2.20E+00	3.97E-05	1.24E-01
Acetonitrile	4.11E+01	-3.40E-01	2.20E+00		0.00E+00
Aroclor-1260	3.70E+02	6.90E+00	5.30E+05	1.07E-03	0.00E+00
bis(2-Ethylhexyl)phthalate	3.91E+02	5.10E+00	1.00E+04	1.00E-04	3.51E-02
2-Butanone	7.21E+01	2.60E-0	4.50E+00		9.49E-04
Butylbenzylphthalate	3.12E+02	4.90E+00	3.40E+04	4.35E-06	0.00E+00
Chloroform	1.19E+02	2.00E+00	3.10E+01	2.87E-03	9.40E-02
2,4-D	2.21E+02	2.81E+00	1.96E+01		0.00E+00
Di-n-butylphthalate	1.24E+02	4.80E+00	1.38E+03	2.82E-07	0.00E+00
Diethylphthalate	1.82E+02	2.00E+00	4.50E+01	1.86E-07	0.00E+00
Di-n-octylphthalate	3.91E+02	9.20E+00	9.77E+08	1.41E-12	0.00E+00
HpCDD		3.30E+00	3.30E+06		0.00E+00
HpCDF		3.30E+00	3.30E+06		0.00E+00
HxCDF		3.30E+00	3.30E+06		0.00E+00
Methylene chloride	8.49E+01	1.30E+00	4.80E+01	2.60E-03	1.01E-01
OCDD		3.30E+00	3.30E+06		0.00E+00
OCDF		3.30E+00	3.30E+06		0.00F+00
PeCDD		3.30E+00	3.30E+06		0.00E+00
TCDF		3.30E+00	3.30E+06		0.00E+00
Toluene	9.21E+01	2.80E+00	1.52E+02	6.37E-03	8.70E-02
1,1,1-Trichloroethane	1.33E+02	2.50E+00	NA[b]	1.44E-02	8.00E-02
2,4,5-TP (Silvex)		4.00E+00	2.60E+03		0.00E+00

a. From Montgomery and Welkom, 1990 unless otherwise noted.

Not applicable because the K_d value for this COPC (shown in Table B-1) was taken from the INEL Track 2 Guidance Manual (DOE-ID, 1994).

c. From EPA, 1989.

Table B-34. Comparision of soil ingestion and dermal exposure risks for site ANL-01.

			Carcinogenic			Non-Carcinogenic		
Contaminant	Soil Concentration	Absorbtion Factor	Absorbed Dose	Dermal Exposure Risk	Soil Ingestion Risk	Absrobed Dose	Dermal Exposure HQ	Soil Ingestion HQ
Acetone	1.30E-01	5.00E-02	5.82E-08	NA	NA	1.36E-07	1E-06	5E-06
Bis(2-ethyl hexyl)phthalate	8.00E-03	5.00E-02	3.58E-09	5E-11	2E-10	8.35E-09	4E-07	1E-06
2-Butanone	2.00E-01	5.00E-02	8.95E-08	NA	NA	2.09E-07	3E-07	1E-06
Chloroform	7.70E-03	3.00E-02	2.07E-09	1E-11	7E-11	4.82E-09	5E-07	3E-06
Diethylphthalate	4.10E-01	5.00E-02	1.83E-07	NA	NA	4.28E-07	5E-07	2E-06
Di-n-butylphthalate	4.10E-01	5.00E-02	1.83E-07	NA	NA	4.28E-07	4E-06	1E-05
Methylene Chloride	2.95E-01	3.00E-02	7.92E-08	6E-10	3E-09	1.85E-07	3E-06	2E-05
Toluene	1.60E-03	3.00E-02	4.30E-10	NA	NA	1.00E-09	5E-09	3E-08
1,1,1-Trichloroethane	1.78E-02	5.00E-02	7.96E-09	NA	NA	1.86E-08	2E-07	7E-07
2,4,5-TP (Silvex)	2.76E+01	5.00E-02	1.23E-05	NA	NA	2.88E-05	4E-03	1E-02
Antimony	7.66E+00	1.00E-02	6.86E-07	NA	NA	1.60E-06	4E-04	7E-02
Arsenic	2.50E+01	3.20E-01	7.16E-05	1E-04	7E-05	1.67E-04	6E-01	3E-01
Cadmium	3.76E+00	1.00E-02	3.36E-07	NA	NA	7.85E-07	2E-03	3E-02
Chromium III	1.03E+04	1.00E-02	9.18E-04	NA	NA	2.14E-03	2E-03	4E-02
Chromium VI	1.14E+03	1.00E-02	1.02E-04	NA	NA	2.38E-04	5E-02	8E-01
Copper	7.61E+01	1.00E-02	6.81E-06	NA	NA	1.59E-05	4E-03	7E-03
Mercury	8.60E-01	1.00E-02	7.70E-08	NA	NA	1.80E-07	6E-04	1E-02
Selenium	8.41E+00	1.00E-02	7.53E-07	NA	NA	1.76E-06	4E-04	6E-03
Silver	3.18E+01	1.00E-02	2.84E-06	NA	NA	6.64E-06	1E-03	2E-02
Zinc	1.63E+03	1.00E-02	1.46E-04	NA	NA	3.41E-04	1E-03	2E-02
Chloride	4.14E+01	1.00E-02	3.71E-06	NA	NA	8.65E-06	NA	NA
Fluoride	9.05E+00	1.00E-02	8.10E-07	NA	NA	1.89E-06	3E-05	6E-04

Table B-34. (continued).

Nitrate	3.10E+00	1.00E-02	2.77E-07	NA	NA	6.47E-07	4E-07	7E-06
Orthophosphate	1.30E+00	1.00E-02	1.16E-07	NA	NA	2.71E-07	NA	NA
Sulfate	3.30E+03	1.00E-02	2.95E-04	NA	NA	6.89E-04	NA	NA