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REPORT

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FEASIBILITY STUDY REPORT FOR OPERABLE UNIT 5

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
FERNALD, OHIO

REMEDIAL INVESTIGATION AND FEASIBILITY STUDY

VOLUME 2

Appendices D through G

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U.S. DEPARTMENT OF ENERGY
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clearly marked. In general, modeling results for technetium-99 match the measured concentration patterns with larger simulated plumes of concentrations below the detection limit. Technetium-99 is considerably more mobile than uranium with K_d of 0.2 L/kg and a retardation of 2.23. Figures F.7-55A and F.7-55B show the maximum concentrations for all layers of the 5 model zones over time. The maximum concentration reduces below the screening level in less than 25 years.

System averages for technetium-99 are reported over the 40-year pumping period in Figure F.7-56. Extraction System 2 initially has a concentration greater than 1.0×10^{-2} μg/L at Year 5, which reduces over time. Other extraction systems follow similar patterns over time although with lower concentrations.

113 • Antimony: Elevated concentrations of antimony have been identified in the waste pit area, in the South Field area, in the pa K_d of 1.4 L/kg and production area, and an isolated concentration was detected in the South Plume area (see Figure F.7-12). Antimony has similar mobility as uranium with a K_d of 1.4 L/kg and a retardation of 9.6. Figures F.7-57A and F.7-57B show the maximum concentrations for all layers of the 5 model zones over time. The maximum concentration reduces below the screening level in less than 10 years.

System averages for antimony are reported over the 40-year pumping period in Figure F.7-58. System 1 initially has a concentration of approximately 5.0×10^{-1} μg/L at Year 5, which reduces rapidly over time. Other extraction systems follow similar patterns over time although with lower concentrations.

113 • Arsenic: Elevated concentrations of arsenic have been identified in the South Plume area (as part of the Paddys Run Road Site plume) and at the northern property line (see Figure H.7-13). Arsenic is less mobile than uranium, with a K_d of 16 L/kg and a retardation of 99.7. Figures F.7-59A and F.7-59B show the maximum concentrations for all layers of the 5 model zones over time. The maximum concentration remains above the screening level over the entire 40-year period by one order of magnitude.

System averages for arsenic are reported over the 40-year pumping period in Figure F.7-60. System 4 (the South Plume extraction system) extracts the majority of the arsenic mass.

113 • Manganese: Elevated concentrations of manganese are scattered throughout the Great Miami Aquifer underlying the FEMP area (see Figure H.7-14). Manganese has a low mobility with a K_d of 30 L/kg and a retardation of 186. Figures F.7-61A and F.7-61B show the maximum concentrations for all layers of the 5 model zones over time. The maximum concentration remains above the screening level over the entire 40-year period by at least a factor of 2 or 3.

System averages for manganese are reported over the 40-year pumping period in Figure F.7-62. Average concentrations are typically less than 3.0×10^{2} μg/L.

116 • Total VOCs: Elevated concentrations of total VOCs are scattered throughout the Great Miami Aquifer generally underlying the FEMP (see Table F.7-5). The most significant VOC is trichloroethene (TCE), which decomposes to other VOCs. Modeling was

conducted as if all VOCs were TCE using the risk-based screening levels for TCE. Figures F.7-63A and F.7-63B show the maximum concentrations for all layers of the 5 model zones over time. Being relatively mobile with a K_d of about 1 L/kg, maximum TCE concentrations are reduced from in excess of 1000 μg/L to below the MCL level of 5 μg/L within a period of 16 years. Because mobilities are similar, transformation products such as vinyl chloride are also expected to be removed by the system. ***Based on Figures F.7-63A and F.7-63B, the total VOC concentration will be below 2 ppb in about 20 years.***

System averages for VOCs are reported over the 40-year pumping period in Figure F.7-64. Average concentrations are typically less than 3.0×10^{-1} μg/L.

117 In summary, the proposed extraction system, based on this modeling, will be effective for reducing maximum aquifer concentrations of neptunium-237, technetium-99, antimony, and total VOCs below MCL or 10^{-5} ILCR screening levels. Capture of the remaining constituents will be less effective, primarily due to the lower mobility of these compounds and, to a lesser degree, locations of the recovery wells (based on uranium concentrations). Certain relatively less mobile contaminants also have large initial groundwater plumes which were conservatively assigned using the maximum detected value in each monitoring well for groundwater modeling purposes. Some portions of these plumes are located far away or upgradient from known contaminant source areas such as the former production area, waste management areas, Paddys Run, and the SSOD and may not be due to FEMP releases considering the reasonable transport speeds of these contaminants in the aquifer. Examples of such situations include portions of the arsenic, manganese, and radium-226 plumes used in the modeling. Measured 1993 groundwater data presented in the Plates in the Operable Unit 5 RI Report (DOE 1995) show much smaller groundwater plumes of these contaminants.

453 F.7.4.7 Modeling of the Higher Desorption K_d Case

Following the approach outlined in Section F.7.2.8, simulations were also run for the upper limit uranium K_d (desorption) of 12 L/kg so that a range of cleanup times could be calculated. These simulations were run until clean up to the 20 μg/L concentration was achieved. Scenario 3B was used in this analysis.

The results of these simulations with higher desorption K_d of 12 L/kg are discussed below.

- Rate of Removal: Figure F.7-63 presents the system performance for this case. After 40 years of pumping, this case has removed approximately 52 percent of the total uranium from the Great Miami Aquifer. The rate of uranium removal is relatively slow from 0 to 5 years when only the original five South Plume extraction wells are pumping, increases dramatically from Years 5 to 10 after the installation of the new wells, and gradually decreases over the next 30 years until Year 40. Overall, as expected, the rate of removal is significantly slower for this higher K_d case than the baseline K_d case (compare Figures F.7-42 and F.7-65).

TABLE F.7-5

MODELED CONTAMINANT MASS LOADINGS TO THE GREAT MIAMI AQUIFER FOR OTHER CONSTITUENTS

Constituent	Distribution Coefficient K_d (mL/g)	Retardation Factor R	Loading from Paddys Run Section C-D[a] (kg/yr)	Loading from Paddys Run Section D-E[a] (kg/yr)	Loading from Paddys Run Section E-F[a] (kg/yr)	Loading from Storm Sewer Outfall Ditch (kg/yr)	OU1 Area (kg/yr)	OU2 Area (kg/yr)	OU3 Area (kg/yr)
Neptunium-237	15	93.5	9.96×10^{-5}	3.75×10^{-5}	4.00×10^{-6}	0	0	0	0
Radium-226	470	2899	2.91×10^{-7}	1.09×10^{-7}	1.15×10^{-8}	4.20×10^{-8}	0	0	0
Technetium-99	0.2	2.23	5.42×10^{-3}	1.1×10^{-2}	1.26×10^{-3}	9.10×10^{-3}	2.77×10^{-6}	0	9.45×10^{-7}
Antimony	1.4	9.63	2.21×10^{-1}	9.2×10^{-2}	1.76×10^{-2}	2.56×10^{-1}	0	0	0
Arsenic	16	99.7	5.23×10^{-1}	2.67×10^{-1}	5.12×10^{-2}	7.45×10^{-1}	0	0	0
Manganese	30	186	3.16×10^{1}	2.41×10^{1}	6.33×10^{0}	1.51×10^{2}	0	0	0
Total volatile organic compounds	1	7.16	0	0	0	0	0	0	0

[a] See Operable Unit 5 RI Report (DOE 1995) for definition of Paddys Run reaches; Paddys Run and the storm sewer outfall ditch represent Operable Unit 5 sources.

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TABLE F.7-6

NO-ADDITIONAL-ACTION PUMPING SCHEDULE

Extraction System	Well Number	Screened Interval Layer	SWIFT Cell Number (I,J)[a]	Well Pumping Rate (gpm) from Year 0 until Year 1000
4	1	1 - 3[b]	19,36	300
	2	1 - 3[b]	21,35	300
	3	1 - 3[b]	24,35	300
	4	1 - 3[b]	26,35	300
	5	1 - 3[b]	28,34	300
System Total	5			1500

[a] See Figure F.7-8 for cell locations
[b] Elevation of the water table in Layer 1 is approximately 523-526 feet above mean sea level (AMSL). Elevation of the bottom of Layer 3 is approximately 442-444 feet AMSL.

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TABLE F.7-7

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SUMMARY OF GROUNDWATER NO-ADDITIONAL-ACTION SCENARIO - RESULTS FOR OTHER CONSTITUENTS OF CONCERN

Constituent	Maximum Concentration (ppb)	Location	Time (yr)	MCL[a] Screening Level (ppb)	Estimated Time to Reach the Screening Level (yr)	Maximum Concentration Below Screening Level
Neptunium-237	8.66×10^{-4}	On site	910	1.42×10^{-3}	NA[b]	Yes
Radium-226	1.62×10^{-5}	On site	1000	2.02×10^{-5}	NA	Yes
Technetium-99	4.01×10^{-1}	On site	90	5.53×10^{-2}	< 400	No
Antimony	4.65×10^{1}	On site	10	6.0×10^{0}	< 400	No
Arsenic	1.36×10^{2}	On site	10	5.0×10^{1}	> 400	No
Manganese	2.38×10^{3}	On site	10	9.04×10^{2}	> 400	No

[a] Where maximum contaminant level was not available, an incremental lifetime cancer risk of 10^{-5} or a hazard quotient of 0.2 was used.
[b] NA - not applicable

TABLE F.7-8

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GROUNDWATER RESTORATION TO 20 μg/L DESIGN, SCENARIO 1, PUMPING SCHEDULE

Extraction System	Well Number	SWIFT Cell Number (I,J)[a]	Screened Interval Layer	Scenarios 1A and 1B Well Pumping Rate 0 to 5 Years (gpm)	Scenario 1A Well Pumping Rate 5 to 40 Years (gpm)	Scenario 1B Well Pumping Rate 5 to 40 Years (gpm)
1	1	31,80	1 - 3[b]	0	400	320
	2	34,83	1 - 3[b]	0	400	320
	3	38,85	1 - 3[b]	0	500	400
	4	42,88	1 - 3[b]	0	400	320
	5	46,89	1 - 3[b]	0	400	320
2	6	28,50	1 - 3[b]	0	500	400
	7	33,47	1 - 3[b]	0	500	400
	8	37,47	1 - 3[b]	0	500	400
	9	31,54	1 - 3[b]	0	500	400
	10	36,54	1 - 3[b]	0	500	400
	11	33,61	1 - 3[b]	0	500	400
3	12	59,69	1 - 3[b]	0	400	320
4	13	23,43	1 - 3[b]	0	500	400
	14	19,36	1 - 3[b]	300	300	300
	15	21,35	1 - 3[b]	300	300	300
	16	24,35	1 - 3[b]	300	300	300
	17	26,35	1 - 3[b]	300	300	300
	18	28,34	1 - 3[b]	300	300	300
System Total	18		1 - 3[b]	1500	7500	6300

[a] See Figure F.7-8 for cell locations
[b] Elevation of the water table in Layer 1 is approximately 523-526 feet above mean sea level (AMSL). Elevation of the bottom of Layer 3 is approximately 442-444 feet AMSL.

Based on inspection of the treatment demand versus time curves, typically there is a steep drop off in needed capacity after the first few years followed by a more gradual decrease. Satisfying this peak in demand is not cost-effective because treatment capacity is used for only a few years (i.e., less than its design life). However, if some portion of this peak treatment demand is not treated, then there will be greater mass discharged to the river. To determine potential cost savings of not treating this peak in demand, two cases of fixed treatment capacity were also costed.

Hypothetical cases were created by first estimating cleanup time for different extraction rates. In Appendix F.7, three extraction rates were simulated and remediation times were determined:

- No additional action at 1500 gpm (System 4) - remediation in 90 years
- Containment at 2600 gpm - remediation in 60 years
- Revised baseline at 6300 gpm - remediation in 30 years.

With these three cases, an estimated curve of extraction rate versus cleanup time was created and values of cleanup time for any hypothetical extraction rate could be estimated (see Figure HYP-1 in Attachment F.8.II). These cleanup times were only estimates, because the lower pumping rates are only extracting groundwater at limited locations. Total mass to be extracted and treated was the second parameter used to constrain the solution; this was estimated from a simulation of the revised baseline extraction of 6300 gpm with groundwater containing greater than 20 ppb of uranium sent to treatment. The hypothetical cases cover a wide range of extraction rates (as low as 2000 gpm) and cleanup times (as high as 65 years) (see Figure HYP-2 in Attachment F.8.II).

With treatment time and total treatment mass, treatment capacity over time could be estimated as a first order decay curve. These curves were used to estimate costs based on different extraction and treatment rates. As discussed above, two other cases were created which pumped 4500 gpm and treated groundwater above 20 ppb of uranium up to a maximum of 1500 gpm and 800 gpm.

F.8.2.2 Sensitivity Analysis Results

128b Table F.8-1 summarizes the costs (in 1994 dollars) of these hypothetical scenarios and Figure F.8-3 breaks the extraction and treatment costs into capital and operation and maintenance (O&M) components. ***Current wastewater treatment capacity can handle up to 800 gpm of extracted groundwater without additional capital cost and can accommodate an expanded capacity of 700 gpm. Therefore, the capital cost of treating 1500 gpm is $5 million for equipment required for the additional 700 gpm capacity. The capital costs of treatment capacity higher than 1500 gpm need to include the cost for a new treatment plant, which is estimated to be more than $20 million.***

From simply an extraction perspective, Case H4 with an extraction rate of 4500 gpm and a remediation period of 30 years is slightly lower in cost than the other options. For all of the cases (except H9), total extraction costs are approximately 25 to 30 percent of the total while treatment

costs make up the remainder. As remediation time increases, O&M costs comprise a greater percentage of the total cost with percentages ranging from approximately 60 percent (for Case H2) to 75 percent (for Case H7). Case H1, with 6300 gpm extraction, 4500 gpm treatment, and the shortest remediation time of 26 years, results in the least cost of $143 million, while the greatest cost option is Case H7 (with the lowest extraction rate and longest remediation time) at $171 million. In Cases H2 through H6, the total costs are very similar. Cases H8 and H9, representing a different approach with a fixed treatment capacity as described above, show a substantial reduction in total cost, especially in capital and O&M costs for treatment. Case H9 shows no treatment costs because excess treatment capacity of 800 gpm presently exists. The sharp reduction in costs for H8 and H9 from the other cases shows the extreme sensitivity of total cost to reduction in maximum treatment capacity.

F.8.3 SIMULATION RESULTS

Model simulation results for potential groundwater extraction and treatment strategies developed and evaluated in this study are summarized in this section. Because it is the most significant groundwater contaminant at the FEMP, uranium was used as the indicating contaminant in these simulations. Additional detailed results are provided in Attachment F.8.II.

F.8.3.1 Extraction Strategy

All the extraction strategies evaluated in this report were simulated with the following revisions from the model used in Appendix F.7:

- The constant-head model boundary conditions on the west and north grid boundary were adjusted to reflect the hydraulic effects of pumping. These boundaries were adjusted by simulating pumping at the desired rate for each case using the original regional grid (IT 1993) and adjusting the boundary of the revised smaller grid based on drawdown at the same location in the regional grid. At the maximum pumping rate of 6300 gpm, drawdown effects up to 7 feet were seen at the nearest (western) boundary with proportionally less effect at lower pumping rates and at boundaries that were farther away.

- For the analysis conducted in Appendix F.7, constant mobility fractions were assigned to each layer. Fractions of 0.25, 0.50, and 0.25 were assigned to Layers 1, 2, and 3 respectively for shallow wells. Fractions of 0.5 and 0.5 were assigned to Layers 5 and 6 respectively for deep wells. During this optimization study, an approach was used which accounted for reduced cell transmissivity scaled by the final water elevation in the cell resulting from pumping. Cell transmissivity varied from pumping sequence to pumping sequence depending on final water elevations for each sequence.

- Surface water loading rates of uranium during the remediation period were revised based on the latest operable unit remediation schedules. The Surface Water Flow and Infiltration Model (DOE 1993) was simulated with these latest data and two loading rates (from years 0 to 10 and 10 to 20) were established based on these modeling results. Postremedial surface water loading of uranium after 20 years was also included in the loading terms. This loading continued until the completion of the simulation. Table F.8-2 shows the revised surface water loading rates (see Attachment F.8.I for detailed surface water modeling results).

of the fatality coefficients reveals that the values presented in Table G.3-6 are much lower. This is because the previous statistics included injuries and fatalities from dangerous trades that are not representative of projected activities at the FEMP, such as underground mining. This results in a corresponding decrease in the mechanical hazard fatalities for the remedial alternatives, and reflects the impacts of using more appropriate task-specific statistics.

TABLE G.3-1

EXPOSURE POINT CONCENTRATIONS IN SOIL

Contaminants of Concern	Area (as shown in Figure G.2-2)									
	1sp	560a	560b	560c	560d	570a	570au	570b	570d	570e
Radionuclides (pCi/g)										
Cesium-137	2.00×10^{-1}	3.60×10^{-1}	3.60×10^{-1}	3.10×10^{-1}	4.80×10^{-1}	2.90×10^{-1}	2.90×10^{-1}	2.50×10^{-1}	2.50×10^{-1}	3.80×10^{-1}
Neptunium-237	2.00×10^{-1}	5.30×10^{-1}	5.00×10^{-1}	6.00×10^{-1}	2.10×10^{0}	4.40×10^{-1}	4.40×10^{-1}	1.60×10^{-1}	4.00×10^{-1}	6.00×10^{-1}
Plutonium-238	4.30×10^{-1}	3.50×10^{-1}	3.40×10^{-1}	6.00×10^{-1}	3.30×10^{0}	4.00×10^{-1}	4.00×10^{-1}	3.70×10^{-1}	3.50×10^{-1}	6.00×10^{-1}
Plutonium-239/240	2.00×10^{-1}	3.50×10^{-1}	3.30×10^{-1}	6.00×10^{-1}	4.50×10^{0}	3.50×10^{-1}	3.50×10^{-1}	6.10×10^{-1}	3.50×10^{-1}	6.00×10^{-1}
Radium-226	6.76×10^{0}	9.52×10^{-1}	2.99×10^{1}	9.00×10^{-1}	2.21×10^{3}	1.54×10^{0}	2.01×10^{0}	3.79×10^{0}	9.17×10^{-1}	9.00×10^{-1}
Radium-228	1.04×10^{0}	9.20×10^{-1}	8.50×10^{-1}	4.96×10^{0}	1.27×10^{1}	7.00×10^{-1}	7.00×10^{-1}	8.80×10^{-1}	6.50×10^{-1}	8.50×10^{-1}
Strontium-90	2.50×10^{-1}	7.11×10^{-1}	1.36×10^{0}	5.90×10^{-1}	1.61×10^{0}	3.25×10^{-1}	2.50×10^{-1}	2.50×10^{-1}	3.97×10^{-1}	2.50×10^{-1}
Technetium-99	1.13×10^{0}	1.13×10^{0}	1.86×10^{0}	9.85×10^{0}	1.11×10^{0}	6.80×10^{0}	1.13×10^{0}	1.01×10^{2}	1.60×10^{1}	1.13×10^{0}
Thorium-228	9.80×10^{-1}	1.41×10^{0}	1.05×10^{0}	5.23×10^{0}	1.84×10^{1}	9.00×10^{-1}	9.00×10^{-1}	3.37×10^{0}	1.53×10^{0}	1.15×10^{0}
Thorium-230	4.81×10^{0}	1.87×10^{0}	6.39×10^{0}	8.43×10^{0}	2.76×10^{1}	1.37×10^{1}	6.53×10^{1}	1.02×10^{2}	1.63×10^{1}	4.11×10^{0}
Thorium-232	2.76×10^{0}	1.01×10^{0}	1.93×10^{0}	7.03×10^{0}	5.31×10^{0}	1.02×10^{0}	1.36×10^{0}	1.89×10^{0}	1.03×10^{0}	1.87×10^{0}
Uranium-234	7.45×10^{-4}	2.98×10^{-4}	1.56×10^{-3}	1.07×10^{-2}	2.46×10^{-3}	1.61×10^{-3}	1.30×10^{-3}	5.44×10^{-4}	3.38×10^{-3}	4.27×10^{-4}
Uranium-235/236	9.75×10^{-2}	3.90×10^{-2}	2.05×10^{-1}	1.40×10^{0}	3.21×10^{-1}	2.10×10^{-1}	1.70×10^{-1}	7.13×10^{-2}	4.42×10^{-1}	5.59×10^{-2}
Uranium-238	1.35×10^{1}	5.42×10^{0}	2.84×10^{1}	1.94×10^{2}	4.46×10^{1}	2.92×10^{1}	2.36×10^{1}	9.90×10^{0}	6.14×10^{1}	7.76×10^{0}
Metals/Chemicals (mg/kg)										
1,1-Dichloroethane	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.[a]	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.
1,1-Dichloroethene	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.
1,2,4,5-Tetrachlorobenzene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
1,2,4-Trichlorobenzene	4.10×10^{-1}	4.10×10^{-1}	3.90×10^{-1}	1.02×10^{0}	n.d.	3.70×10^{-1}	3.70×10^{-1}	4.00×10^{-1}	3.80×10^{-1}	n.d.
1,2-Dichlorobenzene	4.10×10^{-1}	4.10×10^{-1}	3.90×10^{-1}	1.02×10^{0}	n.d.	3.70×10^{-1}	3.70×10^{-1}	4.00×10^{-1}	3.80×10^{-1}	n.d.
1,2-Dichloroethane	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.
1,2-Dichloroethene (Total)	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.
1,3,5-Trinitrobenzene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
1,3-Dichlorobenzene	4.10×10^{-1}	4.10×10^{-1}	3.90×10^{-1}	1.02×10^{0}	n.d.	3.70×10^{-1}	3.70×10^{-1}	4.00×10^{-1}	3.80×10^{-1}	n.d.
1,3-Dinitrobenzene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.

12

TABLE G.3-1
(Continued)

Contaminants of Concern	Area (as shown in Figure G.2-2)									
	1sp	560a	560b	560c	560d	570a	570au	570b	570d	570e
Metals/Chemicals (mg/kg) (Continued)										
1,4-Dichlorobenzene	4.10×10^{-1}	4.10×10^{-1}	3.90×10^{-1}	1.02×10^{0}	n.d.	3.70×10^{-1}	3.70×10^{-1}	4.00×10^{-1}	3.80×10^{-1}	n.d.
2,3,7,8-Tetrachlorodibenzo-p-dioxin	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2-Benzyl Alcohol-4-chlorophenol	4.00×10^{-1}	n.d.	n.d.	n.d.	n.d.	4.00×10^{-1}	4.00×10^{-1}	4.00×10^{-1}	n.d.	n.d.
3,3'-Dichlorobenzidine	4.10×10^{-1}	6.20×10^{-1}	4.10×10^{-1}	2.03×10^{0}	n.d.	3.70×10^{-1}	3.70×10^{-1}	6.00×10^{-1}	5.80×10^{-1}	n.d.
3,3'-Dimethylbenzidine	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
4-Methylphenol	4.10×10^{-1}	4.10×10^{-1}	3.90×10^{-1}	2.00×10^{-1}	n.d.	3.70×10^{-1}	3.70×10^{-1}	4.00×10^{-1}	3.80×10^{-1}	n.d.
4-Nitroaniline	9.80×10^{-1}	1.50×10^{0}	1.02×10^{0}	4.97×10^{0}	n.d.	9.40×10^{-1}	9.40×10^{-1}	1.43×10^{0}	1.42×10^{0}	n.d.
7,12-Dimethylbenz(a)anthracene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Antimony	1.20×10^{0}	7.70×10^{0}	3.48×10^{0}	1.83×10^{0}	1.20×10^{0}	1.18×10^{1}	1.53×10^{1}	2.13×10^{1}	2.89×10^{1}	1.72×10^{1}
Alpha-chlordane	n.d.	n.d.	n.d.	2.20×10^{-1}	n.d.	n.d.	n.d.	5.00×10^{-2}	1.40×10^{-1}	n.d.
Aroclor 1254	2.80×10^{-2}	8.58×10^{-2}	5.68×10^{-1}	1.20×10^{0}	6.11×10^{-1}	2.44×10^{-1}	4.56×10^{-2}	6.03×10^{-2}	5.90×10^{-1}	4.71×10^{-2}
Arsenic	6.40×10^{0}	4.22×10^{0}	5.69×10^{0}	6.05×10^{0}	6.80×10^{0}	7.84×10^{0}	6.30×10^{0}	6.26×10^{0}	6.40×10^{0}	6.20×10^{0}
Benzene	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.
Benzidine	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Benzo(a)anthracene	6.10×10^{-1}	2.13×10^{-1}	8.05×10^{-1}	4.14×10^{0}	2.42×10^{0}	7.17×10^{-1}	3.38×10^{-1}	3.03×10^{-1}	3.85×10^{-1}	2.15×10^{-1}
Benzo(a)pyrene	3.70×10^{-1}	2.16×10^{-1}	1.01×10^{0}	5.25×10^{0}	3.18×10^{0}	6.76×10^{-1}	2.63×10^{-1}	2.49×10^{-1}	3.45×10^{-1}	2.15×10^{-1}
Benzo(b)fluoranthene	5.00×10^{-1}	2.03×10^{-1}	8.88×10^{-1}	5.25×10^{0}	2.79×10^{0}	3.11×10^{-1}	3.01×10^{-1}	2.74×10^{-1}	3.37×10^{-1}	2.10×10^{-1}
Benzo(g,h,i)perylene	4.10×10^{-1}	4.10×10^{-1}	2.50×10^{-1}	2.60×10^{-1}	n.d.	5.00×10^{-1}	5.00×10^{-1}	2.90×10^{-1}	3.80×10^{-1}	n.d.
Benzo(k)fluoranthene	4.50×10^{-1}	2.15×10^{-1}	1.00×10^{0}	5.34×10^{0}	3.16×10^{0}	5.09×10^{-1}	2.88×10^{-1}	2.67×10^{-1}	3.76×10^{-1}	2.15×10^{-1}
Benzoic acid	1.95×10^{0}	5.00×10^{-1}	1.50×10^{0}	7.50×10^{-1}	n.d.	9.60×10^{-1}	9.60×10^{-1}	4.80×10^{-1}	1.66×10^{0}	n.d.
Benzyl alcohol	4.10×10^{-1}	4.10×10^{-1}	3.90×10^{-1}	1.02×10^{0}	n.d.	3.70×10^{-1}	3.70×10^{-1}	3.80×10^{-1}	3.80×10^{-1}	n.d.
Beryllium	1.39×10^{0}	5.46×10^{-1}	5.21×10^{-1}	4.98×10^{-1}	4.98×10^{-1}	6.28×10^{-1}	9.66×10^{-1}	8.34×10^{-1}	8.36×10^{-1}	4.89×10^{-1}
Bis(2-chloroethoxy)methane	4.10×10^{-1}	4.10×10^{-1}	3.90×10^{-1}	1.02×10^{0}	n.d.	3.70×10^{-1}	3.70×10^{-1}	4.00×10^{-1}	3.80×10^{-1}	n.d.
Bis(2-chloroethyl)ether	4.10×10^{-1}	4.10×10^{-1}	3.90×10^{-1}	1.02×10^{0}	n.d.	3.70×10^{-1}	3.70×10^{-1}	4.00×10^{-1}	3.80×10^{-1}	n.d.
Bis(2-chloroisopropyl)ether	4.10×10^{-1}	4.10×10^{-1}	3.90×10^{-1}	1.02×10^{0}	n.d.	2.10×10^{-1}	2.10×10^{-1}	4.00×10^{-1}	3.80×10^{-1}	n.d.
Bis(2-ethylhexyl)phthalate	9.60×10^{-2}	5.18×10^{-1}	4.28×10^{-1}	8.80×10^{-1}	1.87×10^{0}	3.32×10^{-1}	1.60×10^{-1}	3.25×10^{-1}	3.17×10^{-1}	2.04×10^{-1}
Bis(chloromethyl)ether	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Bromodichloromethane	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.
Bromomethane	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.
Cadmium	1.16×10^{0}	8.60×10^{-1}	3.05×10^{0}	2.94×10^{0}	n.d.	8.10×10^{-1}	8.10×10^{-1}	2.64×10^{0}	3.90×10^{0}	n.d.

13

TABLE G.3-1
(Continued)

Contaminants of Concern	Area (as shown in Figure G.2-2)									
	1sp	560a	560b	560c	560d	570a	570au	570b	570d	570e
Metals/Chemicals (mg/kg) (Continued)										
Chlordane	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Chlorobenzene	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.
Chlorobenzilate	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Chloroform	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.
Chrysene	6.60×10^{-1}	2.03×10^{-1}	8.94×10^{-1}	5.00×10^{0}	2.79×10^{0}	8.42×10^{-1}	3.51×10^{-1}	3.10×10^{-1}	4.33×10^{-1}	2.10×10^{-1}
Dibenzo(a,h)anthracene	3.00×10^{-1}	7.35×10^{-2}	2.99×10^{-1}	1.72×10^{0}	9.22×10^{-1}	1.06×10^{-1}	1.45×10^{-1}	1.24×10^{-1}	1.15×10^{-1}	7.40×10^{-2}
Dibenzofuran	4.10×10^{-1}	4.10×10^{-1}	3.90×10^{-1}	1.02×10^{0}	n.d.	2.10×10^{-1}	2.10×10^{-1}	4.00×10^{-1}	3.80×10^{-1}	n.d.
Dibromomethane	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Dieldrin	n.d.	1.00×10^{-2}	n.d.	5.00×10^{-2}	n.d.	n.d.	n.d.	1.00×10^{-2}	3.00×10^{-2}	n.d.
Ethylbenzene	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.
Gamma-chlordane	n.d.	n.d.	n.d.	2.20×10^{-1}	n.d.	n.d.	n.d.	5.00×10^{-2}	1.40×10^{-1}	n.d.
Hexachlorobenzene	4.10×10^{-1}	4.10×10^{-1}	3.90×10^{-1}	1.02×10^{0}	n.d.	3.70×10^{-1}	3.70×10^{-1}	4.00×10^{-1}	3.80×10^{-1}	n.d.
Indeno(1,2,3-cd)pyrene	3.70×10^{-1}	2.18×10^{-1}	7.74×10^{-1}	3.95×10^{0}	2.31×10^{0}	5.00×10^{-1}	2.67×10^{-1}	2.53×10^{-1}	2.86×10^{-1}	2.20×10^{-1}
Manganese	5.46×10^{2}	8.84×10^{2}	9.75×10^{2}	5.10×10^{2}	6.56×10^{2}	6.32×10^{2}	7.74×10^{2}	5.53×10^{2}	6.06×10^{2}	6.94×10^{2}
Mercury	5.50×10^{-2}	5.50×10^{-2}	5.64×10^{-2}	5.50×10^{-2}	5.50×10^{-2}	6.77×10^{-2}	5.50×10^{-2}	5.50×10^{-2}	7.11×10^{-2}	5.50×10^{-2}
Methylene chloride	1.00×10^{-3}	4.07×10^{-3}	2.12×10^{-2}	1.29×10^{-1}	1.00×10^{-3}	6.97×10^{-3}	1.62×10^{-2}	4.86×10^{-3}	7.00×10^{-3}	1.00×10^{-3}
N-Nitroso-di-n-propylamine	4.10×10^{-1}	2.00×10^{-1}	3.90×10^{-1}	1.02×10^{0}	n.d.	3.70×10^{-1}	3.70×10^{-1}	4.00×10^{-1}	3.80×10^{-1}	n.d.
Nitrobenzene	4.10×10^{-1}	4.10×10^{-1}	3.90×10^{-1}	1.02×10^{0}	n.d.	3.70×10^{-1}	3.70×10^{-1}	4.00×10^{-1}	3.80×10^{-1}	n.d.
O-Dichlorobenzene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
P-Dimethylaminoazobenzene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Phenanthrene	3.70×10^{-1}	2.12×10^{-1}	5.30×10^{-1}	2.30×10^{0}	1.34×10^{0}	3.31×10^{-1}	2.63×10^{-1}	2.49×10^{-1}	5.09×10^{-1}	2.15×10^{-1}
Silver	2.55×10^{-1}	2.07×10^{0}	2.85×10^{0}	3.77×10^{0}	3.60×10^{0}	1.63×10^{0}	1.37×10^{0}	5.22×10^{0}	4.56×10^{0}	2.05×10^{0}
Trans-1,2-dichloroethene(total)	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Trichloroethene	3.40×10^{-2}	2.00×10^{-3}	2.00×10^{-3}	2.00×10^{-3}	2.00×10^{-3}	4.30×10^{-3}	6.00×10^{-3}	9.11×10^{-3}	2.00×10^{-3}	3.73×10^{-3}
Uranium - total	4.06×10^{1}	1.63×10^{1}	8.52×10^{1}	5.82×10^{2}	1.34×10^{2}	8.76×10^{1}	7.07×10^{1}	2.97×10^{1}	1.84×10^{2}	2.33×10^{1}
Zinc	5.42×10^{1}	6.40×10^{1}	5.33×10^{1}	1.93×10^{2}	n.d.	6.07×10^{1}	6.07×10^{1}	5.73×10^{1}	4.75×10^{1}	n.d.

TABLE G.3-1
(Continued)

Contaminants of Concern	Area									
	575a	575b	580a	581a	581b	581c	581d	582a	582b	afp
Radionuclides (pCi/g)										
Cesium-137	5.00×10^{-1}	1.05×10^{0}	3.50×10^{-1}	5.50×10^{-1}	3.90×10^{-1}	4.90×10^{-1}	2.50×10^{-1}	2.50×10^{-1}	3.90×10^{-1}	2.00×10^{-1}
Neptunium-237	4.00×10^{-1}	6.00×10^{-1}	6.00×10^{-1}	6.00×10^{-1}	6.00×10^{-1}	6.00×10^{-1}	5.50×10^{-1}	6.00×10^{-1}	6.00×10^{-1}	1.78×10^{0}
Plutonium-238	4.00×10^{-1}	3.50×10^{-1}	4.00×10^{-1}	3.50×10^{-1}	3.50×10^{-1}	6.00×10^{-1}	7.50×10^{-1}	4.50×10^{-1}	6.00×10^{-1}	3.00×10^{-1}
Plutonium-239/240	4.00×10^{-1}	3.50×10^{-1}	4.00×10^{-1}	5.00×10^{-1}	4.00×10^{-1}	6.00×10^{-1}	7.50×10^{-1}	3.20×10^{-1}	6.00×10^{-1}	2.00×10^{-1}
Radium-226	7.93×10^{0}	1.82×10^{0}	1.86×10^{1}	1.07×10^{0}	2.01×10^{0}	9.00×10^{-1}	7.61×10^{0}	2.68×10^{0}	3.74×10^{0}	3.74×10^{0}
Radium-228	5.80×10^{-1}	7.80×10^{-1}	5.00×10^{-1}	7.20×10^{-1}	9.50×10^{-1}	9.00×10^{-1}	1.05×10^{0}	6.00×10^{-1}	7.90×10^{-1}	2.55×10^{0}
Strontium-90	2.50×10^{-1}	2.50×10^{-1}	3.11×10^{-1}	1.10×10^{0}	6.57×10^{-1}	6.20×10^{-1}	1.72×10^{0}	6.79×10^{-1}	1.45×10^{0}	1.60×10^{0}
Technecium-99	4.96×10^{0}	1.13×10^{0}	1.13×10^{0}	1.13×10^{0}	1.41×10^{0}	1.10×10^{0}	1.88×10^{1}	1.13×10^{0}	1.13×10^{0}	1.13×10^{0}
Thorium-228	4.50×10^{-1}	9.00×10^{-1}	8.50×10^{-1}	9.90×10^{-1}	1.58×10^{0}	1.02×10^{0}	1.61×10^{0}	8.20×10^{-1}	1.20×10^{0}	2.42×10^{0}
Thorium-230	7.17×10^{0}	1.77×10^{0}	1.40×10^{1}	3.46×10^{0}	2.46×10^{2}	2.27×10^{0}	2.32×10^{1}	1.41×10^{1}	3.03×10^{1}	2.84×10^{0}
Thorium-232	1.47×10^{0}	8.00×10^{-1}	8.73×10^{-1}	9.55×10^{-1}	1.26×10^{0}	1.14×10^{0}	1.64×10^{0}	1.54×10^{0}	2.81×10^{0}	2.81×10^{0}
Thorium-234	n.d.	n.d.	n.d.	2.05×10^{0}	1.58×10^{1}	n.d.	2.91×10^{2}	n.d.	n.d.	n.d.
Uranium-234	3.90×10^{-4}	4.37×10^{-4}	2.39×10^{-4}	5.40×10^{-4}	1.51×10^{-3}	1.11×10^{-3}	2.51×10^{-3}	8.33×10^{-4}	4.70×10^{-4}	1.32×10^{-4}
Uranium-235/236	5.11×10^{-2}	5.72×10^{-2}	3.13×10^{-2}	7.06×10^{-2}	1.97×10^{-1}	1.45×10^{-1}	3.28×10^{-1}	1.09×10^{-1}	6.15×10^{-2}	1.73×10^{-2}
Uranium-236	n.d.	n.d.	n.d.	6.00×10^{-2}	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Uranium-238	7.10×10^{0}	7.95×10^{0}	4.34×10^{0}	9.81×10^{0}	2.74×10^{1}	2.02×10^{1}	4.56×10^{1}	1.51×10^{1}	8.54×10^{0}	2.40×10^{0}
Metals/Chemicals (mg/kg)										
1,1-Dichloroethane	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}
1,1-Dichloroethene	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}
1,2,4,5-Tetrachlorobenzene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
1,2,4-Trichlorobenzene	4.00×10^{-1}	3.90×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.40×10^{-1}	4.40×10^{-1}
1,2-Dichlorobenzene	4.00×10^{-1}	3.90×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.40×10^{-1}	4.40×10^{-1}
1,2-Dichloroethane	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}
1,2-Dichloroethene (Total)	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}
1,3,5-Trinitrobenzene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
1,3-Dichlorobenzene	4.00×10^{-1}	3.90×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.40×10^{-1}	4.40×10^{-1}
1,3-Dinitrobenzene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
1,4-Dichlorobenzene	4.00×10^{-1}	3.90×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.40×10^{-1}	4.40×10^{-1}
2,3,7,8-Tetrachlorodibenzo-p-dioxin	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.

TABLE G.3-1
(Continued)

Contaminants of Concern	Area									
	575a	575b	580a	581a	581b	581c	581d	582a	582b	afp
Metals/Chemicals (mg/kg) (Continued)										
2-Benzyl Alcohol-4-chlorophenol	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	4.30×10^{-1}
3,3'-Dichlorobenzidine	5.90×10^{-1}	3.90×10^{-1}	4.10×10^{-1}	8.20×10^{-1}	4.10×10^{-1}	8.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.40×10^{-1}	4.60×10^{-1}
3,3'-Dimethylbenzidine	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
4-Methylphenol	4.00×10^{-1}	3.90×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	1.70×10^{0}	4.40×10^{-1}	4.40×10^{-1}
4-Nitroaniline	1.45×10^{0}	9.80×10^{-1}	1.00×10^{0}	2.00×10^{0}	1.00×10^{0}	2.00×10^{0}	9.50×10^{-1}	1.00×10^{0}	1.10×10^{0}	1.10×10^{0}
7,12-Dimethylbenz(a)anthracene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Antimony	7.02×10^{0}	1.20×10^{0}	1.20×10^{0}	2.51×10^{0}	1.71×10^{0}	3.70×10^{0}	2.90×10^{0}	1.79×10^{0}	1.20×10^{0}	1.20×10^{0}
Alpha-chlordane	5.00×10^{-2}	n.d.	n.d.	n.d.	n.d.	1.00×10^{-1}	5.00×10^{-2}	n.d.	n.d.	n.d.
Aroclor 1254	3.31×10^{-2}	7.64×10^{-2}	5.22×10^{-2}	2.00×10^{-1}	3.04×10^{-1}	1.53×10^{-1}	7.64×10^{-2}	2.20×10^{-2}	2.20×10^{-2}	2.20×10^{-2}
Arsenic	6.27×10^{0}	6.20×10^{0}	8.20×10^{0}	8.29×10^{0}	6.18×10^{0}	5.52×10^{0}	5.84×10^{0}	9.43×10^{0}	4.94×10^{1}	8.01×10^{1}
Benzene	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}
Benzidine	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Benzo(a)anthracene	1.66×10^{0}	2.15×10^{-1}	1.13×10^{0}	2.16×10^{-1}	2.21×10^{-1}	2.15×10^{-1}	3.40×10^{-1}	2.17×10^{-1}	2.15×10^{-1}	2.15×10^{-1}
Benzo(a)pyrene	1.61×10^{0}	2.15×10^{-1}	1.08×10^{0}	2.16×10^{-1}	2.26×10^{-1}	2.15×10^{-1}	4.57×10^{-1}	2.16×10^{-1}	2.15×10^{-1}	2.15×10^{-1}
Benzo(b)fluoranthene	3.77×10^{-1}	2.10×10^{-1}	2.84×10^{-1}	2.11×10^{-1}	2.34×10^{-1}	2.10×10^{-1}	7.40×10^{-1}	2.11×10^{-1}	2.10×10^{-1}	2.10×10^{-1}
Benzo(g,h,i)perylene	2.20×10^{-1}	3.90×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	6.40×10^{-1}	4.10×10^{-1}	4.40×10^{-1}	4.40×10^{-1}
Benzo(k)fluoranthene	1.04×10^{0}	2.15×10^{-1}	7.34×10^{-1}	2.16×10^{-1}	2.31×10^{-1}	2.15×10^{-1}	5.77×10^{-1}	2.16×10^{-1}	2.15×10^{-1}	2.15×10^{-1}
Benzoic acid	9.80×10^{-1}	9.80×10^{-1}	1.00×10^{0}	6.00×10^{-2}	7.00×10^{-2}	6.00×10^{-2}	2.90×10^{-1}	6.80×10^{-1}	1.20×10^{-1}	1.20×10^{0}
Benzyl alcohol	4.00×10^{-1}	3.90×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.20×10^{-1}	4.10×10^{-1}	4.40×10^{-1}	4.50×10^{-1}
Beryllium	1.06×10^{0}	6.33×10^{-1}	1.03×10^{0}	6.53×10^{-1}	9.26×10^{-1}	4.10×10^{-1}	8.87×10^{-1}	1.27×10^{0}	3.64×10^{0}	3.91×10^{0}
Bis(2-chloroethoxy)methane	4.00×10^{-1}	3.90×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.40×10^{-1}	4.40×10^{-1}
Bis(2-chloroethyl)ether	4.00×10^{-1}	3.90×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.40×10^{-1}	4.40×10^{-1}
Bis(2-chloroisopropyl)ether	4.00×10^{-1}	3.90×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.40×10^{-1}	4.40×10^{-1}
Bis(2-ethylhexyl)phthalate	2.10×10^{-1}	2.10×10^{-1}	2.10×10^{-1}	2.10×10^{-1}	2.10×10^{-1}	2.10×10^{-1}	2.10×10^{-1}	2.10×10^{-1}	2.10×10^{-1}	2.10×10^{-1}
Bis(chloromethyl)ether	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Bromodichloromethane	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}
Bromomethane	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}
Cadmium	3.35×10^{0}	1.20×10^{0}	1.30×10^{0}	4.90×10^{-1}	1.60×10^{0}	4.80×10^{-1}	1.43×10^{0}	7.50×10^{-1}	7.40×10^{-1}	5.80×10^{-1}
Chlordane	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Chlorobenzene	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.	1.00×10^{-2}	1.00×10^{-2}

TABLE G.3-1
(Continued)

Contaminants of Concern	Area									
	575a	575b	580a	581a	581b	581c	581d	582a	582b	afp
Metals/Chemicals (mg/kg) (Continued)										
Chlorobenzilate	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Chloroform	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}
Chrysene	2.00×10^{0}	2.10×10^{-1}	1.35×10^{0}	2.11×10^{-1}	2.16×10^{-1}	2.10×10^{-1}	3.37×10^{-1}	2.12×10^{-1}	2.10×10^{-1}	2.10×10^{-1}
Dibenzo(a,h)anthracene	1.36×10^{-1}	7.40×10^{-2}	1.05×10^{-1}	7.42×10^{-2}	7.89×10^{-2}	7.40×10^{-2}	1.83×10^{-1}	7.49×10^{-2}	7.40×10^{-2}	7.40×10^{-2}
Dibenzofuran	4.00×10^{-1}	3.90×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.40×10^{-1}	4.40×10^{-1}
Dibromomethane	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Dieldrin	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.	n.d.	2.00×10^{-2}	1.00×10^{-2}	n.d.	n.d.	n.d.
Ethylbenzene	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}
Gamma-chlordane	5.00×10^{-2}	n.d.	n.d.	n.d.	n.d.	1.00×10^{-1}	5.00×10^{-2}	n.d.	n.d.	n.d.
Hexachlorobenzene	4.00×10^{-1}	3.90×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.40×10^{-1}	4.40×10^{-1}
Indeno(1,2,3-cd)pyrene	1.06×10^{0}	2.20×10^{-1}	7.42×10^{-1}	2.20×10^{-1}	2.39×10^{-1}	2.20×10^{-1}	6.47×10^{-1}	2.21×10^{-1}	2.20×10^{-1}	2.20×10^{-1}
Manganese	9.57×10^{2}	1.15×10^{3}	5.88×10^{2}	8.23×10^{2}	1.06×10^{3}	7.15×10^{2}	1.15×10^{3}	4.52×10^{2}	4.18×10^{2}	4.18×10^{2}
Mercury	5.50×10^{-2}	5.50×10^{-2}	5.50×10^{-2}	1.28×10^{-1}	9.29×10^{-2}	5.50×10^{-2}	5.50×10^{-2}	5.79×10^{-2}	7.44×10^{-2}	2.30×10^{-1}
Methylene chloride	1.00×10^{-3}	1.00×10^{-3}	1.00×10^{-3}	1.37×10^{-3}	5.62×10^{-3}	8.57×10^{-3}	6.33×10^{-3}	1.71×10^{-3}	1.67×10^{-2}	1.10×10^{-1}
N-Nitroso-di-n-propylamine	4.00×10^{-1}	3.90×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.40×10^{-1}	4.40×10^{-1}
Nitrobenzene	4.00×10^{-1}	3.90×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.10×10^{-1}	4.40×10^{-1}	4.40×10^{-1}
O-Dichlorobenzene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
P-Dimethylaminoazobenzene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Phenanthrene	4.03×10^{-1}	2.15×10^{-1}	3.25×10^{-1}	2.17×10^{-1}	2.13×10^{-1}	2.15×10^{-1}	1.62×10^{-1}	2.16×10^{-1}	2.15×10^{-1}	2.15×10^{-1}
Silver	6.30×10^{-1}	4.70×10^{-1}	4.72×10^{-1}	8.24×10^{-1}	1.02×10^{0}	1.41×10^{0}	4.80×10^{-1}	6.13×10^{-1}	4.74×10^{-1}	4.70×10^{-1}
Trans-1,2-dichloroethene(total)	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Trichloroethene	2.05×10^{-3}	2.19×10^{-3}	2.35×10^{-3}	2.04×10^{-3}	2.14×10^{-3}	2.00×10^{-3}	2.00×10^{-3}	2.00×10^{-3}	2.00×10^{-3}	2.00×10^{-3}
Uranium - total	2.13×10^{1}	2.38×10^{1}	1.30×10^{1}	2.94×10^{1}	8.22×10^{1}	6.05×10^{1}	1.37×10^{2}	4.54×10^{1}	2.56×10^{1}	7.20×10^{0}
Zinc	3.50×10^{1}	5.58×10^{1}	6.63×10^{1}	5.72×10^{1}	4.88×10^{1}	2.56×10^{1}	1.07×10^{2}	4.90×10^{1}	4.96×10^{1}	6.78×10^{1}

2070

17

TABLE G.3-1
(Continued)

Contaminants of Concern	Area										
	Pa1	Pa2	Pa3	Pa4	Pa5	Pa6	sf	sw1	wp1	wp2	wpaa
Radionuclides (pCi/g)											
Cesium-137	2.40×10^{-1}	2.80×10^{-1}	2.10×10^{-1}	3.50×10^{-1}	2.20×10^{-1}	7.00×10^{-1}	2.40×10^{-1}	3.30×10^{-1}	5.43×10^{0}	5.30×10^{-1}	2.00×10^{-1}
Neptunium-237	5.40×10^{-1}	5.00×10^{-1}	1.03×10^{0}	6.00×10^{-1}	5.40×10^{-1}	6.00×10^{-1}	2.20×10^{-1}	1.80×10^{-1}	3.68×10^{0}	3.80×10^{-1}	4.90×10^{-1}
Plutonium-238	6.00×10^{-1}	6.00×10^{-1}	6.00×10^{-1}	6.00×10^{-1}	3.30×10^{-1}	6.00×10^{-1}	2.20×10^{-1}	2.90×10^{-1}	1.22×10^{0}	4.60×10^{-1}	1.50×10^{-1}
Plutonium-239/240	6.00×10^{-1}	6.00×10^{-1}	7.30×10^{-1}	6.00×10^{-1}	4.10×10^{-1}	6.00×10^{-1}	4.00×10^{-1}	3.00×10^{-1}	3.67×10^{0}	4.80×10^{-1}	1.60×10^{-1}
Radium-226	7.72×10^{1}	2.38×10^{2}	9.00×10^{-1}	1.89×10^{0}	9.00×10^{-1}	1.10×10^{0}	1.29×10^{1}	n.d.	9.67×10^{-1}	n.d.	2.26×10^{0}
Radium-228	2.57×10^{0}	9.70×10^{-1}	6.60×10^{-1}	6.80×10^{-1}	6.60×10^{-1}	7.30×10^{-1}	1.26×10^{0}	1.17×10^{0}	1.47×10^{0}	8.20×10^{-1}	5.50×10^{-1}
Strontium-90	9.16×10^{-1}	5.47×10^{-1}	5.74×10^{-1}	3.51×10^{0}	2.50×10^{-1}	5.01×10^{-1}	2.50×10^{-1}	n.d.	3.60×10^{-1}	n.d.	4.44×10^{-1}
Technetium-99	1.10×10^{0}	3.38×10^{0}	7.50×10^{0}	2.33×10^{0}	1.13×10^{0}	1.13×10^{0}	1.19×10^{0}	n.d.	1.64×10^{1}	n.d.	1.14×10^{0}
Thorium-228	3.40×10^{0}	8.30×10^{-1}	1.05×10^{0}	9.20×10^{-1}	7.10×10^{-1}	8.80×10^{-1}	1.15×10^{0}	1.17×10^{0}	1.68×10^{1}	2.77×10^{1}	1.37×10^{0}
Thorium-230	1.45×10^{2}	5.95×10^{2}	1.06×10^{3}	4.71×10^{1}	1.77×10^{0}	2.16×10^{0}	1.81×10^{1}	n.d.	3.68×10^{1}	n.d.	1.54×10^{1}
Thorium-232	5.66×10^{0}	1.20×10^{1}	5.96×10^{0}	2.44×10^{1}	8.88×10^{-1}	8.88×10^{-1}	8.96×10^{-1}	n.d.	5.42×10^{0}	n.d.	9.10×10^{-1}
Thorium-234	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Uranium-234	3.08×10^{-3}	2.72×10^{-3}	1.48×10^{-2}	2.85×10^{-2}	1.18×10^{-3}	8.52×10^{-4}	6.07×10^{-4}	n.d.	7.84×10^{-3}	n.d.	9.20×10^{-4}
Uranium-235/236	4.04×10^{-1}	3.56×10^{-1}	1.94×10^{0}	3.73×10^{0}	1.54×10^{-1}	1.12×10^{-1}	7.95×10^{-2}	n.d.	1.03×10^{0}	n.d.	1.20×10^{-1}
Uranium-236	2.62×10^{1}	2.60×10^{-1}	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Uranium-238	5.61×10^{1}	4.94×10^{1}	2.69×10^{2}	5.18×10^{2}	2.14×10^{1}	1.55×10^{1}	1.10×10^{1}	n.d.	1.43×10^{2}	n.d.	1.67×10^{1}
Metals/Chemicals (mg/kg)											
1,1-Dichloroethane	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	2.00×10^{-2}	3.30×10^{-1}	9.00×10^{-2}	n.d.
1,1-Dichloroethene	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	3.30×10^{-1}	9.00×10^{-2}	1.00×10^{-2}
1,2,4,5-Tetrachlorobenzene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	6.30×10^{-1}	n.d.	n.d.	n.d.
1,2,4-Trichlorobenzene	3.70×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	5.60×10^{-1}	4.60×10^{-1}	2.07×10^{1}
1,2-Dichlorobenzene	4.00×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	5.60×10^{-1}	4.60×10^{-1}	2.07×10^{1}
1,2-Dichloroethane	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.50×10^{-1}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	3.30×10^{-1}	9.00×10^{-2}	1.00×10^{-2}
1,2-Dichloroethene (Total)	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	3.30×10^{-1}	1.00×10^{-1}	1.00×10^{-2}
1,3,5-Trinitrobenzene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	6.30×10^{-1}	n.d.	n.d.	n.d.
1,3-Dichlorobenzene	4.00×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	5.60×10^{-1}	4.60×10^{-1}	2.07×10^{1}
1,3-Dinitrobenzene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	6.30×10^{-1}	n.d.	n.d.	n.d.
1,4-Dichlorobenzene	3.70×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	5.60×10^{-1}	4.60×10^{-1}	2.07×10^{1}
2,3,7,8-Tetrachlorodibenzo-p-dioxin	4.00×10^{-2}	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.

TABLE G.3-1
(Continued)

Contaminants of Concern	Area										
	Pa1	Pa2	Pa3	Pa4	Pa5	Pa6	sf	sw1	wp1	wp2	wpaa
Metals/Chemicals (mg/kg) (Continued)											
2-Benzyl Alcohol-4-chlorophenol	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	4.30×10^{-1}	4.00×10^{-1}	n.d.	n.d.	3.60×10^{-1}
3,3'-Dichlorobenzidine	6.20×10^{-1}	5.70×10^{-1}	6.00×10^{-1}	4.80×10^{-1}	4.80×10^{-1}	3.80×10^{-1}	5.20×10^{-1}	5.20×10^{-1}	1.11×10^{0}	5.90×10^{-1}	5.90×10^{-1}
3,3'-Dimethylbenzidine	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	5.15×10^{0}	n.d.	n.d.	n.d.
4-Methylphenol	3.40×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	3.50×10^{-1}	3.50×10^{-1}	5.30×10^{-1}	4.10×10^{-1}	3.80×10^{-1}
4-Nitroaniline	1.48×10^{0}	1.41×10^{0}	1.44×10^{0}	1.17×10^{0}	1.17×10^{0}	9.50×10^{-1}	1.43×10^{0}	1.25×10^{0}	2.79×10^{0}	2.03×10^{0}	1.00×10^{2}
7,12-Dimethylbenz(a)anthracene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	1.29×10^{0}	n.d.	n.d.	n.d.
Antimony	1.73×10^{0}	1.85×10^{1}	1.20×10^{0}	3.13×10^{0}	1.20×10^{0}	1.20×10^{0}	1.20×10^{0}	n.d.	2.35×10^{1}	n.d.	2.64×10^{1}
Alpha-chlordane	1.20×10^{-1}	5.00×10^{-2}	5.00×10^{-2}	n.d.	2.00×10^{-2}	n.d.	2.00×10^{-2}	2.00×10^{-2}	n.d.	9.00×10^{-2}	1.50×10^{-1}
Aroclor 1254	5.14×10^{0}	2.60×10^{0}	1.84×10^{0}	3.24×10^{0}	9.20×10^{-2}	3.75×10^{-2}	4.43×10^{-2}	n.d.	8.71×10^{-1}	n.d.	1.36×10^{-1}
Arsenic	1.00×10^{1}	7.38×10^{0}	7.44×10^{0}	6.82×10^{0}	7.67×10^{0}	7.38×10^{0}	6.59×10^{0}	n.d.	6.36×10^{0}	n.d.	5.54×10^{0}
Benzene	1.00×10^{-2}	2.00×10^{-2}	1.00×10^{-1}	1.50×10^{-1}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	3.30×10^{-1}	9.00×10^{-2}	1.00×10^{-2}
Benzidine	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	2.00×10^{0}	n.d.	n.d.	n.d.
Benzo(a)anthracene	6.05×10^{0}	1.67×10^{0}	3.75×10^{0}	9.89×10^{-1}	3.60×10^{-1}	2.43×10^{-1}	4.27×10^{0}	n.d.	5.11×10^{-1}	n.d.	2.22×10^{-1}
Benzo(a)pyrene	7.85×10^{0}	2.11×10^{0}	4.66×10^{0}	9.25×10^{-1}	3.42×10^{-1}	2.39×10^{-1}	4.07×10^{0}	n.d.	4.57×10^{-1}	n.d.	2.21×10^{-1}
Benzo(b)fluoranthene	7.22×10^{0}	1.95×10^{0}	7.45×10^{0}	3.98×10^{-1}	4.07×10^{-1}	2.48×10^{-1}	5.37×10^{-1}	n.d.	4.32×10^{-1}	n.d.	2.15×10^{-1}
Benzo(g,h,i)perylene	7.80×10^{-1}	3.20×10^{-1}	5.50×10^{-1}	2.70×10^{-1}	4.50×10^{-1}	8.00×10^{-2}	1.50×10^{-1}	1.90×10^{-1}	4.70×10^{-1}	4.10×10^{-1}	2.68×10^{0}
Benzo(k)fluoranthene	7.86×10^{0}	2.11×10^{0}	7.49×10^{-1}	6.55×10^{-1}	3.78×10^{-1}	2.46×10^{-1}	2.52×10^{0}	n.d.	5.11×10^{-1}	n.d.	2.22×10^{-1}
Benzoic acid	2.78×10^{0}	1.11×10^{0}	8.80×10^{-1}	1.00×10^{0}	1.17×10^{0}	9.50×10^{-1}	3.20×10^{-1}	1.38×10^{0}	2.29×10^{0}	2.04×10^{0}	9.20×10^{-1}
Benzyl alcohol	3.40×10^{-1}	3.80×10^{-1}	3.80×10^{-1}	3.90×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.10×10^{-1}	3.90×10^{-1}	5.60×10^{-1}	4.60×10^{-1}	2.07×10^{1}
Beryllium	1.16×10^{0}	9.56×10^{-1}	1.22×10^{0}	1.19×10^{0}	8.92×10^{-1}	5.54×10^{-1}	8.06×10^{-1}	n.d.	6.41×10^{-1}	n.d.	6.81×10^{-1}
Bis(2-chloroethoxy)methane	4.00×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	5.60×10^{-1}	4.60×10^{-1}	2.07×10^{1}
Bis(2-chloroethyl)ether	4.00×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	5.60×10^{-1}	4.60×10^{-1}	2.07×10^{1}
Bis(2-chloroisopropyl)ether	3.40×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	5.60×10^{-1}	4.60×10^{-1}	2.07×10^{1}
Bis(2-ethylhexyl)phthalate	1.64×10^{0}	3.89×10^{-1}	2.97×10^{-1}	3.00×10^{-1}	2.10×10^{-1}	2.10×10^{-1}	2.10×10^{-1}	n.d.	6.14×10^{-1}	n.d.	3.01×10^{-1}
Bis(chloromethyl)ether	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	7.20×10^{-1}	n.d.	n.d.
Bromodichloromethane	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.50×10^{-1}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	3.30×10^{-1}	9.00×10^{-2}	1.00×10^{-2}
Bromomethane	1.00×10^{-2}	1.30×10^{-1}	1.00×10^{-2}	3.10×10^{-1}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	6.70×10^{-1}	1.80×10^{-1}	1.00×10^{-2}
Cadmium	1.10×10^{0}	8.54×10^{-1}	1.04×10^{0}	2.18×10^{0}	4.90×10^{-1}	1.54×10^{0}	1.09×10^{0}	2.82×10^{0}	2.02×10^{0}	1.62×10^{0}	8.77×10^{-1}
Chlordane	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	5.10×10^{-1}	5.80×10^{-1}	4.00×10^{-1}	n.d.
Chlorobenzene	1.00×10^{-2}	1.00×10^{-2}	n.d.	1.50×10^{-1}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	3.30×10^{-1}	9.00×10^{-2}	1.00×10^{-2}

TABLE G.3-1
(Continued)

Contaminants of Concern	Area										
	Pa1	Pa2	Pa3	Pa4	Pa5	Pa6	sf	sw1	wp1	wp2	wpaa
Metals/Chemicals (mg/kg) (Continued)											
Chlorobenzilate	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	8.00×10^{-2}	n.d.	n.d.	n.d.
Chloroform	3.00×10^{-2}	1.00×10^{-2}	2.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	2.00×10^{-2}	2.90×10^{-1}	6.00×10^{-2}	1.00×10^{-2}
Chrysene	7.22×10^{0}	1.96×10^{0}	3.59×10^{0}	1.19×10^{0}	3.98×10^{-1}	2.46×10^{-1}	5.27×10^{0}	n.d.	6.06×10^{-1}	n.d.	2.20×10^{-1}
Dibenzo(a,h)anthracene	2.29×10^{0}	6.26×10^{-1}	1.34×10^{0}	1.20×10^{-1}	1.00×10^{-1}	7.90×10^{-2}	2.11×10^{-1}	n.d.	1.30×10^{-1}	n.d.	7.54×10^{-2}
Dibenzofuran	2.20×10^{-1}	3.30×10^{-1}	3.10×10^{-1}	2.70×10^{-1}	3.20×10^{-1}	3.80×10^{-1}	3.20×10^{-1}	6.60×10^{-1}	4.70×10^{-1}	4.30×10^{-1}	1.44×10^{0}
Dibromomethane	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	1.00×10^{-2}	n.d.	n.d.	n.d.
Dieldrin	2.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	n.d.	1.00×10^{-2}	n.d.	1.00×10^{-2}	2.00×10^{-2}	1.20×10^{-1}	6.00×10^{-2}	3.00×10^{-2}
Ethylbenzene	5.00×10^{-2}	1.10×10^{-1}	1.10×10^{-1}	1.50×10^{-1}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	1.00×10^{-2}	2.80×10^{-1}	3.00×10^{-2}	1.00×10^{-2}
Gamma-chlordane	1.20×10^{-1}	5.00×10^{-2}	5.00×10^{-2}	n.d.	2.00×10^{-2}	n.d.	3.00×10^{-2}	2.00×10^{-2}	n.d.	9.00×10^{-2}	1.50×10^{-1}
Hexachlorobenzene	4.00×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	5.60×10^{-1}	4.60×10^{-1}	2.07×10^{1}
Indeno(1,2,3-cd)pyrene	5.69×10^{0}	1.56×10^{0}	2.56×10^{0}	6.57×10^{-1}	2.00×10^{-1}	2.16×10^{-1}	2.54×10^{0}	n.d.	3.36×10^{-1}	n.d.	2.23×10^{-1}
Manganese	5.73×10^{2}	6.18×10^{2}	5.58×10^{2}	5.85×10^{2}	9.15×10^{2}	8.17×10^{2}	7.51×10^{2}	n.d.	5.92×10^{2}	n.d.	6.72×10^{2}
Mercury	1.40×10^{-1}	1.27×10^{-1}	1.14×10^{-1}	1.35×10^{-1}	5.50×10^{-2}	7.95×10^{-2}	5.50×10^{-2}	n.d.	5.50×10^{-2}	n.d.	5.50×10^{-2}
Methylene chloride	5.01×10^{-3}	1.98×10^{-3}	2.24×10^{-3}	1.96×10^{-3}	1.00×10^{-3}	1.86×10^{-3}	1.00×10^{-3}	n.d.	1.60×10^{-2}	n.d.	2.26×10^{-3}
N-Nitroso-di-n-propylamine	3.00×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	5.60×10^{-1}	4.50×10^{-1}	2.07×10^{1}
Nitrobenzene	4.00×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	3.80×10^{-1}	4.00×10^{-1}	3.90×10^{-1}	5.60×10^{-1}	4.60×10^{-1}	2.07×10^{1}
O-Dichlorobenzene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
P-Dimethylaminoazobenzene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	1.90×10^{0}	n.d.	n.d.	n.d.
Phenanthrene	3.31×10^{0}	1.00×10^{0}	4.39×10^{0}	3.66×10^{-1}	5.04×10^{-1}	2.70×10^{-1}	7.05×10^{-1}	n.d.	7.86×10^{-1}	n.d.	2.29×10^{-1}
Silver	4.02×10^{0}	2.99×10^{0}	1.46×10^{0}	3.75×10^{0}	1.10×10^{0}	7.74×10^{-1}	2.28×10^{0}	n.d.	6.23×10^{0}	n.d.	5.10×10^{0}
Trans-1,2-dichloroethene(total)	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	3.20×10^{-1}	2.80×10^{-1}	n.d.	n.d.
Trichloroethene	3.95×10^{-3}	7.96×10^{-3}	7.53×10^{-3}	5.04×10^{-3}	3.00×10^{-3}	2.26×10^{-3}	2.00×10^{-3}	n.d.	2.00×10^{-3}	n.d.	2.00×10^{-3}
Uranium - total	1.68×10^{2}	1.48×10^{2}	8.06×10^{2}	1.55×10^{3}	6.41×10^{1}	4.65×10^{1}	3.31×10^{1}	n.d.	4.28×10^{2}	n.d.	5.02×10^{1}
Zinc	8.08×10^{1}	1.39×10^{2}	5.50×10^{1}	7.63×10^{1}	6.07×10^{1}	7.06×10^{1}	4.44×10^{1}	5.92×10^{1}	7.18×10^{1}	9.44×10^{1}	4.85×10^{1}

[a] n.d. means no data available.

20