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Savannah River Site Environmental Data for 1992

Editor

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Introduction

The figures and tables in this report represent a capsule view of the routine environmental monitoring and surveillance programs at the Savannah River Site. An attempt has been made to include all available data from environmental research programs.

The first section of the book is a collection of maps of radiological and nonradiological sampling locations. Also included are general radiological and nonradiological sampling and analysis schedules; a list of the media sampled, along with sample sizes and representative aliquots; a list of the lower limits of detection for radiological detection instruments; the minimum detectable concentrations for gamma analysis of water and air samples; and the minimum detectable concentrations for gamma analysis of soil, food, fish and wildlife, and vegetation samples.

Following the first section are data tables containing radiological and nonradiological effluent monitoring results, radiological and nonradiological environmental surveillance results, dose estimates, quality assurance activities, and results of nonroutine occurrences and special surveys.

The following items should aid the reader in interpreting the data:

- The uncertainty term is reported with up to—but no more than—three significant figures. In most cases, the result is reported with up to three significant figures, with the last significant figure determined by the quantification of the uncertainty term.
- The reported uncertainty reflects only the counting error—not other components of random and systematic error present in the measurement process. For this reason, some results may imply a greater confidence than the determination would suggest.
- Uncertainties quoted with means represent the deviation of measurements about the mean value. This number is calculated from the results themselves and does not account for the uncertainties of the individual results.
- Averages were calculated using both positive and negative results, except for gamma-emitting radionuclides, whose less-than-detectable results were not considered in the averages.

Information in this book is summarized in the *Savannah River Site Environmental Report for 1992* (WSRC-TR-93-075). Information about the environmental monitoring program, including a complete description of the Environmental Protection Department/Environmental Monitoring Section sampling and analytical procedures, can be found in the “SRS Environmental Monitoring Plan” (WSRC-3Q1-2-1000).

To obtain copies of environmental reports and documents, contact

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Radionuclide and Chemical Nomenclature

Nomenclature and Half-life for Radionuclides

Radionuclide	Symbol	Half-life ^{a,b}
Americium-241	Am-241	458 y
Americium-243	Am-243	7.95E3 y
Antimony-125	Sb-125	2.7 y
Argon-41	Ar-41	1.83 h
Beryllium-7	Be-7	53 d
Carbon-14	C-14	5,730 y
Cerium-141	Ce-141	33 d
Cerium-144	Ce-144	284 d
Cesium-134	Cs-134	2.05 y
Cesium-137	Cs-137	30 y
Cobalt-58	Co-58	71.3 d
Cobalt-60	Co-60	5.26 y
Curium-242	Cm-242	163 d
Curium-244	Cm-244	17.6 d
Iodine-129	I-129	1.7E7 y
Iodine-131	I-131	8.05 d
Krypton-85	Kr-85	10.76 y
Krypton-88	Kr-88	2.8 h
Manganese-54	Mn-54	303 d
Niobium-95	Nb-95	35 d
Radionuclide	Symbol	Half-life ^{a,b}
Osmium-185	Os-185	9.4 d
Phosphorus-32	P-32	14.3 d
Polonium-210	Po-210	138.4 d
Plutonium-238	Pu-238	87.4 y
Plutonium-239	Pu-239	2.4E4 y
Potassium-40	K-40	1.26E9 y
Promethium-147	Pm-147	2.62 y
Ruthenium-103	Ru-103	39.6 d
Ruthenium-106	Ru-106	367 d
Selenium-75	Se-75	120.4 d
Strontium-89	Sr-89	52 d
Strontium-90	Sr-90	28.1 y
Tritium	H-3	12.3 y
Uranium-235	U-235	7.1E8 y
Uranium-238	U-238	4.5E9 y
Xenon-133	Xe-133	5.27 d
Xenon-135	Xe-135	9.16 h
Yttrium-90	Y-90	64 h
Zirconium-95	Zr-95	65 d

^a h = hour; d = day; y = year

^b Reference: U.S. Department of Health, Education, and Welfare, 1970, *Radiological Health Handbook*, Food and Drug Administration, Bureau of Radiological Health, Rockville, Md.

Nomenclature for Elements and Chemical Constituents

Constituent	Symbol
Aluminum	Al
Ammonia	NH ₃
Antimony	Sb
Arsenic	As
Barium	Ba
Beryllium	Be
Cadmium	Cd
Calcium	Ca
Calcium Carbonate	CaCO ₃
Carbon	C
Chlorine	Cl
Chromium	Cr
Cobalt	Co
Copper	Cu
Fluorine	F
Iron	Fe
Lead	Pb
Lithium	Li
Magnesium	Mg
Manganese	Mn

Constituent	Symbol
Mercury	Hg
Nickel	Ni
Nitrogen	N
Nitrate	NO ₃
Nitrite	NO ₂
Oxygen	O
Ozone	O ₃
Phosphorus	P
Phosphate	PO ₄
Potassium	K
Radium	Ra
Rhenium	Re
Selenium	Se
Silver	Ag
Sodium	Na
Sulfate	SO ₄
Sulfur Dioxide	SO ₂
Thallium	Tl
Uranium	U
Vanadium	V
Zinc	Zn

Nomenclature for Common Chemical Analyses

Analysis

Biological Oxygen Demand
Chemical Oxygen Demand
Dissolved Oxygen
Particulate Matter <10 microns
Polychlorinated Biphenyl
Total Dissolved Solids

Symbol

BOD
COD
DO
PM₁₀
PCB
TDS

Analysis

Total Organic Carbon
Total Organic Halogens
Total Phosphates
Total Solids
Total Suspended Solids
Volatile Organic Compound

Symbol

TOC
TOH
TPO₄
TS
TSS
VOC

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Nonradiological Environmental Surveillance

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GIS Map

Figure 1 SRS Streams and Savannah River Water Quality Sampling Locations

Note: Fourmile Branch is also known as Four Mile Creek.

GIS Map

Figure 2 SRS Streams and Savannah River Water and Sediment Sampling Locations

Note: Fourmile Branch is also known as Four Mile Creek.

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Figure 3 Air Surveillance Stations Located Within 25 Miles of SRS
 Not shown are four stations positioned approximately 100 miles from the site.

M92F003.11

Figure 4 Off-Site TLD Surveillance Locations

M9300557.01

Figure 5 Surface Water Sampling Locations

Surveillance and sampling points are located on SRS streams and seepage basins and on the Savannah River.

Figure 6 Drinking Water Sample Locations

SRS collects drinking water samples from 14 surrounding towns and cities within a 30-mile radius and from two water treatment plants (not shown on map) that supply treated Savannah River water to Beaufort-Jasper and Port Wentworth consumers.

9300443

Unnumbered

Figure 7 SRS Sediment Sampling Locations

Sediment samples are collected annually at six locations on the Savannah River—upriver from, adjacent to, and downriver from SRS—and at nine site stream locations.

M9300508.02

Figure 8 Quarterly On-site Vegetation Sampling Locations at SRS

Figure 9 SWDF Interior Vegetation Sampling Locations

Vegetation samples are collected inside the Solid Waste Disposal Facility to determine whether uptake of radioactivity has occurred by vegetation from buried waste.

M92E004.01

M92F003.09

Figure 10 Food/Milk Sampling Locations

Figure 10 Food/Milk Sampling Locations
Milk was collected and analyzed in 1992 from five local dairies within a 25-mile radius of SRS. A sixth dairy was sampled early in the year, before going out of business. Milk samples are collected every two weeks. Food samples are collected from 14 locations, also within a 25-mile radius of the site. The collection points on the map correspond to general geographic areas because their exact locations vary from year to year and crop to crop. Food samples are collected annually, except for eggs, which are collected quarterly.

M9300535

Figure 11 Fish Sampling Locations

SRS collects fish on the Savannah River above the site, adjacent to the site, and near the river mouth, as well as on the Edisto River at two control locations.

Table 1
General Radiological Sampling and Analysis Schedule

Page 1 of 2

Sample Type	Sampling Frequency	Frequency of Analysis ^a
Air		
Filters	Continuous	Weekly Alpha, beta, Monthly Gamma emitters, Pu-238, Pu-239, and Sr-89,90
Charcoal	Continuous	Weekly I-131
Silica gel	Continuous	Weekly Tritium
Thermoluminescent dosimeters	Continuous	Quarterly Penetrating radiation
Streams	Continuous	Weekly Alpha, beta, tritium, and U/Pu Monthly Sr-89,90, Sr-90, and gamma emitters
Savannah River	Continuous	Weekly Alpha, beta, tritium, and gamma emitters, Monthly Sr-89,90, Sr-90, Pu-238, and Pu-239
Seepage basins	Quarterly	Alpha, beta, tritium, gamma emitters, Sr-89,90, and U/Pu
Groundwater ^b	Requirements vary with location	
Milk	Biweekly	Gamma emitters and tritium
	Quarterly	Sr-90
Food	Annually	Tritium, gamma emitters, Sr-90, U/Pu, Pu-238, and Pu-239
Eggs	Quarterly	Tritium, gamma emitters, Sr-90, U/Pu, Pu-238, and Pu-239
Drinking water		
Onsite	Monthly or quarterly	Alpha, beta, and tritium
Offsite	Semiannually	Alpha, beta, and tritium
Water treatment plants	Daily sampling Monthly analysis	Alpha, beta, and tritium
All locations	Annually	Sr-90

^a Analysis frequencies not listed in this column follow the sampling frequency for that medium.

^b Sample collection and analytical procedures for groundwater monitoring are discussed in the quarterly groundwater reports.

Table 1
General Radiological Sampling and Analysis Schedule

Page 2 of 2

Sample Type	Sampling Frequency	Frequency of Analysis ^a
Rainwater	Continuous sampling	Monthly or quarterly Alpha, beta, tritium, gamma emitters, Pu-238, Pu-239, Sr-89,90, and Sr-90
Soil and sediments	Annually	Gamma emitters, Sr-90, Pu-238, and Pu-239
Vegetation		Alpha, beta, tritium, Sr-89,90, and gamma emitters
F, H, S, and Z Areas	Quarterly	
Outside Burial Ground fence	Quarterly	
Inside Burial Ground fence	Annually	
Seepage/Retention basins	Annually	
Offsite	Quarterly	

^a Analysis frequencies not listed in this column follow the sampling frequency for that medium.

Table 2
General Nonradiological Sampling and Analysis Schedule

Page 1 of 1

Environmental Medium	Frequency	Analysis
Air	Continuously ^a	SO ₂ , NO _x , and O ₃
	Six-day intervals	Particulate Matter (PM ₁₀)
Liquid effluents (NPDES)	Varies with permit requirements	
Savannah River	Continuously	Quarterly Metals (monthly composites)
	Monthly	Water quality parameters: temperature, pH, dissolved oxygen, conductivity and fecal coliform
	Annually	Herbicides
Streams	Weekly	Quarterly Metals (weekly composites)
	Monthly	Water quality parameters, organics, pH, dissolved oxygen, temperature, conductivity, and fecal coliform
Drinking water		
Primary systems	Annually	Chemicals, metals, and organics
Smaller systems	Varies with use	Chemicals, metals, and organics
All systems	Varies with use	Total coliform and residual chlorine
Wildlife (fish)	Monthly	Mercury
Sediments	Annually	Herbicides

^a Ambient air stations were shut down in June 1991.

Table 3
Sample Media Data

Page 1 of 1

Sample Matrix or Media	Sample Size	Representative Aliquot
Gross alpha:		
Water	1 L	1 L
Vegetation	1–2 kg	1–5 g
Rain (collection pan)	0.37 m ²	0.093 m ² (1/4 total sample)
Air	whole filter	800 m ³
Nonvolatile beta:		
Water	1 L	1 L
Vegetation	1–2 kg	2 g
Air	whole filter	800 m ³
Strontium-89,90:		
River water	7 L	1 L
Rain	0.37 m ²	0.031 m ² (1/12 total sample)
Streams	1 L	1 L
Air composites		
site perimeter	20,000 m ³	4,200 m ³
25-mile radius	18,000 m ³	3,600 m ³
100-mile radius	6,000 m ³	1,200 m ³
Strontium-90:		
River water	7 L	7 L
Streams	6 L	3 L (duplicates)
Milk	0.5 L	0.5 L
Food	20 g	20 g
Rain	0.37 m ²	0.031 m ² (1/12 total sample)

Table 4
Lower Limits of Detection for Radiological Detection Instruments

Page 1 of 1

Alpha Spectrometer Analysis of Plutonium

Sample:	Lower Limit of Detection:
Air filter	2.4E-11 $\mu\text{Ci}/\text{m}^3$
Rain ion columns	2.8E-07 $\mu\text{Ci}/\text{m}^2$
River water	4.3E-12 $\mu\text{Ci}/\text{mL}$
Soil and sediment	8.6E-10 $\mu\text{Ci}/\text{g}$
Foodstuff	8.6E-11 $\mu\text{Ci}/\text{g}$

NOTE: These LLD values for the **alpha spectrometer** were calculated at the 95% confidence level [EMP, 1993]. The air filter value is for one half of a single filter (2.5 CFM for one week). The sample aliquot was 0.031 m^2 per collection area for rainwater, 2L for river water, 10 g for soils, and 100g for foodstuff. The typical recovery was 42%; the typical counting efficiency was 27%. The LLD for the actual samples are variable because of the effects of sample preparation, sample size, chemical recovery, counting efficiency, and radioactive decay. The sample counting time is 5000 minutes.

Gas-Flow Proportional Counters

Nuclide:	Lower Limit of Detection:
Gross alpha	6.23E-07 $\mu\text{Ci}/\text{sample}$
Nonvolatile beta	1.55E-06 $\mu\text{Ci}/\text{sample}$
Sr-89,90	2.38E-06 $\mu\text{Ci}/\text{sample}$
Sr-90	1.89E-06 $\mu\text{Ci}/\text{sample}$

NOTE: The instrument LLD values for the **gas-flow proportional counter** were calculated at the 95% confidence level [EMP, 1993]. The counting efficiencies were 28% for alpha, and 43% for beta, Sr-90, and Sr-89,90. The LLD for the actual samples are variable because of the effects of sample aliquot size, sample preparation, chemical recovery, counting efficiency, and radioactive decay. The sample counting time was 20 minutes.

Liquid Scintillation Analyses for Beta Emitters

Sample:	Lower Limit of Detection:
Tritium ^a	1.3E-06 $\mu\text{Ci}/\text{mL}$
Tritium ^b	4.7E-07 $\mu\text{Ci}/\text{mL}$
Phosphorus-32	6.2E-09 $\mu\text{Ci}/\text{mL}$
Promethium-147	7.9E-09 $\mu\text{Ci}/\text{mL}$
Sulfur-35	1.5E-09 $\mu\text{Ci}/\text{mL}$

NOTE: Instrumental LLD values for the liquid scintillation counter were calculated at the 95% confidence level [EMP, 1993]. The average counting efficiencies were 37% for tritium, 79% for P-32, 88% for Pm-147, and 88% for S-35. The LLD for the actual samples are variable because of the effects of sample preparation, sample aliquot size, chemical recovery, counting efficiency, counting time, and radioactive decay.

a Routine environmental samples (e.g. stream samples and silica gels) are analyzed for tritium using a 20-minute count.
 b Environmental samples such as drinking water, foodstuff, and rainwater are analyzed using a 150-minute count.

Table 5
Minimum Detectable Concentrations for Gamma Analysis of
Water and Air Samples

Page 1 of 1

Nuclide	pCi/L		pCi/m ²	(E-3)pCi/m ³
	River Water ^a	Stream Water ^a	Rain Water ^a	Air Filter ^a
Ce-141	0.8	14	36	12
Ce-144	2.9	48	125	33
Co-58	0.6	11	29	10
Co-60	1.0	11	32	11
Cr-51	5.8	90	246	93
Cs-134	0.7	10	27	8
Cs-137	0.7	9	26	8
I-131	1.2	26	72	17
Mn-54	0.7	12	32	11
Nb-95	0.8	13	36	14
Ru-103	0.6	10	28	10
Ru-106	5.5	100	278	88
Sb-125	1.8	23	63	19
Zn-65	1.4	23	64	22
Zr-95	1.4	20	55	19

^a The Minimum Detectable Concentration (MDC) values are based on a background measurement using a high purity germanium detector with a relative efficiency of 32%. The typical sample volume, decay time, and counting intervals were used in the calculations for each sample type. Some special samples may use different parameters resulting in different MDC values. Chemical recoveries are assumed to be 100%. The MDC values are calculated at 95% confidence level using the Canberra/Nuclear Data VAX/VMS Gamma Spectroscopy Applications and Nuclide Identification software packages.

Table 6
Minimum Detectable Concentrations for Gamma Analysis of Soil, Food, Fish and Wildlife, and Vegetation Samples

Page 1 of 1

Nuclide	(E-3)pCi/g			pCi/g	pCi/L
	Soil ^a	Foods ^a	Fish and Wildlife ^a	Vegetation ^a	Milk ^a
Ce-141	97	98	158	0.4	3
Ce-144	139	40	227	0.5	12
Co-58	42	21	74	0.2	2
Co-60	29	7	52	0.1	3
Cr-51	771	979	1,320	2.9	19
Cs-134	26	7	45	0.1	2
Cs-137	24	7	42	0.1	3
I-131	3,940	Decayed	6,790	15	3
Mn-54	32	8	57	0.1	2
Nb-95	84	74	147	0.3	3
Ru-103	60	49	104	0.2	2
Ru-106	279	72	486	1.1	23
Sb-125	61	18	106	0.2	6
Zn-65	66	21	117	0.3	5
Zr-95	83	39	145	0.3	4

^a The Minimum Detectable Concentration (MDC) values are based on a background measurement using a high purity germanium detector with a relative efficiency of 32%. The typical sample volume, decay time, and counting intervals were used in the calculations for each sample type. Some special samples may use different parameters, resulting in different MDC values. Chemical recoveries are assumed to be 100%. The MDC values are calculated at the 95% confidence level using the Canberra/Nuclear Data VAX/VMS Gamma Spectroscopy Applications and Nuclide Identification software packages.

Table 7
1992 Atmospheric Releases by Source

Page 1 of 1

Radio-nuclide	Curies ^a							Total
	Half-life	Reactors	Separations	Reactor Materials	Heavy Water	SRTC	Diffuse and Fugitive ^b	
GASES AND VAPORS								
H-3 (oxide)	12.3 yrs	4.67E+04	5.31E+04		4.82E+02		7.83E+00	1.00E+05
H-3 (elem)	12.3 yrs	6.59E+01	5.58E+04					5.59E+04
H-3 Total	12.3 yrs	4.68E+04	1.09E+05		4.82E+02		7.83E+00	1.56E+05
C-14	5.7E3 yrs	1.83E-01	3.08E-03					1.86E-01
Ar-41	1.8 hours	2.51E+02						2.51E+02
Kr-85	10.7 yrs	4.99E+01						4.99E+01
I-129	1.6E7 yrs		3.50E-03					3.50E-03
I-131	8 days	1.42E-06	4.10E-05			5.75E-05		9.99E-05
I-133	20.8 hrs					1.15E-03		1.15E-03
I-135	6.6 hours					1.34E-01		1.34E-01
Xe-135	9.1 hours					2.43E-03		2.43E-03
PARTICULATES								
Co-60	5.3 years		3.60E-07				3.34E-17	3.60E-07
Sr-89,90 ^c	29.1 yrs	2.37E-04	1.62E-03	2.24E-05	1.41E-05	3.02E-05	1.13E-04	2.03E-03
Zr-95	64 days						2.39E-14	2.39E-14
Ru-106	1.0 years		1.81E-06				4.96E-12	1.81E-06
Sb-125	2.8 years						7.27E-15	7.27E-15
Cs-134	2.1 years		3.75E-08				1.40E-17	3.75E-08
Cs-137	30.2 yrs	3.05E-05	2.16E-04			3.94E-06	4.33E-11	2.50E-04
Ce-144	285 days		1.16E-07				1.13E-13	1.16E-07
Eu-154	8.6 years						3.44E-13	3.44E-13
Eu-155	4.7 years						1.63E-13	1.63E-13
U-235,238	4.5E9 yrs		1.52E-03	5.12E-06			5.74E-05	1.58E-03
Pu-238	87.7 yrs		4.42E-04				4.00E-06	4.46E-04
Pu-239 ^d	2.4E4 yrs	6.77E-09	6.86E-04	3.22E-06	5.27E-07	5.46E-05	5.01E-07	7.45E-04
Am-241,243	7.4E3 yrs		1.13E-04			2.34E-08	8.86E-13	1.13E-04
Cm-242,244	18.1 yrs		2.30E-05			7.90E-08	7.33E-12	2.31E-05

a One curie equals 3.7 E+10 Becquerels.

b Estimated releases from minor unmonitored diffuse and fugitive sources

c Includes unidentified beta-gamma emissions

d Includes unidentified alpha emissions

Table 8
1992 Atmospheric Releases by Stack/Facility and Comparison of Annual Average Concentrations to DOE DCGs

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Stack or Facility	Radionuclide	Quantity released during 1992 - μCi	Atmospheric Release Volume - mL	Average effluent concentration during 1992 - $\mu\text{Ci/mL}$	DOE DCGs ^a - $\mu\text{Ci/mL}$
A-Area (SRTC)					
735-A	Am-241,243	2.34E-02	5.34E+14	4.38E-17	2.0E-14
	Cm-242,244	7.90E-02	5.34E+14	1.48E-16	4.0E-14
773-A, B wing	Cs-137	1.03E+00	1.08E+15	9.54E-16	4.0E-10
773-A, C wing	Cs-137	1.60E+00	1.08E+15	1.48E-15	4.0E-10
773-A, Sandfilter	I-131	5.73E+01	1.11E+15	5.16E-14	4.0E-10
	I-133	1.15E+03	1.11E+15	1.04E-12	2.0E-09
	I-135	1.34E+05	1.11E+15	1.21E-11	1.0E-08
	Xe-135	2.43E+03	1.11E+15	2.19E-12	none listed
	Cs-137	1.31E+00	1.11E+15	1.18E-15	4.0E-10
776-A	I-131	1.80E-01	1.57E+14	1.15E-15	4.0E-10
	I-133	2.0E+00	1.57E+14	1.27E-14	2.0E-09
C-Area (C-Reactor)					
C, Main Stack	H-3 (oxide)	3.67E+02	1.73E+15	2.12E-13	1.0E-07
D-Area (Heavy Water Rework)					
420-D	H-3 (oxide)	3.84E+02	2.33E+14	1.65E-12	1.0E-07
421-2D	H-3 (oxide)	5.66E+01	1.54E+14	3.68E-13	1.0E-07
772-D	H-3 (oxide)	4.10E+01	2.65E+14	1.58E-13	1.0E-07
F-Area (Separations and Waste Management)					
235-F, Sandfilter	Pu-238	4.32E-02	5.36E+14	8.06E-17	3.0E-14
	Pu-239	2.63E-02	5.36E+14	4.91E-17	2.0E-14
	U-235,238	3.06E-01	5.36E+14	5.71E-16	1.0E-13
	Am-241,243	6.23E-01	5.36E+14	1.16E-15	2.0E-14
	Cm-242,244	1.65E-02	5.36E+14	3.08E-17	4.0E-14
241-F, Misc.	Cs-137	1.92E-01	7.11E+13	2.70E-15	4.0E-10

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed dose of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 8
1992 Atmospheric Releases by Stack/Facility and Comparison of Annual Average Concentrations to DOE DCGs

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Stack or Facility	Radionuclide	Quantity released during 1992 - μCi	Atmospheric Release Volume - mL	Average effluent concentration during 1992 - $\mu\text{Ci/mL}$	DOE DCGs ^a - $\mu\text{Ci/mL}$
241-F, Purge	Cs-137	3.15E+00	3.83E+13	8.22E-14	4.0E-10
241-F, Annulus	Cs-137	1.63E+00	3.64E+14	4.48E-15	4.0E-10
247-F, Main	U-235,238	4.60E-01	1.63E+15	2.82E-16	1.0E-13
6.1-D, Dissolver	Cs-137	2.83E-03	3.03E+12	9.34E-16	4.0E-10
6.4-D, Dissolver	Cs-137	1.18E-02	3.03E+12	3.89E-15	4.0E-10
F-Area (Separations and Waste Management) cont.					
800 Cell	Sr-89,90	1.31E-01	1.16E+14	1.13E-15	9.0E-12
772-F, Temp.	Sr-89,90	6.25E-01	1.04E+15	6.01E-16	9.0E-12
	Pu-238	4.87E-01	1.04E+15	4.68E-16	3.0E-14
	Pu-239	2.60E-01	1.04E+15	2.50E-16	2.0E-14
	U-235,238	2.70E+00	1.04E+15	2.60E-15	1.0E-13
	Am-241,243	1.47E+01	1.04E+15	1.41E-14	2.0E-14
	Cm-242,244	6.17E-01	1.04E+15	5.93E-16	4.0E-14
221-F, A Line	Pu-238	1.26E-02	3.63E+13	3.47E-16	3.0E-14
	Pu-239	1.01E-02	3.63E+13	2.78E-16	2.0E-14
	U-235,238	1.99E-01	3.63E+13	5.48E-15	1.0E-13
F, Main Stack	Sr-89,90	5.13E+01	4.27E+15	1.20E-14	9.0E-12
	Cs-137	1.70E+01	4.27E+15	3.98E-15	4.0E-10
	Pu-238	8.17E+01	4.27E+15	1.93E-14	3.0E-14
	Pu-239	3.10E+02	4.27E+15	7.26E-14	2.0E-14
	U-235,238	1.45E+03	4.27E+15	3.40E-13	1.0E-13
	Am-241,243	4.88E+01	4.27E+15	1.14E-14	2.0E-14
	Cm-242,244	7.22E+00	4.27E+15	1.69E-15	4.0E-14
H-Area (Separations and Waste Management)					
230-H, Process	Cs-137	4.57E-04	1.28E+12	3.57E-16	4.0E-10
241-84H, ETF	Cs-137	3.38E-01	6.14E+14	5.50E-16	4.0E-10

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed dose of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 8
1992 Atmospheric Releases by Stack/Facility and Comparison of Annual Average Concentrations to DOE DCGs

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Stack or Facility	Radionuclide	Quantity released during 1992 - μCi	Atmospheric Release Volume - mL	Average effluent concentration during 1992 - $\mu\text{Ci/mL}$	DOE DCGs ^a - $\mu\text{Ci/mL}$
241-H, Misc.	Cs-134	9.79E-03	9.52E+13	1.02E-16	2.0E-10
	Cs-137	1.46E+00	9.52E+13	1.53E-14	4.0E-10
	Ce-144	1.16E-01	9.52E+13	1.22E-15	3.0E-11
241-H, Purge	Ru-106	9.59E-01	7.21E+13	1.33E-14	3.0E-11
	Cs-134	1.66E-02	7.21E+13	2.30E-16	2.0E-10
	Cs-137	5.36E+00	7.21E+13	7.43E-14	4.0E-10
241-H, Annulus	Ru-106	8.54E-01	8.46E+14	1.01E-15	3.0E-11
	Cs-134	1.11E-02	8.46E+14	1.31E-17	2.0E-10
	Cs-137	1.21E+01	8.46E+14	1.43E-15	4.0E-10
244-H, RBOF ^b	Co-60	3.44E-01	3.63E+14	9.47E-16	8.0E-11
	Cs-137	9.73E-01	3.63E+14	2.68E-15	4.0E-10
244-H, RBOF VV ^c	Co-60	1.59E-02	7.80E+12	2.04E-15	8.0E-11
	Cs-137	7.71E-01	7.80E+12	9.88E-14	4.0E-10
253-H, Waste	H-3 (oxide)	2.10E+01	6.70E+13	3.13E-13	1.0E-07
299-H, Building	Cs-137	3.02E-01	2.69E+14	1.12E-15	4.0E-10
H-Area (Separations and Waste Management) cont.					
Tritium Facilities	H-3 (oxide)	5.31E+10	4.07E+15	1.30E-05	1.0E-07
	H-3 (elemental)	5.58E+10	4.07E+15	1.37E-05	2.0E-02
H, Main Stack	Sr-89,90	2.23E+02	3.96E+15	5.62E-14	9.0E-12
	I-131	4.10E+01	3.96E+15	1.04E-14	4.0E-10
	Cs-137	1.73E+02	3.96E+15	4.37E-14	4.0E-10
	Pu-238	3.60E+02	3.96E+15	9.10E-14	3.0E-14
	Pu-239	1.12E+02	3.96E+15	2.83E-14	2.0E-14

a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed dose of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

b Receiving Basin for Offsite Fuel

c Receiving Basin for Offsite Fuel Vessel Vent

Table 8
1992 Atmospheric Releases by Stack/Facility and Comparison of Annual Average Concentrations to DOE DCGs

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Stack or Facility	Radionuclide	Quantity released during 1992 - μCi	Atmospheric Release Volume - mL	Average effluent concentration during 1992 - $\mu\text{Ci/mL}$	DOE DCGs ^a - $\mu\text{Ci/mL}$
	U-235,238	7.49E+01	3.96E+15	1.89E-14	1.0E-13
	Am-241,243	4.90E+01	3.96E+15	1.24E-14	2.0E-14
	Cm-242,244	1.51E+01	3.96E+15	3.81E-15	4.0E-14
K-Area (K-Reactor)					
K, Main Stack	H-3 (oxide)	3.82E+10	2.97E+15	1.29E-05	1.0E-07
	Ar-41	2.51E+08	2.97E+15	8.45E-08	none listed
	Cs-137	4.07E+00	2.97E+15	1.37E-15	4.0E-10
K, Disassembly	H-3 (oxide)	1.02E+09	1.15E+15	8.87E-07	1.0E-07
	H-3 (elemental)	6.59E+07	1.15E+15	5.73E-08	2.0E-02
	I-131	1.42E+00	1.15E+15	1.23E-15	4.0E-10
L-Area (L-Reactor)					
L, Main Stack	H-3 (oxide)	6.23E+09	2.74E+15	2.27E-06	1.0E-07
L, Disassembly	H-3 (oxide)	4.26E+08	1.22E+15	3.49E-07	1.0E-07
	Cs-137	2.64E+01	1.22E+15	2.16E-14	4.0E-10
M-Area (Reactor Materials)					
313-M	U-235,238	1.76E+00	1.38E+14	1.28E-14	1.0E-13
320-M	U-235,238	3.91E-01	3.83E+13	1.02E-14	1.0E-13
321-M	U-235,238	2.41E+00	7.44E+14	3.24E-14	1.0E-13
322-M	U-235,238	5.63E-01	6.88E+14	8.18E-16	1.0E-13
P-Area (P-Reactor)					
P, Main Stack	H-3 (oxide)	3.22E+08	1.26E+15	2.56E-07	1.0E-07
P, Disassembly	H-3 (oxide)	1.16E+08	2.67E+14	4.34E-07	1.0E-07

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed dose of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 9
1992 Liquid Releases by Source
(Includes Direct and Seepage Basin Migration Releases)

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Radio-nuclide	Half-life	Curies ^a					Total
		Reactors	Separations	Reactor Materials	Heavy Water	SRTC/TNX	
H-3 (oxide)	12.3 yrs	2.30E+03	1.09E+04		5.76E+02	3.67E-01	1.38E+04
Sr-89,90 ^b	29.1 yrs	4.21E-01	3.07E-01	9.24E-04	5.28E-02	3.94E-03	7.86E-01
I-129	1.6E7 yrs		2.20E-02				2.20E-02
Cs-137	30.2 yrs		1.01E-01				1.01E-01
Pm-147	2.6 yrs		2.45E-04				2.45E-04
U-235,238	4.5E9 yrs		1.31E-05	1.89E-03			1.90E-03
Pu-239 ^c	2.4E4 yrs	7.70E-03	7.44E-03	4.60E-04		5.02E-04	1.61E-02

^a One curie equals 3.7 E+10 Becquerels.

^b Includes unidentified beta-gamma

^c Includes unidentified alpha

Table 10
1992 Liquid Radioactive Releases by Facility and Comparison of Annual Average Concentrations to DOE DCGs

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Stack or Facility	Radionuclide	Quantity released during 1992 - Ci	Average effluent concentration during 1992 - $\mu\text{Ci/mL}$	DOE DCGs ^a - $\mu\text{Ci/mL}$	Fraction of DOE DCG
A-Area (SRTC)					
TB-2 A-1 Out-fall	H-3	2.67E-01	3.17E-07	2.0E-03	1.59E-04
	U/Pu (Pu-239)	1.61E-05	1.68E-10	3.0E-08	5.59E-03
				Sum of Fractions -	5.75E-03
C-Area (C-Reactor)					
C, Proc. Sewer	H-3	6.01E-01	N/A (part year)	2.0E-03	N/A ^b
	Sr-89,90	1.01E-05	N/A (part year)	1.0E-06	N/A
				Sum of Fractions -	N/A
C-Canal	H-3	2.75E+01	1.71E-06	2.0E-03	8.57E-04
	Sr-89,90	4.61E-05	2.32E-10	1.0E-06	2.32E-04
				Sum of Fractions -	1.09E-03
D-Area (Heavy Water Rework)					
D-Area Eff.	H-3	5.76E+02	1.05E-05	2.0E-03	5.25E-03
	Sr-89,90	9.70E-03	9.61E-11	1.0E-06	9.61E-05
				Sum of Fractions -	5.35E-03
F-Area (Separations and Waste Management)					
F-001	H-3	6.95E-02	3.98E-07	2.0E-03	1.99E-04
				Sum of Fractions -	1.99E-04
F-012 (281-8F)	H-3	2.34E-01	3.15E-06	2.0E-03	1.57E-03
	Sr-89,90	8.97E-05	2.77E-09	1.0E-06	2.77E-03
	Cs-137	8.97E-04	3.56E-08	3.0E-06	1.19E-02
				Sum of Fractions -	1.62E-02
F-013 (200-F)	H-3	4.94E-02	8.79E-06	2.0E-03	4.40E-03
				Sum of Fractions -	4.40E-03
FM-3 (F-Area)	H-3	4.56E+00	2.60E-06	2.0E-03	1.30E-03

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed dose of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

^b Not applicable

Table 10
1992 Liquid Radioactive Releases by Facility and Comparison of Annual Average Concentrations to DOE DCGs

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Stack or Facility	Radionuclide	Quantity released during 1992 - Ci	Average effluent concentration during 1992 - $\mu\text{Ci/mL}$	DOE DCGs ^a - $\mu\text{Ci/mL}$	Fraction of DOE DCG
	Sr-89,90	6.84E-04	7.28E-10	1.0E-06	7.28E-04
	Cs-137	7.39E-04	1.16E-08	3.0E-06	3.88E-03
	Pm-147	7.79E-05	3.48E-10	1.0E-04	3.48E-06
				Sum of Fractions -	5.91E-03
U3R-2 (F-Storm)	H-3	7.64E-01	2.34E-06	2.0E-03	1.17E-03
	Sr-89,90	1.44E-04	5.66E-10	1.0E-06	5.66E-04
	U/Pu (Pu-239)	3.29E-04	1.32E-09	3.0E-08	4.40E-02
				Sum of Fractions -	4.57E-02
F-Area (Separations and Waste Management) cont.					
U3RF-3 (N.F.)	H-3	1.58E-01	3.08E-06	2.0E-03	1.54E-03
	Sr-89,90	1.50E-05	1.54E-10	1.0E-06	1.54E-04
	Pm-147	2.11E-05	8.15E-10	1.0E-04	8.15E-06
	U-235,238	1.31E-05	2.94E-10	6.0E-07	2.19E-03
				Sum of Fractions -	2.19E-03
H-Area (Separations and Waste Management) cont.					
FM-1C (H-Area)	H-3	5.05E+00	1.01E-05	2.0E-03	5.04E-03
	Sr-89,90	6.59E-04	1.84E-09	1.0E-06	1.84E-03
	Cs-137	8.05E-04	4.03E-08	3.0E-06	1.34E-02
	Pm-147	9.16E-05	1.50E-09	1.0E-04	1.50E-05
				Sum of Fractions -	2.03E-02
H-017 (281-8H)	H-3	1.10E+00	7.05E-06	2.0E-03	3.53E-03
	Sr-89,90	6.54E-03	4.92E-08	1.0E-06	4.92E-02
	Cs-137	5.64E-02	3.96E-07	3.0E-06	1.32E-01
				Sum of Fractions -	1.85E-01
H-018 (200-H)	H-3	8.26E-02	2.93E-05	2.0E-03	1.46E-02

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed dose of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

Table 10
1992 Liquid Radioactive Releases by Facility and Comparison of Annual Average Concentrations to DOE DCGs

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Stack or Facility	Radionuclide	Quantity released during 1992 - Ci	Average effluent concentration during 1992 - $\mu\text{Ci/mL}$	DOE DCGs ^a - $\mu\text{Ci/mL}$	Fraction of DOE DCG
	Sr-89,90	6.18E-04	1.53E-07	1.0E-06	1.53E-01
	Cs-137	1.90E-03	7.79E-07	3.0E-06	2.60E-01
				Sum of Fractions -	4.27E-01
HP-52 (H-Tanks)	H-3	2.61E+00	5.19E-06	2.0E-03	2.59E-03
	Sr-89,90	1.67E-04	5.07E-10	1.0E-06	5.07E-04
	Cs-137	1.25E-03	1.60E-08	3.0E-06	5.32E-03
				Sum of Fractions -	8.42E-03
McQueen's Br.	H-3	1.08E+01	1.08E-05	2.0E-03	5.39E-03
				Sum of Fractions -	5.39E-03
U3R-2A (ETF)	H-3	1.01E+03	1.44E-02	2.0E-03	7.18E+00
	Sr-89,90	7.17E-05	1.40E-09	1.0E-06	1.40E-03
	Cs-137	1.69E-02	5.63E-07	3.0E-06	1.88E-01
	Pm-147	5.44E-05	5.34E-09	1.0E-04	5.34E-05
				Sum of Fractions -	7.37E-00
K-Area (K-Reactor)					
K-Canal	H-3	1.20E+02	1.59E-06	2.0E-03	7.93E-04
				Sum of Fractions -	7.93E-04
K-008	H-3	2.52E+00	4.45E-05	2.0E-03	2.22E-02
				Sum of Fractions -	2.22E-02
107-K Cooling	H-3	1.92E-08	N/A (part year)	2.0E-03	N/A ^b
				Sum of Fractions -	N/A
K-Area (K-Reactor)					
K, Proc. Sewer	H-3	6.36E+00	N/A (part year)	2.0E-03	N/A
				Sum of Fractions -	N/A
PB-1 (Sec. Eff.)	H-3	1.74E+00	1.83E-05	2.0E-03	9.17E-03

a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed dose of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

b Not applicable

Table 10
1992 Liquid Radioactive Releases by Facility and Comparison of Annual Average Concentrations to DOE DCGs

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Stack or Facility	Radionuclide	Quantity released during 1992 - Ci	Average effluent concentration during 1992 - $\mu\text{Ci/mL}$	DOE DCGs ^a - $\mu\text{Ci/mL}$	Fraction of DOE DCG
Sum of Fractions -					9.17E-03
K-Area Purge	H-3	1.50E+02	2.32E-01	2.0E-03	1.16E+02
	S-35	3.25E-05	6.56E-08	2.0E-04	3.28E-04
	Co-60	4.76E-05	1.91E-07	5.0E-02	3.81E-06
	Sr-89,90	3.25E-04	6.56E-07	1.0E-06	6.56E-01
	Y-91	2.01E-05	6.41E-08	2.0E-05	3.20E-03
	Sb-125	7.22E-05	2.00E-07	5.0E-05	3.99E-03
	Cs-134	2.15E-05	4.45E-08	2.0E-06	2.23E-02
	Cs-137	1.14E-03	1.62E-06	3.0E-06	5.39E-01
	Pm-147	2.85E-05	4.75E-08	1.0E-04	4.75E-04
	U-235,238	8.60E-07	1.21E-09	6.0E-07	2.01E-03
	Pu-238	1.26E-05	1.85E-08	4.0E-08	4.63E-01
	Pu-239	1.47E-06	2.31E-09	3.0E-08	7.70E-02
	Am-241,243	6.85E-07	9.89E-10	3.0E-08	3.30E-02
	Cm-242,244	1.99E-07	7.96E-10	6.0E-08	1.33E-02
Sum of Fractions -					1.18E+02
L-Area (L-Reactor)					
L-007	H-3	4.91E+01	7.72E-07	2.0E-03	3.86E-04
Sum of Fractions -					3.86E-04
107-L, Cooling	H-3	7.13E+00	N/A (part year)	2.0E-03	N/A ^b
Sum of Fractions -					N/A
L, Proc. Sewer	H-3	1.49E+00	N/A (part year)	2.0E-03	N/A
	Sr-89,90	3.59E-04	N/A (part year)	1.0E-06	N/A
Sum of Fractions -					N/A
M-Area (Reactor Materials)					

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed dose of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

^b Not applicable

Table 10
1992 Liquid Radioactive Releases by Facility and Comparison of Annual Average Concentrations to DOE DCGs

Page 5 of 5

Stack or Facility	Radionuclide	Quantity released during 1992 - Ci	Average effluent concentration during 1992 - $\mu\text{Ci/mL}$	DOE DCGs ^a - $\mu\text{Ci/mL}$	Fraction of DOE DCG
TB-3 (M-Area)	U-235,238	1.89E-03	9.77E-10	6.0E-07	1.63E-03
				Sum of Fractions -	1.63E-03
P-Area (P-Reactor)					
P-019	H-3	8.17E+00	1.64E-06	2.0E-03	8.20E-04
				Sum of Fractions -	8.20E-04
107-P (Cooling)	H-3	1.42E-01	N/A (part year)	2.0E-03	N/A ^b
				Sum of Fractions -	N/A
TNX Area					
TNX-1	H-3	9.96E-02	3.45E-08	2.0E-03	1.72E-05
				Sum of Fractions -	1.72E-05

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed dose of 100 mrem under conditions of continuous exposure for one year. DCGs are reference values only and are not considered release limits or standards.

^b Not applicable

Table 11
Calculated Migration of Radioactivity from Seepage Basins

Page 1 of 1

Location	Source Description	Tritium (Curies)		
		1990	1991	1992
FMA7(FM3A+FM2B)	200-F seepage basins to Four Mile Creek	3570	5750	4260
FM2B-FM1C	200-H seepage basins to Four Mile Creek	1900	1810	1470
FM3A-FM3	200-H seepage basin 4 and Solid Waste Disposal Facility to Four Mile Creek	4280	6420	4090
IGB21	K-Area retention basin to Indian Grave Branch	3560	2160	1530
SC2A	100-P seepage basin to Steel Creek	224	364	232
Twin Lakes	100-C seepage basin to Four Mile Creek	7	a	a

Location	Source Description	Total Strontium (Millicuries)		
		1990	1991	1992
FMA7(FM3A+FM2B)	200-F seepage basins to Four Mile Creek	163	460	194
FM2B-FM1C	200-H seepage basins to Four Mile Creek	53	72	78

a Dam failure in August 1991 caused destruction of the Twin Lakes Flow Station.

Table 12
Estimated Tritium Releases in SRS Streams and the Savannah River

Page 1 of 3

		Direct Releases (Curies)					% of Total To River In 1992
Area	Release Point	1988	1989	1990	1991	1992	
Reactor							
100-P	Par Pond overflow to Lower-Three Runs Creek	327	(321) ^a	(207) ^a	221	100	
	*Process sewer to Par Pond		164	67	(43) ^a		
	*Reactor heat exchanger cooling water to Par Pond		464	125	(67) ^a		
	*Combined in 1992 (P019)					(8) ^a	
100-L	L-Lake overflow to Steel Creek	502	(556) ^a	(358) ^a	723	515	
	*Process sewer to L Lake		24	27	(11) ^a		
	*Reactor heat exchanger coolingwater to L Lake		98	72	(112) ^a		
	*Combined in 1992 (L007)					(58) ^a	
100-K	*Process sewer to Pen Branch	264	100	169	74		
	*Reactor heat exchanger coolingwater to Pen Branch	2,470	112	249	6,470 ^b		
	*Combined in 1992 (K-Canal)					126	
	(K008)					3	
	K-Area secondary effluent				6	3	
100-C	Process Sewer to Four Mile Creek (C-Canal)	11	16	1	13	28	
	Subtotal	3,570	978	710	7,510	775	6%
Separations							
200-F	Effluent to Four Mile Creek	14	8	327	6	5	
	Effluent to Upper Three Runs		2	0	0	1	
200-H	Effluent to Four Mile Creek	12	20	22	14	13	
	Effluent to Upper Three Runs		1	4	5	15	
	Effluent Treatment Facility	101	2,070	1,200	3,070	1,010	
	Subtotal	127	3,100	1,550	3,090	1,040	8%
400-D	Process sewer to Beaver Dam Creek	1,740	562	358	681	576	
	Subtotal	1,740	562	358	681	576	4%
	Total Direct Releases ^c	5,440	3,640	2,620	11,300	2,390	17%

a Not used in totals because release was counted elsewhere

b Includes heat exchanger leak of December 22-25, 1991

c Because of rounding, sum of individual columns might not equal totals.

Table 12
Estimated Tritium Releases in SRS Streams and the Savannah River

Page 2 of 3

		Migration (Curies)					% of Total to River in 1992
Area	Release Point	1988	1989	1990	1991	1992	
200-F&H	Solid Waste Disposal Facility and H-Area seepage basin to Four Mile Creek	3,670	3,600	4,280	6,420	4,090	
	200-F seepage basin to Four Mile Creek	3,330	4,440	3,570	5,750	4,260	
	200-H seepage basin to Four Mile Creek	3,980	3,310	1,900	1,810	1,470	
100-C	Seepage basin to Four Mile Creek			7			
100-K	904-88G to Indian Grave Branch	2,780	2,220	3,560	2,160	1,530	
100-P	Seepage basin to Steel Creek	133	137	224	(364) ^a	(232) ^a	
	Subtotal	13,900	13,700	13,500	16,100	11,400	82%
	Total Direct Releases and Migration^b	19,300	17,300	16,100	27,400	13,800	
		Stream Transport (Curies)					% of Total to River in 1992
Area	Release Point	1988	1989	1990	1991	1992	
400-D	Beaver Dam Creek at swamp	2,510	879	756	801	576	
20-F&H	Four Mile Creek at Road A13	11,200	11,200	9,370	13,300	8,710	
100-K	Pen Branch at Road A	3,220	2,700	2,510	7,100	1,850	
100-L	Steel Creek at Road A	502	556	358	723	515	
100-P	Lower Three Runs at Road B	327	321	207	221	100	
ETF	Upper Three Runs at Road A	535	2,160	2,380	4,410	1,300	
	Total	18,300	17,800	15,600	26,600	13,100	95%

^a Not used in totals because release was counted elsewhere

^b Because of rounding, sum of individual columns might not equal totals.

Table 12
Estimated Tritium Releases in SRS Streams and the Savannah River

Page 3 of 3

	River Transport (Curies)					% of Total to River in 1992
	1988	1989	1990	1991	1992	
Tritium measured in the Savannah River below SRS		17,110	16,570	28,700	16,000	
Tritium measured in the Savannah River above SRS		1,480	2,080	2,420	2,210	
Tritium measured in the Savannah River below SRS (downriver minus upriver)	14,600	15,600	14,490	26,300	13,800	100%

Table 13 Minimum Detectable Activities (MDAs) for Radionuclides In Settleable Solids

Page 1 of 1

Nuclide	MDA ^a (pCi/sample)	Nuclide	MDA ^a (pCi/sample)
Be-7	3.32E+01	Na-24	1.21E+01
K-40	1.09E+02	Cr-51	4.02E+01
Mn-54	7.83E+00	Mn-56	8.04E+00
Co-57	3.31E+00	Co-58	6.43E+00
Fe-59	1.19E+01	Co-60	8.22E+00
Zn-65	1.59E+01	Y-88	1.12E+01
Nb-95	6.88E+00	Nb-95M	1.34E+01
Zr-95	1.18E+01	Mo-99	4.40E+01
Ru-103	5.29E+00	Ru-106	6.63E+01
Cd-109	6.74E+01	Sn-113	5.69E+00
Sb-124	6.41E+00	Sb-125	1.48E+01
Sb-127	1.82E+01	I-131	5.03E+00
I-132	9.26E+00	Te-132	3.65E+00
Ba-133	7.69E+00	I-133	6.82E+00
Cs-134	6.54E+00	I-135	2.49E+01
Xe-135	4.66E+00	Cs-136	6.6E+00
Cs-137	6.47E+00	Ce-139	3.50E+00
Ba-140	2.30E+01	La-140	9.98E+00
Ce-141	5.68E+00	Ce-143	5.59E+00
Ce-144	2.57E+01	Nd-147	1.19E+01
Eu-154	7.01E+00	Tl-208	9.15E+00
Tl-210	6.15E+00	Pb-211	1.34E+02
Bi-212	6.17E+01	Pb-212	1.25E+01
Bi-214	1.69E+01	Pb-214	1.29E+01
Rn-219	3.78E+01	Ra-223	1.35E+01
Ra-224	1.16E+02	Ra-226	1.27E+02
Th-227	3.00E+01	Ac-228	3.22E+01
Th-228	2.89E+02	Th-231	5.41E+01
Th-234	6.87E+01	U-235	7.65E+00
Am-241	1.25E+01	Alpha	6.80E-01
		Beta	1.53E-00

^a MDAs were generated from a "typical run" December 17, 1992. Analysis time was 5,000 seconds at 32% efficiency with no decay time. These values were generated in lieu of presentation of individual values for all samples analyzed.

Table 14
Settleable Solids Results for the
SRS Radionuclides in Settleable Solids Program

Page 1 of 4

Location	Process/Background	First Quarter		
		TSS mg/L	Nonsettleable Solids mg/L	Settleable Solids mg/L
TB-2	Process	<1.0	<1.0	<1.0
U3R-1A	Background	1.00	1.00	<1.0
C-004	Process	1.00	1.00	<1.0
FMC RD F	Background	5.00	10.00	<1.0
FMC-3	Process	<1.0	2.00	<1.0
FMC RD F	Background	5.00	10.00	<1.0
FMC-1C	Process	2.00	<1.0	2.00
FMC RD F	Background	5.00	10.00	<1.0
HP-52	Process	3.00	1.00	2.00
FMC RD F	Background	5.00	10.00	<1.0
K Canal Head Wall	Process	5.00	2.00	3.00
PB RD B	Background	2.00	1.00	1.00
L-007	Process	6.00	2.00	4.00
PB RD B	Background	2.00	1.00	1.00
TB-3	Process	1.00	<1.0	<1.0
U3R-1A	Background	1.00	1.00	<1.0
P-19	Process	4.00	3.00	1.00
U3R-1A	Background	1.00	1.00	<1.0
BDC	Process	7.00	1.00	6.00
U3R-1A	Background	1.00	1.00	<1.0
TNX-1	Process	4.00	<1.0	4.00
PB RD B	Background	2.00	1.00	1.00

Table 14
Settleable Solids Results for the
SRS Radionuclides in Settleable Solids Program

Page 2 of 4

Location	P/BG	Second Quarter		
		TSS mg/L	Nonsettleable Solids mg/L	Settleable Solids mg/L
TB-2	Process	2.00	<1.00	2.00
U3R-1A	Background	8.00	1.00	7.00
C-004	Process	14.00	3.00	12.00
FMC RD F	Background	46.00	25.00	21.00
FMC-3	Process	5.00	1.00	4.00
FMC RD F	Background	46.00	25.00	21.00
FMC-1C	Process	2.00	1.00	1.00
FMC RD F	Background	46.00	25.00	21.00
HP-52	Process	8.00	3.00	5.00
FMC RD F	Background	46.00	25.00	21.00
K Canal Head Wall	Process	2.00	2.00	<1.0
PB RD B	Background	7.00	1.00	6.00
L-007	Process	8.00	5.00	4.00
PB RD B	Background	7.00	1.00	6.00
TB-3	Process	2.00	<1.00	2.00
U3R-1A	Background	8.00	1.00	7.00
P-19	Process	4.00	1.00	3.00
U3R-1A	Background	8.00	1.00	7.00
BDC	Process	11.00	5.00	7.00
U3R-1A	Background	8.00	1.00	7.00
TNX-1	Process	2.00	1.00	1.00
PB RD B	Background	7.00	1.00	6.00

Table 14
Settleable Solids Results for the
SRS Radionuclides in Settleable Solids Program

Page 3 of 4

Location	P/BG	Third Quarter		
		TSS mg/L	Nonsettleable Solids mg/L	Settleable Solids mg/L
TB-2	Process	9.00	9.00	<1.0
U3R-1A	Background	5.00	5.00	<1.0
C-004	Process	7.00	5.00	2.00
FMC RD F	Background	13.00	11.00	2.00
FMC-3	Process	77.00	3.00	74.00
FMC RD F	Background	13.00	11.00	2.00
FMC-1C	Process	20.00	9.00	11.00
FMC RD F	Background	13.00	11.00	2.00
HP-52	Process	52.00	2.00	50.00
FMC RD F	Background	13.00	11.00	2.00
K Canal Head Wall	Process	7.00	5.00	3.00
PB RD B	Background	3.00	5.00	<1.0
L-007	Process	2.00	5.00	<1.0
PB RD B	Background	3.00	5.00	<1.0
TB-3	Process	11.00	6.00	5.00
U3R-1A	Background	5.00	5.00	<1.0
P-19	Process	21.00	8.00	13.00
U3R-1A	Background	5.00	5.00	<1.0
BDC	Process	5.00	4.00	2.00
U3R-1A	Background	5.00	5.00	<1.0
TNX-1	Process	7.00	5.00	2.00
PB RD B	Background	3.00	5.00	<1.0

Table 14
Settleable Solids Results for the
SRS Radionuclides in Settleable Solids Program

Page 4 of 4

Location	P/BG	Fourth Quarter		
		TSS mg/L	Nonsettleable Solids mg/L	Settleable Solids mg/L
TB-2	Process	4.00	3.00	1.00
U3R-1A	Background	3.00	3.00	1.00
C-004	Process	4.00	2.00	2.00
FMC RD F	Background	16.00	9.00	6.00
FMC-3	Process	25.00	5.00	20.00
FMC RD F	Background	16.00	9.00	6.00
FMC-1C	Process	4.00	3.00	1.00
FMC RD F	Background	16.00	9.00	6.00
HP-52	Process	2000.00	348.00	1652.00
FMC RD F	Background	16.00	9.00	6.00
K Canal Head Wall	Process	No Flow	No Flow	
PB RD B	Background	3.00	2.00	1.00
L-007	Process	9.00	4.00	5.00
PB RD B	Background	3.00	2.00	1.00
TB-3	Process	3.00	3.00	<1.0
U3R-1A	Background	3.00	3.00	1.00
P-19	Process	6.00	3.00	3.00
U3R-1A	Background	3.00	3.00	1.00
BDC	Process	17.00	6.00	11.00
U3R-1A	Background	3.00	3.00	1.00
TNX-1	Process	3.00	2.00	1.00
PB RD B	Background	3.00	2.00	1.00

Table 15
Tritium Releases Summary, 1960-1992

Page 1 of 1

Year	Estimated Tritium Release (Ci)		
	Based on Point-of-Release Concentrations and Flow Rates ^a	Based on Stream Concentrations and Flow Rates	Based on Savannah River Concentrations and Flow Rates
1960	64,000 ^b	69,600	73,700
1961	69,000 ^b	83,000	77,000
1962	58,000 ^b	64,000	63,000
1963	97,000 ^b	96,900	122,800
1964	111,000 ^b	131,600	143,000
1965	108,400	109,200	100,200
1966	84,900	97,800	78,300
1967	70,600	77,000	68,500
1968	63,800	67,200	61,800
1969	64,600	64,000	58,100
1970	36,900	43,200	31,800
1971	38,200	44,700	39,100
1972	46,800	47,300	45,300
1973	71,100	62,000	61,100
1974	59,900	54,600	46,000
1975	55,600	50,000	49,500
1976	59,600	47,400	51,100
1977	43,800	39,700	42,500
1978	37,600	35,300	36,600
1979	29,400	27,100	30,600
1980	24,900	28,800	30,700
1981	23,900	22,100	25,100
1982	32,200	31,300	30,600
1983	34,200	33,000	33,000
1984	32,800	32,600	33,200
1985	25,000	22,300	24,100
1986	27,800	22,300	22,100
1987	22,700	20,500	26,200
1988	19,300	18,300	14,600
1989	17,300	17,800	15,600
1990	16,100	15,600	14,500
1991	27,400	26,600	26,300
1992	13,800	13,100	13,800

a Includes direct releases to streams and migration from F-Area, H-Area, K-Area, and P-Area seepage basins and the Solid Waste Disposal Facility to streams

b Includes heat exchanger cooling water released from P-Area (of Par Pond origin) to Steel Creek

Table 16
Radioactivity in Transport at Sample Points on Four Mile Creek

Page 1 of 1

Location	Tritium (Curies)		
	1990	1991	1992
FM3	327 ^a	5	5
FM1C	18	11	5
H-008	8	5	4
FM2	476	456	421
FM2B	1920	1820	1480
FM3A	4610	6430	4100
FMA7	10100	14000	9840
FM6	9370	13300	8710

Location	Total Strontium (Millicuries)		
	1990	1991	1992
FM3	4	4	1
FM1C	1	3	1
H-017			7
FM2	18	51	42
FM2B	54	83	86
FM3A	4	4	1
FMA7	221	547	280
FM6	192	377	219

Location	Cesium-137 (Millicuries) ^b		
	1990	1991	1992
FM3	2	1	1
FM1C	15	6	1
H-017			56
FM2	71	44	42
FM2B	71	60	35
FMA7			82

a The tritium source term attributed to FM3 in 1990 was high in part because of a suspect sample that appeared to be switched with FM3A, whose average tritium concentration is much higher.

b Cesium-137, which EMS labs can routinely detect at 20 pCi/L per typical sample aliquot and counting time, was not detected at sample locations FM3A in 1992. The results shown reflect only positive detectable values. Activity at FMA7 was estimated from detectable cesium measurements and gross beta activities.

Table 17
TLD Results: Environmental Surveillance Stations

Page 1 of 2

Quarterly Exposure in mR/Day
 Yearly Exposure in mR/Year^a

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
400D BUILDING 614 ^c	0.10	0.09	0.11	0.11	3.75E+01
A AREA 614-BUILDING	0.16	0.14	0.15	0.15	5.49E+01
AIKEN AIRPORT BUILDING 614	0.12	0.12	0.11	0.10	4.12E+01
AIKEN STATE PARK BUILDING 614	0.08	0.07	0.08	0.06	2.65E+01
ALLENDALE BUILDING 614	0.11	0.10	0.11	0.09	3.75E+01
ALLENDALE GATE BUILDING 614	0.07	0.05	0.07	0.07	2.38E+01
AUGUSTA BUILDING 614	0.13	0.16	0.13	0.13	5.03E+01
BARNWELL GATE BUILDING 614	0.12	0.10	0.12	0.12	4.21E+01
BG NORTH BUILDING 614	0.21	0.20	0.20	0.21	7.50E+01
BG SOUTH BUILDING 614	0.14	0.13	0.13	0.13	4.85E+01
COLUMBIA 614 BUILDING TLD 2	0.24	0.16	0.13	0.19	6.59E+01
COLUMBIA BUILDING 614	0.24	0.15	0.15	0.18	6.59E+01
DARKHORSE BUILDING 614	0.11	0.10	0.10	0.11	3.84E+01
EAST TALATHA BUILDING 614	0.09	0.08	0.08	0.08	3.02E+01
F AREA BUILDING 614	0.20	0.19	0.20	0.19	7.14E+01
GREENPOND BUILDING 614	0.10	0.08	0.10	0.09	3.39E+01
GREENVILLE 614 BUILDING TLD 2	0.23	0.20	0.24	0.20	7.96E+01
GREENVILLE BUILDING 614	0.23	0.20	0.24	0.21	8.05E+01
H AREA BUILDING 614	0.16	0.14	0.15	0.15	5.49E+01
HIGHWAY 39 BUILDING 614	0.10	0.10	0.10	0.10	3.66E+01
HWY 301 BUILDING 614	0.16	0.15	0.16	0.13	5.49E+01
INTERSECTION OF HWYS 21 & 167	0.16	0.15	0.16	0.16	5.76E+01
JACKSON BUILDING 614	0.12	0.13	0.12	0.13	4.58E+01
LANGLEY BUILDING 614	0.17	0.18	0.17	0.15	6.13E+01
LEES BUILDING 614	0.08	0.07	0.09	0.07	2.84E+01

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem.

b An 18% uncertainty is associated with each result.

c "614" is the number assigned to air monitoring stations.

Table 17
TLD Results: Environmental Surveillance Stations

Page 2 of 2

Quarterly Exposure in mR/Day
 Yearly Exposure in mR/Year^a

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
MACON 614 ^c BUILDING TLD 2	0.22	0.20	0.21	0.19	7.50E+01
MACON BUILDING 614	0.18	0.17	0.18	0.16	6.31E+01
OLAR BUILDING 614	0.09	0.08	0.09	0.06	2.93E+01
PATTERSON MILL RD BLG 614	0.09	0.08	0.09	0.09	3.20E+01
PERKINS BUILDING 614	0.10	0.11	0.10	0.09	3.66E+01
ROAD A14 BUILDING 614	0.10	0.09	0.10	0.11	3.66E+01
SAVANNAH 614 BUILDING TLD 2	0.10	0.09	0.08	0.10	3.39E+01
SAVANNAH BUILDING 614	0.11	0.10	0.09	0.09	3.57E+01
SOUTH RICHMOND BUILDING 614	0.17	0.19	0.19	0.16	6.50E+01
SPRINGFIELD BUILDING 614	0.06	0.08	0.16	0.18	4.39E+01
TALATHA GATE BUILDING 614	0.13	0.11	0.12	0.11	4.30E+01
WAYNESBORO BUILDING 614	0.13	0.13	0.13	0.13	4.76E+01
WEST JACKSON BUILDING 614	0.15	0.14	0.15	0.16	5.49E+01
WINDSOR ROAD BUILDING 614	0.10	0.08	0.09	0.09	3.29E+01

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem.

b An 18% uncertainty is associated with each result.

c "614" is the number assigned to air monitoring stations.

Table 18
TLD Results: SRS Areas

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Quarterly Exposure in mR/Day
Yearly Exposure in MR/Year^a

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
643-7G BUILDING TLD 1	0.18	0.16	0.18	0.16	6.22E+01
643-7G BUILDING TLD 2	0.17	0.16	0.16	0.16	5.95E+01
643-7G BUILDING TLD 3	0.27	0.24	0.24	0.25	9.15E+01
643-7G BUILDING TLD 4	0.91	0.84	0.78	0.76	3.01E+02
643-G BUILDING TLD 1	0.15	0.13	0.14	0.13	5.03E+01
643-G BUILDING TLD 2	0.19	0.18	0.17	0.18	6.59E+01
643-G BUILDING TLD 3	1.15	1.21	1.04	0.99	4.02E+02
643-G BUILDING TLD 4	0.24	0.28	0.22	0.25	9.06E+01
C AREA TLD 1	0.10	0.09	0.11	0.11	3.75E+01
C AREA TLD 2	0.12	0.11	0.11	0.11	4.12E+01
C AREA TLD 3	0.12	0.12	0.12	0.12	4.39E+01
C AREA TLD 4	0.12	0.11	0.11	0.11	4.12E+01
CENTRAL SHOPS TLD 1	0.19	0.19	0.17	0.20	6.86E+01
CENTRAL SHOPS TLD 2	0.19	0.17	0.17	0.18	6.50E+01
CENTRAL SHOPS TLD 3	0.12	0.11	0.14	0.16	4.85E+01
CENTRAL SHOPS TLD 4	0.25	0.24	0.24	0.27	9.15E+01
CENTRAL SHOPS TLD 5	1.15	0.97	1.00	1.34	4.08E+02
CLASSIFICATION YARD TLD 1	0.12	0.12	0.11	0.12	4.30E+01
CLASSIFICATION YARD TLD 2	0.10	0.11	0.11	0.11	3.93E+01
CLASSIFICATION YARD TLD 3	0.12	0.12	0.12	0.15	4.67E+01
CLASSIFICATION YARD TLD 4	0.10	0.09	0.09	0.10	3.48E+01
D AREA TLD 1	0.12	0.11	0.12	0.11	4.21E+01
D AREA TLD 2	0.09	0.09	0.09	0.10	3.39E+01
D AREA TLD 3	0.13	0.15	0.10	0.16	4.94E+01
D AREA TLD 4	0.15	0.13	0.14	0.14	5.12E+01
D AREA TLD 5	0.10	0.09	0.09	0.10	3.48E+01
D AREA TLD 6	0.08	0.03	0.08	0.04	2.10E+01
F AREA TLD 1	0.14	0.12	0.14	0.12	4.76E+01
F AREA TLD 2	0.16	0.15	0.15	0.14	5.49E+01

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem.

b An 18% uncertainty is associated with each result.

Table 18
TLD Results: SRS Areas

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Quarterly Exposure in mR/Day
Yearly Exposure in MR/Year^a

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
F AREA TLD 3	0.17	0.15	0.16	0.15	5.76E+01
F AREA TLD 4	0.15	0.15	0.15	0.15	5.49E+01
F AREA TLD 5	0.29	0.27	0.28	0.27	1.02E+02
F AREA TLD 6	0.19	0.17	0.19	0.18	6.68E+01
H AREA TLD 1	0.16	0.15	0.15	0.16	5.67E+01
H AREA TLD 2	0.21	0.25	0.24	0.26	8.78E+01
H AREA TLD 3	0.14	0.15	0.14	0.14	5.22E+01
H AREA TLD 4	0.30	0.29	0.30	0.29	1.08E+02
H AREA TLD 5	0.35	0.33	0.31	0.27	1.15E+02
H AREA TLD 6	0.16	0.16	0.16	0.16	5.86E+01
H AREA TLD 7	0.14	0.14	0.15	0.15	5.31E+01
H AREA TLD 8	0.17	0.16	0.17	0.16	6.04E+01
K AREA TLD 1	0.16	0.15	0.15	0.16	5.67E+01
K AREA TLD 2	0.11	0.11	0.10	0.11	3.93E+01
K AREA TLD 3	0.19	0.19	0.20	0.19	7.05E+01
K AREA TLD 4	0.14	0.12	0.14	0.12	4.76E+01
L AREA TLD 1	0.12	0.12	0.14	0.13	4.67E+01
L AREA TLD 2	0.11	0.11	0.10	0.12	4.03E+01
L AREA TLD 3	0.12	0.12	0.10	0.12	4.21E+01
L AREA TLD 4	0.15	0.13	0.12	0.14	4.94E+01
M AREA TLD 1	0.18	0.16	0.18	0.17	6.31E+01
M AREA TLD 2	0.11	0.12	0.11	0.11	4.12E+01
M AREA TLD 3	0.20	0.21	0.20	0.21	7.50E+01
M AREA TLD 4	0.12	0.11	0.11	0.12	4.21E+01
M AREA TLD 5	0.14	0.14	0.14	0.14	5.12E+01
M AREA TLD 6	0.11	0.11	0.11	0.11	4.02E+01
M AREA TLD 7	0.18	0.16	0.16	0.16	6.04E+01
M AREA TLD 8	0.23	0.20	0.23	0.19	7.78E+01
P AREA TLD 1	0.13	0.14	0.13	0.15	5.03E+01

^a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem.

^b An 18% uncertainty is associated with each result.

Table 18
TLD Results: SRS Areas

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Quarterly Exposure in mR/Day
 Yearly Exposure in MR/Year^a

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
P AREA TLD 2	0.11	0.11	0.11	0.11	4.03E+01
P AREA TLD 3	0.13	0.12	0.13	0.13	4.67E+01
P AREA TLD 4	0.13	0.13	0.13	0.14	4.85E+01
R AREA TLD 1	0.13	0.11	0.12	0.11	4.30E+01
R AREA TLD 2	0.15	0.14	0.14	0.14	5.22E+01
R AREA TLD 3	0.10	0.09	0.09	0.09	3.39E+01
R AREA TLD 4	0.14	0.13	0.14	0.13	4.94E+01
R AREA TLD 5	0.12	0.11	0.12	0.12	4.30E+01
R AREA TLD 6	0.11	0.12	0.10	0.12	4.12E+01
R AREA TLD 7	0.13	0.12	0.12	0.12	4.48E+01
RAILROAD AT ROAD E&F TLD 1	0.14	0.14	0.15	0.14	5.22E+01
RAILROAD AT ROAD E&F TLD 2	0.15	0.15	0.16	0.15	5.58E+01
S AREA TLD 1	0.17	0.14	0.15	0.15	5.58E+01
S AREA TLD 2	0.23	0.24	0.23	0.24	8.60E+01
S AREA TLD 3	0.21	0.21	0.22	0.21	7.78E+01
S AREA TLD 4	0.19	0.16	0.19	0.16	6.41E+01
TECHNICAL AREA TLD 1	0.15	0.11	0.14	0.11	4.67E+01
TECHNICAL AREA TLD 2	0.21	0.18	0.20	0.20	7.23E+01
TECHNICAL AREA TLD 3	0.15	0.14	0.14	0.14	5.22E+01
TECHNICAL AREA TLD 4	0.18	0.17	0.17	0.16	6.22E+01
TECHNICAL AREA TLD 5	0.16	0.14	0.16	0.14	5.49E+01
TECHNICAL AREA TLD 6	0.15	0.14	0.15	0.15	5.40E+01
TECHNICAL AREA TLD 7	0.17	0.16	0.18	0.17	6.22E+01
TECHNICAL AREA TLD 8	0.14	0.15	0.14	0.14	5.22E+01
TNX AREA TLD 1	0.09	0.06	0.09	0.07	2.84E+01
TNX AREA TLD 2	0.16	0.15	0.15	0.15	5.58E+01
TNX AREA TLD 3	0.14	0.13	0.14	0.13	4.94E+01
TNX AREA TLD 4	0.21	0.21	0.21	0.22	7.78E+01
TRAINING CENTER TLD 1	0.64	0.55	0.62	0.59	2.20E+02

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem.
 b An 18% uncertainty is associated with each result.

Table 18
TLD Results: SRS Areas

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Quarterly Exposure in mR/Day
 Yearly Exposure in MR/Year^a

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
TRAINING CENTER TLD 2	0.12	0.11	0.12	0.12	4.30E+01
TRAINING CENTER TLD 3	0.11	0.11	0.11	0.11	4.03E+01
TRAINING CENTER TLD 4	0.11	0.12	0.11	0.12	4.21E+01
Z AREA TLD 1	0.12	0.10	0.12	0.10	4.03E+01
Z AREA TLD 2	0.11	0.11	0.11	0.11	4.03E+01
Z AREA TLD 3	0.11	0.10	0.11	0.10	3.84E+01
Z AREA TLD 4	0.14	0.13	0.15	0.13	5.03E+01

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem.

b An 18% uncertainty is associated with each result.

Table 19
TLD Results: Population Centers

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Quarterly Exposure in mR/Day
 Yearly Exposure in MR/Year^a

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
AIKEN (LAURENS ST) INSIDE	0.24	0.22	0.40	0.23	9.89E+01
AIKEN (LAURENS ST) OUTSIDE	0.15	0.15	0.16	0.15	5.54E+01
AIKEN (SILVER BLUFF RD) INSIDE	0.18	0.15	0.19	0.17	6.29E+01
AIKEN (SILVER BLUFF RD) OUTSIDE	0.17	0.15	0.18	c	6.12E+01
ALEXANDER INSIDE	0.09	0.08	0.09	0.07	3.06E+01
ALEXANDER OUTSIDE	0.10	0.10	0.10	0.10	3.64E+01
ALLENDALE INSIDE	0.13	0.11	0.14	0.11	4.42E+01
ALLENDALE OUTSIDE	0.10	0.10	0.11	0.09	3.58E+01
AUGUSTA (CENTRAL AVE) INSIDE	0.20	0.21	0.20	0.20	7.39E+01
AUGUSTA (CENTRAL AVE) OUTSIDE	0.15	0.17	0.15	0.16	5.74E+01
AUGUSTA (CENTRAL&TROUPE) IN- SIDE	0.24	0.24	0.23	0.23	8.63E+01
AUGUSTA (CENTRAL&TROUPE) OUT- SIDE	0.16	0.16	0.15	0.15	5.66E+01
AUGUSTA (EVE & ELLIS) INSIDE	0.27	0.26	0.26	c	9.61E+01
AUGUSTA (EVE & ELLIS) OUTSIDE	0.15	0.14	0.15	0.13	5.17E+01
AUGUSTA (MILLEDGEVILLE RD) IN- SIDE	0.24	0.24	0.23	0.22	8.48E+01
AUGUSTA (MILLEDGEVILLE RD) OUT- SIDE	0.15	0.16	0.14	0.14	5.36E+01
AUGUSTA (REYNOLD ST) INSIDE	0.25	0.26	0.25	0.24	9/18E+01
AUGUSTA (REYNOLD ST) OUTSIDE	0.22	0.24	0.21	0.22	8.16E+01
AUGUSTA (WALTON WAY) INSIDE	0.22	0.23	0.27	0.21	7.96E+01
AUGUSTA (WALTON WAY) OUTSIDE	0.31	0.29	0.29	0.19	9.95E+01
AUGUSTA (WATKINS ST) INSIDE	0.22	0.23	0.22	0.22	8.13E+01
AUGUSTA (WATKINS ST) OUTSIDE	0.20	c	c	0.17	6.83E+01
BARNWELL INSIDE	0.13	0.12	0.13	0.13	4.77E+01
BARNWELL OUTSIDE	0.19	0.16	0.17	0.17	6.35E+01
BATESBURG INSIDE	0.18	0.19	0.17	0.20	6.79E+01
BATESBURG OUTSIDE	0.19	0.20	0.19	0.120	7.04E+01

a mR=exposure unit for gamma radiation. One mR is approximately equal to 1 mrem.

b An 18% uncertainty is associated with each measured value.

c Blank spaces indicate missing TLD badges.

Table 19
TLD Results: Population Centers

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Quarterly Exposure in mR/Day
 Yearly Exposure in MR/Year^a

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
BEECH ISLAND INSIDE	0.16	0.14	0.16	0.15	5.63E+01
BEECH ISLAND OUTSIDE	0.20	0.20	0.20	0.20	7.37E+01
BLACKVILLE INSIDE	0.07	0.05	0.07	0.06	2.32E+01
BLACKVILLE OUTSIDE	0.16	0.14	0.17	0.15	5.67E+01
COLUMBIA (ATLAS ST) INSIDE	0.28	0.18	0.29	0.27	9.30E+01
COLUMBIA (ATLAS ST) OUTSIDE	0.19	0.20	0.20	0.15	6.75E+01
COLUMBIA (DENTSVILLE) INSIDE	0.21	0.19	0.23	0.18	7.37E+01
COLUMBIA (DENTSVILLE) OUTSIDE	0.23	0.22	0.24	0.20	8.19E+01
COLUMBIA (EAU CLAIRE) INSIDE	0.24	0.24	0.27	0.24	9.07E+01
COLUMBIA (EAU CLAIRE) OUTSIDE	0.21	0.17	0.21	0.17	6.90E+01
COLUMBIA (HARDEN ST) INSIDE	0.28	0.23	0.27	0.23	9.28E+01
COLUMBIA (HARDEN ST) OUTSIDE	0.22	0.20	0.23	0.25	8.26E+01
COLUMBIA (HEADQUARTERS) INSIDE	0.33	0.28	0.34	0.28	1.13E+02
COLUMBIA (HEADQUARTERS) OUTSIDE	0.22	0.20	0.23	0.19	7.70E+01
COLUMBIA (INDUST PARK) INSIDE	0.30	0.29	0.33	0.28	1.10E+02
COLUMBIA (INDUST PARK) OUTSIDE	0.21	0.19	0.20	0.17	7.13E+01
COLUMBIA (NORTH COL) INSIDE	0.39	0.36	0.43	0.33	1.38E+02
COLUMBIA (NORTH COL) OUTSIDE	0.18	0.18	0.19	0.18	6.65E+01
COLUMBIA (SHANDON) INSIDE	0.17	0.17	0.18	0.16	6.15E+01
COLUMBIA (SHANDON) OUTSIDE	0.19	0.17	0.19	0.16	6.46E+01
COLUMBIA (ST ANDREWS) INSIDE	0.20	0.20	0.23	0.19	7.44E+01
COLUMBIA (ST ANDREWS) OUTSIDE	0.21	0.19	0.22	0.18	7.32E+01
COUCHTON INSIDE	0.13	0.12	0.14	0.11	4.48E+01
COUCHTON OUTSIDE	0.18	0.18	0.19	0.18	6.64E+01
EDGEFIELD INSIDE	0.11	0.18	0.11	0.18	5.25E+01
EDGEFIELD OUTSIDE	0.14	0.16	0.14	0.16	5.45E+01
ESTILL INSIDE	0.13	0.18	0.16	0.13	5.48E+01
ESTILL OUTSIDE	0.18	0.22	0.20	0.18	7.16E+01

a mR=exposure unit for gamma radiation. One mR is approximately equal to 1 mrem.

b An 18% uncertainty is associated with each measured value.

Table 19
TLD Results: Population Centers

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Quarterly Exposure in mR/Day
Yearly Exposure in MR/Year^a

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
GIRARD INSIDE	0.23	0.25	0.23	0.23	8.56E+01
GIRARD OUTSIDE	0.19	0.20	0.19	0.15	.02E+01
GRANITEVILLE INSIDE	0.15	0.13	0.15	0.13	5.19E+01
GRANITEVILLE OUTSIDE	0.14	0.14	0.15	0.15	5.27E+01
HAMPTON INSIDE	0.16	0.24	0.19	0.18	7.08E+01
HAMPTON OUTSIDE	0.21	0.25	0.21	0.18	7.71E+01
HEPHZIBAH INSIDE	0.12	0.13	0.12	0.12	4.46E+01
HEPHZIBAH OUTSIDE	0.10	0.11	0.09	0.11	3.72E+01
JACKSON INSIDE	0.13	0.13	0.14	0.13	4.78E+01
JACKSON OUTSIDE	0.15	0.13	0.15	0.14	5.23E+01
JOHNSTON INSIDE	0.15	0.15	0.14	0.15	5.35E+01
JOHNSTON OUTSIDE	0.22	0.21	0.22	0.21	7.78E+01
LEXINGTON INSIDE	0.31	0.27	0.28	0.28	1.04E+02
LEXINGTON OUTSIDE	0.17	0.14	0.18	0.17	6.02E+01
LINCOLN INSIDE	0.29	0.29	c	0.30	1.08E+02
LINCOLN OUTSIDE	0.20	0.20	0.19	0.19	7.11E+01
LOUISVILLE INSIDE	0.20	0.18	0.22	0.18	7.15E+01
LOUISVILLE OUTSIDE	0.31	0.32	0.37	0.37	1.25E+02
MARTIN INSIDE	0.07	0.07	0.07	0.07	2.55E+01
MARTIN OUTSIDE	0.08	0.09	0.08	0.09	3.08E+01
MCBEAN INSIDE	0.21	0.21	0.22	0.20	7.68E+01
MCBEAN OUTSIDE	0.21	0.19	0.20	0.18	7.16E+01
MCCORMICK INSIDE	0.18	0.19	0.18	0.19	6.68E+01
MCCORMICK OUTSIDE	0.16	0.16	0.15	0.16	5.69E+01
MILLEN INSIDE	0.17	0.18	0.17	0.18	6.50E+01
MILLEN OUTSIDE	0.13	0.13	0.12	0.13	4.63E+01
NEW ELLENTON INSIDE	0.23	0.25	0.24	0.25	8.81E+01
NEW ELLENTON OUTSIDE	0.16	0.16	0.16	0.16	5.88E+01

- a mR=exposure unit for gamma radiation. One mR is approximately equal to 1 mrem.
b An 18% uncertainty is associated with each measured value.
c Blank spaces indicate missing TLD badges.

Table 19
TLD Results: Population Centers

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Quarterly Exposure in mR/Day
 Yearly Exposure in MR/Year^a

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
NEWINGTON INSIDE	0.24	0.24	0.28	0.25	9.19E+01
NEWINGTON OUTSIDE	0.20	0.19	0.20	0.20	7.22E+01
NORTH AUGUSTA INSIDE	0.24	0.24	0.24	0.25	8.97E+01
NORTH AUGUSTA OUTSIDE	0.25	0.23	0.25	0.23	8.74E+01
NORTH INSIDE	0.22	0.28	0.24	0.22	8.77E+01
NORTH OUTSIDE	0.20	0.23	0.21	^c	7.89E+01
OLAR INSIDE	0.16	0.14	0.17	0.14	5.53E+01
OLAR OUTSIDE	0.21	0.21	0.22	0.20	7.60E+01
ORANGEBURG INSIDE	0.19	0.27	0.22	0.22	8.31E+01
ORANGEBURG OUTSIDE	0.20	0.28	0.23	0.24	8.67E+01
SALUDA INSIDE	0.35	0.36	0.35	0.38	1.32E+02
SALUDA OUTSIDE	0.27	0.27	0.26	0.27	9.78E+01
SARDIS INSIDE	0.17	0.17	0.16	0.16	6.03E+01
SARDIS OUTSIDE	0.17	0.17	0.17	0.16	6.17E+01
SMOAKS INSIDE	0.28	0.22	0.15	0.14	7.15E+01
SMOAKS OUTSIDE	0.13	0.18	^c	0.13	5.37E+01
SPRINGFIELD INSIDE	0.13	0.11	0.17	0.13	4.95E+01
SPRINGFIELD OUTSIDE	0.36	0.37	0.18	0.16	9.76E+01
ST MATTHEWS INSIDE	0.13	0.19	0.14	0.14	5.45E+01
ST MATTHEWS OUTSIDE	0.22	0.26	0.24	0.23	8.68E+01
STATESBORO INSIDE	0.17	0.16	0.17	^c	6.00E+01
STATESBORO OUTSIDE	0.14	0.12	0.16	0.15	5.20E+01
SWANSEA INSIDE	0.13	0.18	0.16	0.14	5.49E+01
SWANSEA OUTSIDE	0.24	0.29	^c	^c	9.68E+01
SYLVANIA INSIDE	0.38	0.35	0.40	0.45	1.45E+02
SYLVANIA OUTSIDE	0.18	0.18	0.19	0.18	6.74E+01
THOMSON INSIDE	^c	0.31	0.27	0.30	1.07E+02
THOMSON OUTSIDE	0.27	0.25	0.25	0.25	9.34E+01

a mR=exposure unit for gamma radiation. One mR is approximately equal to 1 mrem.

b An 18% uncertainty is associated with each measured value.

c Blank spaces indicate missing TLD badges.

Table 19
TLD Results: Population Centers

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Quarterly Exposure in mR/Day
 Yearly Exposure in mR/Year^a

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
WADLEY INSIDE	0.17	0.18	0.18	0.17	6.36E+01
WADLEY OUTSIDE	0.22	0.21	0.20	0.21	7.70E+01
WAGENER INSIDE	0.21	0.19	0.20	0.17	7.02E+01
WAGENER OUTSIDE	0.13	0.08	0.14	0.12	4.25E+01
WAYNESBORO INSIDE	0.12	0.14	0.12	0.13	4.60E+01
WAYNESBORO OUTSIDE	0.14	0.15	0.15	0.13	5.16E+01
WEST COLUMBIA INSIDE	0.28	0.26	0.29	0.25	9.88E+01
WEST COLUMBIA OUTSIDE	0.30	0.27	0.29	0.19	9.59E+01
WILLISTON INSIDE	0.18	0.20	0.18	0.20	6.96E+01
WILLISTON OUTSIDE	0.19	0.20	0.20	0.20	7.24E+01
WINDSOR INSIDE	0.06	0.07	0.07	0.07	2.48E+01
WINDSOR OUTSIDE	0.10	0.09	0.10	0.10	3.51E+01
WRENS INSIDE	0.23	0.26	0.20	0.26	8.73E+01
WRENS OUTSIDE	0.18	0.19	0.19	0.14	6.41E+01

a mR=exposure unit for gamma radiation. One mR is approximately equal to 1 mrem.
 b An 18% uncertainty is associated with each measured value.

Table 20
TLD Results: Site Perimeter Stations

Page 1 of 7

Quarterly Exposure in mR/Day
 Yearly Exposure in MR/Year^a

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
SITE PERIMETER TLD 1.00	0.08	0.07	0.09	0.07	2.84E+01
SITE PERIMETER TLD 1.25	0.08	0.08	0.09	0.09	3.11E+01
SITE PERIMETER TLD 1.50	0.09	0.09	0.09	0.10	3.39E+01
SITE PERIMETER TLD 1.75	0.07	0.08	0.08	0.08	2.84E+01
SITE PERIMETER TLD 2.00	0.16	0.15	0.16	0.15	5.67E+01
SITE PERIMETER TLD 2.25	0.11	0.10	0.11	0.11	3.93E+01
SITE PERIMETER TLD 2.50	0.10	0.09	0.09	0.09	3.39E+01
SITE PERIMETER TLD 2.75	0.08	0.07	0.08	0.08	2.84E+01
SITE PERIMETER TLD 3.00	0.09	0.08	0.13	0.09	3.57E+01
SITE PERIMETER TLD 3.25	0.08	0.08	0.08	0.08	2.93E+01
SITE PERIMETER TLD 3.50	0.09	0.08	0.09	0.09	3.20E+01
SITE PERIMETER TLD 3.75	0.12	0.12	0.12	0.13	4.48E+01
SITE PERIMETER TLD 4.00	0.12	0.11	0.12	0.12	4.30E+01
SITE PERIMETER TLD 4.25	0.09	0.09	0.09	0.09	3.29E+01
SITE PERIMETER TLD 4.50	0.11	0.10	0.09	0.09	3.57E+01
SITE PERIMETER TLD 4.75	0.08	0.08	0.08	0.09	3.02E+01
SITE PERIMETER TLD 5.00	0.11	0.11	0.12	0.11	4.12E+01
SITE PERIMETER TLD 5.25	0.10	0.11	0.10	0.11	3.84E+01
SITE PERIMETER TLD 5.50	0.11	0.12	0.12	0.12	4.30E+01
SITE PERIMETER TLD 5.75	0.15	0.14	0.16	0.15	5.49E+01
SITE PERIMETER TLD 6.00	0.15	0.15	0.16	0.16	5.67E+01
SITE PERIMETER TLD 6.25	0.16	0.16	0.16	0.17	5.95E+01
SITE PERIMETER TLD 6.50	0.12	0.12	0.12	0.12	4.39E+01
SITE PERIMETER TLD 6.75	0.08	0.07	0.09	0.08	2.93E+01
SITE PERIMETER TLD 7.00	0.12	0.11	0.12	0.13	4.39E+01
SITE PERIMETER TLD 7.25	0.13	0.13	0.14	0.13	4.85E+01
SITE PERIMETER TLD 7.50	0.10	0.11	0.10	0.12	3.93E+01
SITE PERIMETER TLD 7.75	0.11	0.11	0.11	0.12	4.12E+01
SITE PERIMETER TLD 8.00	0.09	0.09	0.10	0.10	3.48E+01

a mR=milliRoentgen One mR is approximately equal to 1 mrem.

b An 18% uncertainty is associated with each result.

Table 20
TLD Results: Site Perimeter Stations

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Quarterly Exposure in mR/Day
 Yearly Exposure in MR/Year^a

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
SITE PERIMETER TLD 8.25	0.12	0.12	0.12	0.12	4.39E+01
SITE PERIMETER TLD 8.50	0.12	0.11	0.11	0.12	4.21E+01
SITE PERIMETER TLD 8.75	0.10	0.10	0.10	0.11	3.75E+01
SITE PERIMETER TLD 9.00	0.11	0.11	0.11	0.11	4.03E+01
SITE PERIMETER TLD 9.25	0.08	0.08	0.09	0.09	3.11E+01
SITE PERIMETER TLD 9.50	0.08	0.08	0.08	0.09	3.02E+01
SITE PERIMETER TLD 9.75	0.08	0.09	0.08	0.09	3.11E+01
SITE PERIMETER TLD 10.00	0.07	0.03	0.07	0.07	3.20E+01
SITE PERIMETER TLD 11.00	0.08	0.08	0.08	0.09	3.02E+01
SITE PERIMETER TLD 12.00	0.08	0.08	0.08	0.09	3.02E+01
SITE PERIMETER TLD 13.00	0.07	0.07	0.07	0.08	2.65E+01
SITE PERIMETER TLD 14.00	0.09	0.11	0.09	0.10	3.57E+01
SITE PERIMETER TLD 15.00	0.10	0.11	0.07	0.10	3.48E+01
SITE PERIMETER TLD 16.00	0.13	0.15	0.13	0.13	4.94E+01
SITE PERIMETER TLD 17.00	0.14	0.16	0.10	0.14	4.94E+01
SITE PERIMETER TLD 18.00	0.12	0.11	0.11	0.09	3.93E+01
SITE PERIMETER TLD 19.00	0.11	0.12	0.11	0.10	4.03E+01
SITE PERIMETER TLD 20.00	0.16	0.18	0.16	0.18	6.22E+01
SITE PERIMETER TLD 21.00	0.08	0.09	0.09	0.09	3.20E+01
SITE PERIMETER TLD 22.00	0.09	c	0.09	0.08	3.17E+01
SITE PERIMETER TLD 23.00	0.10	0.11	0.10	0.12	3.93E+01
SITE PERIMETER TLD 24.00	0.08	0.09	0.08	0.10	3.20E+01
SITE PERIMETER TLD 25.00	0.07	0.09	0.07	0.09	2.93E+01
SITE PERIMETER TLD 26.00	0.07	0.08	0.07	0.09	2.84E+01
SITE PERIMETER TLD 27.00	0.09	0.10	0.09	0.10	3.48E+01
SITE PERIMETER TLD 28.00	0.09	0.10	0.09	0.10	3.48E+01
SITE PERIMETER TLD 29.00	0.06	0.06	0.06	0.08	2.38E+01
SITE PERIMETER TLD 30.00	0.10	0.11	0.09	0.11	3.75E+01

a mR=milliRoentgen One mR is approximately equal to 1 mrem.

b An 18% uncertainty is associated with each result.

c Blank spaces indicate missing TLD badges.

Table 20
TLD Results: Site Perimeter Stations

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Quarterly Exposure in mR/Day
 Yearly Exposure in MR/Year^a

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
SITE PERIMETER TLD 31.00	0.08	0.09	0.07	0.09	3.02E+01
SITE PERIMETER TLD 32.00	0.09	0.10	0.09	0.10	3.48E+01
SITE PERIMETER TLD 33.00	0.09	0.10	0.09	0.09	3.39E+01
SITE PERIMETER TLD 34.00	0.09	0.10	0.09	0.10	3.48E+01
SITE PERIMETER TLD 35.00	0.08	0.08	0.07	0.09	2.93E+01
SITE PERIMETER TLD 36.00	0.10	0.11	0.09	0.12	3.84E+01
SITE PERIMETER TLD 37.00	0.10	0.11	0.10	0.11	3.84E+01
SITE PERIMETER TLD 38.00	0.12	0.13	0.11	0.13	4.48E+01
SITE PERIMETER TLD 39.00	0.12	0.10	0.11	0.11	4.03E+01
SITE PERIMETER TLD 40.00	0.10	0.08	0.09	0.08	3.20E+01
SITE PERIMETER TLD 41.00	0.10	0.08	0.09	0.09	3.29E+01
SITE PERIMETER TLD 42.00	0.12	0.11	0.11	0.12	4.21E+01
SITE PERIMETER TLD 43.00	0.16	0.12	0.15	0.13	5.12E+01
SITE PERIMETER TLD 44.00	0.12	0.09	0.10	0.11	3.84E+01
SITE PERIMETER TLD 45.00	0.10	0.08	0.10	0.09	3.39E+01
SITE PERIMETER TLD 46.00	0.12	0.10	0.11	0.10	3.93E+01
SITE PERIMETER TLD 47.00	0.11	0.10	0.10	0.10	3.75E+01
SITE PERIMETER TLD 48.00	0.11	0.09	0.10	0.10	3.66E+01
SITE PERIMETER TLD 49.00	0.19	0.15	0.19	0.16	6.31E+01
SITE PERIMETER TLD 50.00	0.10	0.08	0.09	0.08	3.20E+01
SITE PERIMETER TLD 51.00	0.10	0.09	0.12	0.10	3.75E+01
SITE PERIMETER TLD 52.00	0.12	0.10	0.11	0.11	4.03E+01
SITE PERIMETER TLD 53.00	0.09	0.08	0.09	0.09	3.20E+01
SITE PERIMETER TLD 54.00	0.08	0.07	0.05	0.07	2.47E+01
SITE PERIMETER TLD 55.00	0.07	0.06	0.04	0.06	2.10E+01
SITE PERIMETER TLD 56.00	0.08	0.06	0.07	0.07	2.56E+01
SITE PERIMETER TLD 57.00	0.08	0.07	0.05	0.07	2.47E+01
SITE PERIMETER TLD 57.25	0.11	0.08	0.06	0.09	3.11E+01
SITE PERIMETER TLD 57.50	0.08	0.08	0.07	0.08	2.84E+01

a mR=milliRoentgen. One mR is approximately equal to 1 mrem.

b An 18% uncertainty is associated with each result.

Table 20
TLD Results: Site Perimeter Stations

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Quarterly Exposure in mR/Day
 Yearly Exposure in MR/Year^a

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
SITE PERIMETER TLD 57.75	0.10	0.08	0.08	0.08	3.11E+01
SITE PERIMETER TLD 58.00	0.13	0.11	0.11	0.12	4.30E+01
SITE PERIMETER TLD 58.25	0.10	0.09	0.07	0.09	3.20E+01
SITE PERIMETER TLD 58.50	0.09	0.08	0.06	0.09	2.93E+01
SITE PERIMETER TLD 58.75	0.11	0.09	0.10	0.10	3.66E+01
SITE PERIMETER TLD 59.00	0.08	0.07	0.08	0.08	2.84E+01
SITE PERIMETER TLD 59.25	0.10	0.09	0.09	0.09	3.39E+01
SITE PERIMETER TLD 59.50	0.14	0.12	0.13	0.13	4.76E+01
SITE PERIMETER TLD 59.75	0.11	0.10	0.10	0.11	3.84E+01
SITE PERIMETER TLD 60.00	0.12	0.11	0.12	0.11	4.21E+01
SITE PERIMETER TLD 60.25	0.09	0.07	0.08	0.08	2.93E+01
SITE PERIMETER TLD 60.50	0.08	0.07	0.08	0.08	2.84E+01
SITE PERIMETER TLD 60.75	0.08	0.08	0.07	0.08	2.84E+01
SITE PERIMETER TLD 61.00	0.09	0.08	0.09	0.09	3.20E+01
SITE PERIMETER TLD 61.25	0.11	0.09	0.10	0.10	3.66E+01
SITE PERIMETER TLD 61.50	0.08	0.08	0.07	0.08	2.84E+01
SITE PERIMETER TLD 61.75	0.10	0.06	0.09	0.06	2.84E+01
SITE PERIMETER TLD 62.00	0.10	0.08	0.09	0.09	3.29E+01
SITE PERIMETER TLD 62.25	0.08	0.07	0.08	0.07	2.75E+01
SITE PERIMETER TLD 62.50	0.12	0.08	0.11	0.09	3.66E+01
SITE PERIMETER TLD 62.75	0.16	0.13	0.15	0.14	5.31E+01
SITE PERIMETER TLD 63.00	0.07	0.08	0.10	0.08	3.02E+01
SITE PERIMETER TLD 63.25	0.05	0.08	0.08	0.08	2.65E+01
SITE PERIMETER TLD 63.50	0.08	0.08	0.11	0.08	3.20E+01
SITE PERIMETER TLD 63.75	0.05	0.07	0.07	0.07	2.38E+01
SITE PERIMETER TLD 64.00	0.06	0.07	0.08	0.07	2.56E+01
SITE PERIMETER TLD 64.24	0.05	0.07	0.07	0.07	2.38E+01
SITE PERIMETER TLD 64.50	0.06	0.08	0.08	0.08	2.75E+01
SITE PERIMETER TLD 64.75	0.05	0.07	0.08	0.07	2.47E+01

a mR=milliRoentgen. One mR is approximately equal to 1 mrem.
 b An 18% uncertainty is associated with each result.

Table 20
TLD Results: Site Perimeter Stations

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Quarterly Exposure in mR/Day
Yearly Exposure in mR/Year^a

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
SITE PERIMETER TLD 65.25	0.09	0.11	0.13	^c	4.03E+01
SITE PERIMETER TLD 65.50	0.12	0.15	0.16	0.14	5.22E+01
SITE PERIMETER TLD 65.75	0.08	0.13	0.12	0.12	4.12E+01
SITE PERIMETER TLD 66.00	0.13	0.14	0.18	0.14	5.40E+01
SITE PERIMETER TLD 66.25	0.13	0.14	0.18	0.15	5.49E+01
SITE PERIMETER TLD 66.50	0.12	0.15	0.16	0.10	4.85E+01
SITE PERIMETER TLD 66.75	0.09	0.10	0.12	0.10	3.75E+01
SITE PERIMETER TLD 67.00	0.07	0.09	0.10	0.08	3.11E+01
SITE PERIMETER TLD 67.25	0.08	0.11	0.12	0.10	3.75E+01
SITE PERIMETER TLD 67.50	0.09	0.10	0.12	0.10	3.75E+01
SITE PERIMETER TLD 67.75	0.05	0.06	0.08	0.07	2.38E+01
SITE PERIMETER TLD 68.00	0.06	0.07	0.08	0.07	2.56E+01
SITE PERIMETER TLD 68.25	0.05	0.07	0.07	0.07	2.38E+01
SITE PERIMETER TLD 68.50	0.08	0.10	0.11	0.09	3.48E+01
SITE PERIMETER TLD 68.75	0.08	0.12	0.11	0.12	3.93E+01
SITE PERIMETER TLD 69.00	0.11	0.12	0.15	0.13	4.67E+01
SITE PERIMETER TLD 69.25	0.06	0.06	0.09	0.07	2.56E+01
SITE PERIMETER TLD 69.50	0.07	0.08	0.10	0.08	3.02E+01
SITE PERIMETER TLD 69.75	0.07	0.09	0.11	0.09	3.29E+01
SITE PERIMETER TLD 70.00	0.07	0.08	0.10	0.08	3.02E+01
SITE PERIMETER TLD 70.25	0.05	0.06	0.08	0.06	2.29E+01
SITE PERIMETER TLD 70.50	0.05	0.08	0.09	0.08	2.75E+01
SITE PERIMETER TLD 70.75	0.08	0.09	0.12	0.10	3.57E+01
SITE PERIMETER TLD 71.00	0.07	0.07	0.10	0.07	2.84E+01
SITE PERIMETER TLD 71.25	0.09	0.10	0.12	0.11	3.84E+01
SITE PERIMETER TLD 71.50	0.07	0.09	0.10	0.10	3.29E+01
SITE PERIMETER TLD 71.75	0.07	0.10	0.11	0.16	4.03E+01
SITE PERIMETER TLD 72.00	0.07	0.08	0.11	0.09	3.20E+01

^c Blank spaces indicate missing TLD badges.

^a mR=milliRoentgen. One mR is approximately equal to 1 mrem.

^b An 18% uncertainty is associated with each result.

Table 20
TLD Results: Site Perimeter Stations

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Quarterly Exposure in mR/Day
 Yearly Exposure in mR/Year^a

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
SITE PERIMETER TLD 72.25	0.06	0.07	0.09	0.08	2.75E+01
SITE PERIMETER TLD 72.50	0.06	0.08	0.09	0.08	2.84E+01
SITE PERIMETER TLD 72.75	0.06	0.08	0.10	0.08	2.93E+01
SITE PERIMETER TLD 73.00	0.05	0.06	0.08	0.07	2.38E+01
SITE PERIMETER TLD 73.25	0.06	0.08	0.10	0.08	2.93E+01
SITE PERIMETER TLD 73.50	0.07	0.08	0.11	0.08	3.11E+01
SITE PERIMETER TLD 73.75	0.05	0.08	0.09	0.08	2.75E+01
SITE PERIMETER TLD 74.00	0.05	0.07	0.09	0.07	2.56E+01
SITE PERIMETER TLD 74.25	0.05	0.06	0.07	0.06	2.20E+01
SITE PERIMETER TLD 74.50	0.03	0.05	0.06	0.06	1.83E+01
SITE PERIMETER TLD 74.75	0.05	0.06	0.09	0.06	2.38E+01
SITE PERIMETER TLD 75.00	0.05	0.06	0.08	0.06	2.29E+01
SITE PERIMETER TLD 75.25	0.05	0.07	0.07	0.07	2.38E+01
SITE PERIMETER TLD 75.50	0.04	0.05	0.06	0.05	1.83E+01
SITE PERIMETER TLD 75.75	0.04	0.06	0.07	0.06	2.10E+01
SITE PERIMETER TLD 76.00	0.05	0.06	0.08	0.07	2.38E+01
SITE PERIMETER TLD 76.25	0.06	0.08	0.09	0.08	2.84E+01
SITE PERIMETER TLD 76.50	0.06	0.08	0.09	0.06	2.65E+01
SITE PERIMETER TLD 76.75	0.05	0.07	0.08	0.07	2.47E+01
SITE PERIMETER TLD 77.00	0.06	0.07	0.09	0.08	2.75E+01
SITE PERIMETER TLD 78.00	0.06	0.08	0.09	0.08	2.84E+01
SITE PERIMETER TLD 79.00	0.06	0.08	0.09	0.09	2.93E+01
SITE PERIMETER TLD 79.25	0.06	0.09	0.10	0.09	3.11E+01
SITE PERIMETER TLD 79.50	0.08	0.10	0.12	0.10	3.66E+01
SITE PERIMETER TLD 79.75	0.08	0.11	0.12	0.12	3.93E+01
SITE PERIMETER TLD 65.00	0.07	0.09	0.10	0.09	3.20E+01
ALLIED GENERAL TLD 1	0.09	^c	0.09	0.09	3.29E+01
ALLIED GENERAL TLD 2	0.06	0.07	0.05	0.07	2.29E+01

^a mR=milliRoentgen. One mR is approximately equal to 1 mrem.

^b At 18% uncertainty is associated with each result.

^c Blank spaces indicate missing TLD badges.

Table 20
TLD Results: Site Perimeter Stations

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Quarterly Exposure in mR/Day
 Yearly Exposure in MR/Year^a

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
ALLIED GENERAL TLD 3	0.07	0.08	0.07	0.08	2.75E+01
ALLIED GENERAL TLD 4	0.06	0.07	0.06	0.07	2.38E+01
PUMPHOUSE ROAD TLD 1	0.08	0.11	0.13	0.11	3.93E+01
PUMPHOUSE ROAD TLD 2	0.08	0.10	0.12	0.10	3.66E+01
PUMPHOUSE ROAD TLD 3	0.04	0.06	0.07	0.06	2.10E+01
PUMPHOUSE ROAD TLD 4	0.05	0.08	0.08	0.07	2.56E+01
PUMPHOUSE ROAD TLD 5	0.09	0.12	0.13	0.15	4.48E+01
PUMPHOUSE ROAD TLD 6	0.08	0.10	0.12	0.10	3.66E+01

a mR=milliRoentgen. One mR is approximately equal to 1 mrem.

b An 18% uncertainty is associated with each result

Table 21
TLD Results: Vogtle Electric Generating Plant Vicinity

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Quarterly Exposure in mR/Day
 Yearly Exposure in MR/Year^a

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
GEORGIA POWER TLD 1 HIGH	0.07	0.08	0.05	0.08	2.56E+01
GEORGIA POWER TLD 1 LOW	0.08	0.07	0.06	0.08	2.65E+01
GEORGIA POWER TLD 2 HIGH	0.09	0.08	0.10	0.09	3.29E+01
GEORGIA POWER TLD 2 LOW	0.09	0.09	0.08	0.09	3.20E+01
GEORGIA POWER TLD 3 HIGH	0.09	0.09	0.09	0.10	3.39E+01
GEORGIA POWER TLD 3 LOW	0.08	0.09	0.09	0.100	3.29E+01
GEORGIA POWER TLD 4 HIGH	0.09	0.09	0.09	0.10	3.39E+01
GEORGIA POWER TLD 4 LOW	0.09	0.09	0.08	0.09	3.20E+01
GEORGIA POWER TLD 5 HIGH	0.08	0.06	0.09	0.06	2.65E+01
GEORGIA POWER TLD 5 LOW	0.08	0.06	0.06	0.06	2.38E+01
NRC TLD 1	0.11	0.11	0.11	0.11	4.03E+01
NRC TLD 2	0.06	0.06	0.06	0.06	2.20E+01
NRC TLD 3	0.07	0.07	0.07	0.06	2.47E+01
NRC TLD 4	0.07	0.08	0.08	0.08	2.84E+01
NRC TLD 5	0.15	0.14	0.14	0.14	5.22E+01
NRC TLD 6	0.08	0.09	0.08	0.09	3.11E+01
NRC TLD 7	0.07	0.08	0.08	0.07	2.75E+01
NRC TLD 8	0.07	0.08	0.08	0.08	2.84E+01

a mR=milliRoentgen. One mR is approximately equal to 1 mrem.

b An 18% uncertainty is associated with each result

Table 22
Iodine-129 and Cesium-137 in Deer Thyroids and Muscle

Page 1 of 2

Collection Date	Wet Weight, pCi/g		
	I-129 Thyroid ^a	Cs-137 Thyroid ^a	Cs-137 Muscle
1/14/92	7.37	4.75	10.45
1/27/92	1.02	5.85	14.17
1/31/92	0.92	0.08	0.30
2/9/92	1.04	2.96	5.33
2/19/92	0.39	2.91	9.64
3/10/92	3.13	0.54	2.45
3/16/92	5.63	1.00	1.81
3/18/92	1.25	1.00	3.93
3/26/92	3.21	1.79	1.59
4/2/92	9.14	0.55	1.76
4/7/92	0.08	0.37	1.19
4/9/92	0.72	0.63	0.89
4/15/92	0.28	0.63	1.62
4/18/92	0.58	0.18	0.54
4/20/92	0.17	5.05	10.08
5/7/92	0.41	0.27	0.77
5/7/92	0.87	0.65	0.85
5/8/92	0.20	0.13	0.88
5/21/92	1.57	0.07	0.24
5/21/92	1.18	0.12	0.95
9/1/92	0.97	1.51	1.36
9/28/92	0.78	1.11	2.03
9/28/92	0.81	1.40	2.71
9/29/92	1.17	1.89	3.19
9/29/92	1.21	0.59	<bkg
10/17/92	13.45	1.75	3.60
10/17/92	0.49	1.80	2.57
10/17/92	1.66	2.58	2.83
10/17/92	0.49	3.96	2.59
10/21/92	2.01	4.83	5.41
10/21/92	1.47	2.41	5.42
10/21/92	0.20	3.95	4.93
10/21/92	0.76	2.94	4.70

^a Analyses performed by the Department of Physiology and Biophysics at the University of Tennessee, Memphis

Table 22
Iodine-129 and Cesium-137 in Deer Thyroids and Muscle

Page 2 of 2

Collection Date	Wet Weight, pCi/g		
	I-129 Thyroid ^a	Cs-137 Thyroid ^a	Cs-137 Muscle
10/24/92	0.44	6.68	5.85
10/24/92	0.29	3.07	6.35
10/24/92	2.18	1.31	3.06
10/24/92	1.04	4.80	5.96
10/28/92	0.78	1.46	3.61
10/28/92	0.77	3.38	5.57
10/28/92	1.19	2.77	5.18
10/28/92	0.71	3.61	3.80
10/31/92	0.57	3.96	5.83
10/31/92	0.61	2.57	2.57
10/31/92	28.29	5.72	9.65
10/31/92	2.08	3.05	4.91
11/4/92	0.30	2.51	7.25
11/4/92	0.36	3.50	10.63
11/4/92	0.39	2.53	6.71
11/4/92	0.60	2.98	5.50

^a Analyses performed by the Department of Physiology and Biophysics at the University of Tennessee, Memphis

Table 23
Comparison of Field and Laboratory Cesium-137 Measurements in
Deer and Hogs

Page 1 of 6

Date	Animal ID	Animal Type	Field Cs-137 (pCi/g)	Lab Cs-137(pCi/g)
10/17/92	11645	Deer	4	4.32 ± 0.10
10/17/93	11828	Deer	2	1.89 ± 0.07
10/17/92	11828	Deer (Dup) ^a		1.71 ± 0.07
10/17/92	11831	Deer	3	2.70 ± 0.08
10/17/92	11840	Deer	1	2.43 ± 0.08
10/17/92	12031	Deer	2	2.30 ± 0.08
10/17/92	12596	Hog	1	0.85 ± 0.05
10/17/92	737	Hog	7	6.35 ± 0.12
10/17/92	746	Deer	1	0.68 ± 0.05
10/17/92	948	Deer	2	0.86 ± 0.06
10/22/92	12555	Deer	6	5.40 ± 0.11
10/22/92	64	Deer	5	5.81 ± 0.11
10/22/92	11848	Deer	7	5.81 ± 0.11
10/22/92	11843	Deer	15	14.85 ± 0.18
10/22/92	11854	Deer	3	5.94 ± 0.11
10/22/92	12164	Deer	6	6.08 ± 0.12
10/22/92	12164	Deer (Dup) ^a		6.18 ± 0.12
10/22/92	11727	Hog	4	5.27 ± 0.11
10/22/92	11730	Deer	4	4.59 ± 0.10
10/22/92	11864	Deer	1	3.49 ± 0.09
10/22/92	11876	Deer	5	6.05 ± 0.11
10/22/92	11881	Deer	15	14.85 ± 0.18
10/26/92	11735	Deer	4	4.59 ± 0.10
10/26/92	11805	Deer	6	7.43 ± 0.13
10/26/92	11805	Deer (Dup) ^a		7.16 ± 0.12
10/26/92	11890	Deer	3	4.19 ± 0.10
10/26/92	11897	Deer	9	9.86 ± 0.15
10/26/92	12128	Deer	8	7.43 ± 0.13
10/26/92	12136	Deer	7	7.70 ± 0.13
10/26/92	12172	Deer	13	11.61 ± 0.16
10/26/92	11746	Deer	5	7.56 ± 0.13
10/26/92	12203	Deer	3	3.38 ± 0.09

^a Duplicate laboratory analysis on single field sample

Table 23
Comparison of Field and Laboratory Cesium-137 Measurements in
Deer and Hogs

Page 2 of 6

Date	Animal ID	Animal Type	Field Cs-137 (pCi/g)	Lab Cs-137(pCi/g)
10/29/92	12220	Deer	5	5.54 ± 0.11
10/29/92	89	Deer	8	7.43 ± 0.13
10/29/92	11748	Deer	6	5.40 ± 0.11
10/29/92	11653	Deer	6	6.89 ± 0.12
10/29/92	12627	Deer	8	8.42 ± 0.14
10/29/92	12627	Deer (Dup) ^a		8.44 ± 0.14
10/29/92	91	Hog	7	6.62 ± 0.12
10/29/92	12644	Deer	8	8.91 ± 0.14
10/29/92	91	Deer	6	6.87 ± 0.13
10/29/92	98	Deer	7	8.10 ± 0.13
10/29/92	12611	Deer	6	7.16 ± 0.13
11/03/92	27	Deer	8	9.59 ± 0.14
11/03/92	12618	Deer	1	1.92 ± 0.07
11/03/92	12624	Deer	7	7.40 ± 0.13
11/03/92	33	Deer	7	4.14 ± 0.10
11/03/92	12658	Hog	6	7.06 ± 0.12
11/03/92	12198	Deer	1	4.33 ± 0.10
11/05/92	12253	Hog	4	3.92 ± 0.09
11/05/92	12199	Deer	5	4.82 ± 0.09
11/05/92	12669	Deer	5	6.08 ± 0.12
11/05/92	12678	Deer	5	7.56 ± 0.13
11/05/92	12257	Hog	1	0.49 ± 0.04
11/05/92	12257	Hog (Dup) ^a		0.53 ± 0.05
11/05/92	12259	Deer	7	5.27 ± 0.11
11/05/92	11758	Deer	3	8.64 ± 0.14
11/05/92	12699	Deer	1	2.19 ± 0.07
11/05/92	12264	Deer	2	2.97 ± 0.09
11/05/92	11772	Hog	1	1.62 ± 0.07
11/09/92	12271	Deer	6	7.02 ± 0.12
11/09/92	50	Deer	8	9.86 ± 0.14
11/09/92	11780	Deer	6	5.54 ± 0.11

^a Duplicate laboratory analysis on single field sample

Table 23
Comparison of Field and Laboratory Cesium-137 Measurements in
Deer and Hogs

Page 3 of 6

Date	Animal ID	Animal Type	Field Cs-137 (pCi/g)	Lab Cs-137(pCi/g)
11/09/92	12902	Deer	10	12.29 ± 0.16
11/09/92	12910	Deer	7	8.37 ± 0.13
11/09/92	12910	Deer (Dup) ^a		8.10 ± 0.13
11/09/92	12916	Hog	18	13.38 ± 0.17
11/09/92	12915	Deer	11	8.78 ± 0.14
11/09/92	12919	Deer	13	11.48 ± 0.15
11/09/92	12101	Hog	7	10.11 ± 0.15
11/09/92	12928	Deer	2	9.59 ± 0.14
11/09/92	12932	Deer	1	3.11 ± 0.09
11/12/92	11794	Deer	7	7.16 ± 0.13
11/12/92	11789	Deer	9	8.24 ± 0.13
11/12/92	11612	Deer	7	6.62 ± 0.12
11/12/92	12938	Deer	5	6.62 ± 0.12
11/12/92	12950	Deer	6	5.94 ± 0.11
11/12/92	12950	Deer (Dup) ^a		6.35 ± 0.12
11/12/92	12955	Deer	6	7.43 ± 0.13
11/12/92	12966	Deer	6	6.62 ± 0.12
11/12/92	12965	Deer	5	5.67 ± 0.12
11/12/92	11623	Deer	5	5.54 ± 0.11
11/12/92	11616	Deer	1	3.51 ± 0.09
11/12/92	12973	Deer	1	4.73 ± 0.10
11/12/92	12979	Deer	8	6.75 ± 0.12
11/12/92	11701	Deer	5	6.35 ± 0.12
11/16/92	11704	Deer	8	8.92 ± 0.14
11/16/92	12295	Deer	5	5.54 ± 0.11
11/16/92	11799	Deer	8	8.65 ± 0.14
11/16/92	12985	Deer	8	9.59 ± 0.14
11/16/92	11712	Deer	3	3.78 ± 0.09
11/16/92	11712	Deer (Dup) ^a		3.92 ± 0.09
11/16/92	12522	Deer	14	16.21 ± 0.18
11/16/92	12724	Deer	7	8.92 ± 0.14

^a Duplicate laboratory analysis on single field sample

Table 23
Comparison of Field and Laboratory Cesium-137 Measurements in
Deer and Hogs

Page 4 of 6

Date	Animal ID	Animal Type	Field Cs-137 (pCi/g)	Lab Cs-137(pCi/g)
11/16/92	12410	Deer	6	8.38 ± 0.13
11/16/92	13106	Deer	6	6.89 ± 0.12
11/19/92	11718	Deer	5	4.86 ± 0.11
11/19/92	13010	Deer	5	3.78 ± 0.09
11/19/92	12731	Deer	6	6.35 ± 0.12
11/19/92	12426	Deer	4	4.46 ± 0.10
11/19/92	13017	Deer	5	7.70 ± 0.13
11/19/92	13017	Deer (Dup) ^a		7.02 ± 0.13
11/19/92	12433	Hog	1	1.05 ± 0.06
11/19/92	13117	Deer	6	4.86 ± 0.11
11/19/92	12447	Deer	1	1.01 ± 0.05
11/19/92	13122	Hog	2	2.16 ± 0.07
11/23/92	11721	Deer	6	4.46 ± 0.10
11/23/92	12245	Hog	9	10.13 ± 0.15
11/23/92	11722	Deer	5	4.32 ± 0.10
11/23/92	12238	Hog	3	2.97 ± 0.08
11/23/92	12455	Hog	4	2.43 ± 0.08
11/23/92	12739	Deer	4	3.65 ± 0.09
11/23/92	12247	Deer	2	1.49 ± 0.07
11/23/92	12472	Deer	3	1.35 ± 0.06
11/23/92	12482	Hog	1	0.80 ± 0.05
11/23/92	12249	Deer	3	1.49 ± 0.07
12/01/92	13028	Deer	11	12.16 ± 0.16
12/01/92	12745	Deer	12	10.81 ± 0.15
12/01/92	13657	Deer	8	5.81 ± 0.11
12/01/92	12832	Deer	17	17.56 ± 0.20
12/01/92	12491	Deer	9	6.89 ± 0.12
12/01/92	13129	Deer	10	9.59 ± 0.14
12/01/92	13129	Deer (Dup) ^a		10.13 ± 0.15
12/01/92	13139	Deer	13	14.86 ± 0.18
12/01/92	12498	Deer	12	13.51 ± 0.17

a Duplicate laboratory analysis on single field sample

Table 23
Comparison of Field and Laboratory Cesium-137 Measurements in
Deer and Hogs

Page 5 of 6

Date	Animal ID	Animal Type	Field Cs-137 (pCi/g)	Lab Cs-137(pCi/g)
12/01/92	13137	Deer	15	13.51 ± 0.17
12/01/92	13138	Deer	15	13.51 ± 0.17
12/01/92	13032	Deer	9	8.51 ± 0.14
12/01/92	13149	Deer	5	6.75 ± 0.12
12/01/92	13159	Deer	6	4.48 ± 0.10
12/01/92	13659	Deer	10	13.51 ± 0.17
12/01/92	12769	Deer	15	14.86 ± 0.18
12/01/92	11691	Deer	6	5.94 ± 0.11
12/01/92	11693	Deer	7	4.86 ± 0.10
12/01/92	13171	Deer	6	4.59 ± 0.10
12/01/92	13177	Deer	6	7.16 ± 0.13
12/01/92	13180	Deer	3	2.57 ± 0.08
12/01/92	13180	Deer (Dup) ^a		2.57 ± 0.08
12/01/92	13045	Deer	8	7.56 ± 0.13
12/01/92	12771	Deer	6	8.37 ± 0.14
12/01/92	12848	Deer	7	6.75 ± 0.12
12/01/92	13203	Deer	11	14.67 ± 0.17
12/03/92	12804	Deer	8	9.33 ± 0.14
12/03/92	11976	Deer	8	9.18 ± 0.14
12/03/92	13210	Deer	12	13.61 ± 0.17
12/03/92	13222	Deer	15	15.07 ± 0.18
12/03/92	12780	Deer	7	8.01 ± 0.13
12/03/92	12780	Deer (Dup) ^a		8.35 ± 0.13
12/03/92	12005	Deer	3	4.59 ± 0.11
12/03/92	12003	Deer	6	6.48 ± 0.12
12/03/92	13240	Deer	8	9.73 ± 0.15
12/07/92	12787	Deer	7	10.53 ± 0.15
12/07/92	12094	Deer	13	13.50 ± 0.17
12/07/92	12099	Deer	3	4.32 ± 0.10
12/07/92	13252	Deer	12	12.15 ± 0.16
12/07/92	13261	Deer	4	6.35 ± 0.12

^a Duplicate laboratory analysis on single field sample

Table 23
Comparison of Field and Laboratory Cesium-137 Measurements in
Deer and Hogs

Page 6 of 6

Date	Animal ID	Animal Type	Field Cs-137 (pCi/g)	Lab Cs-137(pCi/g)
12/07/92	13275	Deer	1	1.62 ± 0.06
12/07/92	13076	Deer	1	0.31 ± 0.03
12/07/92	13068	Deer	1	0.19 ± 0.04
12/11/92	12075	Deer	6	6.35 ± 0.12
12/11/92	11995	Deer	2	2.30 ± 0.08
12/11/92	13281	Deer	6	7.43 ± 0.13
12/11/92	12822	Deer	4	5.67 ± 0.11
12/11/92	13286	Deer	8	8.51 ± 0.14
12/14/92	13855	Deer	12	15.46 ± 0.18
12/14/92	13289	Deer	6	7.97 ± 0.13
12/14/92	13296	Deer	5	3.37 ± 0.07
12/14/92	12079	Deer	4	4.05 ± 0.10
12/14/92	11959	Deer	13	13.37 ± 0.17
12/14/92	13329	Deer	12	12.83 ± 0.17
12/14/92	13332	Deer	10	7.30 ± 0.09
12/17/92	13352	Deer	5	4.59 ± 0.10
12/17/92	11964	Deer	14	16.20 ± 0.18
12/17/92	13338	Deer	2	8.24 ± 0.13
12/17/92	13720	Deer	17	17.55 ± 0.19
12/17/92	13345	Deer	11	10.80 ± 0.15

Table 24
Summary of Cesium-137 in Deer

Page 1 of 1

Year	Number of Deer	Average, pCi/g ^a	Maximum, pCi/g ^a
1965	198	10	10
1966	541	6	24
1967	1,032	9	104
1968	669	11	74
1969 ^b	889	15	204
1970	864	18	77
1971	865	11	48
1972	808	8	38
1973	1,158	6	31
1974	1,551	5	52
1975	1,300	9	36
1976	1,357	11	41
1977	1,271	10	42
1978	1,287	5	65
1979	1,079	10	98
1980	961	10	98
1981	1,791	8	47
1982	2,063	14	73
1983	1,597	4	16
1984	1,038	6	23
1985	1,022	7	30
1986	944	7	29
1987	606	5	45
1988	855	10	60
1989	710	7	25
1990	1,071	6	18
1991	1,092	1	21
1992	1,519	6	22

a Values are field measurements.

b Approximately 20% of deer were monitored before 1969; since 1969, each deer has been monitored.

Table 25
Strontium in Deer Muscle

Page 1 of 2

Animal Identification Number	Strontium-90 (pCi/g)
12164	$(7 \pm 3)E-3$
11730	$(8 \pm 3)E-3$
12555	$(36 \pm 8)E-3$
96	$(3 \pm 5)E-3$
11854	$(10 \pm 5)E-3$
746	$(16 \pm 6)E-3$
948	$(4 \pm 4)E-3$
11828	$(2 \pm 2)E-3^a$
11831	$(8 \pm 6)E-3$
11840	$(9 \pm 7)E-3$
11843	$(2 \pm 3)E-3$
11881	$(5 \pm 5)E-3$
11897	$(7 \pm 6)E-3$
12172	$(0 \pm 4)E-3$
11805	$(10 \pm 5)E-3$
11805 (dup)	$(9 \pm 6)E-3$
12128	$(2 \pm 5)E-3$
11745	$(5 \pm 5)E-3$
12136	$(-2 \pm 5)E-3$
11748	$(15 \pm 6)E-3$
12198	$(3 \pm 4)E-3$
12220	$(-4 \pm 4)E-3$
11653	$(2 \pm 4)E-3$
12627	$(13 \pm 6)E-3$
12699	$(69 \pm 12)E-3$
12919	$(-1 \pm 3)E-3$
12522	$(1 \pm 3)E-3$
12745	$(29 \pm 4)E-3$
13129	$(3 \pm 4)E-3$
13138	$(-4 \pm 3)E-3$
12832	$(11 \pm 4)E-3$

a Negative values indicate sample counts less than detector background.

Table 25
Strontium in Deer Muscle

Page 2 of 2

Animal Identification Number	Strontium-90 (pCi/g)
12498	$(6 \pm 5)E-3$
13139	$(2 \pm 5)E-3$
13345	$(12 \pm 6)E-3$
13352	$(11 \pm 6)E-3$
11964	$(-3 \pm 4)E-3^a$
13338	$(6 \pm 8)E-3$
13720	$(-2 \pm 4)E-3$
13855	$(8 \pm 4)E-3$
13210	$(7 \pm 5)E-3$
13222	$(6 \pm 4)E-3$
12005	$(-3 \pm 3)E-3$
12767	$(0 \pm 4)E-3$
13252	$(-1 \pm 4)E-3$
12094	$(10 \pm 4)E-3$
11959	$(7 \pm 5)E-3$

a Negative values indicate sample counts less than detector background.

Table 26
Strontium in Deer Bone

Page 1 of 1

Identification Number	Strontium-90 (pCi/g)
12910	6.4 ± 1.1
12257	5.4 ± 1.2
13129	8.6 ± 1.4
13017	7.7 ± 1.5
11897	4.5 ± 1.2
13180	8.0 ± 1.4
12780	7.4 ± 1.4
11712	9.8 ± 1.4
12164	4.4 ± 1.4
12627	8.5 ± 1.5
12950	5.9 ± 1.3

Table 27
Radioactivity in Soil

Page 1 of 1

Location	pCi/g $\pm \sigma$; dry weight; 0-8 cm depth			
	Sr-90	Cs-137	Pu-238	Pu-239
F Area				
2,000 ft. East	$(-1.21 \pm 1.84)E-02$	$(5.54 \pm 0.37)E-01$	$(2.70 \pm 0.10)E-01$	$(3.27 \pm 0.11)E-01$
2,000 ft. West	$(1.54 \pm 1.75)E-02$	$(7.19 \pm 0.40)E-01$	$(4.03 \pm 0.14)E-01$	$(2.92 \pm 0.11)E-01$
2,000 ft. North	$(1.99 \pm 1.82)E-02$	$(1.05 \pm 0.05)E+00$	$(3.55 \pm 0.29)E-02$	$(5.31 \pm 0.14)E-01$
2,000 ft. South	$(2.16 \pm 1.82)E-02$	$(2.42 \pm 0.42)E-01$	$(6.45 \pm 0.82)E-03$	$(8.11 \pm 0.92)E-03$
H Area				
2,000 ft. East	$(-0.09 \pm 1.63)E-02$	$(8.22 \pm 0.42)E-01$	$(1.42 \pm 0.04)E-02$	$(5.54 \pm 0.23)E-02$
2,000 ft. West	$(1.87 \pm 1.67)E-02$	$(2.31 \pm 0.27)E-01$	$(5.33 \pm 1.30)E-03$	$(1.65 \pm 0.22)E-02$
2,000 ft. North	$(-0.72 \pm 1.63)E-02$	$(7.72 \pm 2.42)E-02$	$(1.97 \pm 0.50)E-03$	$(4.85 \pm 0.75)E-03$
2,000 ft. South	$(2.89 \pm 1.83)E-02$	$(1.32 \pm 0.05)E+00$	$(2.13 \pm 0.16)E-02$	$(4.09 \pm 0.21)E-02$
S Area				
#1	$(0.02 \pm 1.77)E-02$	$(7.60 \pm 0.42)E-01$	$(1.54 \pm 0.18)E-02$	$(7.32 \pm 0.41)E-02$
#2	$(-0.25 \pm 1.14)E-02$		$(1.33 \pm 0.44)E-03$	$(3.53 \pm 0.63)E-03$
#3	$(1.27 \pm 1.87)E-02$	$(2.58 \pm 0.27)E-01$	$(3.84 \pm 0.19)E-02$	$(3.44 \pm 0.18)E-02$
#4	$(2.21 \pm 1.81)E-02$	$(1.35 \pm 0.28)E-01$	$(5.17 \pm 2.07)E-04$	$(1.37 \pm 0.29)E-03$
Z Area				
#1	$(-0.89 \pm 1.44)E-02$	$(6.15 \pm 1.95)E-02$	$(1.14 \pm 0.51)E-03$	$(3.84 \pm 1.04)E-03$
#3	$(0.78 \pm 1.45)E-02$	$(3.24 \pm 0.36)E-01$	$(2.66 \pm 0.45)E-03$	$(1.56 \pm 0.11)E-02$
#5	$(2.44 \pm 1.63)E-02$	$(6.65 \pm 0.44)E-01$	$(8.81 \pm 0.88)E-03$	$(5.36 \pm 0.24)E-02$
#7	$(1.01 \pm 1.65)E-02$	$(4.76 \pm 0.36)E-01$	$(8.77 \pm 1.42)E-03$	$(8.49 \pm 0.47)E-02$
Site Perimeter				
NE Quadrant	$(-2.88 \pm 2.00)E-02$	$(4.31 \pm 0.36)E-01$	$(4.75 \pm 3.39)E-04$	$(1.36 \pm 0.12)E-02$
NW Quadrant	$(-1.52 \pm 1.90)E-02$	$(4.84 \pm 0.38)E-01$	$(6.08 \pm 3.48)E-04$	$(4.46 \pm 0.85)E-03$
SE Quadrant	$(-0.34 \pm 1.89)E-02$	$(3.01 \pm 0.24)E-01$	$(1.61 \pm 0.70)E-03$	$(9.30 \pm 1.44)E-03$
SW Quadrant	$(-1.50 \pm 1.89)E-02$	$(4.65 \pm 0.38)E-01$	$(2.19 \pm 1.01)E-03$	$(1.78 \pm 0.25)E-02$
100-mile Radius				
Clinton, SC	$(1.46 \pm 1.79)E-02$	0/1 ^a	$(2.34 \pm 1.64)E-04$	$(4.74 \pm 0.56)E-03$
Savannah, GA	$(1.19 \pm 1.65)E-02$	0/1	$(1.12 \pm 7.25)E-04$	$(1.93 \pm 0.23)E-02$

a The gamma analysis package currently used by Environmental Monitoring does not force an activity determination if a threshold setting is not met. For these reported radionuclides, "No. of Samples" is displayed as "number with activities quantified / number of samples counted"; only the number quantified are used in the max, min, and mean generation.

Table 28
Radioactivity in River and Stream Sediment

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		Cs-137, pCi/g (dry weight)		
Location	River Mile	1990	1991	1992
Savannah River				
Below Four Mile Creek	150.2	((5.00±3.00)E-02	(2.30±0.34)E-01	(2.15±0.23)E-01
Above Little Hell Landing	136.5	(6.70±0.90)E-01	(2.20±0.21)E-01	(1.04±0.25)E-01
Below Little Hell Landing	134.0	(1.00±0.07)E±00	<1.75E-01	<1.01E-01
Above Lower Three Runs	129.5	(1.10±0.14)E±00	(7.21±0.56)E-01	(3.96±0.44)E-01
Highway 301	118.7	(3.40±.500)E-01	(4.32±0.40)E-01	(5.66±0.37)E-01
Demier's Landing (Control)	160.5	(1.70±0.60)E-01	<1.42E-01	(2.84±0.26)E-01
SRS Stream				
Four Mile at Road A-7		(2.40±0.140)E±01	(6.19±0.20)E±00	(2.33±0.08)E±01
Four Mile A-7A (in a beaver pond)		(7.10±0.40)E±00	(5.14±0.15)E±01	(7.44±0.22)E±01
Four Mile Discharge at Swamp		(8.00±1.00)E-01	(5.27±0.29)E-01	(5.52±0.27)E-01
Pen Branch Discharge at Swamp		(3.60±0.700)E-01	(3.99±0.18)E±00	(1.82±0.12)E±00
Steel Creek at Road B		(8.80±0.900)E-01	(9.85±0.42)E-01	(No sample counted)
Steel Creek Discharge at Swamp		(7.30±0.700)E-01	(3.66±0.15)E±00	(6.95±0.35)E-01
Steel Creek - Pen Branch Mouth		(1.40±0.10)E±00	(2.11±0.11)E±00	(4.81±0.19)E±00
Lower Three Runs Mouth		(4.80±0.600)E-01	(5.06±0.47)E-01	(4.01±0.42)E-01
Upper Three Runs Mouth (Control)		(2.60±0.800)E-01	(2.59±0.34)E-01	(2.36±0.34)E-01
		Co-60, pCi/g (dry weight)		
Location	River Mile	1990	1991	1992
Savannah River				
Below Four Mile Creek	150.2	—	<1.42E-01	<1.02E-01
Above Little Hell Landing	136.5	—	<6.63E-02	<5.31E-02
Below Little Hell Landing	134.0	—	<1.78E-01	<9.23E-02
Above Lower Three Runs	129.5	—	<1.46E-01	<6.92E-02
Highway 301	118.7	—	<1.29E-01	<8.28E-02
Demier's Landing (Control)	160.5	—	<1.49E-01	<8.71E-02
SRS Streams				
Four Mile at Road A-7		(3.70±0.500)E-01	(6.75±0.86)E-02	(3.02±0.28)E-01
Four Mile A-7A (in a beaver pond)		(9.00±3.00)E-02	(6.53±0.46)E-01	(1.16±0.06)E±00
Four Mile Discharge at Swamp		—	(6.49±0.86)E-02	(5.95±1.21)E-02
Pen Branch Discharge at Swamp		—	(7.78±0.55)E-01	(6.57±0.58)E-01
Steel Creek at Road B		—	<4.41E-02	(No sample counted)
Steel Creek Discharge at Swamp		(7.30±0.700)E-01	<1.58E-01	(6.34 ±1.22)E-02
Steel Creek - Pen Branch Mouth		—	(1.15±0.05)E±00	(2.67±0.24)E-01
Lower Three Runs Mouth		—	<1.61E-01	<7.37E-02
Upper Three Runs Mouth (Control)		—	<1.72E-01	<8.59E-02

Table 28
Radioactivity in River and Stream Sediment

Page 2 of 3

Location	River Mile	Sr-90, pCi/g (dry weight)		
		1990	1991	1992
Savannah River				
Below Four Mile Creek	150.2	(2.00±6.00)E-02	(1.62±1.89)E-02	(1.12±1.84)E-02
Above Little Hell Landing	136.5	(-2.00±5.00)E-02	(-0.17±1.76)E-02	(1.29±2.13)E-02
Below Little Hell Landing	134.0	(1.00±5.00)E-02	(-1.36±2.24)E-02	(-0.94±5.13)E-02
Above Lower Three Runs	129.5	(2.00±6.00)E-02	(3.85±2.06)E-02	(-1.84±4.88)E-02
Highway 301	118.7	(-1.00±5.00)E-02	(2.10±1.72)E-02	(3.10±5.44)E-02
Demier's Landing (Control)	160.5	(3.00±4.00)E-02	(-2.42±2.41)E-02	(3.03±1.65)E-02
SRS Streams				
Four Mile at Road A-7		(6.00±8.00)E-02	(4.12±0.39)E-01	(2.34±0.13)E±00
Four Mile A-7A (in a beaver pond)		(2.00±6.00)E-02	(9.11±0.53)E-01	(1.85±0.12)E±00
Four Mile Discharge at Swamp		(-1.00±5.00)E-02	(5.10±2.11)E-02	(9.63±5.69)E-02
Pen Branch Discharge at Swamp		(6.00±7.00)E-02	(1.24±0.25)E-01	(-3.34±4.67)E-02
Steel Creek at Road B		(1.00±5.00)E-02	(5.10±1.95)E-02	(-6.87±6.54)E-02
Steel Creek Discharge at Swamp		(1.00±5.00)E-02	(4.25±2.17)E-02	(4.73±5.10)E-02
Steel Creek - Pen Branch Mouth		(0.00±0.05)E±00	(no sample counted)	(1.78±4.95)E-02
Lower Three Runs Mouth		(1.00±5.00)E-02	(1.29±0.23)E-01	(3.70±2.05)E-02
Upper Three Runs Mouth Control		(4.00±6.00)E-02	(5.59±3.01)E-02	(1.30 ±1.65)E-02

Location	River Mile	Pu-238, pCi/g (dry weight)		
		1990	1991	1992
Savannah River				
Below Four Mile Creek	150.2	(2.70±1.00)E-02	(2.89±4.20)E-03	(1.14±0.14)E-02
Above Little Hell Landing	136.5	(4.40±1.00)E-02	(1.52±0.23)E-03	(1.45±0.23)E-02
Below Little Hell Landing	134.0	(6.40±1.00)E-02	(8.49±0.33)E-04	1.17±0.94)E-03
Above Lower Three Runs	129.5	(7.10±1.00)E-02	(2.93±1.20)E-04	(3.57±3.14)E-04
Highway 301	118.7	(7.40±1.00)E-02	(1.42±1.31)E-04	(2.06±1.58)E-03
Demier's Landing (Control)	160.5	(1.20±0.100)E-01	(-0.80±1.00)E-04	(3.60±0.98)E-03
SRS Streams				
Four Mile at Road A-7		(7.80±0.300)E-01	(7.78±0.26)E-02	(2.93±0.08)E-01
Four Mile A-7A (in a beaver pond)		(2.30±0.100)E-01	(1.18±0.01)E+00	(1.82±0.04)E+00
Four Mile Discharge at Swamp		(7.00±1.00)E-03	(1.88±0.27)E-03	(2.51±1.26)E-03
Pen Branch Discharge at Swamp		(2.00±0.200)E-02	(1.00±0.13)E-02	(1.38±0.14)E-02
Steel Creek at Road B		(9.00±1.00)E-02	(1.46±0.17)E-03	(1.55±0.70)E-03
Steel Creek Discharge at Swamp		(2.00±1.00)E-03	(2.90±0.56)E-03	(3.12±1.05)E-03
Steel Creek - Pen Branch Mouth		(5.00±1.00)E-02	(1.25±0.10)E-02	(1.66±0.24)E-02
Lower Three Runs Mouth		(4.00±1.00)E-02	(1.05±0.22)E-03	(2.04±0.59)E-03
Upper Three Runs Mouth (Control)		(6.00±10.0)E-03	(5.15±1.88)E-03	(1.70±0.38)E-03

Table 28
Radioactivity in River and Stream Sediment

Page 3 of 3

		Pu-239, pCi/g (dry weight)		
Location	River Mile	1990	1991	1992
Savannah River				
Below Four Mile Creek	150.2	(1.00±1.00)E-03	(0.62±1.38)E-03	(8.61±1.15)E-03
Above Little Hell Landing	136.5	(2.00±1.00)E-03	(8.71±1.51)E-04	(1.60±0.71)E-03
Below Little Hell Landing	134.0	(4.00±1.00)E-03	(1.91±1.71)E-04	(6.64±9.40)E-04
Above Lower Three Runs	129.5	(8.00±2.00)E-03	(2.32±0.23)E-03	(6.21±2.54)E-04
Highway 301	118.7	(5.00±3.00)E-03	(1.48±0.19)E-03	(-0.55±1.66)E-03
Demier's Landing	160.5	(9.00±3.00)E-03	(6.42±8.30)E-05	(2.76±0.83)E-03
SRS Streams				
Four Mile at Road A-7		(2.30±0.100)E-01	(3.16±0.16)E-02	(1.09±0.05)E-01
Four Mile A-7A (in a beaver pond)		(6.90±1.00)E-02	(3.73±0.06)E-01	(6.03±0.15)E-01
Four Mile Discharge at Swamp		(3.00±10.0)E-03	(3.07±0.33)E-03	(6.01±1.41)E-03
Pen Branch Discharge at Swamp		(2.00±1.00)E-03	(2.78±0.21)E-02	(2.34±0.17)E-02
Steel Creek at Road B		(7.00±3.00)E-03	(4.31±0.26)E-03	(3.42±0.83)E-03
Steel Creek Discharge at Swamp		(2.00±2.00)E-04	(7.14±0.83)E-03	(1.41±0.66)E-03
Steel Creek - Pen Branch Mouth		(4.00±1.00)E-03	(2.56±0.14)E-02	(1.52±0.22)E-02
Lower Three Runs Mouth		(1.00±10.0)E-03	(1.71±0.23)E-03	(6.29±3.86)E-04
Upper Three Runs Mouth (Control)		(7.00±2.00)E-03	(6.48±1.66)E-03	(1.51±0.38)E-03

Table 29
Radioactivity in Vegetation (Quarterly Vegetation Samples)

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Gross Alpha (pCi/g; dry weight)				
F-Area Veg. Site #13	4	(1.54 $\pm$ 1.09)E+00	(-6.19 $\pm$ 3.79)E-01	(3.53 $\pm$ 8.91)E-01
F-Area Veg. Site #21	4	(1.12 $\pm$ 0.67)E+00	(-4.71 $\pm$ 3.22)E-01	(3.16 $\pm$ 6.64)E-01
H-Area Veg. Site #10	3	(6.75 $\pm$ 4.17)E+00	(3.77 $\pm$ 4.30)E-01	(3.30 $\pm$ 3.22)E+00
H-Area Veg. Site #22	3	(-0.50 $\pm$ 3.62)E-01	(-4.57 $\pm$ 5.71)E-01	(-2.03 $\pm$ 2.22)E-01
S-Area Veg. Site #1	4	(5.30 $\pm$ 6.16)E-01	(-0.14 $\pm$ 5.18)E-01	(2.45 $\pm$ 2.32)E-01
S-Area Veg. Site #2	4	(6.49 $\pm$ 5.67)E-01	(-0.84 $\pm$ 5.60)E-01	(2.14 $\pm$ 3.52)E-01
S-Area Veg. Site #3	4	(1.24 $\pm$ 0.64)E+00	(-3.75 $\pm$ 4.88)E-01	(3.85 $\pm$ 8.43)E-01
S-Area Veg. Site #4	4	(5.35 $\pm$ 6.16)E-01	(-3.64 $\pm$ 4.58)E-01	(-0.64 $\pm$ 4.11)E-01
Z-Area Veg. Site #1	4	(5.32 $\pm$ 7.51)E-01	(-5.41 $\pm$ 3.74)E-01	(0.11 $\pm$ 4.44)E-01
Z-Area Veg. Site #2	4	(4.32 $\pm$ 4.98)E-01	(-0.90 $\pm$ 5.48)E-01	(1.67 $\pm$ 2.77)E-01
Z-Area Veg. Site #3	4	(4.43 $\pm$ 2.81)E+00	(-3.46 $\pm$ 2.96)E-01	(1.17 $\pm$ 2.24)E+00
Z-Area Veg. Site #4	4	(1.46 $\pm$ 0.70)E+00	(-0.45 $\pm$ 4.19)E-01	(3.73 $\pm$ 7.29)E-01
Z-Area Veg. Site #5	4	(5.95 $\pm$ 2.54)E+00	(-1.14 $\pm$ 1.42)E+00	(1.22 $\pm$ 3.20)E+00
Z-Area Veg. Site #6	4	(2.38 $\pm$ 1.18)E+00	(-7.03 $\pm$ 4.08)E-01	(0.25 $\pm$ 1.43)E+00
Z-Area Veg. Site #7	4	(4.92 $\pm$ 4.22)E-01	(-5.95 $\pm$ 3.54)E-01	(0.22 $\pm$ 5.23)E-01
Z-Area Veg. Site #8	4	(2.76 $\pm$ 1.24)E+00	(-2.97 $\pm$ 4.41)E-01	(1.04 $\pm$ 1.28)E+00
Allendale Gate	4	(2.39 $\pm$ 5.08)E-01	(-4.49 $\pm$ 2.91)E-01	(-0.41 $\pm$ 3.01)E-01
Barnwell Gate	4	(2.59 $\pm$ 1.62)E+00	(1.14 $\pm$ 3.63)E-01	(1.11 $\pm$ 1.06)E+00
D-Area	4	(8.65 $\pm$ 4.95)E-01	(2.38 $\pm$ 6.62)E-01	(5.42 $\pm$ 2.90)E-01
Darkhorse	4	(4.97 $\pm$ 7.25)E-01	(-2.74 $\pm$ 2.26)E-01	(1.76 $\pm$ 3.76)E-01
East Talatha	4	(5.35 $\pm$ 4.83)E-01	(-2.49 $\pm$ 1.95)E-01	(1.52 $\pm$ 3.21)E-01
Greenpond	4	(3.57 $\pm$ 1.35)E+00	(-0.16 $\pm$ 3.45)E-01	(1.58 $\pm$ 1.48)E+00
Highway 39	4	(6.49 $\pm$ 6.16)E-01	(-2.43 $\pm$ 1.95)E-01	(1.22 $\pm$ 3.85)E-01
Highways 21 & 167	4	(1.63 $\pm$ 1.33)E+00	(-0.93 $\pm$ 3.19)E-01	(6.06 $\pm$ 7.39)E-01
Jackson, S.C.	4	(1.30 $\pm$ 0.59)E+00	(-4.43 $\pm$ 2.86)E-01	(2.38 $\pm$ 7.57)E-01
Patterson Mill Rd	4	(4.54 $\pm$ 1.28)E+00	(-0.70 $\pm$ 2.91)E-01	(1.24 $\pm$ 2.20)E+00
Road A14	4	(2.65 $\pm$ 1.63)E+00	(-4.22 $\pm$ 5.67)E-01	(0.67 $\pm$ 1.36)E+00
Talatha Gate	4	(-0.04 $\pm$ 2.73)E-01	(-5.95 $\pm$ 3.78)E-01	(-2.48 $\pm$ 2.74)E-01
West Jackson	4	(1.84 $\pm$ 1.17)E+00	(-4.05 $\pm$ 2.65)E-01	(0.42 $\pm$ 1.03)E+00
Windsor Road	3	(5.71 $\pm$ 8.24)E-01	(-2.86 $\pm$ 4.19)E-01	(1.98 $\pm$ 4.39)E-01
Allendale, S.C.	3	(8.44 $\pm$ 7.33)E-01	(-3.19 $\pm$ 4.22)E-01	(3.28 $\pm$ 5.92)E-01
Langley, S.C.	4	(1.46 $\pm$ 0.78)E+00	(1.52 $\pm$ 5.06)E-01	(7.07 $\pm$ 5.85)E-01

Table 29
Radioactivity in Vegetation (Quarterly Vegetation Samples)

Page 2 of 5

Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Springfield, S.C.	3	(0.26 $\pm$ 1.10)E+00	(-9.73 $\pm$ 4.95)E-01	(-4.45 $\pm$ 6.38)E-01
Waynesboro, Ga.	4	(1.52 $\pm$ 0.92)E+00	(-2.85 $\pm$ 2.26)E-01	(2.68 $\pm$ 8.40)E-01
Columbia, S.C.	4	(3.62 $\pm$ 9.04)E-01	(-4.61 $\pm$ 3.37)E-01	(0.82 $\pm$ 3.73)E-01
Greenville, S.C.	4	(1.15 $\pm$ 0.88)E+00	(-1.14 $\pm$ 0.65)E+00	(1.12 $\pm$ 9.62)E-01
Macon, Ga.	4	(0.00 $\pm$ 1.95)E+00	(-5.48 $\pm$ 3.75)E-01	(-3.50 $\pm$ 2.59)E-01
Savannah, Ga.	4	(7.57 $\pm$ 9.97)E-01	(-1.51 $\pm$ 6.38)E-01	(1.86 $\pm$ 4.02)E-01
Nonvolatile Beta (pCi/g; dry weight)				
F-Area Veg. Site #13	4	(1.82 $\pm$ 0.23)E+01	(1.91 $\pm$ 0.95)E+00	(1.19 $\pm$ 0.74)E+01
F-Area Veg. Site #21	4	(2.02 $\pm$ 0.25)E+01	(5.79 $\pm$ 8.79)E-01	(8.26 $\pm$ 8.68)E+00
H-Area Veg. Site #10	3	(3.37 $\pm$ 0.23)E+01	(7.53 $\pm$ 1.26)E+00	(1.82 $\pm$ 1.38)E+01
H-Area Veg. Site #22	3	(2.53 $\pm$ 0.21)E+01	(4.17 $\pm$ 1.11)E+00	(1.26 $\pm$ 1.12)E+01
S-Area Veg. Site #1	4	(2.35 $\pm$ 0.18)E+01	(4.05 $\pm$ 1.08)E+00	(1.23 $\pm$ 0.90)E+01
S-Area Veg. Site #2	4	(1.79 $\pm$ 0.16)E+01	(8.65 $\pm$ 1.35)E+00	(1.22 $\pm$ 0.41)E+01
S-Area Veg. Site #3	4	(2.32 $\pm$ 0.18)E+01	(9.73 $\pm$ 1.29)E+00	(1.52 $\pm$ 0.66)E+01
S-Area Veg. Site #4	4	(2.01 $\pm$ 0.17)E+01	(1.30 $\pm$ 0.14)E+01	(1.65 $\pm$ 0.30)E+01
Z-Area Veg. Site #1	4	(1.73 $\pm$ 0.16)E+01	(4.11 $\pm$ 1.08)E+00	(9.28 $\pm$ 5.86)E+00
Z-Area Veg. Site #2	4	(1.85 $\pm$ 0.17)E+01	(2.32 $\pm$ 0.98)E+00	(8.78 $\pm$ 7.66)E+00
Z-Area Veg. Site #3	4	(2.22 $\pm$ 0.19)E+01	(3.57 $\pm$ 1.05)E+00	(1.27 $\pm$ 0.77)E+01
Z-Area Veg. Site #4	4	(1.29 $\pm$ 0.14)E+01	(3.73 $\pm$ 1.00)E+00	(6.99 $\pm$ 4.08)E+00
Z-Area Veg. Site #5	4	(2.27 $\pm$ 0.19)E+01	(7.57 $\pm$ 1.27)E+00	(1.29 $\pm$ 0.67)E+01
Z-Area Veg. Site #6	4	(2.27 $\pm$ 0.18)E+01	(7.03 $\pm$ 1.21)E+00	(1.25 $\pm$ 0.73)E+01
Z-Area Veg. Site #7	4	(2.16 $\pm$ 0.17)E+01	(3.51 $\pm$ 1.05)E+00	(1.19 $\pm$ 0.95)E+01
Z-Area Veg. Site #8	4	(1.51 $\pm$ 0.16)E+01	(0.10 $\pm$ 1.27)E+00	(9.30 $\pm$ 6.45)E+00
Allendale Gate	4	(1.51 $\pm$ 0.15)E+01	(6.49 $\pm$ 1.21)E+00	(1.09 $\pm$ 0.45)E+01
Barnwell Gate	4	(1.89 $\pm$ 0.17)E+01	(9.19 $\pm$ 1.34)E+00	(1.31 $\pm$ 0.47)E+01
D-Area	4	(1.41 $\pm$ 0.15)E+01	(2.76 $\pm$ 1.01)E+00	(9.59 $\pm$ 4.86)E+00
Darkhorse	4	(2.00 $\pm$ 0.17)E+01	(1.86 $\pm$ 0.92)E+00	(7.21 $\pm$ 8.56)E+00
East Talatha	4	(1.57 $\pm$ 0.17)E+01	(5.35 $\pm$ 1.13)E+00	(9.04 $\pm$ 4.60)E+00
Greenpond	4	(2.27 $\pm$ 0.19)E+01	(5.41 $\pm$ 1.18)E+00	(1.09 $\pm$ 0.80)E+01
Highway 39	4	(1.57 $\pm$ 0.15)E+01	(3.90 $\pm$ 1.14)E+00	(9.82 $\pm$ 6.47)E+00
Highways 21 & 167	4	(2.27 $\pm$ 0.18)E+01	(4.70 $\pm$ 1.09)E+00	(1.16 $\pm$ 0.77)E+01
Jackson, S.C.	4	(1.46 $\pm$ 0.15)E+01	(7.03 $\pm$ 1.22)E+00	(1.02 $\pm$ 0.36)E+01
Patterson Mill Rd	4	(1.35 $\pm$ 0.15)E+01	(2.43 $\pm$ 1.00)E+00	(6.36 $\pm$ 4.95)E+00

Table 29
Radioactivity in Vegetation (Quarterly Vegetation Samples)

Page 3 of 5

Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Road A14	4	(1.62 $\pm$ 0.16) $\times 10^1$	(4.38 $\pm$ 1.09) $\times 10^0$	(9.75 $\pm$ 4.95) $\times 10^0$
Talatha Gate	4	(1.30 $\pm$ 0.14) $\times 10^1$	(2.43 $\pm$ 0.98) $\times 10^0$	(6.82 $\pm$ 4.62) $\times 10^0$
West Jackson	4	(3.15 $\pm$ 0.22) $\times 10^1$	(6.49 $\pm$ 1.13) $\times 10^0$	(1.76 $\pm$ 1.04) $\times 10^1$
Windsor Road	3	(1.92 $\pm$ 0.18) $\times 10^1$	(1.03 $\pm$ 0.13) $\times 10^1$	(1.53 $\pm$ 0.46) $\times 10^1$
Allendale, S.C.	3	(1.62 $\pm$ 0.15) $\times 10^1$	(4.37 $\pm$ 1.19) $\times 10^0$	(9.67 $\pm$ 6.02) $\times 10^0$
Langley, S.C.	4	(2.45 $\pm$ 0.20) $\times 10^1$	(1.05 $\pm$ 0.13) $\times 10^1$	(1.61 $\pm$ 0.66) $\times 10^1$
Springfield, S.C.	3	(3.30 $\pm$ 0.21) $\times 10^1$	(1.80 $\pm$ 0.18) $\times 10^1$	(2.31 $\pm$ 0.86) $\times 10^1$
Waynesboro, Ga.	4	(1.63 $\pm$ 0.16) $\times 10^1$	(8.74 $\pm$ 1.39) $\times 10^0$	(1.26 $\pm$ 0.31) $\times 10^1$
Columbia, S.C.	4	(1.51 $\pm$ 0.15) $\times 10^1$	(8.74 $\pm$ 1.38) $\times 10^0$	(1.15 $\pm$ 0.31) $\times 10^1$
Greenville, S.C.	4	(5.91 $\pm$ 0.23) $\times 10^1$	(2.17 $\pm$ 0.18) $\times 10^1$	(3.41 $\pm$ 1.70) $\times 10^1$
Macon, Ga.	4	(4.61 $\pm$ 0.26) $\times 10^1$	(1.20 $\pm$ 0.14) $\times 10^1$	(2.66 $\pm$ 1.42) $\times 10^1$
Savannah, Ga.	4	(1.41 $\pm$ 0.15) $\times 10^1$	(4.22 $\pm$ 1.14) $\times 10^0$	(8.21 $\pm$ 4.44) $\times 10^0$
Tritium (pCi/g; wet weight)				
F-Area Veg. Site #13	4	(1.27 $\pm$ 0.01) $\times 10^1$	(9.16 $\pm$ 0.39) $\times 10^{-1}$	(4.96 $\pm$ 5.28) $\times 10^0$
F-Area Veg. Site #21	4	(8.83 $\pm$ 0.06) $\times 10^0$	(1.45 $\pm$ 0.14) $\times 10^{-1}$	(2.96 $\pm$ 3.96) $\times 10^0$
H-Area Veg. Site #10	4	(4.03 $\pm$ 0.07) $\times 10^0$	(4.66 $\pm$ 0.20) $\times 10^{-1}$	(1.60 $\pm$ 1.66) $\times 10^0$
H-Area Veg. Site #22	4	(5.30 $\pm$ 0.06) $\times 10^0$	(2.41 $\pm$ 0.03) $\times 10^0$	(3.38 $\pm$ 1.30) $\times 10^0$
S-Area Veg. Site #1	4	(2.43 $\pm$ 0.05) $\times 10^0$	(1.69 $\pm$ 0.04) $\times 10^0$	(2.14 $\pm$ 0.32) $\times 10^0$
S-Area Veg. Site #2	4	(2.34 $\pm$ 0.00) $\times 10^1$	(1.47 $\pm$ 0.06) $\times 10^0$	(0.77 $\pm$ 1.05) $\times 10^1$
S-Area Veg. Site #3	4	(2.65 $\pm$ 0.01) $\times 10^1$	(7.44 $\pm$ 0.22) $\times 10^{-1}$	(1.08 $\pm$ 1.10) $\times 10^1$
S-Area Veg. Site #4	4	(4.86 $\pm$ 0.08) $\times 10^0$	(1.24 $\pm$ 0.02) $\times 10^0$	(2.68 $\pm$ 1.67) $\times 10^0$
Z-Area Veg. Site #1	4	(3.37 $\pm$ 0.06) $\times 10^0$	(8.10 $\pm$ 0.39) $\times 10^{-1}$	(1.58 $\pm$ 1.20) $\times 10^0$
Z-Area Veg. Site #2	4	(4.93 $\pm$ 0.09) $\times 10^0$	(5.57 $\pm$ 0.15) $\times 10^{-1}$	(1.83 $\pm$ 2.07) $\times 10^0$
Z-Area Veg. Site #3	4	(1.73 $\pm$ 0.03) $\times 10^0$	(7.99 $\pm$ 0.30) $\times 10^{-1}$	(1.14 $\pm$ 0.41) $\times 10^0$
Z-Area Veg. Site #4	4	(5.09 $\pm$ 0.05) $\times 10^0$	(8.96 $\pm$ 0.92) $\times 10^{-2}$	(1.96 $\pm$ 2.22) $\times 10^0$
Z-Area Veg. Site #5	4	(2.88 $\pm$ 0.06) $\times 10^0$	(2.86 $\pm$ 0.19) $\times 10^{-1}$	(1.27 $\pm$ 1.13) $\times 10^0$
Z-Area Veg. Site #6	4	(2.09 $\pm$ 0.02) $\times 10^0$	(3.71 $\pm$ 0.30) $\times 10^{-1}$	(1.26 $\pm$ 0.70) $\times 10^0$
Z-Area Veg. Site #7	4	(3.88 $\pm$ 0.03) $\times 10^0$	(6.90 $\pm$ 0.41) $\times 10^{-1}$	(1.74 $\pm$ 1.47) $\times 10^0$
Z-Area Veg. Site #8	3	(3.72 $\pm$ 0.03) $\times 10^0$	(7.33 $\pm$ 0.41) $\times 10^{-1}$	(2.12 $\pm$ 1.51) $\times 10^0$
Allendale Gate	4	(2.96 $\pm$ 0.38) $\times 10^{-1}$	(1.65 $\pm$ 4.64) $\times 10^{-2}$	(1.29 $\pm$ 1.19) $\times 10^{-1}$
Barnwell Gate	4	(3.31 $\pm$ 0.49) $\times 10^{-1}$	(2.34 $\pm$ 1.18) $\times 10^{-2}$	(1.59 $\pm$ 1.46) $\times 10^{-1}$
D-Area	4	(1.17 $\pm$ 0.04) $\times 10^0$	(2.94 $\pm$ 0.43) $\times 10^{-1}$	(7.20 $\pm$ 3.58) $\times 10^{-1}$
Darkhorse	4	(1.35 $\pm$ 0.03) $\times 10^0$	(5.85 $\pm$ 3.20) $\times 10^{-2}$	(5.33 $\pm$ 6.11) $\times 10^{-1}$

Table 29
Radioactivity in Vegetation (Quarterly Vegetation Samples)

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
East Talatha	4	(2.56 $\pm$ 0.22)E-01	(4.88 $\pm$ 1.77)E-02	(1.18 $\pm$ 0.97)E-01
Greenpond	4	(9.82 $\pm$ 0.39)E-01	(1.15 $\pm$ 0.31)E-01	(3.63 $\pm$ 4.16)E-01
Highway 39	4	(1.22 $\pm$ 0.04)E+00	(-0.24 $\pm$ 2.94)E-02	(5.93 $\pm$ 6.57)E-01
Highways 21 & 167	4	(4.93 $\pm$ 0.28)E-01	(2.98 $\pm$ 1.26)E-02	(2.86 $\pm$ 2.23)E-01
Jackson, S.C.	4	(8.64 $\pm$ 0.31)E-01	(4.14 $\pm$ 1.79)E-02	(4.00 $\pm$ 3.74)E-01
Patterson Mill Rd	4	(3.67 $\pm$ 0.35)E-01	(2.73 $\pm$ 4.45)E-02	(2.12 $\pm$ 1.58)E-01
Road A14	4	(1.37 $\pm$ 0.04)E+00	(4.59 $\pm$ 3.31)E-02	(5.22 $\pm$ 5.91)E-01
Talatha Gate	4	(3.61 $\pm$ 0.38)E-01	(7.61 $\pm$ 2.15)E-02	(2.08 $\pm$ 1.18)E-01
West Jackson	4	(1.11 $\pm$ 0.04)E+00	(1.59 $\pm$ 0.41)E-01	(7.49 $\pm$ 4.41)E-01
Windsor Road	4	(6.78 $\pm$ 0.32)E-01	(7.50 $\pm$ 3.47)E-02	(2.72 $\pm$ 2.79)E-01
Allendale, S.C.	4	(8.16 $\pm$ 0.36)E-01	(2.55 $\pm$ 4.00)E-02	(2.47 $\pm$ 3.80)E-01
Langley, S.C.	4	(1.33 $\pm$ 0.25)E-01	(4.06 $\pm$ 1.68)E-02	(9.87 $\pm$ 4.32)E-02
Springfield, S.C.	4	(2.03 $\pm$ 0.22)E-01	(2.58 $\pm$ 0.82)E-02	(7.89 $\pm$ 8.35)E-02
Waynesboro, Ga.	4	(7.35 $\pm$ 0.42)E-01	(1.04 $\pm$ 0.17)E-01	(4.26 $\pm$ 2.61)E-01
Columbia, S.C.	4	(1.67 $\pm$ 0.29)E-01	(0.67 $\pm$ 3.99)E-02	(5.45 $\pm$ 7.59)E-02
Greenville, S.C.	4	(2.19 $\pm$ 0.14)E-01	(0.05 $\pm$ 4.06)E-02	(0.62 $\pm$ 1.05)E-01
Macon, Ga.	4	(2.13 $\pm$ 1.79)E-02	(-6.65 $\pm$ 5.68)E-02	(-1.45 $\pm$ 3.74)E-02
Savannah, Ga.	4	(4.80 $\pm$ 1.16)E-02	(-1.68 $\pm$ 4.05)E-02	(0.78 $\pm$ 2.96)E-02
Sr-89, 90 (pCi/g; dry weight)				
F-Area	4	(4.28 $\pm$ 0.55)E+00	(1.27 $\pm$ 0.76)E-01	(1.57 $\pm$ 1.86)E+00
H-Area	3	(8.26 $\pm$ 1.09)E-01	(6.45 $\pm$ 1.27)E-01	(7.64 $\pm$ 1.03)E-01
Site Perimeter	3	(1.52 $\pm$ 0.15)E+00	(5.78 $\pm$ 1.36)E-01	(9.20 $\pm$ 5.20)E-01
25-mile Radius	3	(1.04 $\pm$ 0.11)E+00	(5.70 $\pm$ 0.76)E-01	(7.56 $\pm$ 2.47)E-01
100-mile Radius	3	(4.66 $\pm$ 1.08)E-01	(8.12 $\pm$ 5.73)E-02	(2.74 $\pm$ 1.93)E-01
S-Area Veg. Site #1	4	(6.02 $\pm$ 1.18)E-01	(2.41 $\pm$ 0.65)E-01	(3.91 $\pm$ 1.75)E-01
Z-Area Veg. Site #1	4	(4.04 $\pm$ 0.87)E-01	(8.58 $\pm$ 6.53)E-02	(2.98 $\pm$ 1.45)E-01

Table 29
Radioactivity in Vegetation (Quarterly Vegetation Samples)

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Cs-137^a (pCi/g; dry weight) <i>The lower limit of detection for Cs-137 is 1.00E-01 pCi/g.</i>				
F-Area	2/4	(5.15 $\pm$ 0.55)E-01	(1.26 $\pm$ 0.21)E-01	(3.21 $\pm$ 2.75)E-01
H-Area	3/4	(3.81 $\pm$ 0.52)E-01	(1.42 $\pm$ 0.49)E-01	(2.31 $\pm$ 1.31)E-01
Site Perimeter	3/4	(5.61 $\pm$ 0.55)E-01	(1.85 $\pm$ 0.39)E-01	(3.73 $\pm$ 1.88)E-01
25-mile Radius	1/4	(1.03 $\pm$ 0.26)E-01		
100-mile Radius	0/4			
S-Area Veg. Site #1	3/4	(5.34 $\pm$ 0.80)E-01	(8.75 $\pm$ 4.41)E-02	(2.56 $\pm$ 2.43)E-01
S-Area Veg. Site #2	0/4			
S-Area Veg. Site #3	0/4			
S-Area Veg. Site #4	1/4	(2.99 $\pm$ 0.48)E-01		
Z-Area Veg. Site #1	1/4	(3.27 $\pm$ 0.53)E-01		
Z-Area Veg. Site #2	1/4	(1.45 $\pm$ 0.08)E+00		
Z-Area Veg. Site #3	2/4	(6.49 $\pm$ 0.98)E-01	(5.04 $\pm$ 0.72)E-01	(5.77 $\pm$ 1.03)E-01
Z-Area Veg. Site #4	1/4	(7.89 $\pm$ 0.60)E-01		
Z-Area Veg. Site #5	0/4			
Z-Area Veg. Site #6	1/4	(3.89 $\pm$ 0.72)E-01	(3.89 $\pm$ 0.72)E-01	(3.89 $\pm$ 0.72)E-01
Z-Area Veg. Site #7	2/4	(4.93 $\pm$ 0.54)E-01	(1.76 $\pm$ 0.38)E-01	(3.35 $\pm$ 2.24)E-01
Z-Area Veg. Site #8	0/4			

a The gamma analysis package currently used by Environmental Monitoring does not force an activity determination if a threshold setting is not met. For these reported radionuclides, "No. of Samples" is displayed as "number with activities quantified / number of samples counted"; only the number quantified are used in the max, min, and mean generation.

Table 30
Radioactivity in Composites of Seepage and Retention Basin Vegetation

Page 1 of 1

Location	pCi/g $\pm\sigma$ (dry weight)	
	Gross Alpha	Nonvolatile Beta
700-A Seepage Basin Composite (4 Locations)	(5.69 $\pm$ 3.66)E+00	(4.14 $\pm$ 0.27)E+01
100-C Seepage Basin Composite Composite (8 Locations)	(-1.52 $\pm$ 3.08)E-01	(1.62 $\pm$ 0.13)E+01
100-K Retention Composite Basin Composite (4 Locations)	(8.44 $\pm$ 5.94)E-01	(2.65 $\pm$ 0.15)E+01
100-K Seepage Basin Composite (4 Locations)	(1.04 $\pm$ 0.66)E+00	(1.84 $\pm$ 0.14)E+01
100-L Seepage Basin Composite (4 Locations)	(2.14 $\pm$ 6.28)E-01	(1.71 $\pm$ 0.13)E+01
100-L Chemical Basin Composite (4 Locations)	(2.69 $\pm$ 3.87)E-01	(1.28 $\pm$ 0.12)E+01
100-P Seepage Basin Composite (4 Locations)	(-0.37 $\pm$ 3.56)E-01	(1.84 $\pm$ 0.13)E+01
100-R Seepage Basin Composite (8 Locations)	(1.12 $\pm$ 0.64)E+00	(1.90 $\pm$ 0.14)E+01
200-F Seepage Basin Composite (8 Locations)	(4.81 $\pm$ 4.65)E-01	(1.44 $\pm$ 0.12)E+01
200-F Retention Composite Basin Composite (6 Locations)	(8.86 $\pm$ 7.49)E-01	(2.42 $\pm$ 0.15)E+01
200-H Seepage Basin Composite (8 Locations)	(2.24 $\pm$ 3.96)E-01	(2.44 $\pm$ 0.15)E+01
200-H Retention Composite Basin Composite (8 Locations)	(-1.72 $\pm$ 3.27)E-01	(4.88 $\pm$ 0.19)E+01

Location	Sr-89,90	
	Sr-89,90	Cs-137 ^a
700-A Seepage Basin Composite (4 Locations)	(3.38 $\pm$ 0.16)E+00	(1.12 $\pm$ 0.07)E+00
100-C Seepage Basin Composite (8 Locations)	(7.72 $\pm$ 0.16)E+00	(3.34 $\pm$ 0.52)E-01
100-K Retention Composite Basin Composite (4 Locations)	(8.41 $\pm$ 0.96)E-01	(1.50 $\pm$ 0.41)E-01
100-K Seepage Basin Composite (4 Locations)	(1.34 $\pm$ 0.11)E+00	(2.32 $\pm$ 0.43)E-01
100-L Seepage Basin Composite (4 Locations)	(3.06 $\pm$ 0.77)E-01	LLD
100-L Chemical Basin Composite (4 Locations)	(5.02 $\pm$ 0.85)E-01	LLD
100-P Seepage Basin Composite (4 Locations)	(2.21 $\pm$ 0.13)E+00	(4.39 $\pm$ 0.57)E-01
100-R Seepage Basin Composite (8 Locations)	(4.34 $\pm$ 0.17)E+00	(3.76 $\pm$ 0.59)E-01
200-F Seepage Basin Composite (8 Locations)	(2.25 $\pm$ 0.70)E-01	(1.41 $\pm$ 0.48)E-01
200-F Retention Composite Basin Composite (6 Locations)	(5.29 $\pm$ 0.86)E-01	(2.35 $\pm$ 0.63)E-01
200-H Seepage Basin Composite (8 Locations)	(4.98 $\pm$ 0.18)E+00	(2.96 $\pm$ 0.56)E-01
200-H Retention Composite Basin Composite (8 Locations)	(7.71 $\pm$ 0.23)E+00	(3.60 $\pm$ 0.12)E+00

^a LLD denotes activity was below the lower limit of detection. The lower limit of detection for Cs-137 is 1.00E-01 pCi/g.

Table 31
Radioactivity in Vegetation inside Solid Waste Disposal Facility Fences

Page 1 of 2

Location	pCi/g $\pm\sigma$; dry weight		
	Gross Alpha	Nonvolatile Beta	Cs-137 ^a
1	(-1.17 $\pm$ 4.00)E-01	(9.27 $\pm$ 1.47)E+00	(1.20 $\pm$ 0.08)E+00
1A	(2.04 $\pm$ 0.87)E+00	(1.73 $\pm$ 0.18)E+01	(2.71 $\pm$ 0.59)E-01
2	(-2.68 $\pm$ 4.52)E-01	(4.70 $\pm$ 1.22)E+00	(8.95 $\pm$ 3.35)E-02
3	(-4.18 $\pm$ 6.02)E-01	(1.44 $\pm$ 0.17)E+01	LLD
3A	(-4.50 $\pm$ 5.80)E-01	(2.15 $\pm$ 0.19)E+01	LLD
4	(1.24 $\pm$ 0.83)E+00	(2.81 $\pm$ 0.21)E+01	(8.20 $\pm$ 0.67)E-01
5	(4.08 $\pm$ 6.18)E-01	(2.41 $\pm$ 0.20)E+01	(8.72 $\pm$ 0.82)E-01
6	(6.80 $\pm$ 6.15)E-01	(1.17 $\pm$ 0.16)E+01	(2.08 $\pm$ 0.78)E-01
7	(-1.11 $\pm$ 3.90)E-01	(9.88 $\pm$ 1.47)E+00	LLD
8	(5.48 $\pm$ 8.26)E-01	(2.68 $\pm$ 0.21)E+01	(1.22 $\pm$ 0.46)E-01
8A	(-1.67 $\pm$ 4.10)E-01	(2.10 $\pm$ 0.19)E+01	(3.45 $\pm$ 0.44)E-01
10	(-0.63 $\pm$ 6.23)E-01	(1.50 $\pm$ 0.17)E+01	(2.22 $\pm$ 0.56)E-01
11	(2.15 $\pm$ 6.02)E-01	(1.57 $\pm$ 0.17)E+01	LLD
12	(3.89 $\pm$ 6.48)E-01	(3.27 $\pm$ 0.23)E+01	(8.37 $\pm$ 0.60)E-01
13	(1.31 $\pm$ 6.53)E-01	(3.53 $\pm$ 0.24)E+01	(1.55 $\pm$ 0.58)E-01
14	(1.24 $\pm$ 0.51)E+01	(2.35 $\pm$ 0.21)E+01	(1.19 $\pm$ 0.32)E-01
15	(4.37 $\pm$ 6.40)E-01	(2.22 $\pm$ 0.19)E+01	LLD
16	(7.18 $\pm$ 6.53)E-01	(7.83 $\pm$ 1.35)E+00	LLD
17	(3.07 $\pm$ 1.37)E+00	(9.14 $\pm$ 0.36)E+01	LLD
18	(1.36 $\pm$ 0.78)E+00	(1.11 $\pm$ 0.16)E+01	LLD
19	b	b	b
19A	b	b	b
20	(-0.31 $\pm$ 1.32)E+00	(3.13 $\pm$ 0.24)E+01	LLD
20A	b	b	b
21	(3.39 $\pm$ 9.23)E-01	(1.57 $\pm$ 0.18)E+01	(1.41 $\pm$ 0.43)E-01
22	(-4.51 $\pm$ 3.38)E-01	(1.30 $\pm$ 0.16)E+01	LLD
23	(0.86 $\pm$ 6.48)E-01	(3.15 $\pm$ 0.22)E+01	(2.25 $\pm$ 0.64)E-01
23A	(3.85 $\pm$ 1.47)E+00	(1.89 $\pm$ 0.19)E+01	LLD
24	(5.07 $\pm$ 6.48)E-01	(6.18 $\pm$ 1.35)E+00	(1.62 $\pm$ 0.53)E-01
25	(0.32 $\pm$ 1.60)E+00	(3.79 $\pm$ 0.25)E+01	(1.66 $\pm$ 0.51)E-01

a LLD denotes activity was below the lower limit of detection. The lower limit of detection for Cs-137 is 1.00E-01 pCi/g.

b No sample collected from this location in 1992.

Table 31
Radioactivity in Vegetation inside Solid Waste Disposal Facility Fences

Page 2 of 2

Location	pCi/g $\pm\sigma$; dry weight		
	Gross Alpha	Nonvolatile Beta	Cs-137 ^a
26	(1.17 $\pm$ 0.81)E+00	(8.65 $\pm$ 1.47)E+00	LLD
27	(-2.61 $\pm$ 2.69)E+00	(3.46 $\pm$ 0.26)E+01	(1.07 $\pm$ 0.30)E-01
28	b	b	b
29	(5.29 $\pm$ 6.53)E-01	(8.49 $\pm$ 1.42)E+00	LLD
30	(5.07 $\pm$ 6.77)E-01	(1.11 $\pm$ 0.16)E+01	LLD
31	(5.16 $\pm$ 6.85)E-01	(1.31 $\pm$ 0.16)E+01	LLD
32	b	b	b
33	(0.78 $\pm$ 1.19)E+00	(3.07 $\pm$ 0.23)E+01	LLD
34	(7.83 $\pm$ 7.44)E-01	(9.14 $\pm$ 1.45)E+00	LLD
35	(2.55 $\pm$ 6.16)E-01	(9.14 $\pm$ 1.43)E+00	(1.21 $\pm$ 0.42)E-01
36	(5.68 $\pm$ 8.00)E-01	(1.89 $\pm$ 0.18)E+01	LLD
37	(-2.87 $\pm$ 4.43)E-01	(9.79 $\pm$ 1.46)E+00	LLD
38	(2.15 $\pm$ 1.01)E+00	(9.79 $\pm$ 1.47)E+00	LLD
39	(-5.74 $\pm$ 3.63)E-01	(1.31 $\pm$ 0.16)E+01	LLD
40	(-5.68 $\pm$ 3.69)E-01	(9.79 $\pm$ 1.47)E+00	LLD
41	(2.22 $\pm$ 6.05)E-01	(1.44 $\pm$ 0.17)E+01	LLD
42	(-7.83 $\pm$ 4.75)E-01	(1.44 $\pm$ 0.17)E+01	LLD

a LLD denotes activity was below the lower limit of detection. The lower limit of detection for Cs-137 is 1.00E-01 pCi/g.

b No sample collected from this location in 1992.

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Table 32
Radioactivity in Vegetation outside Solid Waste Disposal Facility Fences

Page 1 of 2

Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Gross Alpha (pCi/g; dry weight)				
Location 1	4	(2.43 $\pm$ 1.40)E+00	(4.40 $\pm$ 5.54)E-01	(1.29 $\pm$ 0.84)E+00
Location 2	4	(1.46 $\pm$ 1.09)E+00	(-0.67 $\pm$ 5.84)E-01	(4.53 $\pm$ 6.83)E-01
Location 3	4	(8.94 $\pm$ 7.84)E-01	(-3.09 $\pm$ 4.72)E-01	(3.00 $\pm$ 5.60)E-01
Location 4	4	(2.39 $\pm$ 2.05)E+00	(8.11 $\pm$ 6.86)E-01	(1.54 $\pm$ 0.65)E+00
Location 5	4	(2.34 $\pm$ 0.90)E+00	(-4.32 $\pm$ 5.24)E-01	(0.42 $\pm$ 1.30)E+00
Location 6	4	(1.22 $\pm$ 0.61)E+00	(-0.59 $\pm$ 5.67)E-01	(6.87 $\pm$ 5.37)E-01
Location 7	4	(1.44 $\pm$ 0.97)E+00	(-2.90 $\pm$ 2.59)E-01	(8.75 $\pm$ 7.91)E-01
Location 8	3	(9.63 $\pm$ 6.41)E-01	(-0.84 $\pm$ 6.17)E-01	(4.20 $\pm$ 5.25)E-01
Location 9	4	(-0.28 $\pm$ 4.80)E-01	(-0.83 $\pm$ 3.83)E-01	(-6.22 $\pm$ 2.44)E-02
Location 10	4	(1.62 $\pm$ 3.66)E-01	(-5.95 $\pm$ 3.86)E-01	(-3.01 $\pm$ 3.32)E-01
Location 11	4	(1.58 $\pm$ 0.90)E+00	(-0.50 $\pm$ 3.57)E-01	(5.00 $\pm$ 7.34)E-01
Location 12	4	(1.76 $\pm$ 1.18)E+00	(1.74 $\pm$ 4.06)E-01	(1.07 $\pm$ 0.70)E+00
Location 13	4	(9.27 $\pm$ 7.77)E-01	(-2.49 $\pm$ 3.90)E-01	(4.31 $\pm$ 5.27)E-01
Nonvolatile Beta (pCi/g; dry weight)				
Location 1	4	(3.53 $\pm$ 0.22)E+01	(6.88 $\pm$ 1.47)E+00	(2.13 $\pm$ 1.33)E+01
Location 2	4	(1.76 $\pm$ 0.19)E+01	(3.64 $\pm$ 1.32)E+00	(1.10 $\pm$ 0.60)E+01
Location 3	4	(1.05 $\pm$ 0.16)E+01	(3.99 $\pm$ 1.36)E+00	(7.12 $\pm$ 2.73)E+00
Location 4	4	(5.34 $\pm$ 0.31)E+01	(9.85 $\pm$ 1.38)E+00	(2.46 $\pm$ 1.95)E+01
Location 5	4	(5.27 $\pm$ 0.30)E+01	(5.43 $\pm$ 1.39)E+00	(2.30 $\pm$ 2.09)E+01
Location 6	4	(1.30 $\pm$ 0.14)E+01	(6.40 $\pm$ 1.74)E+00	(9.29 $\pm$ 3.23)E+00
Location 7	4	(2.88 $\pm$ 0.22)E+01	(6.88 $\pm$ 1.52)E+00	(1.45 $\pm$ 1.02)E+01
Location 8	3	(2.04 $\pm$ 0.20)E+01	(5.91 $\pm$ 1.41)E+00	(1.20 $\pm$ 0.75)E+01
Location 9	4	(1.74 $\pm$ 0.17)E+01	(4.13 $\pm$ 1.32)E+00	(1.18 $\pm$ 0.65)E+01
Location 10	4	(1.03 $\pm$ 0.13)E+01	(5.50 $\pm$ 1.44)E+00	(8.11 $\pm$ 2.07)E+00
Location 11	4	(1.69 $\pm$ 0.19)E+01	(3.92 $\pm$ 1.36)E+00	(8.20 $\pm$ 5.92)E+00
Location 12	4	(3.51 $\pm$ 0.24)E+01	(8.25 $\pm$ 1.57)E+00	(1.93 $\pm$ 1.21)E+01
Location 13	4	(1.97 $\pm$ 0.20)E+01	(3.16 $\pm$ 1.29)E+00	(8.90 $\pm$ 7.36)E+00

Table 32
Radioactivity in Vegetation outside Solid Waste Disposal Facility Fences

Page 2 of 2

Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Cs-137^a (pCi/g; dry weight) The lower limit of detection for Cs-137 is 1.00E-01 pCi/g.				
Location 1	1/4	(3.34 $\pm$ 0.47)E-01		
Location 2	0/4			
Location 3	0/4			
Location 4	0/4			
Location 5	0/4			
Location 6	0/4			
Location 7	2/4	(2.48 $\pm$ 0.41)E-01	(9.68 $\pm$ 2.34)E-02	(1.72 $\pm$ 1.07)E-01
Location 8	1/4	(2.70 $\pm$ 0.59)E-01		
Location 9	3/4	(1.44 $\pm$ 0.11)E+00	(2.57 $\pm$ 0.41)E-01	(8.84 $\pm$ 5.93)E-01
Location 10	0/4			
Location 11	0/4			
Location 12	2/4	(8.50 $\pm$ 0.77)E-01	(1.53 $\pm$ 0.29)E-01	(5.01 $\pm$ 4.93)E-01
Location 13	0/4			

a The gamma analysis package currently used by Environmental Monitoring does not force an activity determination if a threshold setting is not met. For these reported radionuclides, "No. of Samples" is displayed as "number with activities quantified / number of samples counted"; only the number quantified are used in the max, min, and mean generation.

Table 33
Tritium in Rainwater

Page 1 of 1

Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm \sigma$
Tritium ($\mu\text{Ci/mL}$)				
On Site				
H-Area	1	N/A ^a	N/A	(7.69 $\pm$ 0.19)E-06
Site Perimeter				
Barnwell Gate	1	N/A	N/A	(-2.35 $\pm$ 1.38)E-07
D-Area	1	N/A	N/A	(8.85 $\pm$ 1.42)E-07
Darkhorse	25	(1.56 $\pm$ 0.15)E-06	(-2.90 $\pm$ 1.27)E-07	(4.78 $\pm$ 5.40)E-07
Green Pond	1	N/A	N/A	(0.36 $\pm$ 1.32)E-07
Patterson Mill Road	1	N/A	N/A	(-2.98 $\pm$ 1.32)E-07
25-mile Radius				
Allendale, S.C.	1	N/A	N/A	(-2.59 $\pm$ 1.33)E-07
Langley, S.C.	1	N/A	N/A	(-1.05 $\pm$ 1.30)E-07
Olar, S.C.	1	N/A	N/A	(-1.82 $\pm$ 1.35)E-07
Springfield, S.C.	1	N/A	N/A	(-0.87 $\pm$ 1.38)E-07
Waynesboro, Ga.	1	N/A	N/A	(-2.06 $\pm$ 1.33)E-07
100-mile Radius				
Columbia, S.C.	3	(2.04 $\pm$ 1.21)E-07	(-1.31 $\pm$ 1.26)E-07	(0.33 $\pm$ 1.67)E-07
Greenville, S.C.	4	(3.70 $\pm$ 1.50)E-07	(-2.15 $\pm$ 1.50)E-07	(-0.10 $\pm$ 2.61)E-07
Macon, Ga.	4	(6.19 $\pm$ 1.50)E-07	(0.76 $\pm$ 1.53)E-07	(3.09 $\pm$ 2.57)E-07
Savannah, Ga.	4	(2.09 $\pm$ 4.03)E-07	(-0.22 $\pm$ 1.15)E-07	(0.85 $\pm$ 1.01)E-07

^a Not applicable

Table 34
Rainwater Deposition of Radionuclides

Page 1 of 2

Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Gross Alpha (pCi/sq m)				
On Site				
H-Area	14	(1.81 $\pm$ 0.50)E+01	(-1.71 $\pm$ 1.36)E+00	(5.43 $\pm$ 5.69)E+00
Site Perimeter				
Barnwell Gate	14	(2.51 $\pm$ 0.63)E+01	(-1.10 $\pm$ 1.63)E+00	(5.15 $\pm$ 7.07)E+00
Darkhorse	14	(1.16 $\pm$ 0.38)E+01	(-1.07 $\pm$ 2.84)E+00	(3.57 $\pm$ 4.79)E+00
25-mile Radius				
Olar, S.C.	14	(1.37 $\pm$ 0.56)E+01	(-1.25 $\pm$ 2.15)E+00	(4.85 $\pm$ 5.26)E+00
100-mile Radius				
Columbia, S.C.	4	(5.01 $\pm$ 2.18)E+01	(9.89 $\pm$ 6.37)E+00	(2.76 $\pm$ 1.80)E+01
Greenville, S.C.	4	(2.67 $\pm$ 0.86)E+01	(4.66 $\pm$ 5.19)E+00	(1.88 $\pm$ 1.02)E+01
Macon, Ga.	4	(2.27 $\pm$ 1.60)E+01	(3.78 $\pm$ 4.39)E+00	(9.28 $\pm$ 8.96)E+00
Savannah, Ga.	4	(3.58 $\pm$ 1.96)E+01	(1.31 $\pm$ 0.81)E+01	(2.31 $\pm$ 1.14)E+01
Nonvolatile Beta (pCi/sq m)				
On Site				
H-Area	14	(2.33 $\pm$ 0.14)E+02	(3.20 $\pm$ 0.64)E+01	(9.74 $\pm$ 6.09)E+01
Site Perimeter				
Barnwell Gate	14	(2.33 $\pm$ 0.14)E+02	(1.22 $\pm$ 0.55)E+01	(1.09 $\pm$ 0.66)E+02
Darkhorse	14	(5.01 $\pm$ 0.20)E+02	(3.12 $\pm$ 0.66)E+01	(1.21 $\pm$ 1.21)E+02
25-mile Radius				
Olar, S.C.	14	(2.12 $\pm$ 0.12)E+02	(1.59 $\pm$ 0.57)E+01	(1.02 $\pm$ 0.62)E+02
100-mile Radius				
Columbia, S.C.	4	(6.45 $\pm$ 0.22)E+02	(2.85 $\pm$ 0.20)E+02	(4.45 $\pm$ 1.51)E+02
Greenville, S.C.	4	(8.60 $\pm$ 0.26)E+02	(3.56 $\pm$ 0.24)E+02	(5.85 $\pm$ 2.35)E+02
Macon, Ga.	4	(5.82 $\pm$ 0.30)E+02	(1.11 $\pm$ 0.14)E+02	(2.68 $\pm$ 2.12)E+02
Savannah, Ga.	4	(6.40 $\pm$ 0.28)E+02	(1.70 $\pm$ 0.17)E+02	(3.17 $\pm$ 2.19)E+02
Sr-90 (pCi/sq m)				
On Site				
H-Area	4	(0.62 $\pm$ 7.39)E+01	(-2.77 $\pm$ 5.63)E+00	(0.33 $\pm$ 4.17)E+00
Site Perimeter				
Barnwell Gate	4	(4.51 $\pm$ 6.67)E+00	(-5.13 $\pm$ 4.72)E+00	(1.10 $\pm$ 4.31)E+00
Darkhorse	4	(7.60 $\pm$ 5.38)E+00	(-1.17 $\pm$ 5.49)E+00	(3.07 $\pm$ 4.35)E+00
25-mile Radius				
Olar, S.C.	4	(6.26 $\pm$ 5.25)E+00	(-0.32 $\pm$ 8.89)E+00	(0.51 $\pm$ 4.12)E+00

Table 34
Rainwater Deposition of Radionuclides

Page 2 of 2

Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
100-mile Radius				
Columbia, S.C.	4	(1.63 $\pm$ 1.78)E+01	(-0.85 $\pm$ 1.32)E+01	(0.16 $\pm$ 1.06)E+01
Greenville, S.C.	4	(1.93 $\pm$ 1.37)E+01	(-1.84 $\pm$ 2.32)E+01	(0.27 $\pm$ 1.58)E+01
Macon, Ga.	4	(2.38 $\pm$ 1.67)E+01	(-3.11 $\pm$ 5.82)E+00	(0.43 $\pm$ 1.30)E+01
Savannah, Ga.	4	(1.64 $\pm$ 5.74)E+00	(1.64 $\pm$ 5.74)E+00	(-1.89 $\pm$ 3.34)E+00
Pu-238 (pCi/sq m)				
On Site				
H-Area	4	(1.60 $\pm$ 0.32)E-01	(00.00 $\pm$ 5.90)E-02	(8.65 $\pm$ 8.21)E-02
Site Perimeter				
Barnwell Gate	4	(4.63 $\pm$ 4.63)E-02	(-3.32 $\pm$ 5.05)E-02	(0.74 $\pm$ 3.25)E-02
Darkhorse	4	(1.91 $\pm$ 1.10)E-02	(-1.17 $\pm$ 1.14)E-01	(-2.28 $\pm$ 6.33)E-02
25-mile Radius				
Olar, S.C.	3	(7.68 $\pm$ 5.85)E-02	(0.00 $\pm$ 1.17)E-01	(3.35 $\pm$ 3.93)E-02
100-mile Radius				
Columbia, S.C.	3	(6.79 $\pm$ 6.79)E-03	(-1.48 $\pm$ 1.48)E-01	(-5.73 $\pm$ 8.08)E-02
Greenville, S.C.	4	(9.42 $\pm$ 9.42)E-03	(-1.32 $\pm$ 1.40)E-01	(-4.51 $\pm$ 6.18)E-02
Macon, Ga.	3	(3.40 $\pm$ 2.95)E-01	(00.00 $\pm$ 9.86)E-03	(1.52 $\pm$ 1.73)E-01
Savannah, Ga.	3	(2.02 $\pm$ 2.02)E-02	(-1.25 $\pm$ 1.24)E-02	(-0.52 $\pm$ 1.78)E-02
Pu-239 (pCi/sq m)				
On Site				
H-Area	4	(2.28 $\pm$ 0.72)E-01	(1.64 $\pm$ 1.16)E-02	(1.28 $\pm$ 0.96)E-01
Site Perimeter				
Barnwell Gate	4	(9.22 $\pm$ 6.55)E-02	(-3.17 $\pm$ 5.34)E-02	(1.68 $\pm$ 5.30)E-02
Darkhorse	4	(1.32 $\pm$ 0.76)E-01	(-0.67 $\pm$ 2.41)E-02	(4.26 $\pm$ 6.17)E-02
25-mile Radius				
Olar, S.C.	4	(5.15 $\pm$ 5.15)E-02	(-1.56 $\pm$ 1.10)E-01	(-2.63 $\pm$ 9.11)E-02
100-mile Radius				
Columbia, S.C.	2	(1.47 $\pm$ 1.04)E-01	(6.20 $\pm$ 6.20)E-03	(7.66 $\pm$ 9.96)E-02
Greenville, S.C.	4	(4.33 $\pm$ 4.34)E-02	(-1.45 $\pm$ 1.02)E-02	(0.96 $\pm$ 2.45)E-02
Macon, Ga.	4	(4.23 $\pm$ 4.23)E-03	(-1.16 $\pm$ 3.46)E-01	(-3.14 $\pm$ 5.69)E-02
Savannah, Ga.	3	(-1.24 $\pm$ 1.24)E-02	(-1.01 $\pm$ 0.53)E-01	(-4.60 $\pm$ 4.77)E-02

Table 35
Radioactivity in Drinking Water

Page 1 of 8

Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Gross Alpha ($\mu\text{Ci/mL}$)				
On-site Locations				
ORA Site	2	(2.79 $\pm$ 2.39)E-10	(-0.21 $\pm$ 1.07)E-10	(1.29 $\pm$ 2.12)E-10
241-24H	4	(8.13 $\pm$ 0.96)E-09	(1.89 $\pm$ 0.58)E-09	(4.03 $\pm$ 2.85)E-09
A-Area Cafeteria	4	(3.51 $\pm$ 0.87)E-09	(-3.33 $\pm$ 2.38)E-10	(1.27 $\pm$ 1.75)E-09
Allendale Gate	1	N/A ^a	N/A	(4.05 $\pm$ 2.96)E-10
Barnwell Gate	4	(2.07 $\pm$ 0.71)E-09	(-1.59 $\pm$ 1.35)E-10	(0.51 $\pm$ 1.05)E-09
Classification Yard	4	(1.72 $\pm$ 0.58)E-09	(-1.32 $\pm$ 0.70)E-09	(0.37 $\pm$ 1.33)E-09
Emer Oper Center	4	(6.22 $\pm$ 3.31)E-10	(-5.75 $\pm$ 3.95)E-10	(0.50 $\pm$ 5.35)E-10
Firing Range	4	(4.32 $\pm$ 0.62)E-09	(2.35 $\pm$ 0.51)E-09	(3.47 $\pm$ 0.97)E-09
Ford Bldg	4	(9.46 $\pm$ 3.73)E-10	(1.30 $\pm$ 3.23)E-10	(4.06 $\pm$ 3.70)E-10
Forestry Bldg	4	(5.42 $\pm$ 0.82)E-09	(2.66 $\pm$ 0.59)E-09	(3.40 $\pm$ 1.35)E-09
Jackson Gate	4	(2.89 $\pm$ 0.62)E-09	(1.75 $\pm$ 0.45)E-09	(2.57 $\pm$ 0.54)E-09
Par Pond Lab	4	(2.76 $\pm$ 0.57)E-09	(-2.09 $\pm$ 1.65)E-10	(1.78 $\pm$ 1.37)E-09
Talatha Gate	4	(1.72 $\pm$ 0.13)E-08	(9.06 $\pm$ 0.98)E-09	(1.19 $\pm$ 0.37)E-08
TC-1	4	(2.60 $\pm$ 0.59)E-09	(1.46 $\pm$ 0.43)E-09	(1.82 $\pm$ 0.53)E-09
TNX	4	(8.38 $\pm$ 3.42)E-10	(-0.46 $\pm$ 1.62)E-10	(2.89 $\pm$ 4.15)E-10
Williston Gate	4	(2.10 $\pm$ 2.51)E-10	(-2.12 $\pm$ 1.45)E-10	(-0.04 $\pm$ 1.85)E-10
Z-Area	4	(1.57 $\pm$ 0.55)E-09	(5.95 $\pm$ 3.08)E-10	(1.08 $\pm$ 0.45)E-09
105-C Bldg	12	(2.71 $\pm$ 0.66)E-09	(2.66 $\pm$ 1.93)E-10	(1.17 $\pm$ 0.80)E-09
105-K Bldg	12	(2.57 $\pm$ 0.60)E-09	(0.97 $\pm$ 2.39)E-10	(1.27 $\pm$ 0.67)E-09
105-L Bldg	12	(3.51 $\pm$ 0.66)E-09	(2.67 $\pm$ 3.31)E-10	(1.08 $\pm$ 0.87)E-09
105-P Bldg	12	(3.71 $\pm$ 0.71)E-09	(0.89 $\pm$ 2.08)E-10	(1.48 $\pm$ 1.17)E-09
221-F Bldg	12	(6.57 $\pm$ 1.25)E-09	(6.22 $\pm$ 3.31)E-10	(3.32 $\pm$ 2.01)E-09
221-H Bldg	12	(7.32 $\pm$ 0.70)E-09	(9.08 $\pm$ 3.32)E-10	(2.31 $\pm$ 1.72)E-09
617-G Wackenhut	4	(3.03 $\pm$ 0.63)E-09	(1.70 $\pm$ 0.46)E-09	(2.50 $\pm$ 0.62)E-09
681-1G	4	(2.54 $\pm$ 0.66)E-09	(2.52 $\pm$ 2.21)E-10	(1.54 $\pm$ 0.96)E-09
681-3G	4	(1.19 $\pm$ 0.38)E-09	(6.37 $\pm$ 4.28)E-10	(7.93 $\pm$ 2.65)E-10
701-1F	4	(4.46 $\pm$ 1.01)E-09	(1.78 $\pm$ 0.43)E-09	(3.54 $\pm$ 1.25)E-09
701-1H	4	(6.37 $\pm$ 1.01)E-09	(2.27 $\pm$ 0.58)E-09	(4.31 $\pm$ 1.69)E-09
701-12G Barricade 7	4	(6.69 $\pm$ 3.77)E-10	(-1.68 $\pm$ 1.38)E-10	(3.18 $\pm$ 3.50)E-10

a Not applicable

Table 35
Radioactivity in Drinking Water

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
701-13G Barricade 6	3	(1.57 $\pm$ 0.47)E-09	(1.41 $\pm$ 0.41)E-09	(1.51 $\pm$ 0.09)E-09
701-8G Barricade 8	4	(1.15 $\pm$ 0.41)E-09	(3.51 $\pm$ 2.43)E-10	(6.11 $\pm$ 3.65)E-10
704-F	4	(7.84 $\pm$ 1.35)E-09	(1.89 $\pm$ 0.49)E-09	(5.08 $\pm$ 2.44)E-09
704-H	4	(7.64 $\pm$ 1.06)E-09	(8.65 $\pm$ 4.27)E-10	(3.91 $\pm$ 2.79)E-09
704-S DWPF	4	(2.69 $\pm$ 0.68)E-09	(1.11 $\pm$ 3.08)E-10	(1.41 $\pm$ 1.46)E-09
772-F	4	(6.77 $\pm$ 0.82)E-09	(9.19 $\pm$ 4.52)E-10	(3.28 $\pm$ 2.54)E-09
Surrounding Towns				
Aiken Post Office	2	(2.00 $\pm$ 0.51)E-09	(6.76 $\pm$ 3.99)E-10	(1.34 $\pm$ 0.94)E-09
Allendale Post Office	2	(0.80 $\pm$ 8.91)E-10	(-2.03 $\pm$ 1.85)E-10	(-0.97 $\pm$ 1.49)E-10
Augusta Post Office	2	(-1.27 $\pm$ 1.15)E-10	(-2.28 $\pm$ 1.59)E-10	(-1.78 $\pm$ 0.72)E-10
Barnwell Post Office	2	(-0.21 $\pm$ 1.77)E-10	(-2.59 $\pm$ 1.80)E-10	(-1.40 $\pm$ 1.68)E-10
Bath Post Office	2	(1.41 $\pm$ 0.43)E-09	(4.23 $\pm$ 3.56)E-10	(9.14 $\pm$ 6.95)E-10
Blackville Post Office	2	(1.35 $\pm$ 0.60)E-09	(1.07 $\pm$ 0.93)E-09	(1.21 $\pm$ 0.20)E-09
Clearwater Post Office	2	(4.59 $\pm$ 1.11)E-09	(1.80 $\pm$ 0.93)E-09	(3.20 $\pm$ 1.97)E-09
Jackson Post Office	2	(5.14 $\pm$ 0.83)E-09	(3.38 $\pm$ 0.75)E-09	(4.26 $\pm$ 1.24)E-09
Langley Post Office	2	(3.38 $\pm$ 0.59)E-09	(2.00 $\pm$ 0.44)E-09	(2.69 $\pm$ 0.98)E-09
New Ellenton Post Office	2	(1.54 $\pm$ 0.39)E-09	(2.06 $\pm$ 2.42)E-10	(8.73 $\pm$ 9.44)E-10
N Augusta Post Office	2	(-0.21 $\pm$ 1.60)E-10	(-1.16 $\pm$ 1.97)E-10	(-6.83 $\pm$ 6.68)E-11
Sardis Post Office	2	(3.95 $\pm$ 2.75)E-09	(-2.32 $\pm$ 2.11)E-10	(1.86 $\pm$ 2.95)E-09
Talatha, S.C.	2	(1.80 $\pm$ 0.51)E-09	(2.22 $\pm$ 4.10)E-10	(1.01 $\pm$ 1.12)E-09
Waynesboro Post Office	2	(6.76 $\pm$ 3.73)E-10	(4.51 $\pm$ 3.78)E-10	(5.63 $\pm$ 1.59)E-10
Williston Post Office	2	(2.71 $\pm$ 0.76)E-09	(1.27 $\pm$ 0.43)E-09	(1.99 $\pm$ 1.01)E-09
Drinking Water from Treatment Plants				
Beaufort Finished	12	(3.78 $\pm$ 3.31)E-10	(-2.97 $\pm$ 2.08)E-10	(-0.45 $\pm$ 2.22)E-10
Beaufort Raw	12	(3.74 $\pm$ 2.73)E-10	(-1.43 $\pm$ 2.42)E-10	(1.12 $\pm$ 1.73)E-10
N Augusta Finished	12	(2.14 $\pm$ 2.63)E-10	(-2.35 $\pm$ 1.60)E-10	(-0.49 $\pm$ 1.48)E-10
N Augusta Raw	12	(2.77 $\pm$ 3.13)E-10	(-2.00 $\pm$ 1.38)E-10	(0.02 $\pm$ 1.34)E-10
Port Wentworth Finished	12	(3.78 $\pm$ 4.60)E-10	(-3.78 $\pm$ 2.52)E-10	(-0.67 $\pm$ 2.17)E-10
Port Wentworth Raw	12	(6.22 $\pm$ 3.42)E-10	(-2.70 $\pm$ 1.89)E-10	(0.71 $\pm$ 2.50)E-10
400-D Finished	12	(1.67 $\pm$ 4.49)E-10	(-6.22 $\pm$ 4.19)E-10	(-1.98 $\pm$ 2.27)E-10
400-D Raw	12	(1.41 $\pm$ 3.08)E-10	(-1.70 $\pm$ 1.42)E-10	(-0.02 $\pm$ 1.05)E-10

Table 35
Radioactivity in Drinking Water

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Nonvolatile Beta ($\mu\text{Ci/mL}$)				
On-site Locations				
ORA Site	2	(7.89 $\pm$ 4.46)E-10	(0.86 $\pm$ 3.23)E-10	(4.38 $\pm$ 4.97)E-10
241-24H	4	(6.22 $\pm$ 0.72)E-09	(3.24 $\pm$ 0.59)E-09	(5.24 $\pm$ 1.36)E-09
A-Area Cafeteria	4	(3.19 $\pm$ 0.71)E-09	(0.85 $\pm$ 4.69)E-10	(1.65 $\pm$ 1.66)E-09
Allendale Gate	1	N/A ^a	N/A	(1.95 $\pm$ 0.52)E-09
Barnwell Gate	4	(2.75 $\pm$ 0.63)E-09	(-0.39 $\pm$ 4.28)E-10	(1.24 $\pm$ 1.16)E-09
Classification Yard	4	(1.89 $\pm$ 0.13)E-08	(1.60 $\pm$ 0.60)E-09	(6.26 $\pm$ 8.45)E-09
Emer Oper Center	4	(1.08 $\pm$ 0.47)E-09	(0.25 $\pm$ 4.79)E-10	(5.46 $\pm$ 4.32)E-10
Firing Range	4	(4.86 $\pm$ 0.63)E-09	(1.61 $\pm$ 0.54)E-09	(2.95 $\pm$ 1.47)E-09
Ford Bldg	4	(1.03 $\pm$ 0.47)E-09	(-0.96 $\pm$ 5.52)E-10	(6.58 $\pm$ 5.11)E-10
Forestry Bldg	4	(3.82 $\pm$ 0.71)E-09	(1.57 $\pm$ 0.53)E-09	(2.57 $\pm$ 0.94)E-09
Jackson Gate	4	(3.16 $\pm$ 0.68)E-09	(2.01 $\pm$ 0.55)E-09	(2.73 $\pm$ 0.52)E-09
Par Pond Lab	4	(3.11 $\pm$ 0.64)E-09	(1.87 $\pm$ 0.58)E-09	(2.59 $\pm$ 0.52)E-09
Talatha Gate	4	(1.03 $\pm$ 0.09)E-08	(4.25 $\pm$ 0.66)E-09	(7.53 $\pm$ 2.53)E-09
TC--1	4	(3.63 $\pm$ 0.63)E-09	(1.47 $\pm$ 0.53)E-09	(2.24 $\pm$ 0.99)E-09
TNX	4	(6.69 $\pm$ 0.87)E-09	(3.63 $\pm$ 0.68)E-09	(4.81 $\pm$ 1.43)E-09
Williston Gate	4	(1.33 $\pm$ 0.51)E-09	(5.42 $\pm$ 5.43)E-10	(9.17 $\pm$ 3.26)E-10
Z-Area	4	(2.96 $\pm$ 0.63)E-09	(1.46 $\pm$ 0.53)E-09	(2.26 $\pm$ 0.73)E-09
105-C Bldg	12	(9.89 $\pm$ 0.59)E-09	(5.45 $\pm$ 4.64)E-10	(2.19 $\pm$ 2.71)E-09
105-K Bldg	12	(4.05 $\pm$ 0.61)E-09	(2.08 $\pm$ 0.57)E-09	(2.93 $\pm$ 0.62)E-09
105-L Bldg	12	(3.47 $\pm$ 0.69)E-09	(1.35 $\pm$ 0.48)E-09	(2.20 $\pm$ 0.55)E-09
105-P Bldg	12	(5.41 $\pm$ 0.67)E-09	(2.35 $\pm$ 0.55)E-09	(3.47 $\pm$ 0.99)E-09
221-F Bldg	12	(5.73 $\pm$ 0.73)E-09	(2.51 $\pm$ 0.55)E-09	(4.09 $\pm$ 1.12)E-09
221-H Bldg	12	(8.80 $\pm$ 0.59)E-09	(2.57 $\pm$ 0.58)E-09	(4.61 $\pm$ 2.04)E-09
617-G Wackenhut	4	(4.14 $\pm$ 0.72)E-09	(2.15 $\pm$ 0.57)E-09	(2.85 $\pm$ 0.94)E-09
681-1G	4	(4.86 $\pm$ 0.65)E-09	(3.68 $\pm$ 0.63)E-09	(4.24 $\pm$ 0.53)E-09
681-3G	4	(4.78 $\pm$ 0.77)E-09	(1.67 $\pm$ 0.56)E-09	(3.62 $\pm$ 1.36)E-09
701-1F	4	(5.43 $\pm$ 0.52)E-09	(3.51 $\pm$ 0.64)E-09	(4.15 $\pm$ 0.90)E-09
701-1H	4	(1.14 $\pm$ 0.09)E-08	(4.32 $\pm$ 0.66)E-09	(7.18 $\pm$ 3.04)E-09
701-12G Barricade 7	4	(2.42 $\pm$ 0.65)E-09	(1.51 $\pm$ 0.48)E-09	(1.88 $\pm$ 0.38)E-09

^a Not applicable

Table 35
Radioactivity in Drinking Water

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
701-13G Barricade 6	3	(1.46 $\pm$ 0.51)E-09	(1.03 $\pm$ 4.39)E-10	(9.89 $\pm$ 7.68)E-10
701-8G Barricade 8	4	(1.62 $\pm$ 0.48)E-09	(2.75 $\pm$ 4.49)E-10	(1.17 $\pm$ 0.61)E-09
704-F	4	(5.68 $\pm$ 0.70)E-09	(3.51 $\pm$ 0.60)E-09	(4.67 $\pm$ 1.04)E-09
704-H	4	(8.11 $\pm$ 0.77)E-09	(1.84 $\pm$ 0.55)E-09	(6.23 $\pm$ 2.94)E-09
704-S DWPF	4	(4.22 $\pm$ 0.67)E-09	(1.00 $\pm$ 0.45)E-09	(2.64 $\pm$ 1.35)E-09
772-F	4	(6.47 $\pm$ 0.53)E-09	(2.30 $\pm$ 0.55)E-09	(4.34 $\pm$ 1.83)E-09
Surrounding Towns				
Aiken Post Office	2	(1.54 $\pm$ 0.50)E-09	(9.02 $\pm$ 4.72)E-10	(1.22 $\pm$ 0.45)E-09
Allendale Post Office	2	(1.47 $\pm$ 0.55)E-09	(5.14 $\pm$ 4.60)E-10	(9.90 $\pm$ 6.73)E-10
Augusta Post Office	2	(9.02 $\pm$ 4.63)E-10	(8.11 $\pm$ 4.52)E-10	(8.56 $\pm$ 0.64)E-10
Barnwell Post Office	2	(7.89 $\pm$ 4.63)E-10	(-0.76 $\pm$ 4.01)E-10	(3.57 $\pm$ 6.11)E-10
Bath Post Office	2	(1.32 $\pm$ 0.50)E-09	(5.68 $\pm$ 4.44)E-10	(9.46 $\pm$ 5.35)E-10
Blackville Post Office	2	(1.32 $\pm$ 0.53)E-09	(9.46 $\pm$ 4.91)E-10	(1.14 $\pm$ 0.27)E-09
Clearwater Post Office	2	(1.78 $\pm$ 0.56)E-09	(4.32 $\pm$ 4.68)E-10	(1.11 $\pm$ 0.95)E-09
Jackson Post Office	2	(3.10 $\pm$ 0.59)E-09	(2.00 $\pm$ 0.53)E-09	(2.55 $\pm$ 0.78)E-09
Langley Post Office	2	(3.66 $\pm$ 0.59)E-09	(1.43 $\pm$ 0.48)E-09	(2.55 $\pm$ 1.58)E-09
New Ellenton Post Office	2	(5.41 $\pm$ 4.27)E-10	(4.68 $\pm$ 1.03)E-10	(4.68 $\pm$ 1.03)E-10
N Augusta Post Office	2	(1.32 $\pm$ 0.48)E-09	(1.21 $\pm$ 0.48)E-09	(1.27 $\pm$ 0.08)E-09
Sardis Post Office	2	(1.44 $\pm$ 0.57)E-09	(8.65 $\pm$ 4.83)E-10	(1.15 $\pm$ 0.40)E-09
Talatha, S.C.	2	(1.80 $\pm$ 0.51)E-09	(2.22 $\pm$ 4.10)E-10	(1.01 $\pm$ 1.12)E-09
Waynesboro Post Office	2	(7.89 $\pm$ 4.72)E-10	(1.78 $\pm$ 4.27)E-10	(4.84 $\pm$ 4.32)E-10
Williston Post Office	2	(4.23 $\pm$ 0.65)E-09	(7.30 $\pm$ 4.52)E-10	(2.48 $\pm$ 2.47)E-09
Drinking Water from Treatment Plants				
Beaufort Finished	12	(2.45 $\pm$ 0.78)E-09	(1.24 $\pm$ 0.49)E-09	(1.79 $\pm$ 0.41)E-09
Beaufort Raw	12	(3.02 $\pm$ 0.78)E-09	(1.43 $\pm$ 0.48)E-09	(2.05 $\pm$ 0.48)E-09
N Augusta Finished	12	(3.14 $\pm$ 0.79)E-09	(1.14 $\pm$ 0.47)E-09	(1.81 $\pm$ 0.58)E-09
N Augusta Raw	12	(2.64 $\pm$ 0.63)E-09	(8.92 $\pm$ 4.83)E-10	(1.56 $\pm$ 0.48)E-09
Port Wentworth Finished	12	(2.70 $\pm$ 0.62)E-09	(9.65 $\pm$ 4.92)E-10	(1.99 $\pm$ 0.60)E-09
Port Wentworth Raw	12	(3.11 $\pm$ 0.61)E-09	(1.59 $\pm$ 0.71)E-09	(1.94 $\pm$ 0.42)E-09
400-D Finished	12	(2.55 $\pm$ 0.58)E-09	(1.22 $\pm$ 0.73)E-09	(1.73 $\pm$ 0.46)E-09
400-D Raw	12	(1.96 $\pm$ 0.55)E-09	(4.32 $\pm$ 4.10)E-10	(1.50 $\pm$ 0.38)E-09

Table 35
Radioactivity in Drinking Water

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Tritium ($\mu\text{Ci/mL}$)				
On-site Locations				
ORA Site	2	(5.99 $\pm$ 1.52)E-07	(1.88 $\pm$ 1.46)E-07	(3.93 $\pm$ 2.91)E-07
241-24H	4	(6.79 $\pm$ 1.50)E-07	(-1.73 $\pm$ 1.24)E-07	(0.41 $\pm$ 4.25)E-07
A-Area Cafeteria	4	(6.51 $\pm$ 1.54)E-07	(-4.88 $\pm$ 1.31)E-07	(0.32 $\pm$ 4.74)E-07
Allendale Gate	1	N/A ^a	N/A	(6.79 $\pm$ 1.52)E-07
Barnwell Gate	4	(7.37 $\pm$ 1.53)E-07	(0.35 $\pm$ 1.12)E-07	(3.04 $\pm$ 3.23)E-07
Classification Yard	4	(4.92 $\pm$ 1.53)E-07	(-6.23 $\pm$ 1.32)E-07	(-0.55 $\pm$ 4.57)E-07
Emer Oper Center	4	(5.30 $\pm$ 1.51)E-07	(-1.05 $\pm$ 1.02)E-07	(1.56 $\pm$ 2.90)E-07
Firing Range	4	(1.89 $\pm$ 0.16)E-06	(1.04 $\pm$ 0.12)E-06	(1.28 $\pm$ 0.41)E-06
Ford Bldg	4	(3.52 $\pm$ 1.50)E-07	(-3.12 $\pm$ 1.34)E-07	(0.18 $\pm$ 2.75)E-07
Forestry Bldg	4	(1.61 $\pm$ 0.16)E-06	(9.58 $\pm$ 1.19)E-07	(1.17 $\pm$ 0.30)E-06
Jackson Gate	4	(4.59 $\pm$ 1.51)E-07	(-4.25 $\pm$ 1.32)E-07	(0.10 $\pm$ 3.61)E-07
Par Pond Lab	4	(4.14 $\pm$ 1.51)E-07	(-1.97 $\pm$ 1.01)E-07	(0.32 $\pm$ 2.84)E-07
Talatha Gate	4	(1.38 $\pm$ 0.16)E-06	(3.59 $\pm$ 1.36)E-07	(7.33 $\pm$ 4.44)E-07
TC-1	4	(5.71 $\pm$ 1.52)E-07	(-1.56 $\pm$ 1.35)E-07	(1.12 $\pm$ 3.41)E-07
TNX	4	(6.32 $\pm$ 1.51)E-07	(-2.48 $\pm$ 1.34)E-07	(0.85 $\pm$ 3.95)E-07
Williston Gate	4	(6.02 $\pm$ 1.52)E-07	(-6.07 $\pm$ 1.31)E-07	(-0.28 $\pm$ 4.97)E-07
Z-Area	4	(6.24 $\pm$ 1.53)E-07	(-4.39 $\pm$ 1.32)E-07	(0.44 $\pm$ 4.41)E-07
105-C Bldg	12	(5.18 $\pm$ 1.47)E-07	(-3.47 $\pm$ 1.32)E-07	(0.42 $\pm$ 2.62)E-07
105-K Bldg	12	(1.13 $\pm$ 0.13)E-06	(-2.98 $\pm$ 1.34)E-07	(2.37 $\pm$ 4.45)E-07
105-L Bldg	12	(6.12 $\pm$ 1.52)E-07	(-4.08 $\pm$ 1.46)E-07	(1.40 $\pm$ 2.95)E-07
105-P Bldg	12	(9.47 $\pm$ 1.31)E-07	(-0.04 $\pm$ 1.18)E-07	(4.04 $\pm$ 3.39)E-07
221-F Bldg	12	(6.25 $\pm$ 1.54)E-07	(-3.68 $\pm$ 1.15)E-07	(0.11 $\pm$ 3.34)E-07
221-H Bldg	12	(6.52 $\pm$ 1.47)E-07	(-5.80 $\pm$ 1.31)E-07	(0.60 $\pm$ 3.36)E-07
617-G Wackenhut	4	(2.40 $\pm$ 0.17)E-06	(8.76 $\pm$ 1.18)E-07	(1.42 $\pm$ 0.67)E-06
681-1G	4	(6.98 $\pm$ 1.54)E-07	(0.31 $\pm$ 4.45)E-07	(-2.06 $\pm$ 1.33)E-07
681-3G	4	(6.10 $\pm$ 1.52)E-07	(0.83 $\pm$ 3.85)E-07	(-3.08 $\pm$ 1.32)E-07
701-1F	4	(5.26 $\pm$ 1.54)E-07	(-4.13 $\pm$ 1.32)E-07	(0.11 $\pm$ 3.90)E-07
701-1H	4	(4.49 $\pm$ 1.51)E-07	(-1.55 $\pm$ 1.34)E-07	(1.06 $\pm$ 2.51)E-07
701-12G Barricade 7	4	(1.04 $\pm$ 0.16)E-06	(-1.04 $\pm$ 1.35)E-07	(3.37 $\pm$ 5.05)E-07

^a Not applicable

Table 35
Radioactivity in Drinking Water

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
701-13G Barricade 6	3	(3.31 $\pm$ 0.17)E-06	(2.33 $\pm$ 0.15)E-06	(2.84 $\pm$ 0.49)E-06
701-8G Barricade 8	4	(3.38 $\pm$ 0.17)E-06	(2.16 $\pm$ 0.15)E-06	(2.69 $\pm$ 0.51)E-06
704-F	4	(3.81 $\pm$ 1.44)E-07	(-1.10 $\pm$ 1.17)E-07	(0.42 $\pm$ 2.28)E-07
704-H	4	(2.80 $\pm$ 1.42)E-07	(-2.34 $\pm$ 1.16)E-07	(0.13 $\pm$ 2.22)E-07
704-S DWPF	4	(4.45 $\pm$ 1.51)E-07	(-1.57 $\pm$ 1.01)E-07	(0.76 $\pm$ 2.59)E-07
772-F	4	(6.48 $\pm$ 1.50)E-07	(-1.47 $\pm$ 1.23)E-07	(1.15 $\pm$ 3.64)E-07
Surrounding Towns				
Aiken Post Office	2	(8.68 $\pm$ 1.55)E-07	(2.55 $\pm$ 1.48)E-07	(5.62 $\pm$ 4.33)E-07
Allendale Post Office	2	(6.13 $\pm$ 1.52)E-07	(-1.08 $\pm$ 1.46)E-07	(2.53 $\pm$ 5.10)E-07
Augusta Post Office	2	(5.59 $\pm$ 1.51)E-07	(1.86 $\pm$ 1.48)E-07	(3.73 $\pm$ 2.64)E-07
Barnwell Post Office	2	(3.99 $\pm$ 1.49)E-07	(-0.71 $\pm$ 1.45)E-07	(1.64 $\pm$ 3.32)E-07
Bath Post Office	2	(5.53 $\pm$ 1.53)E-07	(2.99 $\pm$ 1.48)E-07	(4.26 $\pm$ 1.79)E-07
Blackville Post Office	2	(5.71 $\pm$ 1.54)E-07	(1.63 $\pm$ 1.47)E-07	(2.04 $\pm$ 5.19)E-07
Clearwater Post Office	2	(6.67 $\pm$ 1.50)E-07	(1.66 $\pm$ 1.48)E-07	(4.17 $\pm$ 3.54)E-07
Jackson Post Office	2	(1.24 $\pm$ 0.16)E-06	(2.85 $\pm$ 1.51)E-07	(7.63 $\pm$ 6.76)E-07
Langley Post Office	2	(8.50 $\pm$ 1.53)E-07	(0.42 $\pm$ 1.47)E-07	(4.46 $\pm$ 5.71)E-07
New Ellenton Post Office	2	(8.92 $\pm$ 1.53)E-07	(-0.98 $\pm$ 1.47)E-07	(3.97 $\pm$ 7.00)E-07
N Augusta Post Office	2	(8.87 $\pm$ 1.53)E-07	(-0.90 $\pm$ 1.47)E-07	(3.98 $\pm$ 6.91)E-07
Sardis Post Office	2	(5.98 $\pm$ 1.51)E-07	(-1.71 $\pm$ 1.45)E-07	(2.13 $\pm$ 5.44)E-07
Talatha, S.C.	2	(1.25 $\pm$ 0.16)E-06	(4.37 $\pm$ 1.47)E-07	(8.45 $\pm$ 5.76)E-07
Waynesboro Post Office	2	(5.72 $\pm$ 1.52)E-07	(-0.62 $\pm$ 1.45)E-07	(2.55 $\pm$ 4.49)E-07
Williston Post Office	2	(3.21 $\pm$ 1.50)E-07	(-1.33 $\pm$ 1.45)E-07	(0.94 $\pm$ 3.21)E-07
Drinking Water from Water Treatment Plants				
Beaufort Finished	12	(2.99 $\pm$ 0.17)E-06	(2.20 $\pm$ 1.21)E-07	(1.25 $\pm$ 0.76)E-06
Beaufort Raw	12	(3.15 $\pm$ 0.17)E-06	(4.65 $\pm$ 1.23)E-07	(1.30 $\pm$ 0.76)E-06
N Augusta Finished	12	(5.77 $\pm$ 1.51)E-07	(-1.38 $\pm$ 1.50)E-07	(1.39 $\pm$ 2.62)E-07
N Augusta Raw	12	(8.52 $\pm$ 1.49)E-07	(-1.76 $\pm$ 1.43)E-07	(2.04 $\pm$ 3.69)E-07
Port Wentworth Finished	12	(6.39 $\pm$ 0.20)E-06	(5.42 $\pm$ 1.47)E-07	(1.57 $\pm$ 1.58)E-06
Port Wentworth Raw	12	(6.45 $\pm$ 0.20)E-06	(7.11 $\pm$ 1.48)E-07	(1.63 $\pm$ 1.59)E-06
400-D Finished	12	(1.33 $\pm$ 0.16)E-06	(0.04 $\pm$ 1.51)E-07	(4.51 $\pm$ 4.30)E-07
400-D Raw	12	(1.46 $\pm$ 0.16)E-06	(-2.16 $\pm$ 1.49)E-07	(3.89 $\pm$ 4.78)E-07

Table 35
Radioactivity in Drinking Water

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Sr-90 ($\mu\text{Ci/mL}$)				
On-site Locations				
ORA Site	1	N/A ^a	N/A	(2.59 $\pm$ 5.40)E-10
A-Area Cafeteria	1	N/A	N/A	(-1.15 $\pm$ 6.03)E-10
Barnwell Gate	1	N/A	N/A	(-1.82 $\pm$ 4.27)E-10
Emer Oper Center	1	N/A	N/A	(1.58 $\pm$ 4.61)E-10
Firing Range	1	N/A	N/A	(-1.12 $\pm$ 4.23)E-10
Ford Bldg	1	N/A	N/A	(4.65 $\pm$ 5.61)E-10
Forestry Bldg	1	N/A	N/A	(1.65 $\pm$ 4.35)E-10
Jackson Gate	1	N/A	N/A	(-4.62 $\pm$ 4.53)E-10
H-Area	1	N/A	N/A	(-0.06 $\pm$ 1.34)E-09
Par Pond Lab	2	(1.35 $\pm$ 4.40)E-10	(-2.00 $\pm$ 6.30)E-10	(-0.32 $\pm$ 2.37)E-10
TC-1	1	N/A	N/A	(9.34 $\pm$ 7.75)E-10
TNX	1	N/A	N/A	(-1.31 $\pm$ 5.39)E-10
Williston Gate	1	N/A	N/A	(1.98 $\pm$ 4.86)E-10
Z-Area	1	N/A	N/A	(-2.40 $\pm$ 4.62)E-10
105-C Bldg	1	N/A	N/A	(-0.17 $\pm$ 5.22)E-10
105-K Bldg	1	N/A	N/A	(2.68 $\pm$ 5.61)E-10
105-L Bldg	1	N/A	N/A	(-6.12 $\pm$ 5.78)E-10
105-P Bldg	1	N/A	N/A	(-5.40 $\pm$ 7.07)E-10
221-F Bldg	1	N/A	N/A	(3.99 $\pm$ 4.66)E-10
221-H Bldg	1	N/A	N/A	(-1.65 $\pm$ 5.68)E-10
617-G Wackenhut	1	N/A	N/A	(-1.12 $\pm$ 4.20)E-10
681-1G	1	N/A	N/A	(8.42 $\pm$ 5.10)E-10
681-3G	1	N/A	N/A	(3.72 $\pm$ 4.28)E-10
701-1F	1	N/A	N/A	(-4.81 $\pm$ 4.02)E-10
701-12G Barricade 7	1	N/A	N/A	(1.09 $\pm$ 4.50)E-10
701-13G Barricade 6	1	N/A	N/A	(-0.61 $\pm$ 4.49)E-10
701-8G Barricade 8	1	N/A	N/A	(-3.63 $\pm$ 4.12)E-10
704-S DWPF	1	N/A	N/A	(1.43 $\pm$ 0.61)E-09

^a Not applicable

Table 35
Radioactivity in Drinking Water

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Surrounding Towns				
Aiken Post Office	1	N/A ^a	N/A	$(-4.21 \pm 5.65)E-10$
Allendale Post Office	1	N/A	N/A	$(5.86 \pm 6.56)E-10$
Augusta Post Office	1	N/A	N/A	$(-0.55 \pm 4.36)E-10$
Barnwell Post Office	1	N/A	N/A	$(1.65 \pm 5.41)E-10$
Bath Post Office	1	N/A	N/A	$(3.99 \pm 6.91)E-10$
Blackville Post Office	1	N/A	N/A	$(0.81 \pm 6.45)E-10$
Clearwater Post Office	1	N/A	N/A	$(-3.83 \pm 6.24)E-10$
Jackson Post Office	1	N/A	N/A	$(-1.08 \pm 7.57)E-10$
Langley Post Office	1	N/A	N/A	$(-1.46 \pm 5.69)E-10$
New Ellenton Post Office	1	N/A	N/A	$(-0.17 \pm 4.52)E-10$
N Augusta Post Office	1	N/A	N/A	$(0.54 \pm 5.38)E-10$
Sardis Post Office	1	N/A	N/A	$(0.28 \pm 5.78)E-10$
Talatha, S.C.	1	N/A	N/A	$(8.71 \pm 5.60)E-10$
Waynesboro Post Office	1	N/A	N/A	$(-2.44 \pm 5.48)E-10$
Williston Post Office	1	N/A	N/A	$(-1.00 \pm 4.94)E-10$

^a Not applicable

Table 36
Radioactivity in Air

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Tritium ($\mu\text{Ci/cc}$)				
On Site				
A-Area	33	(1.18 $\pm$ 0.12)E-10	(-1.43 $\pm$ 0.71)E-11	(3.37 $\pm$ 3.22)E-11
Burial Ground North	30	(5.96 $\pm$ 0.19)E-10	(4.00 $\pm$ 0.36)E-11	(2.16 $\pm$ 1.54)E-10
Burial Ground South	32	(1.18 $\pm$ 0.03)E-09	(9.95 $\pm$ 0.75)E-11	(3.91 $\pm$ 2.60)E-10
F-Area	32	(2.98 $\pm$ 0.10)E-10	(1.91 $\pm$ 0.30)E-11	(8.67 $\pm$ 6.88)E-11
H-Area	32	(6.77 $\pm$ 0.04)E-09	(2.21 $\pm$ 0.29)E-11	(0.99 $\pm$ 1.34)E-09
Site Perimeter				
Allendale Gate	31	(7.45 $\pm$ 1.39)E-11	(-8.83 $\pm$ 7.41)E-12	(1.65 $\pm$ 1.94)E-11
Barnwell Gate	32	(6.37 $\pm$ 0.53)E-11	(-2.45 $\pm$ 5.00)E-12	(1.86 $\pm$ 1.43)E-11
D-Area	32	(1.31 $\pm$ 0.10)E-10	(-2.46 $\pm$ 4.16)E-12	(5.34 $\pm$ 3.55)E-11
Darkhorse	27	(1.22 $\pm$ 0.08)E-10	(-4.05 $\pm$ 7.73)E-12	(2.58 $\pm$ 2.50)E-11
East Talatha	32	(8.44 $\pm$ 0.86)E-11	(-3.89 $\pm$ 2.08)E-12	(2.39 $\pm$ 1.93)E-11
Greenpond	31	(1.31 $\pm$ 0.08)E-10	(-4.47 $\pm$ 4.69)E-12	(2.35 $\pm$ 2.59)E-11
Highway 39	32	(7.09 $\pm$ 0.82)E-11	(-1.53 $\pm$ 2.58)E-12	(2.81 $\pm$ 2.10)E-11
Highways 21 & 167	30	(6.88 $\pm$ 0.63)E-11	(-1.13 $\pm$ 0.68)E-11	(2.10 $\pm$ 1.77)E-11
Jackson, S.C.	31	(1.04 $\pm$ 0.07)E-10	(-0.31 $\pm$ 4.82)E-12	(2.37 $\pm$ 2.08)E-11
Patterson Mill Rd	30	(1.11 $\pm$ 0.07)E-10	(-1.48 $\pm$ 1.72)E-12	(2.01 $\pm$ 2.21)E-11
Road A14	27	(1.43 $\pm$ 0.07)E-10	(1.15 $\pm$ 8.84)E-12	(3.55 $\pm$ 3.59)E-11
Talatha Gate	30	(6.74 $\pm$ 1.30)E-11	(-2.00 $\pm$ 2.96)E-12	(2.34 $\pm$ 2.04)E-11
West Jackson	29	(1.28 $\pm$ 0.08)E-10	(-4.75 $\pm$ 8.05)E-12	(2.62 $\pm$ 2.70)E-11
Windsor Road	30	(1.49 $\pm$ 0.12)E-10	(0.32 $\pm$ 4.96)E-12	(3.09 $\pm$ 2.92)E-11
25-mile Radius				
Aiken Airport	28	(1.26 $\pm$ 0.05)E-10	(-1.05 $\pm$ 0.91)E-11	(1.36 $\pm$ 2.48)E-11
Aiken State Park	34	(5.76 $\pm$ 0.78)E-11	(-0.71 $\pm$ 1.08)E-11	(1.10 $\pm$ 1.43)E-11
Allendale, S.C.	30	(4.83 $\pm$ 0.80)E-11	(-2.77 $\pm$ 8.49)E-12	(0.97 $\pm$ 1.09)E-11
Augusta, Ga.	34	(4.38 $\pm$ 0.70)E-11	(-9.47 $\pm$ 9.57)E-12	(0.97 $\pm$ 1.13)E-11
Highway 301	27	(5.51 $\pm$ 1.00)E-11	(-7.34 $\pm$ 8.53)E-12	(0.98 $\pm$ 1.57)E-11
Langley, S.C.	32	(5.02 $\pm$ 0.78)E-11	(-2.80 $\pm$ 9.52)E-12	(1.01 $\pm$ 1.15)E-11
Lees, S.C.	33	(7.00 $\pm$ 0.80)E-11	(-9.52 $\pm$ 6.66)E-12	(1.29 $\pm$ 1.50)E-11
Olar, S.C.	33	(5.53 $\pm$ 0.91)E-11	(-0.59 $\pm$ 1.13)E-11	(0.90 $\pm$ 1.29)E-11
Perkins, Ga.	31	(3.61 $\pm$ 0.98)E-11	(-9.02 $\pm$ 9.11)E-12	(8.28 $\pm$ 9.23)E-12
South Richmond, Ga.	33	(4.65 $\pm$ 0.84)E-11	(-3.65 $\pm$ 8.59)E-12	(1.00 $\pm$ 1.08)E-11

Table 36
Radioactivity in Air

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Springfield, S.C.	33	(6.34 $\pm$ 0.79)E-11	(-1.73 $\pm$ 2.84)E-12	(1.09 $\pm$ 1.30)E-11
Waynesboro, Ga.	30	(7.31 $\pm$ 0.94)E-11	(-1.15 $\pm$ 5.04)E-12	(1.87 $\pm$ 1.53)E-11
100-mile Radius				
Columbia, S.C.	1	N/A ^a	N/A	(1.63 $\pm$ 0.86)E-11
Greenville, S.C.	3	(6.73 $\pm$ 5.71)E-12	(0.21 $\pm$ 3.17)E-12	(3.63 $\pm$ 3.27)E-12
Macon, Ga.	2	(2.34 $\pm$ 0.82)E-11	(0.51 $\pm$ 2.60)E-12	(1.20 $\pm$ 1.62)E-11
Savannah, Ga.	2	(2.39 $\pm$ 5.16)E-12	(0.31 $\pm$ 2.65)E-12	(1.35 $\pm$ 1.47)E-12
Gross Alpha (μCi/cc)				
On Site				
A-Area	49	(4.03 $\pm$ 0.72)E-15	(6.17 $\pm$ 3.26)E-16	(1.84 $\pm$ 0.92)E-15
Burial Ground North	43	(4.05 $\pm$ 0.74)E-15	(2.72 $\pm$ 2.59)E-16	(1.57 $\pm$ 0.80)E-15
Burial Ground South	49	(3.61 $\pm$ 0.68)E-15	(6.17 $\pm$ 3.26)E-16	(1.74 $\pm$ 0.75)E-15
F-Area	49	(3.55 $\pm$ 0.67)E-15	(3.32 $\pm$ 3.30)E-16	(1.80 $\pm$ 0.86)E-15
H-Area	48	(4.24 $\pm$ 0.75)E-15	(1.51 $\pm$ 2.34)E-16	(1.80 $\pm$ 0.89)E-15
Site Perimeter				
Allendale Gate	49	(3.87 $\pm$ 0.71)E-15	(2.59 $\pm$ 2.61)E-16	(1.85 $\pm$ 0.90)E-15
Barnwell Gate	49	(4.41 $\pm$ 0.73)E-15	(-1.34 $\pm$ 1.85)E-16	(1.74 $\pm$ 1.05)E-15
D-Area	50	(5.47 $\pm$ 1.33)E-15	(3.99 $\pm$ 2.83)E-16	(1.79 $\pm$ 0.93)E-15
Darkhorse	47	(3.87 $\pm$ 0.68)E-15	(4.90 $\pm$ 2.82)E-16	(1.88 $\pm$ 0.91)E-15
East Talatha	50	(3.97 $\pm$ 0.69)E-15	(2.90 $\pm$ 2.49)E-16	(1.96 $\pm$ 0.96)E-15
Greenpond	50	(4.01 $\pm$ 0.71)E-15	(0.80 $\pm$ 2.41)E-16	(1.78 $\pm$ 0.90)E-15
Highway 39	50	(4.65 $\pm$ 0.74)E-15	(0.86 $\pm$ 2.38)E-16	(1.72 $\pm$ 0.91)E-15
Highways 21 & 167	49	(3.97 $\pm$ 0.68)E-15	(1.87 $\pm$ 2.17)E-16	(1.86 $\pm$ 0.99)E-15
Jackson, S.C.	50	(3.45 $\pm$ 0.65)E-15	(4.72 $\pm$ 3.06)E-16	(1.65 $\pm$ 0.70)E-15
Patterson Mill Rd	50	(4.01 $\pm$ 0.74)E-15	(1.96 $\pm$ 2.64)E-16	(1.79 $\pm$ 0.96)E-15
Road A14	43	(3.99 $\pm$ 0.70)E-15	(2.66 $\pm$ 2.61)E-16	(1.72 $\pm$ 0.79)E-15
Talatha Gate	50	(3.77 $\pm$ 0.73)E-15	(0.88 $\pm$ 2.44)E-16	(1.72 $\pm$ 0.89)E-15
West Jackson	50	(3.51 $\pm$ 0.67)E-15	(0.80 $\pm$ 2.41)E-16	(1.81 $\pm$ 0.87)E-15
Windsor Road	49	(3.58 $\pm$ 0.69)E-15	(2.89 $\pm$ 2.44)E-16	(1.90 $\pm$ 0.91)E-15
25-mile Radius				
Aiken Airport	45	(4.35 $\pm$ 0.74)E-15	(-0.66 $\pm$ 1.72)E-16	(1.80 $\pm$ 0.95)E-15
Aiken State Park	49	(4.47 $\pm$ 0.75)E-15	(3.99 $\pm$ 2.71)E-16	(1.82 $\pm$ 1.02)E-15

^a Not applicable

Table 36
Radioactivity in Air

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Allendale, S.C.	48	(3.36 $\pm$ 0.69)E-15	(1.65 $\pm$ 2.32)E-16	(1.58 $\pm$ 0.85)E-15
Augusta, Ga.	50	(3.56 $\pm$ 0.66)E-15	(6.89 $\pm$ 3.46)E-16	(1.81 $\pm$ 0.69)E-15
Highway 301	44	(2.77 $\pm$ 0.60)E-15	(0.83 $\pm$ 2.41)E-16	(1.55 $\pm$ 0.65)E-15
Langley, S.C.	46	(3.08 $\pm$ 0.64)E-15	(1.96 $\pm$ 2.64)E-16	(1.70 $\pm$ 0.76)E-15
Lees, S.C.	48	(3.99 $\pm$ 0.72)E-15	(1.37 $\pm$ 2.34)E-16	(1.62 $\pm$ 0.91)E-15
Olar, S.C.	48	(5.88 $\pm$ 1.03)E-15	(1.63 $\pm$ 2.35)E-16	(1.73 $\pm$ 1.08)E-15
Perkins, Ga.	47	(4.76 $\pm$ 0.91)E-15	(0.47 $\pm$ 2.05)E-16	(1.74 $\pm$ 0.85)E-15
South Richmond, Ga.	50	(3.58 $\pm$ 0.72)E-15	(1.74 $\pm$ 2.40)E-16	(1.65 $\pm$ 0.75)E-15
Springfield, S.C.	49	(3.65 $\pm$ 0.68)E-15	(-0.38 $\pm$ 1.49)E-16	(1.84 $\pm$ 0.85)E-15
Waynesboro, Ga.	48	(3.91 $\pm$ 0.79)E-15	(3.07 $\pm$ 2.90)E-16	(1.78 $\pm$ 0.79)E-15
100-mile Radius				
Columbia, S.C.	45	(4.54 $\pm$ 0.74)E-15	(4.63 $\pm$ 2.67)E-16	(1.96 $\pm$ 0.87)E-15
Greenville, S.C.	43	(4.26 $\pm$ 0.84)E-15	(2.91 $\pm$ 1.47)E-16	(1.81 $\pm$ 0.98)E-15
Macon, Ga.	45	(3.32 $\pm$ 0.68)E-15	(-0.65 $\pm$ 1.70)E-16	(1.32 $\pm$ 0.75)E-15
Savannah, Ga.	49	(3.21 $\pm$ 0.63)E-15	(2.87 $\pm$ 2.66)E-16	(1.59 $\pm$ 0.74)E-15
Nonvolatile Beta (μCi/cc)				
On Site				
A-Area	49	(5.86 $\pm$ 0.21)E-14	(8.71 $\pm$ 0.90)E-15	(1.98 $\pm$ 0.75)E-14
Burial Ground North	43	(4.05 $\pm$ 0.18)E-14	(6.01 $\pm$ 0.87)E-15	(1.63 $\pm$ 0.55)E-14
Burial Ground South	49	(5.05 $\pm$ 0.19)E-14	(7.23 $\pm$ 0.84)E-15	(1.78 $\pm$ 0.68)E-14
F-Area	49	(5.56 $\pm$ 0.21)E-14	(1.02 $\pm$ 0.10)E-14	(1.94 $\pm$ 0.73)E-14
H-Area	48	(5.39 $\pm$ 0.21)E-14	(9.07 $\pm$ 0.92)E-15	(1.93 $\pm$ 0.70)E-14
Site Perimeter				
Allendale Gate	49	(4.79 $\pm$ 0.19)E-14	(7.25 $\pm$ 0.90)E-15	(1.77 $\pm$ 0.66)E-14
Barnwell Gate	49	(4.83 $\pm$ 0.19)E-14	(7.05 $\pm$ 0.83)E-15	(1.89 $\pm$ 0.65)E-14
D-Area	50	(4.47 $\pm$ 0.18)E-14	(6.53 $\pm$ 0.83)E-15	(1.81 $\pm$ 0.65)E-14
Darkhorse	47	(6.09 $\pm$ 0.21)E-14	(7.57 $\pm$ 0.86)E-15	(1.92 $\pm$ 0.83)E-14
East Talatha	60	(6.09 $\pm$ 0.21)E-14	(9.91 $\pm$ 0.96)E-15	(2.01 $\pm$ 0.76)E-14
Greenpond	50	(5.34 $\pm$ 0.19)E-14	(8.76 $\pm$ 0.89)E-15	(1.85 $\pm$ 0.67)E-14
Highway 39	50	(5.56 $\pm$ 0.21)E-14	(8.25 $\pm$ 0.88)E-15	(1.97 $\pm$ 0.74)E-14
Highways 21 & 167	49	(5.57 $\pm$ 0.20)E-14	(7.05 $\pm$ 0.83)E-15	(2.00 $\pm$ 0.84)E-14
Jackson, S.C.	50	(5.01 $\pm$ 0.19)E-14	(9.16 $\pm$ 0.95)E-15	(1.68 $\pm$ 0.65)E-14
Patterson Mill Rd	50	(4.80 $\pm$ 0.19)E-14	(8.71 $\pm$ 0.91)E-15	(1.85 $\pm$ 0.64)E-14

Table 36
Radioactivity in Air

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Road A14	43	(2.74 $\pm$ 0.15)E-14	(7.62 $\pm$ 0.87)E-15	(1.69 $\pm$ 0.40)E-14
Talatha Gate	50	(3.77 $\pm$ 0.18)E-14	(7.30 $\pm$ 0.87)E-15	(1.75 $\pm$ 0.55)E-14
West Jackson	50	(5.37 $\pm$ 0.20)E-14	(9.57 $\pm$ 0.97)E-15	(1.87 $\pm$ 0.71)E-14
Windsor Road	49	(4.89 $\pm$ 0.10)E-14	(8.34 $\pm$ 0.90)E-15	(1.99 $\pm$ 0.65)E-14
25-mile Radius				
Aiken Airport	45	(4.72 $\pm$ 0.18)E-14	(8.49 $\pm$ 0.92)E-15	(1.85 $\pm$ 0.63)E-14
Aiken State Park	49	(5.48 $\pm$ 0.20)E-14	(5.97 $\pm$ 0.87)E-15	(1.95 $\pm$ 0.74)E-14
Allendale, S.C.	48	(4.68 $\pm$ 0.20)E-14	(6.93 $\pm$ 0.86)E-15	(1.72 $\pm$ 0.62)E-14
Augusta, Ga.	50	(3.93 $\pm$ 0.18)E-14	(8.34 $\pm$ 0.90)E-15	(1.76 $\pm$ 0.53)E-14
Highway 301	44	(3.99 $\pm$ 0.17)E-14	(6.17 $\pm$ 0.82)E-15	(1.68 $\pm$ 0.52)E-14
Langley, S.C.	46	(3.56 $\pm$ 0.26)E-14	(7.98 $\pm$ 0.88)E-15	(1.77 $\pm$ 0.55)E-14
Lees, S.C.	48	(4.88 $\pm$ 0.20)E-14	(7.66 $\pm$ 0.89)E-15	(1.82 $\pm$ 0.64)E-14
Olar, S.C.	48	(5.11 $\pm$ 0.20)E-14	(5.91 $\pm$ 0.82)E-15	(1.78 $\pm$ 0.68)E-14
Perkins, Ga.	47	(3.99 $\pm$ 0.17)E-14	(6.53 $\pm$ 0.84)E-15	(1.70 $\pm$ 0.55)E-14
South Richmond, Ga.	50	(4.35 $\pm$ 0.18)E-14	(7.98 $\pm$ 0.89)E-15	(1.80 $\pm$ 0.59)E-14
Springfield, S.C.	49	(5.80 $\pm$ 0.21)E-14	(3.81 $\pm$ 0.68)E-15	(1.86 $\pm$ 0.78)E-14
Waynesboro, Ga.	48	(4.35 $\pm$ 0.19)E-14	(7.94 $\pm$ 0.84)E-15	(1.77 $\pm$ 0.55)E-14
100-mile Radius				
Columbia, S.C.	45	(2.90 $\pm$ 0.15)E-14	(6.89 $\pm$ 1.17)E-15	(1.69 $\pm$ 0.44)E-14
Greenville, S.C.	43	(4.87 $\pm$ 0.21)E-14	(4.62 $\pm$ 0.45)E-15	(1.87 $\pm$ 0.69)E-14
Macon, Ga.	45	(5.01 $\pm$ 0.20)E-14	(9.02 $\pm$ 0.93)E-15	(1.71 $\pm$ 0.66)E-14
Savannah, Ga.	49	(4.68 $\pm$ 0.19)E-14	(6.44 $\pm$ 0.82)E-15	(1.65 $\pm$ 0.67)E-14
Sr-89,90 (μCi/cc) Monthly Composite				
A-Area	12	(1.02 $\pm$ 0.34)E-15	(-5.35 $\pm$ 1.98)E-16	(1.58 $\pm$ 4.11)E-16
Burial Ground North	12	(4.12 $\pm$ 1.46)E-15	(-6.82 $\pm$ 8.65)E-16	(0.28 $\pm$ 1.25)E-15
Burial Ground South	11	(3.51 $\pm$ 3.63)E-16	(-2.86 $\pm$ 2.44)E-16	(0.02 $\pm$ 2.17)E-16
F-Area	12	(6.02 $\pm$ 3.90)E-16	(-3.18 $\pm$ 2.30)E-16	(0.62 $\pm$ 2.41)E-16
H-Area	12	(2.83 $\pm$ 1.51)E-15	(-4.18 $\pm$ 3.41)E-16	(2.69 $\pm$ 8.53)E-16
Site Perimeter	52	(4.54 $\pm$ 2.57)E-16	(-4.90 $\pm$ 4.24)E-16	(0.13 $\pm$ 1.38)E-16
25-mile Radius	53	(4.45 $\pm$ 2.67)E-16	(-2.65 $\pm$ 1.63)E-16	(0.15 $\pm$ 1.48)E-16
100-mile Radius	51	(6.89 $\pm$ 4.14)E-16	(-5.76 $\pm$ 4.38)E-16	(0.49 $\pm$ 2.62)E-16

Table 36
Radioactivity in Air

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Pu-238 ($\mu\text{Ci/cc}$) Monthly Composite				
A-Area	12	(1.72 $\pm$ 1.72)E-18	(-2.52 $\pm$ 2.91)E-18	(-0.31 $\pm$ 1.35)E-18
Burial Ground North	11	(1.92 $\pm$ 1.93)E-17	(-4.71 $\pm$ 2.36)E-17	(-0.10 $\pm$ 1.64)E-17
Burial Ground South	12	(2.31 $\pm$ 0.70)E-17	(-5.48 $\pm$ 4.89)E-18	(6.99 $\pm$ 7.65)E-18
F-Area	12	(2.64 $\pm$ 0.29)E-17	(-8.91 $\pm$ 5.95)E-18	(1.26 $\pm$ 1.04)E-17
H-Area	12	(6.03 $\pm$ 0.40)E-17	(1.42 $\pm$ 4.05)E-18	(2.03 $\pm$ 1.73)E-17
Site Perimeter	50	(2.21 $\pm$ 0.97)E-18	(-2.27 $\pm$ 1.85)E-18	(0.01 $\pm$ 7.86)E-19
25-mile Radius	47	(1.81 $\pm$ 1.32)E-18	(-1.10 $\pm$ 0.39)E-17	(-0.30 $\pm$ 2.00)E-18
100-mile Radius	47	(1.98 $\pm$ 0.60)E-17	(-7.04 $\pm$ 4.07)E-18	(0.72 $\pm$ 4.49)E-18
Pu-239 ($\mu\text{Ci/cc}$) Monthly Composite				
A-Area	12	(3.44 $\pm$ 2.44)E-18	(-1.28 $\pm$ 1.28)E-18	(1.04 $\pm$ 1.56)E-18
Burial Ground North	11	(5.73 $\pm$ 6.91)E-17	(-0.52 $\pm$ 1.73)E-18	(1.05 $\pm$ 1.79)E-17
Burial Ground South	12	(9.54 $\pm$ 3.18)E-18	(-1.50 $\pm$ 3.34)E-18	(1.54 $\pm$ 3.33)E-18
F-Area	12	(2.48 $\pm$ 0.34)E-17	(-2.04 $\pm$ 2.04)E-18	(8.15 $\pm$ 7.02)E-18
H-Area	12	(1.41 $\pm$ 0.47)E-17	(-0.99 $\pm$ 2.22)E-18	(5.14 $\pm$ 4.56)E-18
Site Perimeter	51	(2.76 $\pm$ 3.32)E-18	(-2.55 $\pm$ 2.02)E-18	(2.40 $\pm$ 9.73)E-19
25-mile Radius	47	(9.54 $\pm$ 3.06)E-18	(-3.05 $\pm$ 1.36)E-17	(-0.28 $\pm$ 4.85)E-18
100-mile Radius	46	(6.15 $\pm$ 3.08)E-18	(-1.53 $\pm$ 1.53)E-17	(-1.15 $\pm$ 3.91)E-18

Table 37
Radioactivity in Savannah River Water

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Gross Alpha ($\mu\text{Ci/mL}$)				
Control				
River 2 above SRS	51	(5.97 $\pm$ 3.48)E-10	(-3.73 $\pm$ 2.52)E-10	(0.15 $\pm$ 1.84)E-10
River 2 (monthly grab)	13	(9.02 $\pm$ 3.67)E-10	(-2.81 $\pm$ 1.92)E-10	(0.73 $\pm$ 2.94)E-10
Savannah River				
River 3A above Vogtle	50	(6.49 $\pm$ 3.52)E-10	(-2.43 $\pm$ 1.67)E-10	(0.26 $\pm$ 2.04)E-10
River 3B below Vogtle	51	(9.64 $\pm$ 4.65)E-10	(-3.41 $\pm$ 2.30)E-10	(1.14 $\pm$ 2.44)E-10
River 3B (monthly grab)	13	(1.08 $\pm$ 0.40)E-09	(-1.46 $\pm$ 2.43)E-10	(1.35 $\pm$ 3.24)E-10
River 8A below Steel Creek	25	(1.92 $\pm$ 0.50)E-09	(-2.84 $\pm$ 1.95)E-10	(0.74 $\pm$ 4.39)E-10
River 8B below Steel Creek	26	(5.68 $\pm$ 3.20)E-10	(-2.65 $\pm$ 1.81)E-10	(-0.11 $\pm$ 1.87)E-10
River 8C below Little Hell Landing	26	(4.32 $\pm$ 2.83)E-10	(-2.98 $\pm$ 2.03)E-10	(0.20 $\pm$ 2.03)E-10
River 10 (monthly grab)	13	(6.48 $\pm$ 3.21)E-10	(-2.64 $\pm$ 1.83)E-10	(0.74 $\pm$ 2.55)E-10
River 10A Highway 301	47	(8.11 $\pm$ 4.60)E-10	(-3.58 $\pm$ 2.45)E-10	(-0.21 $\pm$ 2.12)E-10
River 10B Highway 301	46	(5.33 $\pm$ 3.20)E-10	(-2.85 $\pm$ 1.96)E-10	(0.43 $\pm$ 2.07)E-10
River 10C Highway 301	46	(4.32 $\pm$ 2.83)E-10	(-3.01 $\pm$ 2.06)E-10	(0.39 $\pm$ 1.78)E-10
Nonvolatile Beta ($\mu\text{Ci/mL}$)				
Control				
River 2 above SRS	51	(2.99 $\pm$ 0.75)E-09	(1.03 $\pm$ 0.46)E-09	(1.93 $\pm$ 0.51)E-09
River 2 (monthly grab)	13	(3.66 $\pm$ 0.66)E-09	(1.00 $\pm$ 0.46)E-09	(1.98 $\pm$ 0.64)E-09
Savannah River				
River 3A above Vogtle	50	(3.29 $\pm$ 0.62)E-09	(5.95 $\pm$ 4.44)E-10	(1.80 $\pm$ 0.54)E-09
River 3B below Vogtle	51	(4.81 $\pm$ 0.73)E-09	(9.46 $\pm$ 4.52)E-10	(2.03 $\pm$ 0.64)E-09
River 3B (monthly grab)	13	(3.31 $\pm$ 0.77)E-09	(1.05 $\pm$ 0.47)E-09	(1.96 $\pm$ 0.67)E-09
River 8A below Steel Creek	25	(2.97 $\pm$ 0.56)E-09	(1.24 $\pm$ 0.48)E-09	(1.92 $\pm$ 0.49)E-09
River 8B below Steel Creek	26	(2.68 $\pm$ 0.60)E-09	(7.57 $\pm$ 4.52)E-10	(1.79 $\pm$ 0.48)E-09
River 8C below Little Hell Landing	26	(2.70 $\pm$ 0.60)E-09	(9.00 $\pm$ 5.03)E-10	(1.77 $\pm$ 0.42)E-09
River 10 (monthly grab)	13	(3.24 $\pm$ 0.60)E-09	(6.69 $\pm$ 5.29)E-10	(1.75 $\pm$ 0.68)E-09
River 10A Highway 301	47	(3.62 $\pm$ 0.78)E-09	(4.86 $\pm$ 4.27)E-10	(1.89 $\pm$ 0.60)E-09
River 10B Highway 301	46	(3.38 $\pm$ 0.77)E-09	(9.46 $\pm$ 4.60)E-10	(1.83 $\pm$ 0.50)E-09
River 10C Highway 301	46	(2.92 $\pm$ 0.75)E-09	(8.38 $\pm$ 4.44)E-10	(1.83 $\pm$ 0.53)E-09

Table 37
Radioactivity in Savannah River Water

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Tritium ($\mu\text{Ci/mL}$)				
Control				
River 2 above SRS	50	$(8.08 \pm 1.55)\text{E-07}$	$(-3.48 \pm 1.50)\text{E-07}$	$(2.09 \pm 3.16)\text{E-07}$
River 2 (monthly grab)	13	$(3.82 \pm 0.54)\text{E-07}$	$(-3.49 \pm 1.46)\text{E-07}$	$(0.33 \pm 2.00)\text{E-07}$
Savannah River				
River 3A above Vogtle	51	$(1.60 \pm 0.16)\text{E-06}$	$(-1.34 \pm 1.48)\text{E-07}$	$(5.37 \pm 4.34)\text{E-07}$
River 3B below Vogtle	51	$(3.13 \pm 0.17)\text{E-06}$	$(-1.31 \pm 1.44)\text{E-07}$	$(8.92 \pm 7.31)\text{E-07}$
River 3B (monthly grab)	13	$(6.16 \pm 0.55)\text{E-07}$	$(-0.98 \pm 1.44)\text{E-07}$	$(2.12 \pm 2.60)\text{E-07}$
River 8A below Steel Creek	26	$(2.38 \pm 0.16)\text{E-06}$	$(2.44 \pm 1.50)\text{E-07}$	$(1.32 \pm 0.58)\text{E-06}$
River 8B below Steel Creek				
River 8C below Little Hell Landing	26	$(4.08 \pm 0.18)\text{E-06}$	$(3.52 \pm 1.52)\text{E-07}$	$(1.85 \pm 0.93)\text{E-06}$
River 10 (monthly grab)	13	$(3.39 \pm 0.16)\text{E-06}$	$(5.80 \pm 1.53)\text{E-07}$	$(1.49 \pm 0.76)\text{E-06}$
River 10A Highway 301	47	$(4.30 \pm 0.19)\text{E-06}$	$(3.28 \pm 1.51)\text{E-07}$	$(1.92 \pm 0.89)\text{E-06}$
River 10B Highway 301	45	$(5.69 \pm 0.19)\text{E-06}$	$(7.64 \pm 1.53)\text{E-07}$	$(2.04 \pm 1.12)\text{E-06}$
River 10C Highway 301	45	$(4.44 \pm 0.19)\text{E-06}$	$(3.04 \pm 1.51)\text{E-07}$	$(1.64 \pm 0.70)\text{E-06}$
Sr-89,90 ($\mu\text{Ci/mL}$)				
Savannah River				
River 8A below Steel Creek	12	$(3.06 \pm 2.01)\text{E-09}$	$(-0.81 \pm 1.15)\text{E-09}$	$(3.35 \pm 9.57)\text{E-10}$
River 8B below Steel Creek	12	$(7.99 \pm 5.30)\text{E-10}$	$(-1.03 \pm 0.94)\text{E-09}$	$(1.23 \pm 6.06)\text{E-10}$
River 8C below Little Hell Landing	12	$(1.93 \pm 1.94)\text{E-09}$	$(-4.06 \pm 5.99)\text{E-10}$	$(3.83 \pm 5.95)\text{E-10}$
Sr-90 ($\mu\text{Ci/mL}$)				
Control				
River 2 above SRS	12	$(2.61 \pm 0.84)\text{E-10}$	$(-1.16 \pm 1.99)\text{E-10}$	$(1.08 \pm 1.07)\text{E-10}$
Savannah River				
River 10A	12	$(4.15 \pm 2.26)\text{E-10}$	$(-5.26 \pm 8.52)\text{E-11}$	$(1.38 \pm 1.16)\text{E-10}$
River 3A above Vogtle	12	$(3.31 \pm 1.03)\text{E-10}$	$(-9.03 \pm 8.05)\text{E-11}$	$(1.16 \pm 1.22)\text{E-10}$
River 3B below Vogtle	12	$(2.61 \pm 0.94)\text{E-10}$	$(-1.09 \pm 8.41)\text{E-11}$	$(1.43 \pm 0.72)\text{E-10}$
River 10C Highway 301	11	$(4.13 \pm 2.31)\text{E-10}$	$(-0.37 \pm 1.20)\text{E-10}$	$(1.41 \pm 1.30)\text{E-10}$

Table 37
Radioactivity in Savannah River Water

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Cs-137 ($\mu\text{Ci/mL}$)				
Control				
River 2 above SRS ^a	14	(4.00 $\pm$ 0.70)E-12	(8.00 $\pm$ 1.00)E-13	(1.53 $\pm$ 0.76)E-12
Savannah River				
River 10 Highway 301 ^a	12	(9.90 $\pm$ 0.90)E-11	(4.30 $\pm$ 0.30)E-12	(7.23 $\pm$ 1.96)E-11
Pu-238 ($\mu\text{Ci/mL}$)				
Control				
River 2 above SRS	11	(2.03 $\pm$ 1.48)E-12	(-3.13 $\pm$ 1.57)E-12	(-1.04 $\pm$ 1.76)E-12
Savannah River				
River 10A Highway 301	12	(1.28 $\pm$ 0.96)E-12	(-2.48 $\pm$ 1.88)E-12	(-0.34 $\pm$ 1.32)E-12
River 3A above Vogtle	11	(1.95 $\pm$ 0.65)E-12	(-2.94 $\pm$ 1.30)E-12	(-0.73 $\pm$ 1.50)E-12
River 3B below Vogtle	9	(1.67 $\pm$ 1.18)E-12	(-2.15 $\pm$ 1.02)E-12	(-0.39 $\pm$ 1.21)E-12
River 10C Highway 301	10	(1.11 $\pm$ 0.47)E-12	(-2.33 $\pm$ 2.93)E-12	(-0.22 $\pm$ 1.10)E-12
Pu-239 ($\mu\text{Ci/mL}$)				
Control				
River 2 above SRS	11	(1.62 $\pm$ 0.99)E-12	(-5.06 $\pm$ 3.38)E-12	(-0.76 $\pm$ 1.76)E-12
Savannah River				
River 10A Highway 301	11	(2.24 $\pm$ 1.12)E-12	(-1.69 $\pm$ 1.69)E-12	(0.00 $\pm$ 1.09)E-12
River 3A above Vogtle	12	(2.23 $\pm$ 3.15)E-12	(-2.99 $\pm$ 1.73)E-12	(0.04 $\pm$ 1.50)E-12
River 3B below Vogtle	10	(2.87 $\pm$ 1.01)E-12	(-3.33 $\pm$ 2.63)E-12	(00.00 $\pm$ 1.82)E-12
River 10C Highway 301	10	(2.21 $\pm$ 1.28)E-12	(-0.61 $\pm$ 1.36)E-12	(2.77 $\pm$ 8.47)E-13

^a Samples counted by SRTC.

Table 38
Radioactivity in SRS Stream Water

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Gross Alpha ($\mu\text{Ci/mL}$)				
Background				
U3R-1A	48	$(7.05 \pm 1.17)\text{E-09}$	$(5.51 \pm 2.71)\text{E-10}$	$(2.47 \pm 1.25)\text{E-09}$
Edisto River	53	$(2.64 \pm 0.66)\text{E-09}$	$(-0.89 \pm 1.55)\text{E-10}$	$(1.09 \pm 0.50)\text{E-09}$
Four Mile Creek				
FMC-1B	9	$(1.62 \pm 0.48)\text{E-09}$	$(2.17 \pm 2.90)\text{E-10}$	$(1.09 \pm 0.55)\text{E-09}$
H-008 Outfall	44	$(5.45 \pm 1.00)\text{E-09}$	$(4.75 \pm 3.30)\text{E-10}$	$(2.77 \pm 1.14)\text{E-09}$
FMC-2B	26	$(1.35 \pm 0.46)\text{E-09}$	$(-1.98 \pm 2.72)\text{E-10}$	$(5.37 \pm 4.51)\text{E-10}$
FMC-2	26	$(2.82 \pm 0.74)\text{E-09}$	$(-1.09 \pm 1.55)\text{E-10}$	$(1.06 \pm 0.64)\text{E-09}$
FMC-6	26	$(3.58 \pm 0.67)\text{E-09}$	$(-1.84 \pm 1.79)\text{E-10}$	$(3.21 \pm 7.22)\text{E-10}$
FMC-A7	26	$(2.40 \pm 0.66)\text{E-09}$	$(-0.85 \pm 1.89)\text{E-10}$	$(1.20 \pm 0.61)\text{E-09}$
HP-50	26	$(6.10 \pm 0.86)\text{E-09}$	$(1.24 \pm 0.44)\text{E-09}$	$(3.54 \pm 1.31)\text{E-09}$
Indian Grave Branch				
IGB-21	4	$(1.34 \pm 0.61)\text{E-09}$	$(-0.97 \pm 1.67)\text{E-10}$	$(4.97 \pm 6.92)\text{E-10}$
Lower Three Runs Creek				
L3R-1A	24	$(8.06 \pm 4.21)\text{E-10}$	$(-1.64 \pm 1.26)\text{E-10}$	$(0.93 \pm 2.16)\text{E-10}$
L3R-2	27	$(6.76 \pm 3.63)\text{E-10}$	$(-2.32 \pm 1.55)\text{E-10}$	$(0.22 \pm 2.03)\text{E-10}$
L3R-3	11	$(6.49 \pm 3.52)\text{E-10}$	$(-1.77 \pm 1.41)\text{E-10}$	$(2.32 \pm 2.75)\text{E-10}$
Par Pond				
R-Area below R-1	52	$(8.92 \pm 3.63)\text{E-10}$	$(-2.67 \pm 1.52)\text{E-10}$	$(2.53 \pm 3.04)\text{E-10}$
Pen Branch				
K-011	51	$(4.54 \pm 3.21)\text{E-10}$	$(-2.47 \pm 1.69)\text{E-10}$	$(0.70 \pm 1.82)\text{E-10}$
Pen Branch #3	26	$(5.14 \pm 2.96)\text{E-10}$	$(-1.51 \pm 1.27)\text{E-10}$	$(0.73 \pm 1.87)\text{E-10}$
Steel Creek				
SC-2A	27	$(1.16 \pm 0.38)\text{E-09}$	$(-1.63 \pm 0.86)\text{E-10}$	$(5.07 \pm 3.73)\text{E-10}$
SC-4	26	$(8.33 \pm 3.52)\text{E-10}$	$(-2.30 \pm 1.58)\text{E-10}$	$(0.45 \pm 2.45)\text{E-10}$
Tims Branch				
TB-5	26	$(4.32 \pm 0.84)\text{E-09}$	$(4.59 \pm 3.92)\text{E-10}$	$(1.82 \pm 0.96)\text{E-09}$
Upper Three Runs Creek				
Crouch Branch	26	$(1.62 \pm 0.52)\text{E-09}$	$(-3.70 \pm 2.55)\text{E-10}$	$(4.49 \pm 4.73)\text{E-10}$
HP-15	52	$(2.24 \pm 0.52)\text{E-09}$	$(2.18 \pm 2.66)\text{E-10}$	$(9.49 \pm 5.47)\text{E-10}$
U3R-3	26	$(6.49 \pm 0.84)\text{E-09}$	$(8.42 \pm 3.20)\text{E-10}$	$(2.40 \pm 1.31)\text{E-09}$
U3R-4	26	$(5.95 \pm 2.46)\text{E-09}$	$(5.45 \pm 2.87)\text{E-10}$	$(2.12 \pm 1.20)\text{E-09}$

Table 38
Radioactivity in SRS Stream Water

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Nonvolatile Beta ($\mu\text{Ci/mL}$)				
Background				
U3R-1A	48	(4.87 $\pm$ 0.66)E-09	(3.26 $\pm$ 4.03)E-10	(2.07 $\pm$ 1.09)E-09
Edisto River	53	(2.78 $\pm$ 0.50)E-09	(4.60 $\pm$ 4.72)E-10	(1.76 $\pm$ 0.60)E-09
Four Mile Creek				
FMC-1B	9	(1.08 $\pm$ 0.09)E-08	(6.08 $\pm$ 0.74)E-09	(7.81 $\pm$ 1.43)E-09
H-008 Outfall	44	(1.09 $\pm$ 0.10)E-08	(3.78 $\pm$ 0.64)E-09	(6.78 $\pm$ 1.37)E-09
FMC-2B	26	(4.59 $\pm$ 0.16)E-08	(2.22 $\pm$ 0.110)E-08	(3.46 $\pm$ 0.64)E-08
FMC-2	26	(3.85 $\pm$ 0.16)E-08	(1.24 $\pm$ 0.09)E-08	(2.43 $\pm$ 0.66)E-08
FMC-3A	26	(8.34 $\pm$ 0.88)E-09	(3.97 $\pm$ 0.65)E-09	(5.49 $\pm$ 1.07)E-09
FMC-6	26	(2.58 $\pm$ 0.13)E-08	(1.13 $\pm$ 0.09)E-08	(1.80 $\pm$ 0.39)E-08
FMC-A7	26	(5.79 $\pm$ 0.19)E-08	(3.24 $\pm$ 0.14)E-08	(4.05 $\pm$ 0.65)E-08
HP-50	26	(9.32 $\pm$ 0.88)E-09	(1.87 $\pm$ 0.60)E-09	(5.31 $\pm$ 2.07)E-09
Indian Grave Branch				
IGB-21	4	(1.97 $\pm$ 0.57)E-09	(5.46 $\pm$ 8.76)E-10	(1.22 $\pm$ 0.62)E-09
Lower Three Runs Creek				
L3R-1A	24	(7.30 $\pm$ 0.77)E-09	(2.70 $\pm$ 0.54)E-09	(4.42 $\pm$ 1.18)E-09
L3R-2	27	(5.06 $\pm$ 0.69)E-09	(2.12 $\pm$ 0.54)E-09	(3.19 $\pm$ 0.79)E-09
L3R-3	11	(4.23 $\pm$ 0.66)E-09	(1.19 $\pm$ 0.50)E-09	(2.70 $\pm$ 0.83)E-09
Par Pond				
R-Area below R-1	52	(2.19 $\pm$ 0.12)E-08	(1.60 $\pm$ 0.56)E-09	(1.07 $\pm$ 0.35)E-08
Pen Branch				
K-011	51	(3.02 $\pm$ 0.66)E-09	(3.25 $\pm$ 4.85)E-10	(1.74 $\pm$ 0.59)E-09
Pen Branch #3	26	(8.38 $\pm$ 0.77)E-09	(2.43 $\pm$ 4.52)E-10	(1.70 $\pm$ 1.50)E-09
Steel Creek				
SC-2A	27	(8.53 $\pm$ 0.88)E-09	(3.51 $\pm$ 0.57)E-09	(5.92 $\pm$ 1.20)E-09
SC-4	26	(3.10 $\pm$ 0.67)E-09	(7.03 $\pm$ 4.52)E-10	(1.68 $\pm$ 0.52)E-09
Tims Branch				
TB-5	26	(5.81 $\pm$ 0.89)E-09	(1.11 $\pm$ 0.49)E-09	(3.16 $\pm$ 1.17)E-09

Table 38
Radioactivity in SRS Stream Water

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Upper Three Runs Creek				
Crouch Branch	26	(6.90 $\pm$ 0.94)E-09	(7.86 $\pm$ 4.94)E-10	(3.28 $\pm$ 1.34)E-09
HP-15	52	(2.18 $\pm$ 0.13)E-08	(9.46 $\pm$ 4.52)E-10	(2.94 $\pm$ 2.84)E-09
U3R-3	26	(4.59 $\pm$ 0.63)E-09	(6.79 $\pm$ 4.46)E-10	(2.11 $\pm$ 0.99)E-09
U3R-4	26	(3.31 $\pm$ 0.75)E-09	(1.38 $\pm$ 5.08)E-10	(1.62 $\pm$ 0.73)E-09
U3R-F3				
Tritium (μCi/mL)				
Background				
U3R-1A	51	(1.37 $\pm$ 0.42)E-06	(-1.77 $\pm$ 4.17)E-07	(6.30 $\pm$ 3.96)E-07
Edisto River	50	(1.16 $\pm$ 0.15)E-06	(-2.21 $\pm$ 1.50)E-07	(3.00 $\pm$ 3.17)E-07
Four Mile Creek				
FMC-1B	9	(3.53 $\pm$ 0.45)E-06	(1.16 $\pm$ 0.42)E-06	(2.27 $\pm$ 0.65)E-06
H-008 Outfall	43	(1.37 $\pm$ 0.05)E-05	(1.32 $\pm$ 0.37)E-06	(3.92 $\pm$ 2.31)E-06
FMC-2	26	(1.05 $\pm$ 0.01)E-04	(3.13 $\pm$ 0.09)E-05	(5.93 $\pm$ 1.52)E-05
FMC-2B	26	(2.86 $\pm$ 0.08)E-04	(1.26 $\pm$ 0.06)E-04	(2.02 $\pm$ 0.41)E-04
FMC-3				
FMC-3A	26	(3.76 $\pm$ 0.02)E-03	(2.15 $\pm$ 0.04)E-03	(2.74 $\pm$ 0.47)E-03
FMC-6	26	(3.05 $\pm$ 0.05)E-04	(1.77 $\pm$ 0.02)E-04	(2.45 $\pm$ 0.39)E-04
FMC-A7	26	(7.87 $\pm$ 0.11)E-04	(4.55 $\pm$ 0.11)E-04	(6.19 $\pm$ 0.91)E-04
HP-50	26	(6.70 $\pm$ 0.14)E-05	(3.94 $\pm$ 0.40)E-06	(1.58 $\pm$ 1.50)E-05
Twin Lakes	52	(2.37 $\pm$ 0.08)E-05	(9.97 $\pm$ 0.53)E-06	(1.99 $\pm$ 0.26)E-05
Caster Creek	52	(5.94 $\pm$ 0.49)E-06	(3.25 $\pm$ 0.44)E-06	(4.48 $\pm$ 0.69)E-06
Indian Grave Branch				
IGB-21	52	(2.54 $\pm$ 0.04)E-03	(5.39 $\pm$ 0.12)E-04	(1.57 $\pm$ 0.60)E-03
Lower Three Runs Creek				
L3R-1A	24	(2.82 $\pm$ 0.44)E-06	(2.97 $\pm$ 3.86)E-07	(1.29 $\pm$ 0.69)E-06
L3R-2	27	(2.23 $\pm$ 0.43)E-06	(-0.16 $\pm$ 4.03)E-07	(1.17 $\pm$ 0.57)E-06
L3R-3	11	(2.90 $\pm$ 0.64)E-06	(-0.56 $\pm$ 4.28)E-07	(8.60 $\pm$ 8.41)E-07
Par Pond				
R-Area below R-1	52	(4.43 $\pm$ 0.08)E-05	(2.69 $\pm$ 0.44)E-06	(0.89 $\pm$ 1.04)E-05
P-area Effluent				

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Radioactivity in SRS Stream Water

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Pen Branch				
K-011	55	(1.02 $\pm$ 0.00)E-03	(2.99 $\pm$ 0.38)E-06	(2.35 $\pm$ 3.96)E-04
Pen Branch #3	26	(1.37 $\pm$ 0.02)E-04	(3.11 $\pm$ 0.38)E-06	(4.46 $\pm$ 4.22)E-05
Steel Creek				
SC -2A	27	(2.21 $\pm$ 0.02)E-04	(1.31 $\pm$ 0.02)E-04	(1.81 $\pm$ 0.20)E-04
SC-4	26	(6.84 $\pm$ 0.45)E-06	(4.18 $\pm$ 0.49)E-06	(5.60 $\pm$ 0.72)E-06
Tims Branch				
TB-5	26	(2.61 $\pm$ 0.44)E-06	(-2.02 $\pm$ 4.10)E-07	(1.19 $\pm$ 0.57)E-06
Upper Three Runs Creek				
Crouch Branch	26	(2.53 $\pm$ 0.08)E-05	(7.82 $\pm$ 0.53)E-06	(1.61 $\pm$ 0.33)E-05
HP-15	53	(8.40 $\pm$ 0.11)E-05	(1.46 $\pm$ 0.42)E-06	(1.76 $\pm$ 1.52)E-05
U3R-3	26	(3.86 $\pm$ 0.10)E-05	(1.29 $\pm$ 0.42)E-06	(7.45 $\pm$ 8.71)E-06
U3R-4	26	(2.21 $\pm$ 0.06)E-05	(1.37 $\pm$ 0.34)E-06	(5.44 $\pm$ 5.24)E-06
Sr-89,90 (μCi/mL)				
Four Mile Creek				
FMC-1B	2	(1.65 $\pm$ 0.72)E-09	(2.02 $\pm$ 6.83)E-10	(0.93 $\pm$ 1.03)E-09
H-008 Outfall	10	(1.56 $\pm$ 0.78)E-09	(-2.27 $\pm$ 2.36)E-09	(-0.09 $\pm$ 1.01)E-09
FMC-2	12	(8.53 $\pm$ 0.91)E-09	(4.34 $\pm$ 0.86)E-09	(6.10 $\pm$ 1.20)E-09
FMC-2B	12	(1.53 $\pm$ 0.13)E-08	(8.03 $\pm$ 0.86)E-09	(1.17 $\pm$ 0.23)E-08
FMC-3A	12	(2.22 $\pm$ 0.81)E-09	(0.93 $\pm$ 4.86)E-10	(9.09 $\pm$ 5.96)E-10
FMC-A7	12	(2.06 $\pm$ 0.13)E-08	(1.33 $\pm$ 0.10)E-08	(1.75 $\pm$ 0.23)E-08
Indian Grave Branch				
IGB-21	4	(7.64 $\pm$ 4.51)E-10	(0.35 $\pm$ 4.74)E-10	(4.08 $\pm$ 2.98)E-10
Lower Three Runs Creek				
L3R-1A	11	(9.24 $\pm$ 4.81)E-10	(-1.30 $\pm$ 4.27)E-10	(3.68 $\pm$ 3.46)E-10
L3R-3	12	(5.54 $\pm$ 3.58)E-10	(-2.95 $\pm$ 3.13)E-10	(1.86 $\pm$ 2.72)E-10
Pen Branch				
K-011	9	(6.65 $\pm$ 4.66)E-10	(-3.08 $\pm$ 5.59)E-10	(0.87 $\pm$ 3.35)E-10
Steel Creek				
SC-2A	12	(9.68 $\pm$ 5.30)E-10	(-4.45 $\pm$ 4.29)E-10	(3.30 $\pm$ 3.79)E-10
Upper Three Runs Creek				
HP-15	12	(9.58 $\pm$ 4.85)E-10	(-2.54 $\pm$ 4.62)E-10	(2.77 $\pm$ 4.53)E-10
U3R-3	12	(6.41 $\pm$ 5.82)E-10	(-7.77 $\pm$ 3.65)E-10	(0.83 $\pm$ 3.47)E-10

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Radioactivity in SRS Stream Water

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Sr-90 ($\mu\text{Ci/mL}$)				
Four Mile Creek				
FMC-6	12	(8.50 $\pm$ 0.29)E-09	(5.06 $\pm$ 0.41)E-09	(6.39 $\pm$ 1.14)E-09
Lower Three Runs Creek				
L3R-2	12	(4.80 $\pm$ 2.56)E-10	(-1.55 $\pm$ 2.09)E-10	(2.87 $\pm$ 1.96)E-10
Pen Branch				
Pen Branch #3	12	(3.55 $\pm$ 2.08)E-10	(-0.76 $\pm$ 2.34)E-10	(1.55 $\pm$ 1.31)E-10
Steel Creek				
SC-4	12	(3.08 $\pm$ 1.74)E-10	(-1.04 $\pm$ 1.48)E-10	(1.23 $\pm$ 1.29)E-10
U/Pu ($\mu\text{Ci/mL}$)				
Four Mile Creek				
FMC-6	26	(2.49 $\pm$ 2.91)E-10	(-1.63 $\pm$ 2.98)E-10	(-0.05 $\pm$ 1.07)E-10
Lower Three Runs Creek				
L3R-2 (Dip)	47	(5.48 $\pm$ 3.22)E-10	(-3.03 $\pm$ 2.12)E-10	(0.29 $\pm$ 1.72)E-10
L3R-2 (Composite)	27	(2.59 $\pm$ 3.03)E-10	(-3.93 $\pm$ 2.79)E-10	(-0.83 $\pm$ 1.22)E-10
Pen Branch				
Pen Branch #3	26	(1.00 $\pm$ 2.15)E-10	(-3.37 $\pm$ 2.40)E-10	(-5.33 $\pm$ 9.49)E-11
Upper Three Runs Creek				
U3R-4	26	(2.49 $\pm$ 2.91)E-10	(-1.63 $\pm$ 2.98)E-10	(-0.05 $\pm$ 1.07)E-10
Cs-137 ($\mu\text{Ci/mL}$) The lower limit of detection for Cs-137 is 9.00E-09 $\mu\text{Ci/mL}$.				
Four Mile Creek				
FMC-1B	0/9 ^a			
H-008 Outfall	0/0			
FMC-2	8/26	(3.52 $\pm$ 0.70)E-08	(1.20 $\pm$ 0.54)E-08	(2.36 $\pm$ 0.68)E-08
FMC-2B	9/26	(1.75 $\pm$ 0.57)E-08	(1.22 $\pm$ 0.44)E-08	(1.48 $\pm$ 0.22)E-08
FMC-3	0/0			
FMC-3A	0/26			
FMC-6	1/26	N/A ^b	N/A	(7.85 $\pm$ 2.54)E-09
FMC-A7	3/26	(1.85 $\pm$ 0.47)E-08	(9.05 $\pm$ 2.80)E-09	(1.42 $\pm$ 0.46)E-08

a The gamma analysis package currently used by Environmental Monitoring does not force an activity determination if a threshold setting is not met. For these reported radionuclides, "No. of Samples" is displayed as "number with activities quantified / number of samples counted"; only the number quantified are used in the max, min, and mean generation.

b Not applicable

Table 38
Radioactivity in SRS Stream Water

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Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
HP-50	0/26			
Indian Grave Branch				
IGB-21	0/52			
Lower Three Runs Creek				
L3R-1A	0/24			
L3R-2	0/27			
L3R-3	0/11 ^a			
Par Pond				
R-Area below R-1	0/0			
P-area Effluent	0/0			
Pen Branch				
K-011	0/0			
Pen Branch #3	0/26			
Steel Creek				
SC-2A	3/27	(1.79 $\pm$ 0.44)E-08	(9.05 $\pm$ 2.80)E-09	(1.42 $\pm$ 0.46)E-08
SC-4	0/26			
Tims Branch				
TB-5	0/26			
Upper Three Runs Creek				
Crouch Branch	0/26			
HP-15	0/53			
U3R-3	0/26			
U3R-4	0/26			

^a The gamma analysis package currently used by Environmental Monitoring does not force an activity determination if a threshold setting is not met. For these reported radionuclides, "No. of Samples" is displayed as "number with activities quantified / number of samples counted"; only the number quantified are used in the max, min, and mean generation.

Table 39
Radioactivity in Seepage Basin Water

Page 1 of 1

Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Gross Alpha ($\mu\text{Ci/mL}$)				
SWDF Seepage Basin	10	(2.70 $\pm$ 0.80)E-09	(1.08 $\pm$ 3.38)E-10	(1.12 $\pm$ 1.01)E-09
C Seepage Basin	3	(0.92 $\pm$ 1.75)E-09	(0.62 $\pm$ 1.79)E-09	(7.76 $\pm$ 1.49)E-10
L Seepage Basin	4	(4.92 $\pm$ 2.66)E-09	(-0.23 $\pm$ 1.27)E-09	(1.38 $\pm$ 2.40)E-09
P Seepage Basin	4	(1.59 $\pm$ 1.99)E-09	(-1.18 $\pm$ 1.09)E-09	(0.45 $\pm$ 1.30)E-09
TNX Seepage Basin	11	(8.00 $\pm$ 7.02)E-09	(-4.18 $\pm$ 2.96)E-09	(0.91 $\pm$ 3.68)E-09
Nonvolatile Beta ($\mu\text{Ci/mL}$)				
SWDF Seepage Basin	10	(1.51 $\pm$ 0.15)E-08	(4.86 $\pm$ 1.11)E-09	(9.72 $\pm$ 3.12)E-09
C Seepage Basin	3	(1.65 $\pm$ 0.10)E-07	(3.94 $\pm$ 0.67)E-08	(8.97 $\pm$ 6.63)E-08
L Seepage Basin	4	(1.84 $\pm$ 0.48)E-08	(0.32 $\pm$ 4.19)E-09	(7.68 $\pm$ 8.29)E-09
P Seepage Basin	4	(2.70 $\pm$ 0.53)E-08	(1.89 $\pm$ 0.48)E-08	(2.25 $\pm$ 0.42)E-08
TNX Seepage Basin	11	(3.69 $\pm$ 1.12)E-08	(-5.85 $\pm$ 8.87)E-09	(0.61 $\pm$ 1.17)E-08
Tritium ($\mu\text{Ci/mL}$)				
SWDF Seepage Basin	8	(5.09 $\pm$ 0.12)E-05	(1.66 $\pm$ 0.06)E-05	(3.35 $\pm$ 1.08)E-05
C Seepage Basin	3	(3.36 $\pm$ 0.48)E-05	(-3.80 $\pm$ 3.19)E-06	(1.33 $\pm$ 1.89)E-05
L Seepage Basin	4	(4.70 $\pm$ 0.48)E-05	(2.77 $\pm$ 3.32)E-06	(1.53 $\pm$ 2.13)E-05
P Seepage Basin	4	(1.04 $\pm$ 0.10)E-03	(8.28 $\pm$ 6.71)E-05	(3.92 $\pm$ 4.39)E-04
TNX Seepage Basin	12	(3.36 $\pm$ 0.51)E-06	(1.33 $\pm$ 0.46)E-06	(2.18 $\pm$ 0.60)E-06
Cs-137^a ($\mu\text{Ci/mL}$)				
SWDF Seepage Basin	0/10			
C Seepage Basin	1/3	(2.65 $\pm$ 0.73)E-08		
L Seepage Basin	0/4			
P Seepage Basin	3/4	(4.27 $\pm$ 0.87)E-08	(2.96 $\pm$ 0.46)E-08	(3.66 $\pm$ 0.66)E-08
TNX Seepage Basin	0/12			
Sr-89,90 ($\mu\text{Ci/mL}$)				
L Seepage Basin		(0.91 $\pm$ 1.33)E-08	(-0.35 $\pm$ 1.53)E-08	(0.71 $\pm$ 5.67)E-09
U/Pu ($\mu\text{Ci/mL}$)				
TNX Seepage Basin		(8.09 $\pm$ 6.76)E-09	(-4.19 $\pm$ 3.64)E-09	(1.29 $\pm$ 3.44)E-09

a The gamma analysis package currently used by Environmental Monitoring does not force an activity determination if a threshold setting is not met. For these reported radionuclides, "No. of Samples" is displayed as "number with activities quantified / number of samples counted"; only the number quantified are used in the max, min, and mean generation.

Table 40
Radioactivity in Fish

Page 1 of 13

Location	Species	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
H-3 in Fish (pCi/g)					
<u>Off-site (Edible)</u>					
Control					
Edisto River	Bass	3	(1.18 $\pm$ 0.60)E-02	(0.66 $\pm$ 1.17)E-02	(9.51 $\pm$ 2.64)E-03
Savannah River					
River above Site					
Augusta Lock and Dam	Bass	3	(9.04 $\pm$ 2.36)E-02	(5.29 $\pm$ 2.34)E-02	(7.06 $\pm$ 1.88)E-02
	Bream	3	(9.83 $\pm$ 2.06)E-02	(2.50 $\pm$ 2.52)E-02	(5.11 $\pm$ 4.10)E-02
River Adjacent to Site					
Beaver Dam Creek River Mouth	Bream	2	(4.90 $\pm$ 0.28)E-01	(4.27 $\pm$ 0.26)E-01	(4.58 $\pm$ 0.44)E-01
	Catfish	3	(1.93 $\pm$ 0.09)E+00	(5.63 $\pm$ 1.83)E-02	(8.52 $\pm$ 9.68)E-01
Four Mile Creek River Mouth	Bass	1	(7.81 $\pm$ 0.04)E+00		
L3R Creek River Mouth	Bream	1	(5.48 $\pm$ 0.89)E-02		
	Catfish	1	(4.44 $\pm$ 0.98)E-02		
Steel Creek River Mouth	Bream	2	(5.98 $\pm$ 0.16)E-01	(4.01 $\pm$ 0.20)E-01	(4.99 $\pm$ 1.39)E-01
	Catfish	3	(1.26 $\pm$ 0.04)E+00	(5.27 $\pm$ 0.28)E-01	(8.77 $\pm$ 3.67)E-01
U3R Creek River Mouth	Bass	2	(1.76 $\pm$ 0.32)E-01	(8.58 $\pm$ 1.14)E-02	(1.31 $\pm$ 0.63)E-01
	Bream	3	(2.04 $\pm$ 0.18)E-01	(3.14 $\pm$ 1.71)E-02	(1.27 $\pm$ 0.88)E-01
	Catfish	3	(2.10 $\pm$ 0.32)E-01	(8.76 $\pm$ 0.90)E-02	(1.38 $\pm$ 0.64)E-01
River below Site					
Hwy 301 Bridge Area	Bass	2	(9.19 $\pm$ 1.77)E-02	(9.18 $\pm$ 2.18)E-02	(9.19 $\pm$ 0.01)E-02
	Bream	3	(1.44 $\pm$ 0.29)E-01	(3.41 $\pm$ 1.81)E-02	(8.64 $\pm$ 5.51)E-02
	Catfish	2	(9.69 $\pm$ 2.04)E-02	(6.53 $\pm$ 1.42)E-02	(8.11 $\pm$ 2.23)E-02

Table 40
Radioactivity in Fish

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Location	Species	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Sr-90 in Fish (pCi/g)					
Off-site (Edible)					
Control					
Edisto River	Bass	3	(3.13 $\pm$ 2.16)E-03	(-0.17 $\pm$ 1.77)E-03	(1.14 $\pm$ 1.75)E-03
Savannah River					
River above Site					
Augusta Lock and Dam	Bass	3	(4.14 $\pm$ 2.36)E-03	(1.87 $\pm$ 1.91)E-03	(3.01 $\pm$ 1.14)E-03
	Bream	3	(1.97 $\pm$ 3.56)E-03	(-2.62 $\pm$ 4.74)E-03	(-0.85 $\pm$ 2.47)E-03
River Adjacent to Site					
Beaver Dam Creek River Mouth	Bream	2	(8.96 $\pm$ 3.80)E-03	(7.51 $\pm$ 5.88)E-03	(8.23 $\pm$ 1.02)E-03
	Catfish	3	(1.06 $\pm$ 0.67)E-02	(-0.38 $\pm$ 7.11)E-03	(3.40 $\pm$ 6.24)E-03
Four Mile Creek River Mouth	Bass	1	(1.50 $\pm$ 0.08)E-01		
L3R Creek River Mouth	Bream	1	(4.06 $\pm$ 2.54)E-03		
	Catfish	1	(0.05 $\pm$ 1.87)E-03		
Steel Creek River Mouth	Bream	2	(2.71 $\pm$ 7.68)E-03	(1.02 $\pm$ 4.28)E-03	(1.87 $\pm$ 1.19)E-03
	Catfish	3	(6.12 $\pm$ 3.72)E-03	(3.24 $\pm$ 3.27)E-03	(4.60 $\pm$ 1.45)E-03
U3R Creek River Mouth	Bass	2	(1.11 $\pm$ 0.32)E-02	(5.83 $\pm$ 6.24)E-03	(8.45 $\pm$ 3.70)E-03
	Bream	3	(1.14 $\pm$ 0.39)E-02	(-2.58 $\pm$ 9.35)E-03	(6.76 $\pm$ 8.09)E-03
	Catfish	3	(3.36 $\pm$ 8.10)E-03	(0.87 $\pm$ 3.51)E-03	(2.51 $\pm$ 1.42)E-03
River below Site					
Hwy 301 Bridge Area	Bass	2	(-0.47 $\pm$ 4.81)E-03	(-0.50 $\pm$ 2.31)E-03	(-4.87 $\pm$ 0.24)E-04
	Bream	3	(2.68 $\pm$ 6.92)E-03	(-4.66 $\pm$ 4.76)E-03	(-1.23 $\pm$ 3.69)E-03
	Catfish	2	(2.45 $\pm$ 5.64)E-03	(-0.90 $\pm$ 2.31)E-03	(0.78 $\pm$ 2.37)E-03

Table 40
Radioactivity in Fish

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Location	Species	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Cs-137 in Fish (pCi/g) The lower limit of detection for Cs-137 is 4.2E-02 pCi/g.					
Off-site (Edible)					
Control					
Edisto River	Bass	4	(1.76 $\pm$ 0.38)E-01	(1.28 $\pm$ 0.27)E-01	(1.57 $\pm$ 0.23)E-01
Savannah River					
River above Site					
Augusta Lock and Dam					
River Adjacent to Site					
Beaver Dam Creek River Mouth	Bream	2	(8.94 $\pm$ 2.71)E-02	(6.25 $\pm$ 2.21)E-02	(7.59 $\pm$ 1.91)E-02
	Catfish	3	(8.15 $\pm$ 2.41)E-02	(4.49 $\pm$ 2.55)E-02	(6.39 $\pm$ 1.83)E-02
Four Mile Creek River Mouth	Bass	1	(2.86 $\pm$ 0.06)E+00		
L3R Creek River Mouth	Bream	1	(7.05 $\pm$ 0.48)E-01		
	Catfish	1	(7.23 $\pm$ 0.22)E-01		
Steel Creek River Mouth	Bream	2	(2.28 $\pm$ 0.29)E-01	(8.98 $\pm$ 2.26)E-02	(1.59 $\pm$ 0.98)E-01
	Catfish	3	(3.79 $\pm$ 0.27)E-01	(1.34 $\pm$ 0.25)E-01	(2.62 $\pm$ 1.23)E-01
U3R Creek River Mouth	Bass	2	(2.03 $\pm$ 0.43)E-01	(1.82 $\pm$ 0.19)E-01	(1.92 $\pm$ 0.15)E-01
	Bream	1	(9.14 $\pm$ 1.80)E-02		
	Catfish	3	(4.21 $\pm$ 0.24)E-01	(5.38 $\pm$ 2.15)E-02	(1.86 $\pm$ 2.04)E-01
River below Site					
Hwy 301 Bridge Area	Bass	2	(7.64 $\pm$ 0.87)E-02	(4.60 $\pm$ 0.79)E-02	(6.12 $\pm$ 2.15)E-02
	Bream	1	(5.73 $\pm$ 0.95)E-02		
	Catfish	2	(3.78 $\pm$ 0.59)E-02	(2.72 $\pm$ 0.61)E-02	(3.25 $\pm$ 0.75)E-02
Stokes Bluff Landing	Bass	3	(1.13 $\pm$ 0.24)E-01	(6.64 $\pm$ 2.23)E-02	(8.79 $\pm$ 2.37)E-02
	Bream	1	(6.30 $\pm$ 3.71)E-02		
Hwy 17A Bridge Area	Bass	2	(1.49 $\pm$ 0.25)E-01	(9.06 $\pm$ 2.09)E-02	(1.20 $\pm$ 0.41)E-01
	Bream	3	(1.66 $\pm$ 0.33)E-01	(7.03 $\pm$ 2.58)E-02	(1.22 $\pm$ 0.48)E-01

Table 40
Radioactivity in Fish

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Location	Species	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
	Catfish	3	(1.26 $\pm$ 0.25)E-01	(8.65 $\pm$ 1.96)E-02	(1.02 $\pm$ 0.21)E-01
	Mullet	2	(1.60 $\pm$ 0.30)E-01	(1.11 $\pm$ 0.24)E-01	(1.35 $\pm$ 0.34)E-01
On-site (Edible)					
Beaver Dam Creek	Bream	1	(1.33 $\pm$ 0.24)E-01		
	Catfish	1	(1.72 $\pm$ 0.29)E-01		
FMC-6 at Road A-12.2	Bass	3	(7.32 $\pm$ 0.13)E+00	(5.47 $\pm$ 0.11)E+00	(6.24 $\pm$ 0.96)E+00
	Bream	1	(1.98 $\pm$ 0.10)E+00		
L-Lake	Bass	3	(1.62 $\pm$ 0.07)E+00	(1.27 $\pm$ 0.05)E+00	(1.41 $\pm$ 0.18)E+00
	Bream	3	(5.70 $\pm$ 0.41)E-01	(2.11 $\pm$ 0.35)E-01	(3.50 $\pm$ 1.93)E-01
	Catfish	1	(4.96 $\pm$ 0.48)E-01		
L3R-2 at Patterson Mill Road	Bass	3	(1.00 $\pm$ 0.01)E+01	(6.22 $\pm$ 0.11)E+00	(8.54 $\pm$ 2.04)E+00
	Bream	3	(2.80 $\pm$ 0.08)E+00	(2.12 $\pm$ 0.07)E+00	(2.57 $\pm$ 0.39)E+00
	Catfish	3	(5.15 $\pm$ 0.13)E+00	(4.37 $\pm$ 0.10)E+00	(4.85 $\pm$ 0.42)E+00
PB-3 at Road A-13.2	Bass	4	(3.19 $\pm$ 0.32)E-01	(2.43 $\pm$ 0.41)E-01	(2.83 $\pm$ 0.31)E-01
	Bream	1	(1.61 $\pm$ 0.52)E-01		
	Catfish	3	(2.99 $\pm$ 0.43)E-01	(2.38 $\pm$ 0.26)E-01	(2.69 $\pm$ 0.30)E-01
Par Pond	Bass	2	(1.03 $\pm$ 0.02)E+01	(6.89 $\pm$ 0.06)E+00	(8.60 $\pm$ 2.41)E+00
	Crappie	2	(1.12 $\pm$ 0.02)E+01	(9.20 $\pm$ 0.14)E+00	(1.02 $\pm$ 0.14)E+01
Pond B	Bass	2	(1.07 $\pm$ 0.00)E+02	(1.02 $\pm$ 0.00)E+02	(1.04 $\pm$ 0.03)E+02
	Bream	3	(5.04 $\pm$ 0.03)E+01	(2.32 $\pm$ 0.03)E+01	(3.50 $\pm$ 1.40)E+01
Steel Creek at Road A	Bass	3	(3.27 $\pm$ 0.09)E+00	(2.22 $\pm$ 0.05)E+00	(2.80 $\pm$ 0.53)E+00
	Bream	2	(5.29 $\pm$ 0.45)E-01	(3.40 $\pm$ 0.45)E-01	(4.34 $\pm$ 1.34)E-01
	Catfish	1	(1.63 $\pm$ 0.06)E+00		
	Crappie	1	(7.83 $\pm$ 0.50)E-01		
Off-Site (Nonedible)					
Control					
Edisto River	Bass	2	(1.26 $\pm$ 0.31)E-01	(1.19 $\pm$ 0.22)E-01	(1.23 $\pm$ 0.05)E-01

Table 40
Radioactivity in Fish

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Location	Species	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Savannah River					
River above Site					
Augusta Lock and Dam	Bass	2	(1.08 $\pm$ 0.20)E-01	(5.10 $\pm$ 1.94)E-02	(7.96 $\pm$ 4.06)E-02
River Adjacent to Site					
Beaver Dam Creek River Mouth	Bream	1	(9.76 $\pm$ 3.42)E-02		
	Catfish	1	(6.38 $\pm$ 1.98)E-02		
Four Mile Creek River Mouth	Bass	1	(2.08 $\pm$ 0.05)E+00		
L3R Creek River Mouth	Bream	1	(4.61 $\pm$ 0.39)E-01		
	Catfish	1	(2.84 $\pm$ 0.23)E-01		
Steel Creek River Mouth	Bream	2	(2.28 $\pm$ 0.37)E-01	(7.76 $\pm$ 1.61)E-02	(1.53 $\pm$ 1.07)E-01
	Catfish	3	(2.44 $\pm$ 0.25)E-01	(7.73 $\pm$ 1.82)E-02	(1.52 $\pm$ 0.85)E-01
U3R Creek River Mouth	Bass	2	(1.44 $\pm$ 0.17)E-01	(6.97 $\pm$ 2.40)E-02	(1.07 $\pm$ 0.53)E-01
	Catfish	3	(1.46 $\pm$ 0.21)E-01	(4.95 $\pm$ 2.03)E-02	(8.26 $\pm$ 5.53)E-02
	Sunfish	1	(8.36 $\pm$ 3.62)E-02		
River below Site					
Hwy 301 Bridge Area	Bass	2	(3.25 $\pm$ 1.02)E-02	(3.13 $\pm$ 0.58)E-02	(3.19 $\pm$ 0.09)E-02
	Bream	2	(2.62 $\pm$ 0.83)E-02	(1.54 $\pm$ 0.61)E-02	(2.08 $\pm$ 0.76)E-02
	Catfish	2	(3.41 $\pm$ 0.57)E-02	(8.17 $\pm$ 3.53)E-03	(2.12 $\pm$ 1.84)E-02
Pu-238 in Fish (pCi/g)					
Off-site (Edible)					
Control					
Edisto River	Bass	2	(1.13 $\pm$ 0.46)E-05	(-1.86 $\pm$ 2.35)E-05	(-0.37 $\pm$ 2.12)E-05
Savannah River					
River above Site					
Augusta Lock and Dam	Bass	2	(1.78 $\pm$ 2.18)E-05	(4.53 $\pm$ 7.86)E-06	(1.11 $\pm$ 0.94)E-05
	Bream	1	(1.28 $\pm$ 1.28)E-05		

Table 40
Radioactivity in Fish

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Location	Species	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
River Adjacent to Site					
Beaver Dam Creek River Mouth	Bream	1	(3.81 $\pm$ 1.71)E-05		
	Catfish	2	(0.74 $\pm$ 1.66)E-05	(3.97 $\pm$ 3.97)E-06	(5.70 $\pm$ 2.45)E-06
Four Mile Creek River Mouth	Bass	1	(-1.30 $\pm$ 1.30)E-05		
L3R Creek River Mouth	Bream	1	(-5.58 $\pm$ 5.59)E-06		
	Catfish	1	(0.88 $\pm$ 1.25)E-05		
Steel Creek River Mouth	Bream	1	(-1.82 $\pm$ 3.06)E-05		
U3R Creek River Mouth	Bass	1	(3.92 $\pm$ 3.92)E-06		
	Bream	1	(2.86 $\pm$ 2.86)E-06		
	Catfish	2	(9.91 $\pm$ 9.91)E-06	(3.78 $\pm$ 3.78)E-06	(6.84 $\pm$ 4.33)E-06
River below Site					
Hwy 301 Bridge Area	Bass	2	(1.30 $\pm$ 0.65)E-05	(4.51 $\pm$ 3.19)E-06	(8.76 $\pm$ 6.00)E-06
	Bream	3	(3.08 $\pm$ 1.26)E-05	(-1.51 $\pm$ 3.75)E-05	(1.05 $\pm$ 2.34)E-05
	Catfish	2	(8.64 $\pm$ 4.99)E-06	(2.20 $\pm$ 2.20)E-06	(5.42 $\pm$ 4.56)E-06
Stokes Bluff Landing					
Pu-239 in Fish (pCi/g)					
Off-site (Edible)					
Control					
Edisto River	Bass	2	(1.33 $\pm$ 0.77)E-05	(5.65 $\pm$ 3.26)E-06	(9.48 $\pm$ 5.42)E-06
Savannah River					
River above Site					
Augusta Lock and Dam	Bass	2	(3.17 $\pm$ 1.20)E-05	(0.89 $\pm$ 2.66)E-05	(2.03 $\pm$ 1.61)E-05
	Bream	2	(4.15 $\pm$ 1.47)E-05	(-4.08 $\pm$ 6.86)E-05	(0.04 $\pm$ 5.82)E-05
River Adjacent to Site					
Beaver Dam Creek River Mouth	Bream	2	(1.62 $\pm$ 0.81)E-05	(7.61 $\pm$ 7.62)E-06	(1.19 $\pm$ 0.61)E-05

Table 40
Radioactivity in Fish

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Location	Species	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Four Mile Creek River Mouth	Catfish	2	(1.98 $\pm$ 3.43)E-06	(0.00 $\pm$ 1.81)E-05	(0.99 $\pm$ 1.40)E-06
	Bass	1	(-1.05 $\pm$ 1.32)E-05		
	Bream	1	(-1.11 $\pm$ 1.36)E-05		
Steel Creek River Mouth	Catfish	1	(8.79 $\pm$ 8.80)E-06		
	Bream	2	(-0.53 $\pm$ 2.47)E-05	(-2.94 $\pm$ 2.94)E-05	(-1.74 $\pm$ 1.70)E-05
	Bass	1	(-5.85 $\pm$ 5.16)E-06		
U3R Creek River Mouth	Bream	1			(-0.06 $\pm$ 1.61)E-05
	Catfish	2	(7.53 $\pm$ 5.33)E-06	(-0.19 $\pm$ 5.58)E-05	(2.79 $\pm$ 6.71)E-06
River below Site					
Hwy 301 Bridge Area	Bass	1	(-1.17 $\pm$ 1.17)E-05		
	Bream	2	(2.04 $\pm$ 1.02)E-05	(0.54 $\pm$ 3.92)E-05	(1.29 $\pm$ 1.06)E-05
	Catfish	2	(6.57 $\pm$ 3.80)E-06	(-2.87 $\pm$ 6.42)E-06	(1.85 $\pm$ 6.68)E-06
s Bluff Landing					
Gross Beta (pCi/g)					
Off-site (Edible)					
Control					
Edisto River	Bass	3	(3.89 $\pm$ 1.42)E+00	(2.22 $\pm$ 0.98)E+00	(3.13 $\pm$ 0.84)E+00
Savannah River					
River above Site					
Augusta Lock and Dam	Bass	3	(4.07 $\pm$ 1.31)E+00	(2.21 $\pm$ 1.21)E+00	(2.99 $\pm$ 0.97)E+00
	Bream	3	(4.97 $\pm$ 1.20)E+00	(3.31 $\pm$ 1.11)E+00	(4.34 $\pm$ 0.90)E+00
River Adjacent to Site					
Beaver Dam Creek River Mouth	Bream	2	(4.05 $\pm$ 1.08)E+00	(3.73 $\pm$ 1.07)E+00	(3.89 $\pm$ 0.23)E+00
	Catfish	3	(4.48 $\pm$ 1.33)E+00	(2.46 $\pm$ 1.00)E+00	(3.49 $\pm$ 1.01)E+00
Four Mile Creek River Mouth	Bass	1	(6.95 $\pm$ 1.46)E+00		
L3R Creek River Mouth	Bream	1	(3.89 $\pm$ 1.11)E+00		

Table 40
Radioactivity in Fish

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Location	Species	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Steel Creek River Mouth	Catfish	1	(3.78 $\pm$ 1.23)E+00		
	Bream	1	(3.22 $\pm$ 1.16)E+00		
	Catfish	3	(4.45 $\pm$ 1.24)E+00	(2.54 $\pm$ 0.98)E+00	(3.67 $\pm$ 1.00)E+00
U3R Creek River Mouth	Bass	2	(3.55 $\pm$ 1.14)E+00	(2.11 $\pm$ 0.96)E+00	(2.83 $\pm$ 1.02)E+00
	Bream	3	(4.89 $\pm$ 1.37)E+00	(1.76 $\pm$ 0.71)E+00	(3.12 $\pm$ 1.60)E+00
	Catfish	3	(3.96 $\pm$ 1.15)E+00	(3.54 $\pm$ 1.28)E+00	(3.72 $\pm$ 0.22)E+00
River below Site					
Hwy 301 Bridge Area	Bass	2	(3.14 $\pm$ 1.01)E+00	(3.08 $\pm$ 1.01)E+00	(3.11 $\pm$ 0.04)E+00
	Bream	3	(2.54 $\pm$ 0.98)E+00	(2.11 $\pm$ 0.97)E+00	(2.28 $\pm$ 0.23)E+00
	Catfish	2	(4.16 $\pm$ 1.07)E+00	(3.14 $\pm$ 1.01)E+00	(3.65 $\pm$ 0.73)E+00
Stokes Bluff Landing	Bass	3	(5.93 $\pm$ 1.40)E+00	(4.32 $\pm$ 1.17)E+00	(5.04 $\pm$ 0.82)E+00
	Bream	3	(3.84 $\pm$ 1.14)E+00	(2.96 $\pm$ 1.25)E+00	(3.40 $\pm$ 0.44)E+00
Hwy 17A Bridge Area	Bass	3	(3.89 $\pm$ 1.05)E+00	(3.30 $\pm$ 1.03)E+00	(3.62 $\pm$ 0.30)E+00
	Bream	3	(3.86 $\pm$ 1.06)E+00	(2.99 $\pm$ 1.26)E+00	(3.47 $\pm$ 0.44)E+00
	Catfish	3	(4.81 $\pm$ 1.09)E+00	(1.84 $\pm$ 0.95)E+00	(3.17 $\pm$ 1.51)E+00
	Mullet	3	(4.43 $\pm$ 1.08)E+00	(2.54 $\pm$ 1.00)E+00	(3.39 $\pm$ 0.96)E+00
On-site (Edible)					
Beaver Dam Creek	Bream	3	(3.46 $\pm$ 1.04)E+00	(2.97 $\pm$ 1.15)E+00	(3.24 $\pm$ 0.25)E+00
	Catfish	1	(5.56 $\pm$ 1.39)E+00		
FMC-6 at Road A-12.2	Bass	3	(1.20 $\pm$ 0.15)E+01	(1.14 $\pm$ 0.15)E+01	(1.17 $\pm$ 0.03)E+01
	Bream	1	(7.58 $\pm$ 1.37)E+00		
L-Lake	Bass	3	(1.18 $\pm$ 0.15)E+01	(4.99 $\pm$ 1.25)E+00	(9.15 $\pm$ 3.66)E+00
	Bream	3	(5.41 $\pm$ 1.13)E+00	(3.47 $\pm$ 1.18)E+00	(4.56 $\pm$ 0.99)E+00
	Catfish	1	(7.64 $\pm$ 1.47)E+00		
L3R-2 at Patterson Mill Road	Bass	3	(1.58 $\pm$ 0.17)E+01	(1.03 $\pm$ 0.13)E+01	(1.35 $\pm$ 0.29)E+01
	Bream	3	(5.24 $\pm$ 1.12)E+00	(3.24 $\pm$ 1.03)E+00	(4.54 $\pm$ 1.12)E+00
	Catfish	3	(1.10 $\pm$ 0.16)E+01	(7.61 $\pm$ 1.25)E+00	(8.94 $\pm$ 1.83)E+00

Table 40
Radioactivity in Fish

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Location	Species	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
PB-3 at Road A-13.2	Bass	4	(6.32 $\pm$ 1.42)E+00	(4.21 $\pm$ 1.09)E+00	(4.76 $\pm$ 1.04)E+00
	Bream	1	(3.62 $\pm$ 1.09)E+00		
	Catfish	3	(4.86 $\pm$ 1.11)E+00	(4.00 $\pm$ 1.07)E+00	(4.38 $\pm$ 0.44)E+00
Par Pond	Bass	2	(1.26 $\pm$ 0.16)E+01	(1.23 $\pm$ 0.15)E+01	(1.25 $\pm$ 0.02)E+01
	Crappie	2	(1.46 $\pm$ 0.15)E+01	(1.14 $\pm$ 0.15)E+01	(1.30 $\pm$ 0.23)E+01
Pond B	Bass	2	(1.60 $\pm$ 0.05)E+02	(1.07 $\pm$ 0.04)E+02	(1.34 $\pm$ 0.37)E+02
	Bream	3	(5.05 $\pm$ 0.27)E+01	(2.70 $\pm$ 0.18)E+01	(4.17 $\pm$ 1.28)E+01
Steel Creek at Road A	Bass	3	(1.07 $\pm$ 0.15)E+01	(5.95 $\pm$ 1.15)E+00	(7.88 $\pm$ 2.53)E+00
	Bream	2	(4.61 $\pm$ 1.23)E+00	(4.59 $\pm$ 1.34)E+00	(4.60 $\pm$ 0.02)E+00
	Catfish	1	(4.79 $\pm$ 1.34)E+00		
	Crappie	1	(6.95 $\pm$ 1.34)E+00		
Off-Site (Nonedible)					
Control					
Edisto River	Bass	2	(3.61 $\pm$ 1.30)E+00	(2.08 $\pm$ 1.22)E+00	(2.85 $\pm$ 1.08)E+00
Savannah River					
River above Site					
Augusta Lock and Dam	Bass	3	(4.07 $\pm$ 1.40)E+00	(2.97 $\pm$ 1.08)E+00	(3.40 $\pm$ 0.58)E+00
	Bream	3	(5.50 $\pm$ 1.30)E+00	(4.26 $\pm$ 1.21)E+00	(4.97 $\pm$ 0.64)E+00
River Adjacent to Site					
Beaver Dam Creek River Mouth	Bream	2	(4.22 $\pm$ 1.16)E+00	(2.54 $\pm$ 1.03)E+00	(3.38 $\pm$ 1.18)E+00
	Catfish	3	(3.20 $\pm$ 1.28)E+00	(2.14 $\pm$ 1.21)E+00	(2.66 $\pm$ 0.53)E+00
Four Mile Creek River Mouth	Bass	1	(2.16 $\pm$ 0.18)E+01		
L3R Creek River Mouth	Bream	1	(2.43 $\pm$ 1.07)E+00		
	Catfish	1	(2.40 $\pm$ 1.03)E+00		
Steel Creek River Mouth	Bream	2	(6.18 $\pm$ 1.44)E+00	(5.49 $\pm$ 1.49)E+00	(5.84 $\pm$ 0.49)E+00
	Catfish	3	(4.08 $\pm$ 1.35)E+00	(3.03 $\pm$ 1.03)E+00	(3.61 $\pm$ 0.54)E+00
U3R Creek River Mouth	Bass	2	(4.69 $\pm$ 1.24)E+00	(3.54 $\pm$ 1.34)E+00	(4.11 $\pm$ 0.81)E+00

Table 40
Radioactivity in Fish

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Location	Species	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
	Bream	2	(4.02 $\pm$ 1.28)E+00	(1.86 $\pm$ 1.07)E+00	(2.94 $\pm$ 1.53)E+00
	Catfish	3	(2.96 $\pm$ 1.29)E+00	(1.76 $\pm$ 0.98)E+00	(2.52 $\pm$ 0.67)E+00
	Sunfish	1	(6.18 $\pm$ 1.42)E+00		
River below Site					
Hwy 301 Bridge Area	Bass	2	(3.51 $\pm$ 1.07)E+00	(3.14 $\pm$ 1.08)E+00	(3.32 $\pm$ 0.27)E+00
	Bream	2	(2.11 $\pm$ 1.00)E+00	(2.00 $\pm$ 1.01)E+00	(2.05 $\pm$ 0.08)E+00
	Catfish	2	(3.19 $\pm$ 1.03)E+00	(2.05 $\pm$ 0.98)E+00	(2.62 $\pm$ 0.80)E+00
	Crappie	1	(2.96 $\pm$ 1.29)E+00		
Gross Alpha (pCi/g)					
Off-site (Edible)					
Control					
Edisto River	Bass	3	(0.39 $\pm$ 1.01)E+00	(-2.28 $\pm$ 2.11)E-01	(0.28 $\pm$ 3.22)E-01
Savannah River					
River above Site					
Augusta Lock and Dam	Bass	3	(-0.69 $\pm$ 3.45)E-01	(-3.17 $\pm$ 2.67)E-01	(-1.56 $\pm$ 1.39)E-01
	Bream	3	(-0.65 $\pm$ 2.90)E-01	(-0.77 $\pm$ 3.18)E-01	(-7.10 $\pm$ 0.59)E-02
River Adjacent to Site					
Beaver Dam Creek River Mouth	Bream	2	(-0.70 $\pm$ 3.15)E-01	(-0.70 $\pm$ 3.06)E-01	(-7.03 $\pm$ 0.00)E-02
	Catfish	3	(1.67 $\pm$ 4.34)E-01	(-2.28 $\pm$ 2.11)E-01	(-0.48 $\pm$ 2.00)E-01
Four Mile Creek River Mouth	Bass	1	(-0.90 $\pm$ 3.54)E-01		
L3R Creek River Mouth	Bream	1	(-3.62 $\pm$ 2.96)E-01		
	Catfish	1	(1.82 $\pm$ 4.02)E-01		
Steel Creek River Mouth	Bream	1	(1.61 $\pm$ 4.19)E-01		
	Catfish	3	(1.67 $\pm$ 4.63)E-01	(-3.59 $\pm$ 2.97)E-01	(-0.84 $\pm$ 2.64)E-01
U3R Creek River Mouth	Bass	2	(-0.36 $\pm$ 2.81)E-01	(-0.71 $\pm$ 3.29)E-01	(-5.36 $\pm$ 2.45)E-02
	Bream	3	(0.46 $\pm$ 1.24)E+00	(-3.03 $\pm$ 2.55)E-01	(-0.11 $\pm$ 4.10)E-01

Table 40
Radioactivity in Fish

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Location	Species	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
River below Site	Catfish	3	(1.72 $\pm$ 4.52)E-01	(-3.13 $\pm$ 2.60)E-01	(0.01 $\pm$ 2.72)E-01
	Bass	2	(1.19 $\pm$ 3.20)E-01	(-2.43 $\pm$ 2.02)E-01	(-0.62 $\pm$ 2.56)E-01
	Bream	3	(-0.76 $\pm$ 3.84)E-01	(-2.38 $\pm$ 1.95)E-01	(-1.84 $\pm$ 0.94)E-01
Stokes Bluff Landing	Catfish	2	(-0.59 $\pm$ 2.70)E-01	(-0.65 $\pm$ 2.65)E-01	(-6.22 $\pm$ 0.38)E-02
	Bass	3	(1.59 $\pm$ 4.47)E-01	(-2.65 $\pm$ 2.16)E-01	(-0.59 $\pm$ 2.12)E-01
	Bream	3	(3.55 $\pm$ 4.35)E-01	(-0.83 $\pm$ 3.71)E-01	(1.44 $\pm$ 2.19)E-01
Hwy 17A Bridge Area	Bass	3	(5.08 $\pm$ 4.32)E-01	(-2.54 $\pm$ 2.09)E-01	(0.02 $\pm$ 4.38)E-01
	Bream	3	(3.45 $\pm$ 3.92)E-01	(-3.13 $\pm$ 2.60)E-01	(-0.11 $\pm$ 3.32)E-01
	Catfish	3	(3.14 $\pm$ 3.82)E-01	(1.30 $\pm$ 3.33)E-01	(2.47 $\pm$ 1.02)E-01
	Mullet	3	(-0.59 $\pm$ 2.81)E-01	(-2.54 $\pm$ 2.09)E-01	(-1.26 $\pm$ 1.11)E-01
On-site (Edible)					
Beaver Dam Creek	Bream	3	(-0.69 $\pm$ 3.09)E-01	(-2.78 $\pm$ 2.36)E-01	(-1.97 $\pm$ 1.12)E-01
	Catfish	1	(-0.83 $\pm$ 3.61)E-01		
FMC-6 at Road A-12.2	Bass	3	(1.14 $\pm$ 3.79)E-01	(-3.54 $\pm$ 2.69)E-01	(-1.12 $\pm$ 2.34)E-01
	Bream	1	(-0.82 $\pm$ 3.16)E-01		
L-Lake	Bass	3	(3.02 $\pm$ 4.10)E-01	(-2.84 $\pm$ 2.28)E-01	(0.45 $\pm$ 3.00)E-01
	Bream	3	(1.14 $\pm$ 3.33)E-01	(-0.76 $\pm$ 3.16)E-01	(-0.11 $\pm$ 1.08)E-01
	Catfish	1	(-3.27 $\pm$ 2.60)E-01		
L3R-2 at Patterson Mill Road	Bass	3	(1.01 $\pm$ 3.79)E-01	(-2.76 $\pm$ 2.09)E-01	(-0.94 $\pm$ 1.89)E-01
	Bream	3	(-0.59 $\pm$ 2.70)E-01	(-2.59 $\pm$ 2.09)E-01	(-1.28 $\pm$ 1.14)E-01
	Catfish	3	(1.52 $\pm$ 3.41)E-01	(-3.86 $\pm$ 3.01)E-01	(-0.92 $\pm$ 2.72)E-01
PB-3 at Road A-13.2	Bass	4	(1.58 $\pm$ 3.51)E-01	(-2.84 $\pm$ 2.28)E-01	(-0.73 $\pm$ 1.81)E-01
	Bream	1	(-3.89 $\pm$ 3.20)E-01		
	Catfish	3	(1.39 $\pm$ 3.79)E-01	(-2.59 $\pm$ 2.09)E-01	(0.01 $\pm$ 2.26)E-01
Par Pond	Bass	2	(2.05 $\pm$ 4.79)E-01	(-1.07 $\pm$ 3.40)E-01	(0.49 $\pm$ 2.21)E-01
	Crappie	2	(-0.95 $\pm$ 3.09)E-01	(-2.52 $\pm$ 2.19)E-01	(-1.73 $\pm$ 1.11)E-01
Pond B	Bass	2	(-4.23 $\pm$ 3.09)E-01	(-9.73 $\pm$ 2.95)E-01	(-6.98 $\pm$ 3.89)E-01

Table 40
Radioactivity in Fish

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Location	Species	No. of Samples	Max±σ	Min±σ	Arithmetic Mean±σ
Steel Creek at Road A	Bream	3	(-2.27±1.99)E-01	(-4.42±2.28)E-01	(-3.34±1.08)E-01
	Bass	3	(-2.54±2.02)E-01	(-3.03±2.28)E-01	(-2.83±0.25)E-01
	Bream	2	(7.58±5.25)E-01	(-3.13±2.60)E-01	(2.23±7.57)E-01
	Catfish	1	(6.11±5.25)E-01		
	Crappie	1	(1.26±3.74)E-01		
Off-Site (Nonedible)					
Control					
Edisto River	Bass	2	(1.88±4.76)E-01	(-0.83±3.93)E-01	(0.52±1.92)E-01
Savannah River					
River above Site					
Augusta Lock and Dam	Bass	3	(9.19±7.64)E-01	(-1.38±6.24)E-01	(2.33±5.95)E-01
	Bream	3	(2.01±5.45)E-01	(-5.44±4.43)E-01	(-2.80±4.17)E-01
River Adjacent to Site					
Beaver Dam Creek River Mouth	Bream	2	(-3.08±2.59)E-01	(-5.95±4.71)E-01	(-4.51±2.03)E-01
	Catfish	3	(4.05±4.89)E-01	(0.83±4.02)E-01	(1.68±2.44)E-01
Four Mile Creek River Mouth	Bass	1	(-0.88±4.46)E-01		
L3R Creek River Mouth	Bream	1	(-5.03±4.19)E-01		
	Catfish	1	(1.99±4.42)E-01		
Steel Creek River Mouth	Bream	2	(7.64±9.58)E-01	(-0.32±1.31)E+00	(2.24±7.63)E-01
	Catfish	3	(-2.81±2.29)E-01	(-5.69±4.71)E-01	(-4.07±1.47)E-01
U3R Creek River Mouth	Bass	2	(-1.04±4.81)E-01	(-1.23±5.30)E-01	(-1.14±0.13)E-01
	Bream	2	(-1.48±6.77)E-01	(-2.78±2.40)E-01	(-2.13±0.92)E-01
	Catfish	3	(5.38±6.54)E-01	(-0.47±3.65)E-01	(2.94±3.04)E-01
	Sunfish	1	(-0.27±1.11)E+00		
River below Site					
Hwy 301 Bridge Area	Bass	2	(-0.76±3.46)E-01	(-3.78±3.15)E-01	(-2.27±2.14)E-01
	Bream	2	(4.54±5.41)E-01	(-0.70±3.46)E-01	(1.92±3.71)E-01

Table 40
Radioactivity in Fish

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Location	Species	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
	Catfish	2	(-0.65 $\pm$ 3.15)E-01	(-2.59 $\pm$ 2.09)E-01	(-1.62 $\pm$ 1.38)E-01
	Crappie	1	(2.14 $\pm$ 5.56)E-01		

Table 41
Radioactivity in Milk

Page 1 of 1

Location	No. of Samples	Max $\pm\sigma$	Min $\pm\sigma$	Arithmetic Mean $\pm\sigma$
Tritium ($\mu\text{Ci/mL}$)				
Denmark, S.C.	23	(8.04 $\pm$ 1.52)E-07	(-1.31 $\pm$ 1.51)E-07	(3.02 $\pm$ 2.95)E-07
Girard, Ga.	23	(9.55 $\pm$ 1.53)E-07	(-2.36 $\pm$ 1.49)E-07	(3.21 $\pm$ 3.80)E-07
Gracewood, Ga.	21	(9.23 $\pm$ 1.50)E-07	(-0.86 $\pm$ 1.51)E-07	(3.29 $\pm$ 3.15)E-07
Jackson, S.C.	24	(1.55 $\pm$ 0.15)E-06	(4.11 $\pm$ 3.75)E-08	(8.09 $\pm$ 3.66)E-07
Waynesboro, Ga.	25	(9.49 $\pm$ 1.53)E-07	(-1.39 $\pm$ 1.51)E-07	(3.24 $\pm$ 3.05)E-07
Williston, S.C.	9	(9.50 $\pm$ 1.47)E-07	(1.61 $\pm$ 1.47)E-07	(5.65 $\pm$ 2.43)E-07
Major Distributor	25	(9.37 $\pm$ 1.47)E-07	(-3.12 $\pm$ 1.47)E-08	(2.27 $\pm$ 3.28)E-07
Sr-90 ($\mu\text{Ci/mL}$)				
Denmark, S.C.	3	(4.69 $\pm$ 3.99)E-09	(0.15 $\pm$ 1.15)E-09	(1.66 $\pm$ 2.62)E-09
Girard, Ga.	3	(1.38 $\pm$ 1.14)E-09	(-0.46 $\pm$ 1.42)E-09	(2.76 $\pm$ 9.73)E-10
Gracewood, Ga.	3	(1.59 $\pm$ 2.09)E-09	(-2.36 $\pm$ 1.24)E-09	(0.07 $\pm$ 2.13)E-09
Jackson, S.C.	3	(0.48 $\pm$ 1.39)E-09	(-1.33 $\pm$ 1.17)E-09	(-2.82 $\pm$ 9.39)E-10
Waynesboro, Ga.	3	(1.56 $\pm$ 1.84)E-09	(-0.24 $\pm$ 1.17)E-09	(9.54 $\pm$ 9.60)E-10
Williston, S.C.	1			(-0.28 $\pm$ 1.32)E-09
Major Distributor	3	(1.44 $\pm$ 1.48)E-09	(-0.50 $\pm$ 1.16)E-09	(0.30 $\pm$ 1.01)E-09
Cs-137 ($\mu\text{Ci/mL}$) The lower limit of detection for Cs-137 is 3.00E-09 $\mu\text{Ci/mL}$.				
Denmark, S.C.	11/23	(6.22 $\pm$ 1.18)E-09	(3.13 $\pm$ 1.24)E-09	(4.30 $\pm$ 1.02)E-09
Girard, Ga.	8/23	(4.33 $\pm$ 1.67)E-09	(1.73 $\pm$ 0.57)E-09	(3.08 $\pm$ 0.94)E-09
Gracewood, Ga.	5/21	(4.59 $\pm$ 1.58)E-09	(1.70 $\pm$ 0.59)E-09	(2.76 $\pm$ 1.16)E-09
Jackson, S.C.	7/24	(3.79 $\pm$ 1.43)E-09	(1.73 $\pm$ 1.30)E-09	(2.64 $\pm$ 0.76)E-09
Waynesboro, Ga.	6/25	(6.49 $\pm$ 1.46)E-09	(2.41 $\pm$ 0.60)E-09	(3.88 $\pm$ 1.54)E-09
Williston, S.C.	7/9	(6.49 $\pm$ 0.62)E-09	(1.73 $\pm$ 0.53)E-09	(4.66 $\pm$ 1.94)E-09
Major Distributor	3/25	(3.77 $\pm$ 0.59)E-09	(2.33 $\pm$ 0.60)E-09	(3.20 $\pm$ 0.77)E-09
I-131^a ($\mu\text{Ci/mL}$) The lower limit of detection for I-131 is 3.00E-09 $\mu\text{Ci/mL}$.				
Denmark, S.C.	0/23			
Girard, Ga.	0/23			
Gracewood, Ga.	0/21			
Jackson, S.C.	0/24			
Waynesboro, Ga.	0/25			
Williston, S.C.	0/9			
Major Distributor	0/25			

^a The gamma analysis package currently used by Environmental Monitoring does not force an activity determination if a threshold setting is not met. For these reported radionuclides, "No. of Samples" is displayed as "number with activities quantified / number of samples counted"; only the number quantified are used in the max, min, and mean generation.

Table 42
Radioactivity in Food

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Location	Sr-90 ^a (pCi/g $\pm\sigma$)	Tritium ^b (pCi/g $\pm\sigma$)	Cs-137 ^{a,c} (pCi/g $\pm\sigma$)
Collards (15 locations)			
FS-1	(1.42 $\pm$ 0.30)E-01	(4.54 $\pm$ 1.14)E-02	LLD
FS-2	(8.98 $\pm$ 2.90)E-02	(2.79 $\pm$ 0.99)E-02	LLD
FS-3	(3.57 $\pm$ 0.40)E-01	(3.08 $\pm$ 0.62)E-02	(3.44 $\pm$ 0.99)E-02
FS-4	(1.61 $\pm$ 5.10)E-02	(3.29 $\pm$ 0.18)E-01	LLD
FS-5	(4.30 $\pm$ 2.65)E-02	(9.28 $\pm$ 0.02)E-02	LLD
FS-6	(1.48 $\pm$ 5.12)E-02	(3.56 $\pm$ 1.49)E-02	LLD
FS-7	(8.38 $\pm$ 2.86)E-02	(4.09 $\pm$ 7.10)E-03	LLD
FS-8	(1.51 $\pm$ 0.32)E-01	(2.10 $\pm$ 1.81)E-02	LLD
FS-9	(8.12 $\pm$ 3.69)E-02	(3.83 $\pm$ 1.10)E-02	LLD
FS-10	(1.22 $\pm$ 0.31)E-01	(2.12 $\pm$ 0.62)E-02	LLD
FS-11	(9.28 $\pm$ 2.91)E-02	(4.40 $\pm$ 1.15)E-02	LLD
FS-12	(2.37 $\pm$ 4.86)E-02	(2.20 $\pm$ 1.10)E-02	LLD
FS-13	(6.09 $\pm$ 8.41)E-02	(4.41 $\pm$ 1.36)E-02	LLD
FS-14	(3.44 $\pm$ 5.39)E-02	(1.11 $\pm$ 0.95)E-02	(2.38 $\pm$ 0.81)E-02
FS-15 control	e	(2.87 $\pm$ 1.28)E-02	e
	U/Pu^a (pCi/g$\pm\sigma$)	Pu-239^a (pCi/g$\pm\sigma$)	Pu-238^a (pCi/g$\pm\sigma$)
FS-1	(8.48 $\pm$ 5.53)E-03	d	d
FS-2	(-0.39 $\pm$ 3.27)E-03	d	d
FS-3	(4.07 $\pm$ 4.56)E-03	d	d
FS-4	(-0.74 $\pm$ 4.06)E-03	(-0.88 $\pm$ 1.97)E-05	(-1.76 $\pm$ 2.16)E-05
FS-5	(-2.61 $\pm$ 2.39)E-03	d	d
FS-6	(-0.73 $\pm$ 4.04)E-03	d	d
FS-7	(1.83 $\pm$ 3.94)E-03	d	d
FS-8	(-0.40 $\pm$ 3.27)E-03	(4.14 $\pm$ 2.20)E-05	(0.00 $\pm$ 1.66)E-05
FS-9	(4.06 $\pm$ 4.54)E-03	d	d
FS-10	(4.04 $\pm$ 4.52)E-03	(1.18 $\pm$ 1.18)E-05	(9.48 $\pm$ 2.66)E-05
FS-11	(-0.39 $\pm$ 3.29)E-03	d	d
FS-12	(-3.45 $\pm$ 2.97)E-03	d	d
FS-13	(-3.50 $\pm$ 2.97)E-03	d	d
FS-14	(-0.76 $\pm$ 4.02)E-03	(4.05 $\pm$ 5.33)E-06	(1.19 $\pm$ 0.20)E-04
FS-15 control	e	e	e

a dry weight

b wet weight

c LLD denotes activity was below the lower limit of detection. The lower limit of detection for Cs-137 is 7.00E-03 pCi/g.

d No samples analyzed.

e Sample destroyed before preparation.

Table 42
Radioactivity in Food

Page 2 of 5

Location	Sr-90 ^a (pCi/g $\pm\sigma$)	Tritium ^b (pCi/g $\pm\sigma$)	Cs-137 ^{a,c} (pCi/g $\pm\sigma$)
Corn (14 locations)			
FS-1	(-1.60 $\pm$ 2.50)E-02	d	LLD
FS-2	(1.36 $\pm$ 3.67)E-02	(5.68 $\pm$ 2.69)E-02	LLD
FS-3	(6.87 $\pm$ 3.40)E-02	d	(1.20 $\pm$ 0.36)E-02
FS-4	(-1.96 $\pm$ 2.39)E-02	d	LLD
FS-5	(-0.28 $\pm$ 3.45)E-02	d	LLD
FS-6	(-1.29 $\pm$ 3.08)E-02	d	(1.47 $\pm$ 0.45)E-02
FS-7	(-0.15 $\pm$ 2.54)E-02	(4.07 $\pm$ 2.68)E-02	(1.17 $\pm$ 0.39)E-02
FS-8	(-0.09 $\pm$ 2.45)E-02	d	LLD
FS-9	(0.40 $\pm$ 2.52)E-02	d	LLD
FS-10	(-2.58 $\pm$ 2.80)E-02	d	LLD
FS-11	(3.80 $\pm$ 2.86)E-02	d	(1.17 $\pm$ 0.40)E-02
FS-12	(-0.09 $\pm$ 2.73)E-02	d	(4.08 $\pm$ 0.54)E-02
FS-13	(0.38 $\pm$ 3.30)E-02	d	(1.22 $\pm$ 0.46)E-02
FS-14	(-1.12 $\pm$ 2.55)E-02	d	LLD
	U/Pu ^a (pCi/g $\pm\sigma$)	Pu-239 ^a (pCi/g $\pm\sigma$)	Pu-238 ^a (pCi/g $\pm\sigma$)
FS-1	(1.43 $\pm$ 3.09)E-03	d	d
FS-2	(4.91 $\pm$ 3.94)E-03	d	d
FS-3	(3.17 $\pm$ 3.54)E-03	d	d
FS-4	(-2.04 $\pm$ 1.87)E-03	(1.96 $\pm$ 0.98)E-05	(1.47 $\pm$ 0.85)E-05
FS-5	(-2.05 $\pm$ 1.87)E-03	d	d
FS-6	(-2.04 $\pm$ 1.87)E-03	d	d
FS-7	(-0.31 $\pm$ 2.55)E-03	d	d
FS-8	(-2.04 $\pm$ 1.87)E-03	(7.59 $\pm$ 7.59)E-06	(1.52 $\pm$ 1.08)E-05
FS-9	(-2.65 $\pm$ 2.29)E-03	d	d
FS-10	(-0.59 $\pm$ 3.10)E-03	(4.54 $\pm$ 1.72)E-05	(6.50 $\pm$ 6.51)E-06
FS-11	(3.57 $\pm$ 4.27)E-03	(-1.31 $\pm$ 3.27)E-05	(1.19 $\pm$ 0.84)E-05
FS-12	(-0.51 $\pm$ 3.10)E-03	d	d
FS-13	(-0.54 $\pm$ 3.10)E-03	d	d
FS-14	(-0.60 $\pm$ 3.10)E-03	d	d

a dry weight

b wet weight

c LLD denotes activity was below the lower limit of detection. The lower limit of detection for Cs-137 is 7.00E-03 pCi/g.

d No samples analyzed.

Table 42
Radioactivity in Food

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Location	Sr-90 ^a (pCi/g $\pm\sigma$)	Tritium ^b (pCi/g $\pm\sigma$)	Cs-137 ^{a,c} (pCi/g $\pm\sigma$)
Grain (14 locations)			
FS-1	(1.52 $\pm$ 2.41)E-02	d	LLD
FS-2	(3.17 $\pm$ 2.28)E-02	(-2.23 $\pm$ 1.36)E-02	LLD
FS-3	(2.28 $\pm$ 2.20)E-02	d	LLD
FS-4	(5.06 $\pm$ 2.74)E-02	d	LLD
FS-5	(3.04 $\pm$ 2.69)E-02	d	LLD
FS-6	(0.42 $\pm$ 2.36)E-02	(-9.35 $\pm$ 8.33)E-03	LLD
FS-7	(1.26 $\pm$ 2.45)E-02	d	LLD
FS-8	(0.87 $\pm$ 2.37)E-02	d	LLD
FS-9	(1.28 $\pm$ 2.37)E-02	d	LLD
FS-10	(0.21 $\pm$ 2.51)E-02	d	LLD
FS-11	(2.29 $\pm$ 2.42)E-02	d	LLD
FS-12	(1.35 $\pm$ 2.65)E-02	d	LLD
FS-13	(0.91 $\pm$ 2.62)E-02	d	(2.01 $\pm$ 0.37)E-02
FS-14	(-1.27 $\pm$ 2.38)E-02	d	LLD
	U/Pu^a (pCi/g$\pm\sigma$)	Pu-239^a (pCi/g$\pm\sigma$)	Pu-238^a (pCi/g$\pm\sigma$)
FS-1	(-3.00 $\pm$ 2.75)E-03	(-1.31 $\pm$ 1.31)E-04	(-1.32 $\pm$ 1.32)E-04
FS-2	(-2.27 $\pm$ 2.09)E-03	(1.91 $\pm$ 1.10)E-05	(1.28 $\pm$ 0.90)E-05
FS-3	(-3.00 $\pm$ 2.75)E-03	(8.18 $\pm$ 4.09)E-05	d
FS-4	(2.10 $\pm$ 4.53)E-03	d	d
FS-5	(-2.27 $\pm$ 2.09)E-03	(4.26 $\pm$ 4.26)E-06	(-0.95 $\pm$ 2.35)E-05
FS-6	(-0.34 $\pm$ 2.85)E-03	(3.00 $\pm$ 2.12)E-05	(-0.30 $\pm$ 8.54)E-05
FS-7	(-0.47 $\pm$ 3.75)E-03	d	d
FS-8	(-3.01 $\pm$ 2.75)E-03	(1.68 $\pm$ 0.67)E-04	(-4.95 $\pm$ 4.95)E-05
FS-9	(2.09 $\pm$ 4.53)E-03	d	d
FS-10	(-3.01 $\pm$ 2.75)E-03	d	d
FS-11	(-0.48 $\pm$ 3.75)E-03	d	d
FS-12	(4.64 $\pm$ 5.20)E-03	(-1.08 $\pm$ 2.68)E-05	(4.91 $\pm$ 4.91)E-06
FS-13	(2.09 $\pm$ 4.53)E-03	d	d
FS-14	(1.60 $\pm$ 3.44)E-03	(1.29 $\pm$ 0.91)E-05	(4.54 $\pm$ 1.72)E-05

a dry weight

b wet weight

c LLD denotes activity was below the lower limit of detection. The lower limit of detection for Cs-137 is 7.00E-03 pCi/g.

d No samples analyzed.

Table 42
Radioactivity in Food

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Location	Sr-90 ^a (pCi/g±σ)	Tritium ^b (pCi/g±σ)	Cs-137 ^{a,c} (pCi/g±σ)
Fruit (12 locations)			
FS-1	d	d	d
FS-2	d	d	d
FS-3	d	d	d
FS-4	d	d	d
FS-6	d	d	d
FS-7	d	d	d
FS-9	(-1.26±2.37)E-02	(2.41±0.93)E-02	LLD
FS-10	(-5.02±2.59)E-02	(7.75±2.01)E-02	LLD
FS-11	(-2.15±2.28)E-02	(-1.49±1.52)E-02	(7.87±1.86)E-03
FS-12	(0.27±2.45)E-02	(-0.39±1.05)E-02	LLD
FS-13	(-1.91 ±2.15)E-02	(-0.12±1.75)E-02	LLD
FS-14	(-0.90±2.40)E-02	(-2.51±2.60)E-02	LLD
	U/Pu ^a (pCi/g±σ)	Pu-239 ^a (pCi/g±σ)	Pu-238 ^a (pCi/g±σ)
FS-1	d	d	d
FS-2	d	d	d
FS-3	d	d	d
FS-4	d	d	d
FS-6	d	d	d
FS-7	d	d	d
FS-9	(-0.55±3.11)E-03	(-1.17±1.20)E-04	(3.18±2.25)E-05
FS-10	(3.61±4.30)E-03	e	e
FS-11	(-2.62±2.30)E-03	e	e
FS-12	(-0.55±3.11)E-03	(4.90±2.19)E-05	(9.83±9.84)E-06
FS-13	(1.55±3.75)E-03	(-4.72±4.82)E-05	(1.92±1.11)E-05
FS-14	(-0.57±3.11)E-03	e	(8.30±8.31)E-06

a dry weight

b wet weight

c LLD denotes activity was below the lower limit of detection. The lower limit of detection for Cs-137 is 7.00E-03 pCi/g.

d No samples collected in 1992.

e No samples analyzed

Table 42
Radioactivity in Food

Page 5 of 5

Location	Sr-90 ^a (pCi/g±σ)	Tritium ^b (pCi/g±σ)	Cs-137 ^{a,c} (pCi/g±σ)
Chicken (4 locations)			
FS-2	(-0.17±2.63)E-02	(1.73±0.25)E-01	LLD
FS-5	(2.18±3.09)E-02	(4.29±0.54)E-01	(8.12±4.81)E-03
FS-8	(1.19±2.91)E-02	(2.42±0.29)E-01	(5.09±0.91)E-02
FS-11	(-1.12±2.53)E-02	(1.61±0.29)E-01	LLD
	U/Pu^a (pCi/g±σ)	Pu-239^a (pCi/g±σ)	Pu-238^a (pCi/g±σ)
FS-2	(0.30±2.26)E-03	(1.68±1.19)E-05	(8.45±8.45)E-06
FS-5	(-2.57±2.20)E-03	(-0.87±1.23)E-04	(3.21±2.27)E-05
FS-8	(-0.51±2.08)E-03	(5.65±5.66)E-06	(5.70±5.70)E-06
FS-11	(-2.53±2.19)E-03	(-2.18±3.67)E-05	(3.43±1.54)E-05
Beef (4 locations)			
	Sr-90^a (pCi/g±σ)	Tritium^b (pCi/g±σ)	Cs-137^{a,c} (pCi/g±σ)
FS-7	(-0.19±1.85)E-02	(-2.21±1.29)E-02	LLD
FS-10	(-1.95±2.08)E-02	(0.35±1.72)E-02	LLD
FS-12	(-3.21±2.51)E-02	(-7.82±9.45)E-03	LLD
FS-14	(1.12±1.85)E-02	(0.46±1.29)E-02	LLD
	U/Pu^a (pCi/g±σ)	Pu-239^a (pCi/g±σ)	Pu-238^a (pCi/g±σ)
FS-7	(-2.40±2.20)E-03	(-1.62±2.04)E-05	d
FS-10	(-0.36±3.03)E-03	(1.01±0.27)E-04	(5.81±2.06)E-05
FS-12	(1.69±3.65)E-03	d	d
FS-14	(-0.36±3.04)E-03	(0.00±1.82)E-05	(0.00±1.50)E-05
Pork (4 locations)			
	Sr-90^a (pCi/g±σ)	Tritium^b (pCi/g±σ)	Cs-137^{a,c} (pCi/g±σ)
FS-5	(1.09±2.02)E-02	(1.65±0.15)E-01	LLD
FS-7	(-2.58±1.96)E-02	(3.06±3.50)E-02	LLD
FS-10	(-0.36±2.04)E-02	(-0.46±1.25)E-02	LLD
FS-14	(-0.39±2.16)E-02	(9.39±3.90)E-02	LLD
	U/Pu^a (pCi/g±σ)	Pu-239^a (pCi/g±σ)	Pu-238^a (pCi/g±σ)
FS-5	(1.69±3.64)E-03	d	d
FS-7	(-0.36±3.03)E-03	d	d
FS-10	(3.75±4.19)E-03	(1.06±1.06)E-05	(2.13±1.51)E-05
FS-14	(3.75±4.18)E-03	(1.63±0.84)E-04	(-4.70±3.33)E-05

a dry weight

b wet weight

c LLD denotes activity was below the lower limit of detection. The lower limit of detection for Cs-137 is 7.00E-03 pCi/g.

d No samples analyzed.

Table 43
Radioactivity in Eggs

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Location	No. of Samples	Max±σ	Min±σ	Arithmetic Mean±σ
Sr-90 (pCi/g; dry weight)				
FS-4	3	(1.60±2.74)E-02	(-1.34±2.90)E-02	(0.21±1.48)E-02
FS-5	4	(3.90±2.90)E-02	(-1.15±2.39)E-02	(1.36±2.22)E-02
FS-8	2	(1.73±2.66)E-02	(-1.93±2.35)E-02	(-0.10±2.59)E-02
FS-9	2	(0.64±2.35)E-02	(-0.52±2.37)E-02	(0.58±8.17)E-03
FS-10	4	(2.23±2.69)E-02	(0.25±3.63)E-02	(1.27±0.82)E-02
FS-12	1	(-0.62±2.28)E-02	a	a
U/Pu (pCi/g; dry weight)				
FS-4	3	(5.48±4.41)E-03	(1.48±3.59)E-03	(2.89±2.25)E-03
FS-5	4	(3.76±4.20)E-03	(-2.57±2.19)E-03	(0.60±2.70)E-03
FS-8	2	(-0.51±2.98)E-03	(-0.60±3.10)E-03	(-5.54±0.68)E-04
FS-9	2	(-0.35±2.85)E-03	(-2.41±2.21)E-03	(-1.38±1.46)E-03
FS-10	4	(1.49±3.60)E-03	(-2.27±2.09)E-03	(-0.44±1.54)E-03
FS-12	1	(1.49±3.75)E-03	a	a
Tritium (pCi/g; wet weight)				
FS-4	3	(1.56±0.27)E-01	(0.12±3.29)E-02	(7.93±7.76)E-02
FS-5	4	(5.40±0.60)E-01	(1.42±0.37)E-01	(2.92±1.83)E-01
FS-8	2	(9.88±1.76)E-02	(2.33±4.37)E-02	(6.10±5.34)E-02
FS-9	2	(-0.03±2.19)E-02	(-3.33±1.96)E-02	(-1.68±2.34)E-02
FS-10	4	(8.75±1.82)E-02	(-5.54±3.23)E-02	(2.07±6.04)E-02
FS-12	1	(3.34±2.45)E-02	a	a
Cs-137^{b,c} (pCi/g; dry weight)				
FS-4	0/3			
FS-5	1/4	(4.76±1.11)E-03		
FS-8	0/2			
FS-9	0/2			
FS-10	1/4	(6.84±1.17)E-03		
FS-12	0/1			

a No samples analyzed.

b The gamma analysis package currently used by Environmental Monitoring does not force an activity determination if a threshold setting is not met. For these reported radionuclides, "No. of Samples" is displayed as "number with activities quantified / number of samples counted"; only the number quantified are used in the max, min, and mean generation.

c The lower limit of detection for Cs-137 is 7.00E-03 pCi/g.

Table 44
Parameters Used for Adult Consumption Rates and for
Atmospheric Dose Calculations^a

Page 1 of 1

Pathway	Average Individual	Maximum Individual	Population
Fruits, vegetables, and grains (kg/yr)	163	276	163
Leafy vegetables (kg/yr)	21	43	21
Milk (L/yr)	120	230	120
Meat (beef) (kg/yr)	43	81	43
Inhalation (m ³ /yr)	8,000	8,000	8,000
Fraction of dose received after taking structural shielding into account	0.7	0.7	0.5

^a Values developed by SRTC for Savannah River Site [Hamby, 1991]

Table 45
Parameters Used for Adult Consumption Rates and for
Liquid Dose Calculations^a

Page 1 of 1

Pathway	Average Individual	Maximum Individual	Population
Water consumption (L/yr)	370	370	370
Fish consumption (kg/yr)	9	19	9
Marine invertebrates (kg/yr)	2	8	2
Boating ^b	N/A ^c	21	1,100,000
Swimming ^b	N/A ^c	8.9	160,000
Shoreline recreation ^b	N/A ^c	23	960,000
Water Treatment Plants^d			
Water consumption (L/yr)	370	730	370

a Values developed by SRTC for Savannah River Site [Hamby, 1991]

b Maximum individual values are in units of hours/year; population values are in units of person-hours.

c Not applicable

d Dose is calculated for the average individual, maximum individual, and population through the drinking water pathway from the downriver Beaufort-Jasper Water Treatment Plant (near Beaufort, South Carolina) and Cherokee Hill Water Treatment Plant (Port Wentworth, Georgia)

Table 46
50-Mile-Radius (80 km) Milk, Meat, and Vegetation Production
Around SRS

Page 1 of 2

Site Annual Milk Production (L)

Dir (miles)	0-5	5-10	10-20	20-30	30-40	40-50	Total
N	0.0	0.0	4.200E+04	6.900E+04	1.000E+06	5.300E+06	6.411E+06
NNE	0.0	0.0	4.200E+04	6.900E+04	2.100E+05	5.000E+05	8.210E+05
NE	0.0	0.0	3.200E+04	1.000E+06	2.700E+06	2.000E+06	5.732E+06
ENE	0.0	0.0	2.500E+04	1.200E+06	4.400E+06	5.200E+06	1.083E+07
E	0.0	0.0	2.500E+04	1.400E+06	3.900E+06	4.900E+06	1.023E+07
ESE	0.0	0.0	2.500E+04	5.600E+05	3.000E+04	4.900E+05	1.105E+06
SE	0.0	0.0	2.500E+04	0.000E+00	0.000E+00	0.000E+00	2.500E+03
SSE	0.0	0.0	4.800E+05	8.600E+05	1.200E+06	1.200E+06	3.740E+06
S	0.0	0.0	1.000E+06	2.100E+06	3.000E+06	3.500E+06	9.600E+06
SSW	0.0	0.0	9.900E+05	3.800E+06	7.400E+06	7.600E+06	1.979E+07
SW	0.0	0.0	9.900E+05	2.200E+06	5.800E+06	4.800E+06	1.379E+07
WSW	0.0	0.0	9.900E+05	1.700E+06	2.400E+06	3.500E+06	8.590E+06
W	0.0	0.0	6.700E+05	1.300E+06	2.200E+06	3.600E+06	7.770E+06
WNW	0.0	0.0	2.300E+05	1.100E+06	1.200E+06	2.000E+06	4.530E+06
NW	0.0	0.0	4.200E+04	3.800E+05	1.400E+06	1.000E+06	2.822E+06
NNW	0.0	0.0	4.200E+04	6.900E+04	1.700E+06	3.400E+06	5.211E+06
Total	0.0	0.0	5.62E+06	1.781E+07	3.954E+07	4.899E+07	1.110E+08

Site Annual Meat Production (kg)

Dir (miles)	0-5	5-10	10-20	20-30	30-40	40-50	Total
N	0.0	0.0	5.300E+04	8.800E+04	2.500E+05	9.800E+05	1.371E+06
NNE	0.0	0.0	5.300E+04	8.800E+04	2.000E+05	4.100E+05	7.510E+05
NE	0.0	0.0	7.100E+04	1.700E+05	3.500E+05	4.500E+05	1.041E+06
ENE	0.0	0.0	8.300E+04	2.000E+05	4.600E+05	5.700E+05	1.313E+06
E	0.0	0.0	8.300E+04	1.900E+05	3.400E+05	5.100E+05	1.123E+06
ESE	0.0	0.0	8.300E+04	1.900E+05	2.200E+05	2.500E+05	7.430E+05
SE	0.0	0.0	1.200E+05	2.100E+05	2.600E+05	3.000E+05	8.900E+05
SSE	0.0	0.0	1.100E+05	1.900E+05	2.600E+05	2.900E+05	8.500E+05
S	0.0	0.0	9.400E+04	1.500E+05	2.000E+05	2.700E+05	7.140E+05
SSW	0.0	0.0	9.500E+04	1.800E+05	2.900E+05	3.900E+05	9.550E+05

Table 46
50-Mile-Radius (80 km) Milk, Meat, and Vegetation Production
Around SRS, Cont'd.

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Site Annual Meat Production (kg), Cont'd.

Dir (miles)	0-5	5-10	10-20	20-30	30-40	40-50	Total
SW	0.0	0.0	9.500E+04	1.700E+05	2.700E+05	3.200E+05	8.550E+05
WSW	0.0	0.0	9.500E+04	1.600E+05	2.300E+05	4.000E+05	8.850E+05
W	0.0	0.0	5.800E+04	1.000E+05	2.100E+05	4.100E+05	7.780E+05
WNW	0.0	0.0	4.800E+04	6.200E+04	1.300E+05	2.900E+05	5.300E+05
NW	0.0	0.0	5.300E+04	8.000E+04	2.800E+05	2.700E+05	6.830E+05
NNW	0.0	0.0	5.300E+04	8.800E+04	3.300E+05	6.200E+05	1.091E+06
Total	0.0	0.0	1.247E+06	2.316E+06	4.280E+06	6.730E+06	1.457E+07

Site Annual Vegetation Production (kg)

Dir (miles)	0-5	5-10	10-20	20-30	30-40	40-50	Total
N	0.0	0.0	3.600E+05	6.000E+05	8.400E+05	8.700E+05	2.670E+06
NNE	0.0	0.0	3.600E+05	6.000E+05	5.100E+05	6.300E+05	1.476E+06
NE	0.0	0.0	3.600E+05	6.900E+05	1.000E+06	5.000E+05	2.550E+06
ENE	0.0	0.0	3.600E+05	6.600E+05	1.200E+06	1.500E+06	3.270E+06
E	0.0	0.0	3.600E+05	5.900E+05	8.500E+05	1.400E+06	3.200E+06
ESE	0.0	0.0	3.600E+05	2.200E+06	1.900E+06	1.100E+06	5.560E+06
SE	0.0	0.0	2.500E+06	4.500E+06	3.000E+06	1.100E+06	1.110E+07
SSE	0.0	0.0	1.700E+06	2.900E+06	3.600E+06	1.100E+06	9.300E+06
S	0.0	0.0	7.200E+04	5.400E+05	8.400E+05	9.700E+05	2.2E+06
SSW	0.0	0.0	3.500E+02	1.200E+05	2.500E+05	1.100E+05	4.804E+05
SW	0.0	0.0	3.500E+02	7.800E+02	2.200E+03	3.100E+05	3.133E+05
WSW	0.0	0.0	3.500E+02	5.800E+02	9.900E+02	2.900E+03	4.820E+03
W	0.0	0.0	4.500E+04	2.300E+04	1.700E+04	5.200E+04	1.370E+05
WNW	0.0	0.0	2.600E+05	3.800E+04	4.500E+05	1.100E+06	1.848E+06
NW	0.0	0.0	3.600E+05	4.300E+05	8.400E+05	1.100E+06	2.730E+06
NNW	0.0	0.0	3.600E+05	6.000E+05	8.400E+05	1.100E+06	2.900E+06
Total	0.0	0.0	7.458E+06	1.449E+07	1.614E+07	1.232E+07	5.041E+07

Table 47
Input Parameters for Atmospheric Transport Model

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Release Locations for 1991 Maximum and Average Individuals^a

	Release Source Area				Diffuse and Fugitive
	F,H,P,K,C	M	D	SRL	
Release height (m)	61	0	16	31	0
Release location (site coord,)					
East	58000	50041	20938	51863	58000
North	62000	104828	65284	106670	62000

^a Operating period for maximum individual and average individual taken as 74 years, i.e., two times actual operating period; operating period for population dose taken to be 201 years, i.e., 100-year environmental dose commitment

Table 48
Site-Specific Parameters Used in Liquid Dose Calculations

Page 1 of 1

River flow rate at SRS for 1992 (cubic feet/second)	11,700
River dilution in estuary	3
Transit time from process areas to river (hr)	24
Transit time from SRS to water treatment plants (hr)	72
Water treatment time (hr)	24
Edible aquatic food harvest (kg/yr)	
Fish – sport	35,000 ^a
Fish – commercial	2,700 ^a
Invertebrates – saltwater	390,000 ^a
Irrigation ^a	None ^a
Shore width factor	0.2
Fish bioaccumulation factor for cesium	3,000

^a Values developed by SRTC for Savannah River Site [Hamby, 1991]

Table 49
Meteorological Data for 1987-1991

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USNRC Computer Code-XOQDOQ, Version 2.0 Run Date: 93.071 (SRL 6/29/83 VERSION)
 43824 Wind Stats H-Area 60 minute 62M 87-91 Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction: Atmospheric Stability Class A
 Extremely Unstable Conditions

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.374	0.406	0.372	0.422	0.402	0.374	0.404	0.356
4.00	0.872	0.735	0.876	0.995	0.942	0.942	0.648	0.618
6.00	0.573	0.260	0.157	0.187	0.148	0.073	0.066	0.094
8.00	0.089	0.052	0.007	0.011	0.007	0.002	0.005	0.011
12.00	0.005	0.000	0.002	0.002	0.000	0.000	0.000	0.000
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	1.91	1.45	1.41	1.62	1.50	1.39	1.12	1.08

Joint Frequency Distribution of Wind Speed and Direction: Atmospheric Stability Class A
 Extremely Unstable Conditions

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.358	0.347	0.450	0.392	0.454	0.434	0.370	0.413	6.328
4.00	0.739	0.721	1.002	1.282	1.294	0.942	0.534	0.602	13.746
6.00	0.139	0.139	0.208	0.242	0.274	0.235	0.141	0.240	3.176
8.00	0.021	0.018	0.016	0.037	0.032	0.021	0.014	0.055	0.397
12.00	0.000	0.007	0.009	0.009	0.002	0.007	0.002	0.009	0.055
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	1.26	1.23	1.68	1.96	2.06	1.64	1.06	1.32	23.70

Table 49
Meteorological Data for 1987-1991

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USNRC Computer Code-XOQDOQ, Version 2.0 Run Date: 93.071 (SRL 6/29/83 VERSION)
 43824 Wind Stats H-Area 60 minute 62M 87-91 Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction: **Atmospheric Stability Class B**
Moderately Unstable Conditions

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.075	0.078	0.087	0.098	0.052	0.055	0.057	0.048
4.00	0.267	0.411	0.577	0.621	0.429	0.342	0.244	0.217
6.00	0.139	0.388	0.377	0.313	0.164	0.105	0.071	0.084
8.00	0.007	0.082	0.027	0.007	0.005	0.011	0.002	0.009
12.00	0.000	0.007	0.002	0.000	0.000	0.000	0.000	0.002
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.49	0.97	1.07	1.04	0.65	0.51	0.37	0.36

Joint Frequency Distribution of Wind Speed and Direction: **Atmospheric Stability Class B**
Moderately Unstable Conditions

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.078	0.071	0.046	0.050	0.046	0.075	0.052	0.071	1.038
4.00	0.324	0.329	0.477	0.671	0.559	0.372	0.251	0.210	6.300
6.00	0.187	0.212	0.317	0.507	0.511	0.356	0.126	0.089	3.945
8.00	0.050	0.037	0.052	0.103	0.171	0.214	0.059	0.014	0.851
12.00	0.002	0.002	0.007	0.007	0.064	0.064	0.007	0.002	0.167
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.64	0.65	0.90	1.34	1.35	1.08	0.50	0.39	12.30

Table 49
Meteorological Data for 1987-1991

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USNRC Computer Code-XOQDOQ, Version 2.0 Run Date: 93.071 (SRL 6/29/83 VERSION)
43824 Wind Stats H-Area 60 minute 62M 87-91 Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction: Atmospheric Stability Class C
Slightly Unstable Conditions

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.032	0.057	0.091	0.071	0.059	0.046	0.055	0.048
4.00	0.173	0.573	1.125	1.031	0.600	0.408	0.411	0.370
6.00	0.116	0.539	1.303	0.742	0.354	0.192	0.217	0.253
8.00	0.014	0.098	0.196	0.082	0.018	0.032	0.032	0.059
12.00	0.002	0.011	0.000	0.002	0.002	0.005	0.000	0.027
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.34	1.28	2.72	1.93	1.03	0.68	0.71	0.76

Joint Frequency Distribution of Wind Speed and Direction: Atmospheric Stability Class C
Slightly Unstable Conditions

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.068	0.048	0.055	0.050	0.075	0.046	0.050	0.052	0.904
4.00	0.479	0.516	0.589	0.794	0.527	0.445	0.301	0.237	8.580
6.00	0.470	0.461	0.561	0.687	0.643	0.564	0.212	0.119	7.432
8.00	0.155	0.164	0.208	0.258	0.445	0.429	0.096	0.018	2.305
12.00	0.043	0.041	0.046	0.059	0.155	0.167	0.018	0.007	0.586
14.10	0.000	0.000	0.000	0.002	0.000	0.002	0.000	0.000	0.005
TOTAL	1.22	1.23	1.46	1.85	1.85	1.65	0.68	0.43	19.81

Table 49
Meteorological Data for 1987-1991

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USNRC Computer Code-XOQDOQ, Version 2.0 Run Date: 93.071 (SRL 6/29/83 VERSION)
 43824 Wind Stats H-Area 60 minute 62M 87-91 Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction: **Atmospheric Stability Class D**
Neutral Conditions

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.018	0.048	0.055	0.037	0.055	0.030	0.055	0.068
4.00	0.103	0.436	1.072	0.888	0.552	0.504	0.705	0.691
6.00	0.123	0.434	0.853	0.584	0.395	0.440	0.653	1.164
8.00	0.011	0.052	0.098	0.023	0.005	0.011	0.046	0.180
12.00	0.000	0.023	0.023	0.000	0.002	0.000	0.000	0.007
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.26	0.99	2.10	1.53	1.01	0.99	1.46	2.11

Joint Frequency Distribution of Wind Speed and Direction: **Atmospheric Stability Class D**
Neutral Conditions

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.055	0.032	0.071	0.048	0.037	0.034	0.050	0.041	0.732
4.00	0.924	0.910	0.803	0.808	0.723	0.570	0.427	0.272	10.389
6.00	1.451	0.778	0.901	0.769	0.776	0.648	0.317	0.089	10.376
8.00	0.219	0.146	0.098	0.087	0.030	0.052	0.030	0.002	1.091
12.00	0.016	0.037	0.002	0.002	0.007	0.002	0.000	0.000	0.121
12.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	2.67	1.90	1.88	1.71	1.57	1.31	0.82	0.40	22.71

Table 49
Meteorological Data for 1987-1991

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USNRC Computer Code-XOQDOQ, Version 2.0 Run Date: 93.071 (SRL 6/29/83 VERSION)
 43824 Wind Stats H-Area 60 minute 62M 87-91 Stability from Sigma A

**Joint Frequency Distribution of Wind Speed and Direction: Atmospheric Stability Class E
 Neutral Conditions**

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.011	0.021	0.039	0.007	0.009	0.025	0.030	0.030
4.00	0.062	0.274	0.687	0.477	0.297	0.333	0.456	0.701
6.00	0.071	0.527	0.689	0.705	0.600	0.454	0.650	1.006
8.00	0.000	0.050	0.032	0.037	0.011	0.011	0.002	0.027
12.00	0.000	0.002	0.002	0.000	0.000	0.000	0.000	0.000
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.14	0.87	1.45	1.23	0.92	0.82	1.14	1.76

**Joint Frequency Distribution of Wind Speed and Direction: Atmospheric Stability Class E
 Neutral Conditions**

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.016	0.016	0.011	0.011	0.021	0.014	0.023	0.021	0.303
4.00	0.673	0.573	0.543	0.472	0.431	0.427	0.333	0.301	7.040
6.00	1.184	0.940	0.910	0.894	0.484	0.402	0.187	0.141	9.846
8.00	0.043	0.018	0.043	0.009	0.005	0.002	0.002	0.000	0.294
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
12.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	1.92	1.55	1.51	1.39	0.94	0.84	0.55	0.46	17.49

Table 49
Meteorological Data for 1987-1991

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USNRC Computer Code-XOQDOQ, Version 2.0 Run Date: 93.071 (SRL 6/29/83 VERSION)
 43824 Wind Stats H-Area 60 minute 62M 87-91 Stability from Sigma A

**Joint Frequency Distribution of Wind Speed and Direction: Atmospheric Stability Class F
 Neutral Conditions**

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.000	0.005	0.007	0.011	0.007	0.005	0.002	0.005
4.00	0.018	0.052	0.087	0.039	0.023	0.075	0.089	0.091
6.00	0.014	0.256	0.212	0.144	0.144	0.187	0.132	0.162
8.00	0.000	0.027	0.021	0.021	0.000	0.011	0.000	0.007
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.03	0.34	0.33	0.21	0.17	0.28	0.22	0.26

**Joint Frequency Distribution of Wind Speed and Direction: Atmospheric Stability Class F
 Neutral Conditions**

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.007	0.014	0.018	0.007	0.007	0.005	0.011	0.005	0.114
4.00	0.107	0.080	0.119	0.091	0.030	0.050	0.050	0.073	1.075
6.00	0.221	0.214	0.235	0.228	0.068	0.039	0.023	0.041	2.321
8.00	0.018	0.014	0.018	0.007	0.000	0.000	0.000	0.000	0.144
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.35	0.32	0.39	0.33	0.10	0.09	0.08	0.12	3.65

Table 49
Meteorological Data for 1987-1991

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USNRC Computer Code-XOQDOQ, Version 2.0 Run Date: 93.071 (SRL 6/29/83 VERSION)
 43824 Wind Stats H-Area 60 minute 62M 87-91 Stability from Sigma A

**Joint Frequency Distribution of Wind Speed and Direction: Atmospheric Stability Class G
 Neutral Conditions**

(M/S) UMAX	N	NNE	NE	ENE	E	ESE	SE	SSE
2.00	0.000	0.000	0.002	0.000	0.000	0.002	0.000	0.005
4.00	0.002	0.000	0.000	0.000	0.000	0.002	0.009	0.002
6.00	0.005	0.023	0.009	0.002	0.007	0.037	0.025	0.016
8.00	0.000	0.002	0.000	0.000	0.000	0.002	0.002	0.000
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.01	0.03	0.01	0.00	0.01	0.04	0.04	0.02

**Joint Frequency Distribution of Wind Speed and Direction: Atmospheric Stability Class G
 Neutral Conditions**

(M/S) UMAX	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
2.00	0.007	0.009	0.007	0.002	0.002	0.000	0.000	0.002	0.039
4.00	0.007	0.007	0.027	0.009	0.005	0.002	0.002	0.000	0.075
6.00	0.021	0.014	0.011	0.027	0.002	0.007	0.002	0.005	0.212
8.00	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.009
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.03	0.03	0.05	0.04	0.01	0.01	0.00	0.01	0.34

Table 50
50-Mile-Radius (80 km) Population Distribution Around SRS (1990 Census)

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Dir (Miles)	0.0-1.	1.-2.	2.-3.	3.-4.	4.-5.	
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
NNE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
NE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
ESE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
SE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
SSE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
S	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
SSW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
SW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
WSW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
W	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
WNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
NW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
NNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Total	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	

Dir (Miles)	5.-10.	10.-20.	20.-30.	30.-40.	40.-50.	Total
N	2.600E+01	5.321E+03	1.002E+04	5.067E+03	1.221E+04	3.264E+04
NNE	6.000E+00	1.320E+03	2.066E+03	4.445E+03	1.437E+04	2.220E+04
NE	1.000E+00	2.945E+03	2.928E+03	5.269E+03	1.020E+04	2.134E+04
ENE	2.700E+01	3.126E+03	4.483E+03	5.337E+03	4.077E+04	5.375E+04
E	1.550E+02	6.743E+03	5.305E+03	8.812E+03	4.334E+03	2.535E+04
ESE	3.600E+01	1.556E+03	1.931E+03	2.711E+03	3.253E+03	9.487E+03
SE	2.600E+01	5.470E+02	6.511E+03	6.685E+03	8.577E+03	2.235E+04
SSE	4.000E+01	3.910E+02	7.690E+02	1.356E+03	2.539E+03	5.095E+03
S	1.000E+00	5.580E+02	1.332E+03	7.251E+03	3.335E+03	1.248E+04
SSW	2.000E+00	8.970E+02	2.008E+03	4.181E+03	2.944E+03	1.003E+04
SW	1.700E+01	9.440E+02	2.240E+03	2.606E+03	2.660E+03	8.467E+03
WSW	6.000E+01	1.103E+03	7.112E+03	2.285E+03	5.818E+03	1.638E+04
W	5.500E+01	3.314E+03	7.941E+03	7.994E+03	6.780E+03	2.608E+04
WNW	4.490E+02	3.342E+03	1.069E+05	5.031E+04	1.155E+04	1.725E+05
NW	2.710E+02	5.899E+03	8.793E+04	2.657E+04	3.025E+03	1.237E+05
NNW	3.63E+02	1.803E+04	2.716E+04	6.665E+03	6.079E+03	5.830E+04
Total	1.535E+03	5.603E+04	2.766E+05	1.475E+05	1.384E+05	6.201E+05

Table 51
Maximum Individual Committed Dose at Site Perimeter from Atmospheric Releases with Consumption of Cow Milk

Page 1 of 1

By Pathway

Pathway	Average Consumption		Maximum Consumption	
	Max.Individual Dose (mrem) ^a	Percent of Total Dose	Max.Individual Dose (mrem) ^a	Percent of Total Dose
Plume	3.25E-04	0.5	3.25E-04	0.4
Ground	1.15E-04	0.2	1.15E-04	0.1
Inhalation	4.19E-02	61.9	4.19E-02	47.7
Vegetation	1.74E-02	25.7	3.04E-02	34.6
Cow Milk	5.58E-03	8.2	1.07E-02	12.2
Meat	2.36E-03	3.5	4.45E-03	5.1
Total	6.77E-02		8.79E-02	

By Radionuclide

Radionuclide	Average Consumption		Maximum Consumption	
	Max.Individual Dose (mrem) ^a	Percent of Total Dose	Max.Individual Dose (mrem) ^a	Percent of Total Dose
Gases and Vapors				
H-3	6.01E-02	88.8	7.83E-02	89.1
C-14	3.54E-05	0.05	6.43E-05	0.07
Ar-41	3.25E-04	0.5	3.25E-04	0.4
Kr-85	1.91E-07	0.0003	1.91E-07	0.00
I-129	1.11E-03	1.6	1.95E-03	2.2
I-131	1.98E-06	0.003	3.83E-06	0.004
Particulates				
Sr-90	8.14E-05	0.1	1.32E-04	0.2
Ru-106	2.88E-08	0.00004	4.81E-08	0.0001
Cs-134,137	2.77E-05	0.04	3.05E-05	0.03
U-235,238	8.76E-04	1.3	9.35E-04	1.1
Pu-238	1.06E-03	1.6	1.29E-03	1.5
Pu-239	3.72E-03	5.5	4.43E-03	5.0
Am-241,243	3.08E-04	0.5	3.78E-04	0.4
Cm-242,244	3.36E-05	0.05	14.12E-05	0.05
Total	6.77E-02		8.79E-02	

^a Effective dose equivalent

Table 52
Maximum Individual Committed Dose at Site Perimeter from Atmospheric Releases with Consumption of Goat Milk

Page 1 of 1

By Pathway

Pathway	Average Consumption		Maximum Consumption	
	Max.Individual Dose (mrem) ^a	Percent of Total Dose	Max.Individual Dose (mrem) ^a	Percent of Total Dose
Plume	3.25E-04	0.4	3.25E-04	0.3
Ground	1.15E-04	0.2	1.15E-04	0.1
Inhalation	4.19E-02	55.9	4.19E-02	41.2
Vegetation	1.74E-02	23.2	3.04E-02	29.9
Cow Milk	1.28E-02	17.1	2.45E-02	24.1
Meat	2.36E-03	3.2	4.45E-03	4.4
Total	7.49E-02		1.02E-01	

By Radionuclide

Radionuclide	Average Consumption		Maximum Consumption	
	Max.Individual Dose (mrem) ^a	Percent of Total Dose	Max.Individual Dose (mrem) ^a	Percent of Total Dose
Gases and Vapors				
H-3	6.73E-02	89.8	9.20E-02	90.5
C-14	3.65E-05	0.05	6.65E-05	0.07
Ar-41	3.25E-04	0.4	3.25E-04	0.3
Kr-85	1.91E-07	0.0003	1.91E-07	0.0002
I-129	1.14E-03	1.5	2.03E-03	2.0
I-131	2.23E-06	0.003	4.31E-06	0.004
Particulates				
Sr-90	9.29E-05	0.1	1.34E-04	0.1
Ru-106	2.88E-08		4.81E-08	0.00005
Cs-134, 137	2.93E-05	0.04	3.36E-05	0.03
U-235, 238	8.75E-04	1.2	9.33E-04	0.9
Pu-238	1.06E-03	1.4	1.29E-03	1.3
Pu-239	3.72E-03	5.0	4.43E-03	4.4
Am-241, 243	3.08E-04	0.4	3.78E-04	0.4
Cm-242, 244	3.36E-05	0.04	4.12E-05	0.04
Total	7.49E-02		1.02E-01	

^a Effective dose equivalent

Table 53**Average Individual Committed Dose at Site Perimeter from Atmospheric Releases with Consumption of Cow Milk**

Page 1 of 1

By Pathway

Pathway	Individual Dose (mrem)^a	Percent of Total Dose^a
Plume	1.8E-04	0.4
Ground	6.52E-05	0.2
Inhalation	2.48E-02	61.4
Vegetation	1.05E-02	26.0
Cow Milk	3.39E-03	8.4
Meat	1.44E-03	3.6
Total	4.04E-02	

By Radionuclide

Radionuclide	Individual Dose (mrem)^a	Percent of Total Dose^a
GASES AND VAPORS		
H-3	3.66E-02	90.6
C-14	2.13E-05	0.1
Ar-41	1.80E-04	0.4
Kr-85	1.15E-07	0.0003
I-129	6.79E-04	1.7
I-131	6.08E-07	0.002
PARTICULATES		
Sr-90	4.47E-05	0.1
Ru-106	1.76E-08	0.00004
Cs-134,137	1.58E-05	0.04
U-235,238	5.14E-04	1.3
Pu-238	6.36E-04	1.6
Pu-239	1.48E-03	3.7
Am-241,243	1.84E-04	0.5
Cm-242,244	1.96E-05	0.05
Total	4.04E-02	

^a Effective dose equivalent

Table 54
50-Mile Collective Dose from Atmospheric Releases

Page 1 of 1

By Pathway

Pathway	Population Dose Person-Rem ^a	Percent of Total Dose
Plume	9.84E-03	0.2
Ground	1.85E-02	0.3
Inhalation	4.85E+00	75.5
Vegetation	9.12E-01	14.2
Cow Milk	5.04E-01	7.9
Meat	1.26E-01	2.0
Total	6.42E+00	

By Radionuclide

Radionuclide	Population Dose Person-Rem ^a	Percent of Total Dose
GASES AND VAPORS		
H-3	5.95E+00	92.7
C-14	2.23E-03	0.03
Ar-41	9.83E-03	0.2
Kr-85	1.66E-05	0.0003
I-129	6.43E-02	1.0
I-131	3.35E-05	0.0005
PARTICULATES		
Sr-90	3.85E-03	0.06
Ru-106	1.64E-06	0.00003
Cs-134,137	2.74E-03	0.04
U-235,238	8.93E-02	1.4
Pu-238	9.43E-02	1.5
Pu-239	1.75E-01	2.7
Am-241,243	2.74E-02	0.4
Cm-242,244	2.89E-03	0.05
Total	6.42E+00	

^a Effective dose equivalent

Table 55
1992 NESHAP Report Data–CAP88 Compared With MAXIGASP

Page 1 of 1

Maximum Individual Dose Commitment at Site Boundary from Atmospheric Releases

	CAP88 Code		MAXIGASP Code	
	Mrem ^a	Percent of Dose	Mrem ^a	Percent of Dose
By Pathway				
Plume	4.13E-04	0.3	3.25E-04	0.4
Ground	5.60E-05	0.04	1.15E-04	0.1
Inhalation	4.00E-02	29.0	4.19E-02	47.7
Food ^b	9.76E-02	70.7	4.56E-02	51.8
Total	1.38E-01		8.79E-02	
By Radionuclide				
GASES AND VAPORS				
H-3 ^c	1.35E-01	98.0	7.83E-02	89.1
C-14	1.21E-05	0.01	6.43E-05	0.1
Ar-41	4.13E-04	0.3	3.25E-04	0.4
Kr-85	3.09E-07	0.0002	1.91E-07	0.0002
I-129	2.32E-04	0.2	1.95E-03	2.2
I-131	8.36E-08	0.0001	3.83E-06	0.004
PARTICULATES				
Sr-90	2.35E-05	0.02	1.32E-04	0.2
Ru-106	3.92E-09	0.000003	4.81E-08	0.0001
Cs-134,137	1.22E-05	0.01	3.05E-05	0.03
U-235,238	6.15E-04	0.4	9.35E-04	1.1
Pu-238	4.49E-04	0.3	1.29E-03	1.5
Pu-239	8.22E-04	0.6	4.43E-03	5.0
Am-241,243	1.86E-04	0.1	3.78E-04	0.4
Cm-242,244	2.01E-05	0.01	4.12E-05	0.05
Total	1.38E-01		8.79E-02	

a Effective dose equivalent

b Meat, milk, and vegetation

c Dose from tritium in foods calculated with absolute humidity of 11 g water/cubic meter of air

Table 56
1992 NESHAP Report Data—CAP88 Compared With POPGASP

Page1 of 1

Collective Committed Dose from Atmospheric Releases

	CAP88 Code		POPGASP Code	
	Person-rem ^a	Percent of Dose	Person-rem ^a	Percent of Dose
By Pathway				
Plume	2.65E-02	0.2	9.84E-03	0.2
Ground	9.64E-03	0.1	1.85E-02	0.3
Inhalation	5.14E+00	34.5	4.85E+00	75.5
Food ^b	9.71E+00	65.2	1.54E+00	24.0
Total	1.49E+01		6.42E+00	
By Radionuclide				
GASES AND VAPORS				
H-3 ^c	1.46E+01	97.7	5.95E+00	92.7
C-14	1.23E-03	0.008	2.23E-03	0.03
Ar-41	2.65E-02	0.2	9.83E-03	0.2
Kr-85	3.99E-05	0.0003	1.66E-05	0.0003
I-129	1.35E-02	0.1	6.43E-02	1.0
I-131	3.90E-06	0.00003	3.35E-05	0.0005
PARTICULATES				
Sr-90	2.69E-03	0.02	3.85E-03	0.1
Ru-106	2.92E-06	0.00002	1.64E-06	0.00003
Cs-134,137	6.98E-02	0.5	2.74E-03	0.04
U-235,238	6.98E-02	0.5	8.93E-02	1.4
Pu-238	4.89E-02	0.3	9.43E-02	1.5
Pu-239	8.90E-02	0.6	1.75E-01	2.7
Am-241,243	2.05E-02	0.1	2.74E-02	0.4
Cm-242,244	2.21E-03	0.01	2.89E-03	0.05
Total	1.49E+01		6.42E+00	

a Effective dose equivalent

b Meat, milk, and vegetation

c Dose from tritium in foods calculated with absolute humidity of 11 g water/cubic meter of air

Table 57
Maximum Individual Dose from Liquid Releases

Page 1 of 1

By Pathway

Pathway	Individual Dose, Mrem^a	Percent of Total Dose
Fish	5.62E-02	44.69
Invertebrate	1.92E-02	15.27
Water	5.02E-02	39.92
Shoreline	1.55E-04	0.12
Swimming	1.02E-07	0.0001
Boating	1.21E-07	0.0001
Total	1.26E-01	

By Radionuclide

Radionuclide	Individual Dose, Mrem^a	Percent of Total Dose
H-3	4.41E-02	35.10
Sr-90	2.27E-02	18.06
I-129	5.52E-04	0.44
Cs-137	4.69E-02	37.31
Pm-147	2.65E-07	0.0002
U-235,238	5.00E-05	0.04
Pu-239	1.10E-02	8.78
Total	1.26E-01	

^a Effective dose equivalent

Table 58
Individual Committed Dose from Public Water Supplies at Beaufort-Jasper

Page 1 of 1

Average Consumption		
Radionuclide	Individual Dose, Mrem^a	Percent of Total Dose
H-3	2.91E-02	82.50
Sr-90	3.42E-03	9.70
I-129	2.07E-04	0.59
Cs-137	2.09E-04	0.59
Pm-147	7.80E-09	0.00002
U-235,238	1.46E-05	0.04
Pu-239	2.32E-03	6.57
Total	3.53E-02	
 Maximum Consumption		
Radionuclide	Individual Dose, Mrem^a	Percent of Total Dose
H-3	5.74E-02	82.50
Sr-90	6.75E-03	9.70
I-129	4.07E-04	0.59
Cs-137	4.13E-04	0.59
Pm-147	1.54E-08	0.00002
U-235,238	2.89E-05	0.04
Pu-239	4.57E-03	6.57
Total	6.96E-02	

^a Effective dose equivalent

Table 59
Individual Committed Dose from Public Water Supplies at Port Wentworth

Page 1 of 1

Average Consumption		
Radionuclide	Individual Dose, Mrem^a	Percent of Total Dose
H-3	3.65E-02	82.50
Sr-90	4.30E-03	9.70
I-129	2.59E-04	0.59
Cs-137	2.63E-04	0.59
Pm-147	9.79E-09	0.00002
U-235,238	1.84E-05	0.04
Pu-239	2.91E-03	6.57
Total	4.43E-02	

Maximum Consumption		
Radionuclide	Individual Dose, Mrem^a	Percent of Total Dose
H-3	7.21E-02	82.50
Sr-90	8.48E-03	9.70
I-129	5.11E-04	0.59
Cs-137	5.18E-04	0.59
Pm-147	1.93E-08	0.00002
U-235,238	3.63E-05	0.04
Pu-239	5.74E-03	6.57
Total	8.74E-02	

^a Effective dose equivalent

Table 60
Collective Dose from Liquid Releases

Page 1 of 1

By Pathway

Pathway	Collective Dose, Person-rem^a	Percent of Total Dose
Sport Fish	1.02E-01	4.03
Commercial Fish	1.05E-03	0.04
Beaufort-Jasper	1.76E+00	69.46
Port Wentworth	6.64E-01	26.21
Salt Water Inversion	2.34E-04	0.01
Recreation-River	6.50E-03	0.26
Total	2.53E+00	

By Radionuclide

Radionuclide	Collective Dose, Person-rem^a	Percent of Total Dose
H-3	2.00E+00	79.27
Sr-90	2.49E-01	9.85
I-129	1.46E-02	0.58
Cs-137	9.87E-02	3.90
Pm-147	5.62E-07	0.00002
U-235,238	1.01E-03	0.04
Pu-239	1.61E-01	6.35
Total	2.53E+00	

a Effective dose equivalent

Table 61
Potential Doses from Irrigation Pathway

Page 1 of 1

Effective Dose Equivalent

Food Type	Maximum Individual Mrem	Population Person-rem^a
Vegetation	7.75E-02	4.84E+00
Leafy Vegetables	1.21E-02	3.12E-01
Milk	2.78E-02	3.79E+00
Meat	9.39E-03	5.03E-01
Total	1.27E-01	9.45E+00

^a Acreage for each food type is assumed to be 1,000 acres.

Table 62
Calculated Doses to Aquatic Biota from SRS Releases

Page 1 of 1

Stream	Location	Flow, cfs	Dose to Biota, mrad/year ^a		
			Fish	Invertebrate	Algae
Upper Three Runs	Tim's Branch 5 (Road C)	8	9.51E+01	1.10E+02	4.00E+01
Beaver Dam Creek	Below 400-D	64	1.61E+00	3.11E+00	1.15E+01
Four Mile Creek	Site No. 3	8	3.26E+02	4.21E+02	6.53E+02
Pen Branch	K-011	143	2.85E+00	7.03E+00	2.92E+01
Steel Creek	Steel Creek 2A above Road B	1	1.16E+02	2.56E+02	1.05E+03
Lower Three Runs	L3R1A above Road B	46	4.07E-01	8.04E-01	3.07E+00

Stream	Location	Flow, cfs	Dose to Biota, mrad/year ^a	
			Raccoon	Duck
Upper Three Runs	Tim's Branch 5 (Road C)	8	3.83E+01	4.03E+02
Beaver Dam Creek	Below 400-D	64	5.59E+00	1.63E+02
Four Mile Creek	Site No. 3	8	3.55E+02	8.18E+03
Pen Branch	K-011	143	1.47E+01	4.27E+02
Steel Creek	Steel Creek 2A above Road B	1	5.24E+02	1.55E+04
Lower Three Runs	L3R1A above Road B	46	1.50E+00	4.43E+01

^a Calculated with CRITR methodology incorporated in the LAD IAP computer program

Table 63
Dose from Consumption of Fish from Creek Mouths and Highway 301

Page 1 of 2

Location	Species	Number of Composites				
		H-3	Sr-90	Cs-137	Pu-238	Pu-239
BDC	Panfish	2	2	2	1	2
	Catfish	3	3	3	1	1
FMC	Bass	1	1	1	1	1
L3R	Panfish	1	1	1	1	1
	Catfish	1	1	1	1	1
SC	Panfish	2	2	2	1	2
	Catfish	3	3	3		
U3R	Panfish	3	3	3	1	1
	Catfish	3	3	3	2	2
	Bass	2	2	2		
Hwy 301	Panfish	3	3	3	3	2
	Catfish	2	2	2	2	1
	Bass	2	2	2	1	1

Location	Species	Average Concentration in Composites (pCi/g)				
		H-3	Sr-90	Cs-137	Pu-238	Pu-239
BDC	Panfish	4.53E-01	8.23E-03	7.59E-02	3.81E-05	1.19E-05
	Catfish	8.52E-01	3.40E-03	6.39E-02	7.43E-06	8.15E-07
FMC	Bass	7.81E+00	1.50E-01	2.86E+00	-1.30E-05	-1.05E-05
L3R	Panfish	5.48E-02	4.06E-03	7.05E-01	-5.58E-06	01.11E-05
	Catfish	4.44E-02	4.80E-05	7.23E-01	8.80E-06	8.79E-06
SC	Panfish	4.99E-01	1.87E-03	1.59E-01	-1.82E-05	-1.74E-05
	Catfish	8.77E-01	4.60E-03	2.62E-01	N/A ^a	N/A
U3R	Panfish	1.27E-01	6.74E-03	9.80E-02	2.86E-06	-5.71E-07
	Catfish	1.38E-01	2.51E-03	1.86E-01	6.84E-06	2.79E-06
	Bass	1.31E-01	8.45E-03	1.92E-01	N/A	N/A
Hwy 301	Panfish	8.64E-02	-1.23E-03	5.05E-02	1.05E-05	1.29E-05
	Catfish	8.11E-02	7.75E-04	3.25E-02	8.76E-06	-1.17E-05
	Bass	9.19E-02	-4.87E-04	6.12E-02	2.20E-06	-6.57E-06

^a Not available

Table 63
Dose from Consumption of Fish from Creek Mouths and Highway 301

Page 2 of 2

Location	Species	Dose from Consumption of 19 kg/year (42 lbs), mrem ^a					Total
		H-3	Sr-90	Cs-137	Pu-238	Pu-239	
BDC	Panfish	5.42E-04	2.03E-02	7.21E-02	2.75E-03	9.72E-04	9.67E-02
	Catfish	1.02E-03	8.40E-03	6.07E-02	5.36E-04	6.66E-05	7.07E-02
FMC	Bass	9.35E-03	3.71E-01	2.72E+00	-9.39E-04 ^b	-8.58E-04	3.10E+00
L3R	Panfish	6.56E-05	1.00E-02	6.70E-01	-4.03E-04	-9.07E-04	6.80E-01
	Catfish	5.31E-05	1.19E-04	6.87E-01	6.35E-04	7.18E-04	6.88E-01
SC	Panfish	5.97E-04	4.62E-03	1.51E-01	-1.31E-03	-1.42E-03	1.58E-01
	Catfish	1.05E-03	1.14E-02	2.49E-01	N/A ^c	N/A	2.61E-01
U3R	Panfish	1.52E-04	1.66E-02	9.31E-02	2.06E-04	-4.67E-05	1.10E-01
	Catfish	1.65E-04	6.20E-03	1.77E-01	4.94E-04	2.28E-04	1.84E-01
	Bass	1.57E-04	2.09E-02	1.82E-01	N/A	N/A	2.10E-02
Hwy 301	Panfish	1.03E-04	-3.04E-03	4.80E-02	7.58E-04	1.05E-03	4.99E-02
	Catfish	9.71E-05	1.91E-03	3.09E-02	6.32E-04	-9.56E-04	3.35E-02
	Bass	1.10E-04	-1.20E-03	5.81E-02	1.59E-04	-5.37E-04	5.84E-02

a Dose is based on maximum consumption of 19 kg/year. To obtain dose from average consumption of fish (9 kg/year), multiply doses in this table by 0.474.

b Doses based on negative concentration of individual radionuclides in fish are shown as negative doses and are not used in the total dose column.

c Not available

Table 64
Site-Specific Parameters Used with CAP88 Code Used for NESHAPS
Calculations

Page 1 of 1

Particle size, AMAD	
H-3, C-14, Kr-85	0
All other	1
Environmental Dose Commitment Integrating Period, Yrs	
Maximum individual	38
Population	100
Meteorological data	1987-1991
Plume rise	None
Number of stacks	2
Stack heights, m	0 and 61
Height of lid, m	1000
Rainfall, cm/yr	121.4
Average air temperature, C	17.9
Surface roughness length, m	1.0
Height of wind measurements, m	62
Average wind speed, m/s	3.82
Population size	620100
Food supply fractions (fraction from local sources)	
Vegetable	0.700
Meat	0.442
Milk	0.399

Table 65
Release Locations for 1992 Maximum and Average Individuals

Page 1 of 1

	Release Source Area				
	F,H,P,K,C	M	D	SRTC	Diffuse & Fugitive
Release height, m	61	0	16	31	0
Release location					
Site Coord.					
East	58000	50041	20938	51863	58000
North	62000	104828	65284	106670	62000

Operating period for maximum individual and average individual dose taken as 78 years, i.e, 2 times actual operating period

Operating period for population dose taken to be 201 years, i.e., 100-year environmental dose commitment

Table 66
1992 Total Site Releases and Maximum Individual Effective Dose Equivalent by Radionuclide (CAP88 Dose Calculations for 1992 NESHAP Report to EPA)

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Radionuclide ^a	Releases (curies)	Maximum Individual EDE (mrem)	Percent of Dose
H-3 (oxide)	1.00E+05	1.35E-01	98.0
Pu-239 ^b	7.45E-04	8.22E-04	0.6
U-235,238	1.58E-03	6.15E-04	0.4
Pu-238	4.46E-04	4.49E-04	0.3
Ar-41	2.51E+02	4.13E-04	0.3
I-129	3.50E-03	2.32E-04	0.2
Am-241,243	1.13E-04	1.86E-04	0.1
Sr-89,90 (Y-90) ^c	2.03E-03	2.53E-05	0.02
Cm-242,244	2.31E-05	2.01E-05	0.01
Cs-137 (Ba-137m)	2.50E-04	1.22E-05	0.01
C-14	1.86E-01	1.21E-05	0.01
H-3 (elemental)	5.59E+04	3.01E-06	0.002
I-135	1.34E-01	1.19E-06	0.001
Kr-85	4.99E+01	3.09E-07	0.0002
I-131	9.99E-05	8.36E-08	0.0001
Ru-106 (Rh-106)	1.81E-06	3.26E-08	0.00002
I-133	1.15E-03	1.73E-08	0.00001
Co-60	3.60E-07	1.59E-08	0.00001
Xe-135	2.43E-03	1.40E-09	0.000001
Cs-134	3.75E-08	5.72E-10	0.0000004
Ce-144 (Pr-144,144m)	1.16E-07	5.51E-10	0.0000004
Eu-154	3.44E-13	1.28E-14	0.00000000001
Eu-155	1.63E-13	2.44E-16	0.0000000000002
Sb-125	7.27E-15	3.67E-17	0.00000000000003
Zr-95 (Nb-95)	2.39E-14	3.38E-17	0.00000000000002
Total	1.56E+05	1.38E-01	

a Radionuclides in parentheses are decay daughters that are included in effective dose equivalent (EDE) calculations.

b Includes gross alpha (assigned to Pu-239)

c Includes gross beta-gamma (assigned to Sr-90)

Table 67
Potential Doses from Irrigation Pathways

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Effective Dose Equivalent

Food Type^a	Maximum Individual (mrem)	Population (person-rem)
Vegetation	7.75E-02	4.84E+00
Leafy vegetable	1.21E-02	3.12E-01
Milk	2.78E-02	3.79E+00
Meat	9.39E-03	5.03E-01
Total	1.27E-01	9.45E+00

a Acreage for each food type assumed to be 1,000 acres

Table 68
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
Outfall A-001					
<i>Effluent consists of the following types of wastewater: cooling water, steam condensate, and laboratory drain water.</i>					
Flow	MGD ^a	14	0.576	0.288	0.519
pH	pH	14	8.4	6.3	
Temperature	°F	14	79	66	74
Total nonfilterable residue	mg/L	14	2.0	<1	0.71
Oil and grease	mg/L	14	2.1	<1	0.61
Biochemical oxygen demand	mg/L	14	4.5	<1	0.96
Tetrachloroethylene	µg/L	6	<2	<2	<2
Trichloroethylene	µg/L	6	<2	<2	<2
1,1,1-Trichloroethane	µg/L	6	<2	<2	<2
Outfall A-003					
<i>Effluent consists of the following types of wastewater: cooling water and steam condensate.</i>					
pH	pH	14	8.1	6.9	
Temperature	°F	13	82	62	71
Total nonfilterable residue	mg/L	14	<1	<1	<1
Oil and grease	mg/L	14	1.6	<1	0.69
Tetrachloroethylene	µg/L	6	<2	<2	<2
Trichloroethylene	µg/L	6	<2	<2	<2
1,1,1-Trichloroethane	µg/L	6	<2	<2	<2
Chromium	mg/L	24	<0.02	<0.02	<0.02
Outfall A-005					
<i>Effluent consists of the following types of wastewater: wastewater from animal holding area, steam condensate, steam cleaning wastewater, and cooling water.</i>					
Flow	MGD	14	0.504	0.108	0.195
pH	pH	14	7.8	6.2	
Temperature	°F	14	75	62	70
Fecal coliform	#/100mL	14	74	<2	6.1
Total nonfilterable residue	mg/L	14	6.0	<1	1.1
Oil and grease	mg/L	14	2.9	<1	0.84
Biochemical oxygen demand	mg/L	14	7.4	<1	3.22

^a Million gallons per day

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
Tetrachloroethylene	µg/L	14	<2	<2	<2
Trichloroethylene	µg/L	14	<2	<2	<2
1,1,1-Trichloroethane	µg/L	14	<2	<2	<2

Outfall A-011

Effluent consists of the following types of wastewater: cooling water.

pH	pH	14	7.8	6.5	
Temperature	°F	13	79	61	71
Total nonfilterable residue	mg/L	14	4.0	<1	0.93
Oil and grease	mg/L	14	5.1	<1	1.5
Biochemical oxygen demand	mg/L	14	<1	<1	<1
Tetrachloroethylene	µg/L	6	<2	<2	<2
Trichloroethylene	µg/L	6	<2	<2	<2
1,1,1-Trichloroethane	µg/L	6	<2	<2	<2

Outfall A-014

Effluent consists of the following types of wastewater: air stripper wastewater and noncontact cooling water.

Flow	MGD ^a	21	4.36	1.66	2.34
pH	pH	24	7.3	6.1	
Temperature	°F	14	77	64	70
Total nonfilterable residue	mg/L	13	16	<1	3.2
Oil and grease	mg/L	13	9.1	<1	1.2
Biochemical oxygen demand	mg/L	13	3.8	<1	1.8
Tetrachloroethylene	µg/L	12	<2	<2	<2
Trichloroethylene	µg/L	12	<2	<2	<2
1,1,1-Trichloroethane	µg/L	12	<2	<2	<2

Outfall A-015

Effluent consists of the following types of wastewater: sanitary wastewater.

Flow	MGD	12	0.203	0.094	0.136
pH	pH	12	7.8	6.8	
Fecal coliform	#/100mL	13	<2	<2	<2
Total nonfilterable residue	mg/L	13	9.0	1.0	4.1
Biochemical oxygen demand	mg/L	13	8.4	1.0	3.7

a Million gallons per day

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
Outfall C-001					
<i>Effluent consists of the following types of wastewater: cooling water.</i>					
pH	pH	14	7.1	6.0	
Temperature	°F	13	81	48	68
Total nonfilterable residue	mg/L	14	3.0	<1	1.1
Oil and grease	mg/L	14	2.3	<1	0.78
Outfall C-003					
<i>Effluent consists of the following types of wastewater: cooling water.</i>					
pH	pH	14	7.2	6.1	
Temperature	°F	12	75	66	71
Total nonfilterable residue	mg/L	14	3.0	<1	<1
Oil and grease	mg/L	14	3.0	<1	<1
Outfall C-004					
<i>Effluent consists of the following types of wastewater: neutralization water, service wastewater, and C-Reactor cooling water.</i>					
pH	pH	13	7.2	6.1	
Temperature	°F	11	80	55	70
Total nonfilterable residue	mg/L	14	194	<1	18
Oil and grease	mg/L	13	3.4	<1	<1
Outfall C-004A					
<i>Effluent consists of the following types of wastewater: sanitary wastewater.</i>					
Flow	MGD ^a	12	0.049	0.017	0.022
pH	pH	12	8.0	7.2	
Fecal coliform	#/100mL	14	<2	<2	<2
Total nonfilterable residue	mg/L	13	6.0	1.0	3.0
Biochemical oxygen demand	mg/L	13	15	2.4	6.1

^a Million gallons per day

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
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Outfall D-001

Effluent consists of the following types of wastewater: cooling water, neutralization water, and heavy water.

pH	pH	18	7.4	6.2	
Temperature	°F	13	84	64	73
Total nonfilterable residue	mg/L	16	28	7.0	13
Oil and grease	mg/L	16	3.2	<1	<1

Outfall D-001A

Effluent consists of the following types of wastewater: sanitary wastewater.

Flow	MGD ^a	12	0.016	0.010	0.012
pH	pH	12	8.2	7.0	
Fecal coliform	#/100mL	14	<2	<2	<2
Total nonfilterable residue	mg/L	12	10	<1	2.9
Biochemical oxygen demand	mg/L	12	6.9	<1	2.6

Outfall D-001B

Effluent consists of the following types of wastewater: coal pile runoff.

Flow	MGD	40		No Flow	
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Outfall D-001C

Effluent consists of the following types of wastewater: ash basin discharge.

Flow	MGD	16	5.73	4.64	5.02
pH	pH	20	7.2	5.1	
Total nonfilterable residue	mg/L	16	8.0	2.0	3.9
Oil and grease	mg/L	16	2.8	<1	<1

Outfall D-003

Effluent consists of the following types of wastewater: power-house washdown water and water treatment plant wastewater.

Flow	MGD	12	1.357		.09
pH	pH	16	7.3	6.3	
Total nonfilterable residue	mg/L	16	6.0	1.0	2.2

^a Million gallons per day

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
Oil and grease	mg/L	17	17	<1	2.0

Outfall D-005

Effluent consists of the following types of wastewater: water filter backwash overflow.

Flow	MGD ^a	13		No Flow	
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Outfall D-006

Effluent consists of the following types of wastewater: cooling water, powerhouse washdown, and heavy water process water.

Flow	MGD	12	5.041		1.348
pH	pH	16	7.3	6.2	
Temperature	°F	12	82	56	71
Fecal coliform	#/100mL	17	19,999	<2	1,242
Total nonfilterable residue	mg/L	16	9.0	3.0	5.1
Oil and grease	mg/L	16	1.9	<1	<1

Outfall DW-001

Effluent consists of the following types of wastewater: wash-down water from concrete transit mixer trucks.

Flow	MGD	8	0.507	0.412	0.471
pH	pH	8	8.4	7.7	
Total nonfilterable residue	mg/L	8	27	2.0	10

Outfall DW-002

Effluent consists of the following types of wastewater: steam cleaning wastewater, stormwater runoff, and equipment wash water.

Flow	MGD	23	0.058	0.003	0.017
pH	pH	13	7.7	6.2	
Oil and grease	mg/L	23	9.8	<1	2.0

^a Million gallons per day

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
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Outfall DW-003

Effluent consists of the following types of wastewater: sanitary wastewater from DWPF (S Area).

Flow	MGD ^a	12	0.027	0.019	0.022
pH	pH	12	7.5	6.7	
Fecal coliform	#/100mL	14	13	<2	<2
Total nonfilterable residue	mg/L	13	45	2.0	10
Biochemical oxygen demand	mg/L	14	7.3	<1	2.7

Outfall DW-004

Effluent consists of the following types of wastewater: neutralization, cooling water, and steam condensate.

Flow	MGD	23	0.108	0.029	0.068
pH	pH	22	7.6	6.7	
Temperature	°F	21	88	59	67
Total nonfilterable residue	mg/L	22	4.0	<1	1.9
Oil and grease	mg/L	22	2.2	<1	0.77
Biochemical oxygen demand	mg/L	22	5.7	<1	1.6
Residual chlorine	mg/L	24	0.42	<0.1	0.13

Outfall F-001

Effluent consists of the following types of wastewater: non-process cooling water.

Flow	MGD	13	0.216	0.036	0.14
pH	pH	13	7.6	6.7	
Temperature	°F	12	82	68	70
Total nonfilterable residue	mg/L	13	5.0	<1	2.8
Oil and grease	mg/L	13	2.4	<1	0.85

Outfall F-002

Effluent consists of the following types of wastewater: non-process cooling water.

Flow	MGD	13	0.072	0.029	0.043
pH	pH	13	7.7	6.4	
Temperature	°F	12	77	52	65
Total nonfilterable residue	mg/L	13	10	<1	1.9

^a Million gallons per day

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
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Oil and grease	mg/L	13	2.8	<1	<1
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Outfall F-003

Effluent consists of the following types of wastewater: cooling water and steam condensate.

Flow	MGD ^a	13	0.108	0.036	0.070
pH	pH	12	8.3	6.2	
Temperature	°F	13	84	67	78
Total nonfilterable residue	mg/L	14	14	<1	4.0
Oil and grease	mg/L	13	1.4	<1	<1
Biochemical oxygen demand	mg/L	13	1.2	<1	<1

Outfall F-003A

Effluent consists of the following types of wastewater: sanitary wastewater.

Flow	MGD ^a	12	0.022	0.006	0.013
pH	pH	12	8.1	7.2	
Fecal coliform	#/100mL	14	<2	<2	<2
Total nonfilterable residue	mg/L	13	7.0	2.0	4.5
Biochemical oxygen demand	mg/L	13	4.2	<1	2.0

Outfall F-005

Effluent consists of the following types of wastewater: cooling water and steam condensate

Flow	MGD	13	0.108	0.043	0.069
pH	pH	13	7.7	5.7	
Temperature	°F	12	79	68	74
Total nonfilterable residue	mg/L	13	4.0	<1	2.3
Oil and grease	mg/L	13	2.9	<1	0.88

Outfall F-007

Effluent consists of the following types of wastewater: ash basin discharge.

Flow	MGD	12		No Flow	
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^a Million gallons per day

Table 68
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
Outfall F-008					
<i>Effluent consists of the following types of wastewater: neutralization, cooling water, steam condensate, process wastewater, and Outfall F-012 and Outfall F-013.</i>					
pH	pH	13	7.7	5.3	
Temperature	°F	12	84	59	77
Total nonfilterable residue	mg/L	13	21	1.0	4.8
Oil and grease	mg/L	13	1.3	<1	<1
Ammonia Nitrate	mg/L	4	0.41	<.01	.23
Nitrate Nitrogen	mg/L	4	2.03	0.902	1.43
Chromium	mg/L	4	<0.02	<0.02	<0.02
Copper	mg/L	4	.068	<.01	.025
Lead	mg/L	4	<0.003	.0044	.0033
Mercury	mg/L	4	<0.0001	<0.0001	<0.0001
Zinc	mg/L	4	0.056	0.03	0.043
Manganese	mg/L	4	0.038	0.008	0.023
Nickel	mg/L	4	0.005		
Aluminum	mg/L	4	0.462	0.181	0.288
Uranium	mg/L	4	<0.02	<0.02	<0.02
Outfall F-008A					
<i>Effluent consists of the following types of wastewater: sanitary wastewater.</i>					
Flow	MGD ^a	12	0.097	0.071	0.082
pH	pH	12	7.5	7.0	
Fecal coliform	#/100mL	14	<2	<2	<2
Total nonfilterable residue	mg/L	13	11	<1	2.9
Biochemical oxygen demand	mg/L	13	4.7	<1	2.1
Outfall F-012					
<i>Effluent consists of the following types of wastewater: stormwater runoff retention basin effluent.</i>					
Flow	MGD	22	1.15	0.59	0.74
pH	pH	22	8.4	6.4	
Nitrate	mg/L	22	0.36	<0.02	0.06
Ammonia	mg/L	22	1.6	<0.05	0.24

a Million gallons per day

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
Total nonfilterable residue	mg/L	22	13	3.0	6.1
Manganese	mg/L	22	0.019	0.001	0.009
Uranium	mg/L	22	<0.02	<0.02	<0.02
Lead	mg/L	22	0.010	<0.003	<0.003
Nickel	mg/L	22	<0.05	<0.05	<0.05
Silver	mg/L	22	<0.0005	<0.0005	<0.0005
Chromium	mg/L	22	0.02	<0.02	<0.02
Aluminum	mg/L	22	0.33	0.07	0.20
Copper	mg/L	22	0.012	<0.01	<0.01
Mercury	mg/L	22	<0.0001	<0.0001	<0.0001
Zinc	mg/L	22	0.14	0.008	0.098

Outfall F-013

*Effluent consists of the following
types of wastewater: cooling
water retention basin effluent.*

Flow	MGD ^a	2	0.73	0.47	. ^b
pH	pH	2	6.8	6.0	-
Nitrate	mg/L	2	0.07	0.02	-
Ammonia	mg/L	2	<0.05	<0.05	-
Total nonfilterable residue	mg/L	2	5.0	2.0	-
Manganese	mg/L	2	0.006	<0.005	-
Uranium	mg/L	2	<0.02	<0.02	-
Lead	mg/L	2	0.003	<0.003	-
Nickel	mg/L	2	<0.05	<0.05	-
Chromium	mg/L	2	<0.02	<0.02	-
Aluminum	mg/L	2	0.05	<0.05	-
Copper	mg/L	2	<0.01	<0.01	-
Mercury	mg/L	2	<0.0001	<0.0001	-
Zinc	mg/L	2	0.14	0.14	-

Outfall FS-001

*Effluent consists of the following
types of wastewater: cooling
water and greenhouse waste-
water.*

Flow	MGD	12	No Flow
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a Million gallons per day

b Insufficient data

Table 68
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
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Outfall FS-002

Effluent consists of the following types of wastewater: cooling water and greenhouse wastewater.

Flow	MGD ^a	12		No Flow	
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Outfall H-002

Effluent consists of the following types of wastewater: non-process cooling water and stormwater.

Flow	MGD	13	0.216	0.108	0.13
pH	pH	13	7.6	5.0	
Temperature	°F	13	88	59	69
Total nonfilterable residue	mg/L	13	9.0	<1	2.2
Oil and grease	mg/L	13	2.3	<1	0.94
Chemical oxygen demand	mg/L	2	1.68	1.2	
Total organic carbon	mg/L	2	1		

Outfall H-004

Effluent consists of the following types of wastewater: non-process cooling water.

Flow	MGD	10	0.014	0.003	0.007
pH	pH	10	7.6	5.8	
Temperature	°F	10	79	54	60
Total nonfilterable residue	mg/L	10	11	<1	1.6
Oil and grease	mg/L	10	1.6	<1	<1

Outfall H-006

Effluent consists of the following types of wastewater: stormwater.

Flow	MGD	12		No Flow	
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Outfall H-007

Effluent consists of the following types of wastewater: cooling tower blowdown, air compressor cooling water, and freeze protection purge from a water tank filling line.

Flow	MGD	13	0.014	0.007	0.041
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^a Million gallons per day

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
pH	pH	13	7.6	5.8	
Temperature	°F	13	79	52	64
Total nonfilterable residue	mg/L	13	10	2.0	5.5
Oil and grease	mg/L	13	1.9	<1	0.71
Residual chlorine	mg/L	14	0.27	<0.1	<0.1

Outfall H-008

Effluent consists of the following types of wastewater: cooling water, steam condensate, neutralization wastewater, and powerhouse wastewater.

Flow	MGD ^a	12	4.524		.799
pH	pH	13	7.5	6.0	
Temperature	°F	13	79	50	67
Total nonfilterable residue	mg/L	13	3.0	<1	1.8
Oil and grease	mg/L	13	2.3	<1	<1

Outfall H-008A

Effluent consists of the following types of wastewater: ash basin discharge.

Flow	MGD	13	0.38	0.014	0.228
pH	pH	13	7.3	6.2	
Total nonfilterable residue	mg/L	13	10	1.0	3.7
Oil and grease	mg/L	13	7.4	<1	1.4

Outfall H-012

Effluent consists of the following types of wastewater: cooling and steam condensate, Replacement Tritium Facility's decontamination showers, floor drains, Outfall H-017, and Outfall H-018.

Flow	MGD	12	1.61	0.31	0.93
Ammonia Nitrate	mg/L	4	0.847	<.5	.468
Nitrate Nitrogen	mg/L	4	10.6	0.69	3.915
Chromium	mg/L	4	<0.02	<0.02	<0.02
Copper	mg/L	4	0.037	<0.01	0.024
Lead	mg/L	4	0.005	<0.003	0.004
Mercury	mg/L	4	<0.0001	<0.0001	<0.0001
Zinc	mg/L	4	0.068	0.033	0.056
Manganese	mg/L	4	0.027	0.009	0.018

^a Million gallons per day

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
Nickel	mg/L	4	.003		
Aluminum	mg/L	4	0.24	0.103	0.169
Uranium	mg/L	4	<0.02	<0.02	
Sulfate	mg/L	4	17.2	13.1	14.9
pH	pH	12	7.6	6.5	
Temperature	°F	12	84	58	71
Total nonfilterable residue	mg/L	12	11	1.0	2.7
Oil and grease	mg/L	12	1.5	<1	<1

Outfall H-013

Effluent consists of the following types of wastewater: sanitary wastewater.

Flow	MGD ^a	12	0.091	0.050	0.062
pH	pH	13	7.6	7.0	
Fecal coliform	#/100mL	14	<2	<2	<2
Total nonfilterable residue	mg/L	13	14	3.0	6.3
Biochemical oxygen demand	mg/L	13	5.1	<1	3.0

Outfall H-015 (Facility not in service but point still on permit)

Effluent consists of the following types of wastewater: non-contact cooling water, steam condensate, and cooling tower blowdown.

Outfall H-016

Effluent consists of the following types of wastewater: process water, cooling water, and storm-water.

Temperature	°F	52	86	53	71
Biochemical oxygen demand	mg/L	52	4.3	<1	1.6
Nitrate	mg/L	52	58	0.61	18
Ammonia	mg/L	52	0.18	0.05	<0.5
Total nonfilterable residue	mg/L	52	<1	<1	<1
Oil and grease	mg/L	52	11	<1	1.4
Uranium	mg/L	12	<0.02	<0.02	<0.02
Lead	mg/L	52	0.011	<0.003	<0.003
Nickel	mg/L	13	<0.05	<0.05	<0.05
Mercury	mg/L	52	<0.0001	<0.0001	<0.0001
Chromium	mg/L	52	<0.02	<0.02	<0.02
Aluminum	mg/L	12	0.07	<0.05	<0.05

^a Million gallons per day

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
Copper	mg/L	52	0.16	<0.01	<0.01
Zinc	mg/L	52	0.13	<0.01	0.02
Manganese	mg/L	52	0.011	<0.002	<0.002
Total Chlorine	mg/L	12	0.14	<0.01	0.05

Outfall H-017

Effluent consists of the following types of wastewater: stormwater runoff retention basin effluent.

Flow	MGD ^a	36	1.30	0.73	1.06
pH	pH	36	8.8	6.2	
Nitrate	mg/L	36	0.50	0.02	0.08
Ammonia	mg/L	36	0.20	<0.01	0.08
Total nonfilterable residue	mg/L	36	25	2.0	9.9
Manganese	mg/L	36	<1	<1	<1
Uranium	mg/L	36	<0.02	<0.02	<0.02
Lead	mg/L	36	0.030	<0.003	0.004
Nickel	mg/L	36	<0.05	<0.05	<0.05
Chromium	mg/L	36	<0.02	<0.02	<0.02
Aluminum	mg/L	36	1.4	0.08	0.28
Copper	mg/L	36	<0.01	<0.01	<0.01
Mercury	mg/L	36	<0.0001	<0.0001	<0.0001
Zinc	mg/L	36	3.14	0.05	0.22

Outfall H-018

Effluent consists of the following types of wastewater: cooling water retention basin effluent.

Flow	MGD	4	1.18	0.691	^b
pH	pH	4	8.0	6.8	
Nitrate	mg/L	4	0.11	<0.02	-
Manganese	mg/L	4	0.03	<0.005	-
Total nonfilterable residue	mg/L	4	8.0	2.0	-
Ammonia	mg/L	4	0.07	<0.05	-
Uranium	mg/L	4	<0.02	<0.02	-
Lead	mg/L	4	0.005	<0.003	-
Nickel	mg/L	4	<0.05	<0.05	-
Silver	mg/L	4	<0.0005	<0.0005	-
Chromium	mg/L	4	<0.02	<0.02	-

a Million gallons per day

b Insufficient data

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
Aluminum	mg/L	4	0.12	0.07	- ^a
Copper	mg/L	4	<0.01	<0.01	-
Mercury	mg/L	4	<0.0001	<0.0001	-
Zinc	mg/L	4	0.13	0.03	-

Outfall K-001

Effluent consists of the following types of wastewater: cooling water.

Flow	MGD ^b	10	0.072	0.003	0.04
pH	pH	10	6.8	6.2	
Temperature	°F	10	83	46	70
Total nonfilterable residue	mg/L	10	5.0	2.0	3.7
Oil and grease	mg/L	10	2.8	<1	1.6
Sulfate	mg/L	4	9	5	-

Outfall K-006

Effluent consists of the following types of wastewater: nonprocess cooling water, ash sluice leakage, and powerhouse wastewater.

Flow	MGD	14	0.58	0.11	0.25
pH	pH	14	7.2	6.3	
Temperature	°F	14	81	57	67
Total nonfilterable residue	mg/L	14	12	1.0	6.3
Oil and grease	mg/L	14	8.0	<1	1.7

Outfall K-008

Effluent consists of the following types of wastewater: nonprocess cooling water.

Flow	MGD	12	0.576	0.108	0.312
pH	pH	12	7.3	6.2	
Temperature	°F	12	86	54	76
Total nonfilterable residue	mg/L	12	11	1.0	6.2
Oil and grease	mg/L	13	2.4	<1	<1

^a Insufficient data

^b Million gallons per day

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
Outfall K-010					
<i>Effluent consists of the following types of wastewater: nonprocess cooling water.</i>					
Flow	MGD ^a	14	0.72	0.043	0.268
pH	pH	14	7.2	6.3	
Temperature	°F	13	85	59	80
Total nonfilterable residue	mg/L	14	58	2.0	10
Oil and grease	mg/L	14	14	<1	1.7
Outfall K-011					
<i>Effluent consists of the following types of wastewater: neutralization wastewater, K-Reactor cooling water treatment, and reservoir wastewater.</i>					
pH	pH	14	7.6	6.0	
Temperature	°F	12	98	52	71
Total nonfilterable residue	mg/L	14	12	1.0	6.1
Oil and grease	mg/L	14	4.6	<1	<1
Outfall K-012					
<i>Effluent consists of the following types of wastewater: sanitary wastewater.</i>					
pH	pH	12	8.4	7.0	
Fecal coliform	#/100mL	14	<2	<2	<2
Total nonfilterable residue	mg/L	13	14	1.0	4.4
Biochemical oxygen demand	mg/L	13	16	<1	3.6
Outfall L-007					
<i>Effluent consists of the following types of wastewater: treated low activity wastewater, treated sanitary and neutralization tank waste, reactor cooling water, water treatment plant backflush, and reservoir overflow.</i>					
pH	pH	14	7.2	6.3	
Temperature	°F	11	78	56	69
Total nonfilterable residue	mg/L	14	18	3.0	6.8
Oil and grease	mg/L	14	14	<1	1.6

^a Million gallons per day

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
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Outfall L-007A

Effluent consists of the following types of wastewater: sanitary wastewater.

Flow	MGD ^a	12	0.024	0.007	0.016
pH	pH	14	8.2	6.9	
Fecal coliform	#/100mL	14	<2	<2	<2
Total nonfilterable residue	mg/L	13	13	1.0	4.2
Biochemical oxygen demand	mg/L	13	6.2	<1	2.2

Outfall L-008

Effluent consists of the following types of wastewater: nonprocess cooling water and water reservoir sump wastewater.

Flow	MGD	14	0.432	0.072	0.324
pH	pH	13	7.0	6.1	
Temperature	°F	12	82	53	68
Total nonfilterable residue	mg/L	14	8.0	2.0	4.4
Oil and grease	mg/L	14	6.8	<1	1.5

Outfall L-010

Effluent consists of the following types of wastewater: stormwater.

Flow	No Flow
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Outfall M-004

Effluent consists of the following types of wastewater: Liquid Effluent Treatment Facility wastewater.

Flow	MGD	36	0.056	0.007	0.021
pH	pH	20	7.7	6.5	
Nitrate	mg/L	13	1480	109	1031
Phosphate	mg/L	12	7.0	0.12	4.6
Total nonfilterable residue	mg/L	36	10	<1	3.7
Oil and grease	mg/L	36	7.3	<1	1.2
Uranium	mg/L	36	0.23	<0.02	<0.02
Lead	mg/L	36	0.013	<0.003	<0.003
Nickel	mg/L	36	<0.1	<0.05	<0.05
Silver	mg/L	1	<0.0005	^b	-

a Million gallons per day

b Insufficient data

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
Chromium	mg/L	2	<0.02	<0.02	- ^a
Aluminum	mg/L	36	0.80	<0.05	0.24
Copper	mg/L	36	<0.01	<0.01	<0.01
Cyanide	mg/L	1	<0.005	-	-
Cadmium	mg/L	2	<0.01	<0.01	-
Zinc	mg/L	2	0.04	0.02	-

Outfall M-005

Effluent consists of the following types of wastewater: air strip-per.

Flow	MGD ^b	53	0.75	0.072	0.66
pH	pH	25	7.5	5.8	
Tetrachloroethylene	µg/L	53	<2	<2	<2
Trichloroethylene	µg/L	53	<2	<2	<2
1,1,1-Trichloroethane	µg/L	53	<2	<2	<2

Outfall P-005

Effluent consists of the following types of wastewater: ash basin discharge.

Flow	MGD	1	0.734		-
pH	pH	1	6.1	-	

Outfall P-007

Effluent consists of the following types of wastewater: Power-house wastewater and nonprocess cooling water.

pH	pH	13		No Flow	
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Outfall P-013

Effluent consists of the following types of wastewater: neutralization, reactor process, and cooling water.

Flow	MGD	12	2.715		1.462
pH	ph	13	6.8	6.0	
Temperature	°F	12	81	55	70
Total nonfilterable residue	mg/L	13	4.0	<1	1.4
Oil and grease	mg/L	13	2.9	<1	<1

a Insufficient data

b Million gallons per day

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
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Outfall P-019

Effluent consists of the following types of wastewater: P-Reactor cooling water.

Flow	MGD ^a	12	40.717		4.997
pH	pH	12	7.0	6.3	
Temperature	°F	11	84	54	71
Total nonfilterable residue	mg/L	12	16	<1	2.9
Oil and grease	mg/L	12	1.6	<1	<1

Outfall P-020

Effluent consists of the following types of wastewater: sanitary wastewater.

Flow	MGD	12	0.058		0.010
pH	pH	12	8.8	7.6	
Fecal coliform	#/100mL	14	<2	<2	<2
Total nonfilterable residue	mg/L	13	4.0	1.0	2.2
Biochemical oxygen demand	mg/L	13	2.5	<1	1.2

Outfall PP-001

Effluent consists of the following types of wastewater: stormwater.

Flow	MGD	4	0.144	0.07	
pH		^b	^b	^b	
Oil and grease	mg/L	4	<1	<1	

Outfall CS-002

Effluent consists of the following types of wastewater: automotive shop and cooling wastewater.

Flow	MGD	25	0.040	0.003	0.024
pH	pH	8	6.6	6.1	
Temperature	°F	8	81	48	66
Total nonfilterable residue	mg/L	10	128	1.0	23
Oil and grease	mg/L	21	76	<1	7.6
Biochemical oxygen demand	mg/L	9	37	<1	5.2
Aluminum	mg/L	8	7.3	0.07	1.1
Iron	mg/L	8	9.0	0.22	1.5

a Million gallons per day

b Insufficient data

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
Outfall S-008					
<i>Effluent consists of the following types of wastewater: stormwater runoff and cooling wastewater.</i>					
Flow	MGD ^a	12		No Flow	
Outfall S-011					
<i>Effluent consists of the following types of wastewater: sanitary wastewater from Central Shops Area WWTP.</i>					
Flow	MGD	12	0.089	0.035	0.050
pH	pH	12	7.8	7.0	
Fecal coliform	#/100mL	14	<2	<2	<2
Total nonfilterable residue	mg/L	13	23	<1	4.9
Biochemical oxygen demand	mg/L	13	5.2	<1	2.01
Outfall S-014					
<i>Effluent consists of the following types of wastewater: stormwater.</i>					
Flow				No Flow	
Outfall SC-004					
<i>Effluent consists of the following types of wastewater: Steel Creek water monitoring below the dam at Road A.</i>					
Flow	MGD	12	198.414		66.541
pH	pH	12	7.0	6.2	
Dissolved oxygen	mg/L	365	12.6	3.9	8.226
Arsenic	mg/L	12	<0.003	<0.003	<0.003
Chromium	mg/L	12	<0.02	<0.02	<0.02
Lead	mg/L	12	0.005	<0.003	<0.003
Mercury	mg/L	12	<0.0001	<0.0001	<0.0001
Selenium	mg/L	12	<0.006	<0.006	<0.006
Cadmium	mg/L	12	<0.01	<0.01	<0.01
Silver	mg/L	12	<0.0005	<0.0005	<0.0005
Barium	mg/L	12	0.017	0.005	0.011
Nitrate	mg/L	12	0.14	0.03	0.07
Phosphate	mg/L	12	0.08	0.02	0.03

^a Million gallons per day

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
Outfall T-001					
<i>Effluent consists of the following types of wastewater: artificial stream water.</i>					
Flow	MGD ^a	3	0.007	0.003	
Outfall T-005					
<i>Effluent consists of the following types of wastewater: cooling water, boiler blowdown, and neutralized acid solutions.</i>					
Flow	MGD	3	0.108	0.004	.b
pH	pH	3	6.9	6.3	-
Temperature	°F	3	64	57	-
Total suspended solids	mg/L	3	5.0	<1	-
Biochemical oxygen demand	mg/L	3	5.1	<1	-
Oil and grease	mg/L	3	<1	<1	-
Outfall T-007					
<i>Effluent consists of the following types of wastewater: sanitary wastewater from B-Area.</i>					
Flow	MGD	12	0.023		0.007
pH	pH	24	8.1	7.1	
Fecal coliform	#/100mL	24	8.5	<2	1.4
Total nonfilterable residue	mg/L	24	8.0	<1	1.9
Biochemical oxygen demand	mg/L	24	10	<1	2.4
Residual chlorine	mg/L	24	19.3		8.23
Outfall X-004					
<i>Effluent consists of the following types of wastewater: cooling water.</i>					
Flow	MGD	12	0.0969		0.028
pH	pH	19	8.2	5.8	
Temperature	°F	13	90	70	79
Total nonfilterable residue	mg/L	16	4.0	<1	1.7
Oil and grease	mg/L	17	1.8	<1	<1

a Million gallons per day

b Insufficient data

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
Outfall X-008					
<i>Effluent consists of the following types of wastewater: cooling water, cooling tower blowdown, and domestic water overflow.</i>					
Flow	MGD ^a	12	0.36	0.04	0.26
pH	pH	16	7.2	6.1	
Temperature	°F	13	84	72	77
Total nonfilterable residue	mg/L	16	3.0	<1	1.8
Oil and grease	mg/L	16	2.8	<1	<1
Aluminum	mg/L	16	0.17	<0.05	<0.05
Iron	mg/L	16	1.6	0.65	1.0
Outfall X-011					
<i>Effluent consists of the following types of wastewater: cooling water, cooling tower blowdown, and domestic water overflow.</i>					
Flow	MGD	5	0.003	0.001	0.002
Outfall X-013					
<i>Effluent consists of the following types of wastewater: sanitary wastewater.</i>					
Flow	MGD	12	0.02		0.010
pH	pH	12	8.2	6.9	
Fecal coliform	#/100mL	14	<2	<2	<2
Total nonfilterable residue	mg/L	13	8.0	1.0	4.6
Biochemical oxygen demand	mg/L	13	3.1	<1	1.5
Outfall X-014					
<i>Effluent consists of the following types of wastewater: treated wastewater from TNX-ETP.</i>					
pH	MGD	12	8.6	6.5	
Biochemical oxygen demand	mg/L	52	38	<1	6.7
Total suspended solids	mg/L	52	28	<1	6.7
Oil and grease	mg/L	52	11	<1	1.3
Total organic carbon	mg/L	52	11	<1	2.5
Benzene	µg/L	52	<1	<1	<1
Phenol	mg/L	52	0.01	<0.002	<0.002
Mercury	mg/L	52	0.60	<0.1	0.19

a Million gallons per day

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/Year	Maximum	Minimum	Average
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Outfall Y-001

Effluent consists of the following types of wastewater: cooling water and locomotive wash water.

Flow	MGD ^a	12		No Flow	
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^a Million gallons per day

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National Pollutant Discharge Elimination System Monitoring Data

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Permit SC 0044903

Measurement	Units	Freq/Year	Maximum	Minimum	Average
Outfall A-001A					
<i>Effluent consists of the following types of wastewater: air stripper effluent</i>					
Flow	MGD ^a	40	0.098	0.058	0.079
pH	pH	40	7.8	4.7	
Tetrachloroethylene	µg/L	40	<2	<2	<2
Trichloroethylene	µg/L	40	<2	<2	<2
1,1,1-Trichloroethane	µg/L	40	<2	<2	<2

Outfall A-028^b

Effluent consists of the following types of wastewater: Power-house wastewater, water from floor drains, cooling water, and well flush water.

Outfall A-029^b

Effluent consists of the following types of wastewater: well flush water and tank overflow.

Outfall K-018^b

Effluent consists of the following types of wastewater: neutralization, K-Reactor cooling tower blowdown, and reservoir wastewater.

Outfall X008A^b

Effluent consists of the following types of wastewater: sanitary wastewater.

^a Million gallons per day
^b Not yet in service

Table 69
Savannah River Water Quality

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River-2 (Above SRS)							
Parameter ^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	6.26E11	5.59E11	9.56E11	7.39E11	4.43E11	6.09E11
Temperature	°C	10.6	9.1	15.7	14	19	19.4
pH ^b	pH	7.8	6.6	7.1	6.4	6.4	6.4
Dissolved oxygen ^b	mg/L	10.6	11.4	8.3	9.7	9.1	8.8
Alkalinity	mg/L	21	17	13	18	19	20
Conductivity ^b	µmhos/cm	78	85	64.7	70.6	79.6	87.2
Turbidity	NTU	3.32	2.22	33	4.71	4.85	3.67
Suspended solids	mg/L	3	4	18	11	6	9
Volatile solids	mg/L	1	1	3	2	2	6
Total dissolved solids	mg/L	54	57	68	56	58	80
Total solids	mg/L	57	61	86	67	64	89
Fixed residue	mg/L	2	3	15	9	4	4
Chemical oxygen demand	mg/L	7	9	24	12	<20	<20
Chloride	mg/L	5.84	7.64	5.4	6.75	6.14	5.45
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.23	.02	0.15	0.19	0.3	0.18
Sulfate	mg/L	6	7	6	7	7	7
Phosphates	mg/L	0.03	0.05	0.07	0.07	0.07	0.07
Aluminum	mg/L			0.104			0.081
Ammonia nitrogen	mg/L	0.09	0.27	0.17	0.14	0.23	0.11
Calcium	mg/L			3.787			3.956
Copper	mg/L			<0.01			<0.01
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			1.378			1.434
Manganese	mg/L			0.085			0.072
Mercury	µg/L			<1.0E-4			<1.0E-4
Nickel	mg/L			<0.01			<0.01
Sodium	mg/L			7.926			9.672
Iron	mg/L			0.483			0.338
Lead	mg/L			<0.01			<0.01
Chromium	mg/L			<0.01			<0.01
Zinc	mg/L			0.011			0.021

a Metals are analyzed quarterly from a continuous flow composite.

b Field measurement

Table 69
Savannah River Water Quality

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River-2 (Above SRS)

Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	5.36E11	6.27E11	5.36E11	9.24E11		2.10E12
Temperature ^b	°C	23	23.7	23.4	19.4	19.9	12.4
pH ^b	pH	5.7	5.8	6.76	6.8	6.1	6.7
Dissolved oxygen ^b	mg/L	7.4	7.6	7.2	8.1	7.6	9.1
Alkalinity	mg/L	20	17	18	19	21	14
Conductivity ^b	µmhos/cm	85	79.4	86.7	86	86	68
Turbidity	NTU	5.7	2.4	4.23	6.3	4.6	10.18
Suspended solids	mg/L	11	11	7	11	8	4
Volatile solids	mg/L	3	1	7	3	2	1
Total dissolved solids	mg/L	62	59	59	65	73	50
Total solids	mg/L	73	70	66	76	81	54
Fixed residue	mg/L	8	10	1	9	6	3
Chemical oxygen demand	mg/L	<20	<20	<20	<20	<20	<20
Chloride	mg/L	8.5	9.03	7.97	10.01	11.77	9.42
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.41	0.25	0.27	0.33	0.63	0.42
Sulfate	mg/L	7	8	8.22	8.45	9	4.73
Phosphates	mg/L	0.08	0.04	0.09	0.05	0.03	0.06
Aluminum	mg/L			0.702			0.289
Ammonia nitrogen	mg/L	0.14	0.14	0.22	0.11	0.07	0.06
Calcium	mg/L			3.45			3.29
Copper	mg/L			<0.01			<0.01
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			0.98			1.31
Manganese	mg/L			0.058			0.092
Mercury	µg/L			1E-04			<1.0E-4
Nickel	mg/L			<0.05			<0.05
Sodium	mg/L			8.3			8.32
Iron	mg/L			0.27			0.565
Lead	mg/L			<0.003			<0.003
Chromium	mg/L			<0.02			<0.02
Zinc	mg/L			<0.01			<0.01

a Metals are analyzed quarterly from a continuous flow composite.

b Field measurement

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Savannah River Water Quality

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River-3B (Below Plant Vogtle)

Parameter ^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	6.89E11	6.15E11	1.05E12	8.13E11	4.87E11	6.70E11
Temperature ^b	°C	10.5	9.6	16	14.1	19.7	19.7
pH ^b	pH	7.6	6.61	7	6.2	6.4	6.15
Dissolved oxygen ^b	mg/L	10.8	11.1	7.9	9.6	7.8	8.4
Alkalinity	mg/L	18	19	12	18	19	22
Conductivity ^b	µmhos/cm	76	95	62.4	78.7	80	95.5
Turbidity	NTU	3.55	2.54	32.3	4.97	4.69	3.85
Suspended solids	mg/L	8	6	26	10	5	7
Volatile solids	mg/L	3	2	2	2	2	3
Total dissolved solids	mg/L	53	61	62	56	64	86
Total solids	mg/L	61	67	88	66	69	93
Fixed residue	mg/L	6	4	24	8	4	5
Chemical oxygen demand	mg/L	8	9	22	13	<20	<20
Chloride	mg/L	4.87	7.45	5.16	6.5	6.87	7.88
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.25	0.23	0.14	0.17	0.44	0.3
Sulfate	mg/L	6	7	6	7	7	8
Phosphates	mg/L	0.02	0.05	0.08	0.06	0.07	0.07
Aluminum	mg/L			0.085			0.085
Ammonia nitrogen	mg/L	0.14	0.11	0.13	0.13	0.25	0.11
Calcium	mg/L			3.96			4.192
Copper	mg/L			<0.01			<0.01
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			1.335			1.461
Manganese	mg/L			0.088			0.074
Mercury	µg/L			<1.0E-4			<1.0E-4
Nickel	mg/L			<0.01			<0.01
Sodium	mg/L			8.107			10.399
Iron	mg/L			0.529			0.393
Lead	mg/L			<0.01			<0.01
Chromium	mg/L			<0.01			<0.01
Zinc	mg/L			0.013			0.025

a Metals are analyzed quarterly from a continuous flow composite.

b Field measurement

Table 69
Savannah River Water Quality

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River-3B (Below Plant Vogtle)

Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	5.90E11	6.90E11	5.90E11	1.02E12		2.13E12
Temperature ^b	°C	23.4	24.1	23.4	19.3	13.9	12
pH ^b	pH	5.7	5.76	6.85	6.5	6.3	6.4
Dissolved oxygen ^b	mg/L	7.2	7.5	7.2	8	7.4	8.9
Alkalinity	mg/L	19	17	18	19	20	15
Conductivity ^b	µmhos/cm	79	79.2	86.2	89	97	73
Turbidity	NTU	6.2	3.08	4.06	6.45	4.26	9.26
Suspended solids	mg/L	9	10	7	13	7	5
Volatile solids	mg/L	3	1	6	3	2	2
Total dissolved solids	mg/L	63	70	59	63	71	49
Total solids	mg/L	72	80	66	76	78	54
Fixed residue	mg/L	7	9	1	10	5	3
Chemical oxygen demand	mg/L	<20	<20	<20	<20	<20	<20
Chloride	mg/L	7.45	9.24	7.38	9.11	11.08	8.98
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.33	0.31	0.25	0.36	0.39	0.41
Sulfate	mg/L	8	7	7.95	8.79	8.76	5.21
Phosphates	mg/L	0.11	0.06	0.1	0.06	0.03	0.09
Aluminum	mg/L			0.404			0.266
Ammonia nitrogen	mg/L	0.13	0.07	0.18	0.11	0.06	0.02
Calcium	mg/L			3.39			3.46
Copper	mg/L			<0.01			<0.01
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			0.894			1.3
Manganese	mg/L			0.0575			0.071
Mercury	µg/L			<1.0E-4			<1.0E-4
Nickel	mg/L			<0.05			<0.05
Sodium	mg/L			8.15			8.33
Iron	mg/L			0.521			0.597
Lead	mg/l			<0.003			<0.003
Chromium	mg/L			<0.02			<0.02
Zinc	mg/L			0.011			0.016

a Metals are analyzed quarterly from a continuous flow composite

b Field measurement

Table 69
Savannah River Water Quality

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River-10 (Below SRS)							
Parameter ^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	6.79E11	6.09E11	1.00E12	8.15E11	4.72E11	6.89E11
Temperature ^b	°C	10.3	10.6	15.9	13.8	19.9	20.3
pH ^b	pH	7.1	6.12	7	6.05	6.4	6.34
Dissolved oxygen ^b	mg/L	10.3	9.2	7.9	8.9	7.5	8.1
Alkalinity	mg/L	19	19	19	18	18	21
Conductivity ^b	µmhos/cm	81	92	61	75	79.8	92.7
Turbidity	NTU	3.56	3.29	32.4	4.95	4.62	4.02
Suspended solids	mg/L	6	7	48	9	10	11
Volatile solids	mg/L	2	2	6	2	3	3
Total dissolved solids	mg/L	55	68	61	56	64	72
Total solids	mg/L	61	75	109	65	74	83
Fixed residue	mg/L	4	5	42	6	8	8
Chemical oxygen demand	mg/L	8	7	21	13	<20	<20
Chloride	mg/L	6.27	9.28	4.89	6.48	7.71	6.96
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.28	0.24	0.17	0.18	0.44	0.11
Sulfate	mg/L	7	8	6	8	8	8
Phosphates	mg/L	0.03	0.04	0.07	0.07	0.08	0.06
Aluminum	mg/L			0.166			0.082
Ammonia nitrogen	mg/L	0.32	0.24	0.13	0.13	0.14	0.06
Calcium	mg/L			4.392			4.352
Copper	mg/L			<0.01			<0.01
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			1.398			1.385
Manganese	mg/L			0.102			0.063
Mercury	µg/L			<1.0E-4			<1.0E-4
Nickel	mg/L			<0.01			<0.01
Sodium	mg/L			8.424			10.101
Iron	mg/L			0.658			0.49
Lead	mg/L			<0.01			<0.01
Chromium	mg/L			<0.01			<0.01
Zinc	mg/L			0.012			0.013

a Metals are analyzed quarterly from a continuous flow composite.

b Field measurement

Table 69
Savannah River Water Quality

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River-10 (Below SRS)

Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	5.88E11	6.61E11	5.53E11	9.97E11	1.06E12	2.38E12
Temperature ^b	°C	23.7	24.8	23.7	18.9	20.1	10.9
pH ^b	pH	5.9	6.9	6.7	5.94	6.22	6.4
Dissolved oxygen ^b	mg/L	6.9	6.6	6.4	7.3	7.3	8.4
Alkalinity	mg/L	19	17	17	19	21	15
Conductivity ^b	µmhos/cm	81	92.4	91.3	89.9	100	57
Turbidity	NTU	5.15	2.86	4.14	3.42	4.29	7.68
Suspended solids	mg/L	13	10	10	8	12	3
Volatile solids	mg/L	4	1	9	3	3	2
Total dissolved solids	mg/L	58	70	59	72	67	51
Total solids	mg/L	71	80	69	80	79	54
Fixed residue	mg/L	9	9	1	6	10	2
Chemical oxygen demand	mg/L	<20	<20	<20	<20	<20	<20
Chloride	mg/L	7.39	10.4	9.4	9.76	11.57	8.71
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.43	0.36	0.28	0.31	0.4	0.14
Sulfate	mg/L	9	7	8.65	8.19	9.51	5.73
Phosphates	mg/L	0.1	0.05	0.06	0.06	0.03	0.09
Aluminum	mg/L			0.425			0.306
Ammonia nitrogen	mg/L	0.09	0.03	0.21	0.04	0.05	0.06
Calcium	mg/L			3.88			3.63
Copper	mg/L			<0.01			<0.01
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			0.917			1.29
Manganese	mg/L			<0.06			0.06
Mercury	µg/L			0.917			<1.0E-4
Nickel	mg/L			<0.05			<0.05
Sodium	mg/L			8.48			8.01
Iron	mg/L			0.635			0.55
Lead	mg/L			<0.003			<0.003
Chromium	mg/L			<0.02			<0.02
Zinc	mg/L			0.011			<0.01

a Metals are analyzed quarterly from a continuous flow composite

b Field measurement

Table 70
SRS Stream Water Quality

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Tims Branch 5

Parameter^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	6.60E8	5.79E8	5.84E8	4.86E8	3.62E8	6.13E8
Temperature	°C	7.7	8.4	10.8	14.3	14	19.2
pH ^b	pH	7.6	6.3	6.5	6.7	6.5	6.2
Dissolved oxygen ^b	mg/L	11.3	10.66	10.8	9.6	9.2	10.4
Alkalinity	mg/L	8	11	16	13	15	12
Conductivity ^b	µmhos/cm	41	50	51	50	112	72.5
Total organic carbon		2.52	2.75	3.81	6.78	3.99	6.88
Turbidity	NTU	5.26	6.08	8.92	7.59	11.88	29.1
Suspended solids	mg/L	4	8	7	9	7	35
Volatile solids	mg/L	2	3	2	4	3	11
Total dissolved solids	mg/L	29	34	37	45	83	101
Total solids	mg/L	33	42	44	54	90	136
Fixed residue	mg/L	2	5	5	5	4	25
Chemical oxygen demand	mg/L	5	8	9	14	<20	20
Chloride	mg/L	1.35	3.56	3.17	3.02	3.16	2.66
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.68	0.89	0.81	0.74	5.99	0.14
Sulfate	mg/L	2	2	2	13	13	11
Phosphates	mg/L	0.03	0.04	0.09	0.07	0.08	0.13
Aluminum	mg/L			0.105			0.165
Ammonia nitrogen	mg/L	0.06	0.14	0.11	0.17	0.12	0.07
Calcium	mg/L			1.186			1.395
Copper	mg/L			0.023			<0.01
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			0.478			0.494
Manganese	mg/L			0.052			0.069
Mercury	µg/L			<1.0E-4			<1.0E-4
Nickel	mg/L			<0.01			0.02
Sodium	mg/L			7.276			13.515
Iron	mg/L			1.367			1.961
Lead	mg/L			<0.01			0.02
Chromium	mg/L			<0.01			<0.01
Zinc	mg/L			0.013			0.016

a Metals are analyzed quarterly from a monthly grab composite.

b Field measurements

Table 70
SRS Stream Water Quality

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Tims Branch 5

Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	4.13E8	5.81E8	4.93E8	5.03E8	7.08E8	6.98E8
Temperature ^b	°C	21.1	22.6	20.7	18.1	18.8	9.6
pH ^b	pH	7.2	6.3	6.9	6.6	7.4	6.8
Dissolved oxygen ^b	mg/L	8.2	6.7	8.5	8.1	7.1	10.4
Alkalinity	mg/L	17	8	18	22	14	12
Conductivity ^b	µmhos/cm	53	92	114	80	84.7	60
Total organic carbon		3.18	9.6	4.94	10.3	10.5	2.73
Turbidity	NTU	5.96	14.98	6.24	9.82	38	9.68
Suspended solids	mg/L	7	43	7	9	34	11
Volatile solids	mg/L	4	12	6	4	11	1
Total dissolved solids	mg/L	50	99	21	59	74	42
Total solids	mg/L	57	142	28	68	108	53
Fixed residue	mg/L	3	31	1	5	23	10
Chemical oxygen demand	mg/L	<20	23	<20	<20	27	<20
Chloride	mg/L	9.33	6.82	2.99	6.86	10.38	11.65
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.54	0.01	2.3	1.26	1.54	1.45
Sulfate	mg/L	16	2	13.7	9.61	11.4	4.48
Phosphates	mg/L	0.06	0.15	0.07	0.08	0.07	0.12
Aluminum	mg/L			0.765			0.593
Ammonia nitrogen	mg/L	0.04	0.07	0.08	0.08	0.02	<0.02
Calcium	mg/L			1.24			1.02
Copper	mg/L			<0.01			<0.01
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			0.383			0.45
Manganese	mg/L			0.0794			0.072
Mercury	µg/L			<1.0E-4			<1.0E-4
Nickel	mg/L			<0.05			<0.05
Sodium	mg/L			11.7			11.9
Iron	mg/L			1.69			2.14
Lead	mg/L			<0.003			<0.003
Chromium	mg/L			<0.02			<0.02
Zinc	mg/L			0.014			0.017

a Metals are analyzed quarterly from a monthly grab composite.

b Field measurements

Table 70
SRS Stream Water Quality

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Steel Creek 4 at Road A		Jan	Feb	Mar	April	May	June
Parameter ^a	Units						
Water volume	L	6.55E9	6.17E9	9.11E9	9.48E9	8.35E9	1.05E10
Temperature ^b	°C	10.3	8.7	13.9	15.6	19.4	22
pH ^b	pH	6.9	6.3	6.3	6.5	6.8	6.2
Dissolved oxygen ^b	mg/L	9.97	9.6	10.3	9.7	7	7.9
Alkalinity	mg/L	14	12	14	11	13	13
Conductivity ^b	µmhos/cm	65	63	62	59.6	65	59.4
Total organic carbon		4.15	3.18	3.16	6.2	6.08	4.58
Turbidity	NTU	0.86	1.35	1.85	1.47	1.4	2.09
Suspended solids	mg/L	2	3	2	1	4	3
Volatile solids	mg/L	1	2	1	2	2	54
Total dissolved solids	mg/L	40	44	39	41	43	59
Total solids	mg/L	42	47	41	42	47	59
Fixed residue	mg/l.	<1	2	1	<1.0	3	2
Chemical oxygen demand	mg/L	8	9	9	12	<20	<20
Chloride	mg/L	5.01	5.95	5.73	4.82	6	3.54
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.16	0.14	0.04	0.06	0.07	0.02
Sulfate	mg/L	5	6	6	6	6	5
Phosphates	mg/L	0.01	0.01	0.03	0.02	0.03	0.03
Aluminum	mg/L			0.022			<0.01
Ammonia nitrogen	mg/L	0.09	0.14	0.1	0.2	0.19	0.08
Calcium	mg/L			2.947			2.37
Copper	mg/L			0.011			<0.01
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			1.127			1.137
Manganese	mg/L			0.013			0.031
Mercury	µg/L			<1.0E-4			<1.0E-4
Nickel	mg/L			<0.01			<0.01
Sodium	mg/L			7.121			7.511
Iron	mg/L			0.13			0.139
Lead	mg/L			<0.01			<0.01
Chromium	mg/L			<0.01			<0.01
Zinc	mg/L			<0.01			0.011

a Metals are analyzed quarterly from a monthly grab composite.
b Field measurements

Table 70
SRS Stream Water Quality

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Steel Creek 4 at Road A

Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	5.66E9	7.12E9	6.53E9	7.82E9	8.01E9	6.90E9
Temperature	°C	27.4	27	27	20.6	20.4	11.8
pH ^b	pH	6.6	6.7	7.2	6.7	6.8	6.5
Dissolved oxygen ^b	mg/L	7.1	6.4	6.6	7.7	7.5	9.2
Alkalinity	mg/L	14	12	11	15	12	13
Conductivity ^b	µmhos/cm	61	70	63	60	65.8	64
Total organic carbon		3.68	3.38	6.17	5.92	2.86	3.14
Turbidity	NTU	1.35	1.86	1.66	1.17	1.5	2.99
Suspended solids	mg/L	6	9	3	3	2	1
Volatile solids	mg/L	4	2	2	2	2	<1.0
Total dissolved solids	mg/L	44	46	42	47	44	45
Total solids	mg/L	50	55	45	50	46	46
Fixed residue	mg/L	3	7	1	1	1	1
Chemical oxygen demand	mg/L	<20	<20	<20	<20	<20	<20
Chloride	mg/L	6.66	6.7	5.48	8.11	6.52	14.48
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.11	0.14	0.04	0.07	0.17	0.13
Sulfate	mg/L	6	6	6.45	6.6	6.12	5.97
Phosphates	mg/L	0.03	0.01	0.03	<0.01	0.02	0.01
Aluminum	mg/L			0.204			0.07
Ammonia nitrogen	mg/L	0.11	0.04	0.14	0.01	0.05	0.03
Calcium	mg/L			1.74			1.9
Copper	mg/L			<0.01			<0.01
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			0.764			1.07
Manganese	mg/L			0.0596			0.023
Mercury	µg/L			<1.0E-4			<1.0E-4
Nickel	mg/L			<0.05			<0.05
Sodium	mg/L			5.87			7.08
Iron	mg/L			0.263			0.158
Lead	mg/L			<0.003			<0.003
Chromium	mg/L			<0.02			<0.02
Zinc	mg/L			<0.01			<0.01

a Metals are analyzed quarterly from a monthly grab composite.

b Field measurements

Table 70
SRS Stream Water Quality

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Upper Three Runs 4 at Road A

Parameter ^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	2.23E10	1.99E10	2.01E10	1.85E10	1.33E10	1.96E10
Temperature ^b	°C	9.3	8.9	13.6	16.4	14.6	19.1
pH ^b	pH	7.5	6.1	6	6.8	6.5	5.66
Dissolved oxygen ^b	mg/L	10.1	9.5	8.9	8.6	8.1	9.5
Alkalinity	mg/L	3	3	4	4	4	3
Conductivity ^b	µmhos/cm	23	25	22	21.6	28	27.6
Total organic carbon		3.85	2.7	4.54	4.96	4.47	6.86
Turbidity	NTU	2.4	2.97	4.87	4.2	7.3	25.1
Suspended solids	mg/L	3	5	8	6	13	43
Volatile solids	mg/L	3	3	3	3	6	18
Total dissolved solids	mg/L	24	27	26	26	32	48
Total solids	mg/L	27	32	34	32	45	91
Fixed residue	mg/L	0	2	5	3	7	25
Chemical oxygen demand	mg/L	9	2	13	13	21	<20
Chloride	mg/L	<1	2.1	1.84	0.97	1.46	1.59
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.18	0.15	0.11	0.14	0.44	0.13
Sulfate	mg/L	2	2	2	2	2	4
Phosphates	mg/L	0.01	0.02	0.04	0.03	0.16	0.1
Aluminum	mg/L			0.1144			0.211
Ammonia nitrogen	mg/L	0.06	0.11	0.08	0.17	0.11	0.06
Calcium	mg/L			1.62			2.234
Copper	mg/L			<0.01			<0.01
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			0.341			0.411
Manganese	mg/L			0.018			0.05
Mercury	µg/L			<1.0E-4			<1.0E-4
Nickel	mg/L			<0.01			<0.01
Sodium	mg/L			1.53			1.921
Iron	mg/L			0.443			0.855
Lead	mg/L			<0.01			<0.01
Chromium	mg/L			<0.01			<0.01
Zinc	mg/L			0.011			0.021

a Metals are analyzed quarterly from a monthly grab composite.

b Field measurements

Table 70
SRS Stream Water Quality

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Upper Three Runs 4 at Road A

Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	1.56E10	2.03E10	1.55E10	1.91E10	2.43E10	2.56E10
Temperature ^b	°C	22.5	23.4	21.9	18.3	19.1	8.9
pH ^b	pH	7	6.2	7	6.1	7	6.9
Dissolved oxygen ^b	mg/L	7.5	6.6	7.3	7.6	6.2	9.8
Alkalinity	mg/L	3	4	4	4	4	4
Conductivity ^b	µmhos/cm	21	33	30	25	33.7	26
Total organic carbon		3.16	7.55	5.58	10.3	10.8	3.97
Turbidity	NTU	3.55	43.4	3.07	5.41	11.65	2.79
Suspended solids	mg/L	8	69	5	7	9	2
Volatile solids	mg/L	5	12	5	4	4	<1.0
Total dissolved solids	mg/L	27	51	31	42	50	30
Total solids	mg/L	35	120	40	49	59	32
Fixed residue	mg/L	4	57	<1	4	5	2
Chemical oxygen demand	mg/L	<20	<20	<20	<20	<20	<20
Chloride	mg/L	2.96	4.37	0.15	3.99	8.33	13.84
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.14	0.14	0.1	0.05	0.13	0.24
Sulfate	mg/L	5	1	2.82	5.63	4.55	2.54
Phosphates	mg/L	0.04	0.15	0.05	0.03	0.03	0.04
Aluminum	mg/L			0.234			0.143
Ammonia nitrogen	mg/L	0.12	<0.02	0.07	<0.02	0.01	<0.02
Calcium	mg/L			1.51			1.6
Copper	mg/L			<0.01			<0.01
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			0.235			0.361
Manganese	mg/L			0.0152			0.008
Mercury	µg/L			<1.0E-4			<1.0E-4
Nickel	mg/L			<0.05			<0.05
Sodium	mg/L			0.783			1.64
Iron	mg/L			0.47			0.464
Lead	mg/L			<0.003			<0.003
Chromium	mg/L			<0.02			<0.02
Zinc	mg/L			<0.01			0.012

a Metals are analyzed quarterly from a monthly grab composite.

b Field measurements

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SRS Stream Water Quality

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Four Mile Creek at Road A7

Parameter^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	1.54E9	1.52E9	1.38E9	1.26E9	8.12E8	1.52E9
Temperature ^b	°C	6.7	7.6	11.5	15.4	14	20.6
pH ^b	pH	7	6.2	6.2	6.4	6.5	5.83
Dissolved oxygen ^b	mg/L	10.9	10.1	10.5	8.9	7.9	7.5
Alkalinity	mg/L	5	8	8	7	9	5
Conductivity ^b	µmhos/cm	76	67	66	63	72	50.7
Total organic carbon		2.13	1.91	2.77	3.26	4.59	4.93
Turbidity	NTU	1.33	1.97	3.1	1.68	4	15.46
Suspended solids	mg/L	4	5	1	2	1	5
Volatile solids	mg/L	2	2	1	2	1	2
Total dissolved solids	mg/L	51	47	44	44	56	67
Total solids	mg/L	55	52	45	46	57	72
Fixed residue	mg/L	2	3	<1	<1.0	1	3
Chemical oxygen demand	mg/L	2	<1	5	8	<20	<20
Chloride	mg/L	3.43	3.08	2.51	2.38	4.04	3.75
Nitrogen (as NO ₂ /NO ₃)	mg/L	3.51	3.37	3.36	3.72	4.06	1.1
Sulfate	mg/L	7	6	5	5	5	6
Phosphates	mg/L	0.01	0.01	0.02	0.01	0.02	0.02
Aluminum	mg/L			0.118			0.094
Ammonia nitrogen	mg/L	0.11	0.26	0.11	0.15	0.12	0.05
Calcium	mg/L			3.006			3.193
Copper	mg/L			0.011			<0.01
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			0.62			0.63
Manganese	mg/L			0.157			0.089
Mercury	µg/L			<1.0E-4			1E-04
Nickel	mg/L			<0.01			<0.01
Sodium	mg/L			8.256			7.315
Iron	mg/L			0.514			0.533
Lead	mg/L			<0.01			<0.01
Chromium	mg/L			<0.01			<0.01
Zinc	mg/L			0.016			0.02

a Metals are analyzed quarterly from a monthly grab composite
b Field measurements

Table 70
SRS Stream Water Quality

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Four Mile Creek at Road A7

Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	1.45E9	6.83E7	8.89E8	1.37E9	1.68E9	1.32E9
Temperature ^b	°C	24.1	23.6	22.7	18.6	19.5	8.3
pH ^b	pH	6.8	6.3	7	6.1	6.6	6.4
Dissolved oxygen ^b	mg/L	6.4	5.3	6.7	6.6	5.5	10.1
Alkalinity	mg/L	15	5	15	13	11	7
Conductivity ^b	µmhos/cm	67	58	74	69	81.7	60
Total organic carbon		3.5	6.13	7.33	5.87	5.72	3.79
Turbidity	NTU	3.34	76	3.59	3.56	9.49	16.69
Suspended solids	mg/L	4	40	2	4	8	26
Volatile solids	mg/L	3	7	2	3	3	1
Total dissolved solids	mg/L	55	67	61	53	63	47
Total solids	mg/L	59	107	63	57	71	73
Fixed residue	mg/L	1	33	1	1	5	25
Chemical oxygen demand	mg/L	<20	<20	<20	<20	<20	<20
Chloride	mg/L	3.18	3.02	2.03	5.42	9.02	10.07
Nitrogen (as NO ₂ /NO ₃)	mg/L	2.63	2.89	1.84	1.58	2.4	2.12
Sulfate	mg/L	4	4	8.97	5.01	8.44	5.71
Phosphates	mg/L	0.03	0.06	0.06	0.02	0.06	0.02
Aluminum	mg/L			0.865			0.482
Ammonia nitrogen	mg/L	0.05	0.01	0.17	<0.02	0.01	0.04
Calcium	mg/L			2.73			2.79
Copper	mg/L			<0.01			<0.01
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			0.491			0.719
Manganese	mg/L			0.0895			0.16
Mercury	µg/L			<1.0E-4			<1.0E-4
Nickel	mg/L			<0.05			<0.05
Sodium	mg/L			6.05			7.5
Iron	mg/L			1.21			1.51
Lead	mg/L			<0.003			<0.003
Chromium	mg/L			<0.02			0.037
Zinc	mg/L			0.027			0.013

a Metals are analyzed quarterly from a monthly grab composite.

b Field measurements

Table 70
SRS Stream Water Quality

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Crouch Branch							
Parameter^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	1.35E7	3.16E6	6.76E6	1.64E6	8.45E6	1.31E7
Temperature ^a	°C	9.2	8.3	10.5	13.7	13.8	21.2
pH ^a	pH	6	5.8	5.75	5.4	5.5	7.2
Dissolved oxygen ^a	mg/L	8.8	7.7	7.3	5.4	6.2	6
Conductivity ^a	µmhos/cm	74	78	70	68	74	75
Turbidity	NTU	69.1	53.8	40.7	9.95	19.21	93.1
Suspended solids	mg/L	22	15	7	6	8	59

Crouch Branch							
Parameter^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	1.69E6	2.53E7	4.09E6	8.45E6	2.04E7	1.69E7
Temperature ^a	°C	23	24.6	22	19.2	18.9	8.7
pH ^a	pH	5.8	6.7	6.1	6.3	6.29	7.3
Dissolved oxygen ^a	mg/L	4	5.2	4.5	6.5	5.4	10.9
Conductivity ^a	µmhos/cm	76.7	75	76	87.2	80	116
Turbidity	NTU	11.08	116.2	13.8	42.4	105.1	106.8
Suspended solids	mg/L	10	60	9	15	36	30

^a Field measurements

Table 70
SRS Stream Water Quality

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Lower Three Runs-2

Parameter ^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	9.41E9	8.88E9	8.50E9	5.45E9	4.16E9	7.05E9
Temperature ^b	°C	7.5	8.8	11.6	14.8	14	20.4
pH ^b	pH	6.3	6.3	6.67	6.5	5.7	7.1
Dissolved oxygen ^b	mg/L	11.5	9.8	10.3	8.8	8.1	7
Alkalinity	mg/L	23	25	25	27	28	23
Conductivity ^b	µmhos/cm	67	70	66	64	70	59
Turbidity	NTU	2.26	2.42	1.98	1.24	1.68	2.35
Suspended solids	mg/L	4	6	1	2	9	6
Volatile solids	mg/L	3	3	1	2	5	3
Total dissolved solids	mg/L	47	51	40	44	53	70
Total solids	mg/L	51	57	41	46	62	76
Fixed residue	mg/L	1	4	<1	1	4	3
Chemical oxygen demand	mg/L	8	10	11	13	<20	<20
Chloride	mg/L	2.08	3.37	4.26	2.21	2.61	1.06
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.11	0.07	0.03	0.03	0.18	0.04
Sulfate	mg/L	3	3	3	3	3	<1
Phosphates	mg/L	0.01	0.03	0.02	0.1	0.09	0.06
Aluminum	mg/L			0.049			<0.01
Ammonia nitrogen	mg/L	0.11	0.1	0.1	0.09	0.18	0.09
Calcium	mg/L			8.905			9.1
Copper	mg/L			0.018			0.01
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			0.787			0.781
Manganese	mg/L			0.019			0.039
Mercury	µg/L			<1.0E-4			<1.0E-4
Nickel	mg/L			<0.01			<0.01
Sodium	mg/L			3.155			3.139
Iron	mg/L			0.236			0.231
Lead	mg/L			0.013			<0.01
Chromium	mg/L			<0.01			<0.01
Zinc	mg/L			0.011			0.012

a Metals are analyzed quarterly from a monthly grab composite.

b Field measurements

Table 70
SRS Stream Water Quality

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Lower Three Runs-2							
Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	5.54E9	5.08E9	4.28E9	6.74E9	8.53E9	6.57E9
Temperature ^b	°C	24.1	24.8	24	19	19.5	10.7
pH ^b	pH	6.5	5.8	6.4	6.4	6.33	7.6
Dissolved oxygen ^b	mg/L	6.8	6.5	7	6	5.8	9.3
Alkalinity	mg/L	21	19	22	23	23	20
Conductivity ^b	µmhos/cm	63	65	71	69.7	40	62
Turbidity	NTU	1.77	2.81	1.37	1.41	2.04	3.38
Suspended solids	mg/L	7	10	7	3	3	3
Volatile solids	mg/L	4	3	5	2	2	<1.0
Total dissolved solids	mg/L	47	56	47	62	57	51
Total solids	mg/L	54	66	54	65	60	54
Fixed residue	mg/L	3	7	2	1	2	3
Chemical oxygen demand	mg/L	21	<20	<20	<20	<20	<20
Chloride	mg/L	3.19	2.89	2.46	6.23	5.57	13.27
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.12	0.23	0.1	0.13	0.16	0.36
Sulfate	mg/L	4	3	3.94	4.96	6.06	3.87
Phosphates	mg/L	0.04	0.04	0.04	0.01	0.03	0.05
Aluminum	mg/L			0.09			<0.05
Ammonia nitrogen	mg/L	0.11	0.05	0.09	0.01	0.02	0.08
Calcium	mg/L			6.34			6.95
Copper	mg/L			<0.01			<0.01
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			0.478			0.691
Manganese	mg/L			0.0245			0.014
Mercury	µg/L			<1.0E-4			<1.0E-4
Nickel	mg/L			<0.05			<0.05
Sodium	mg/L			1.89			2.72
Iron	mg/L			0.197			0.266
Lead	mg/L			<0.003			<0.003
Chromium	mg/L			<0.02			<0.02
Zinc	mg/L			0.011			<0.01

a Metals are analyzed quarterly from a monthly grab composite.

b Field measurements

Table 70
SRS Stream Water Quality

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McQueens Branch

Parameter	Units	Jan	Feb	Mar	April	May	June
Water volume	L	5.07E7	1.58E7	3.38E7	1.81E6	5.07E7	1.64E7
Temperature ^a	°C	8.4	9.7	10.5	14.5	12.9	19.7
pH ^a	pH	6.1	6	6	5.7	5.4	7.3
Dissolved oxygen ^a	mg/L	10.7	10	9.7	8.5	8.2	7.9
Conductivity ^a	µmhos/cm	40	45	44	43	43	43
Turbidity	NTU	6.73	19.66	10.19	9.85	60.8	39.7
Suspended solids	mg/L	2	11	2	5	25	14

McQueens Branch

Parameter	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	6.76E7	1.01E8	6.54E7	3.38E7	3.27E7	3.38E8
Temperature ^a	°C	23	23.2	21.5	18.4	18.6	9.4
pH ^a	pH	6.4	6.4	6.3	6.2	6.3	7.8
Dissolved oxygen ^a	mg/L	7.5	7.6	8.3	7.2	8	11.6
Conductivity ^a	µmhos/cm	42	45	53	57.7	40	46
Turbidity	NTU	10.35	50.1	11.05	18.6	33.1	49.9
Suspended solids	mg/L	5	13	4	5	18	16

^a Field measurements

Table 70
SRS Stream Water Quality

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Pen Branch-3							
Parameter^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	4.22E9	1.05E10	1.15E10	1.19E10	2.24E10	3.07E10
Temperature ^b	°C	8.7	9.8	13.5	15.8	14.7	20.9
pH ^b	pH	6.1	6.7	6.44	6.4	6	7.3
Dissolved oxygen ^b	mg/L	11.3	10.9	10.5	10.9	8.4	8.8
Alkalinity	mg/L	14	16	15	16	19	18
Conductivity ^b	µmhos/cm	70	79	64	65	77	69
Turbidity	NTU	4.12	5.2	27.9	5.64	9.8	8.1
Suspended solids	mg/L	5	8	15	8	11	17
Volatile solids	mg/L	3	2	3	3	4	6
Total dissolved solids	mg/L	48	61	61	50	57	60
Total solids	mg/L	53	69	76	58	68	77
Fixed residue	mg/L	2	6	12	6	7	11
Chemical oxygen demand	mg/L	9	12	18	13	<20	<20
Chloride	mg/L	4.81	7.45	5.06	5.05	7.46	3.96
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.28	0.21	0.2	0.23	0.43	0.16
Sulfate	mg/L	6	7	5	4	6	5
Phosphates	mg/L	0.03	0.04	0.07	0.08	0.18	0.14
Aluminum	mg/L			0.107			0.055
Ammonia nitrogen	mg/L	0.14	0.15	0.13	0.13	0.12	0.07
Calcium	mg/L			4.198			4.172
Copper	mg/L			0.138			0.158
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			1.169			1.258
Manganese	mg/L			0.037			0.031
Mercury	µg/L			<1.0E-4			<1.0E-4
Nickel	mg/L			<0.01			<0.01
Sodium	mg/L			7.42			9.306
Iron	mg/L			0.444			0.351
Lead	mg/L			0.011			<0.01
Chromium	mg/L			<0.01			<0.01
Zinc	mg/L			0.016			0.018

^a Metals are analyzed quarterly from a monthly grab composite.

^b Field measurements

Table 70
SRS Stream Water Quality

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Pen Branch-3							
Parameter^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	3.39E10	6.95E9	7.86E8	1.46E9	1.96E9	1.25E9
Temperature ^b	°C	30.6	25.4	23	18.6	19.7	10.4
pH ^b	pH	6.8	6.5	6.3	6.4	6.5	7.6
Dissolved oxygen ^b	mg/L	6.9	8.1	8.1	7.9	8	11.8
Alkalinity	mg/L	18	17	21	17	21	11
Conductivity ^b	µmhos/cm	75.8	70	64	64.6	20	170
Turbidity	NTU	8.53	3.8	4.52	4.39	3.49	7.49
Suspended solids	mg/L	11	10	3	22	4	6
Volatile solids	mg/L	3	2	1	5	2	1
Total dissolved solids	mg/L	60	59	46	45	57	56
Total solids	mg/L	71	69	49	67	61	62
Fixed residue	mg/L	8	8	2	17	2	5
Chemical oxygen demand	mg/L	<20	<20	<20	<20	<20	<20
Chloride	mg/L	6.5	6.44	3.66	4.42	7.32	12.91
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.3	0.32	0.06	0.11	0.19	0.23
Sulfate	mg/L	6	6	4.38	5.21	4.87	7.14
Phosphates	mg/L	0.08	0.09	0.04	0.04	0.03	0.09
Aluminum	mg/L			0.141			0.133
Ammonia nitrogen	mg/L	0.11	0.03	0.12	0.003	0.03	<0.02
Calcium	mg/L			4.28			6.36
Copper	mg/L			0.079			0.088
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			0.689			0.691
Manganese	mg/L			0.0544			0.11
Mercury	µg/L			<1.0E-4			<1.0E-4
Nickel	mg/L			<0.05			<0.05
Sodium	mg/L			5.06			3.29
Iron	mg/L			0.432			0.669
Lead	mg/L			<0.003			<0.003
Chromium	mg/L			<0.02			<0.02
Zinc	mg/L			0.105			<0.01

^a Metals are analyzed quarterly from a monthly grab composite.

^b Field measurements

Table 70
SRS Stream Water Quality

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Four Mile Creek-6

Parameter ^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	2.95E9	2.76E9	2.55E9	2.55E9	1.86E9	2.84E9
Temperature ^b	°C	7.1	9	11.1	17.3	13.7	22.3
pH ^b	pH	5.7	6.4	6.34	6.5	6.1	7.5
Dissolved oxygen ^b	mg/L	11.5	11.6	11.4	10.5	8.9	7.4
Alkalinity	mg/L	10	7	10	10	11	6
Conductivity ^b	µmhos/cm	60	54	53	47	55	51
Turbidity	NTU	2.26	2.79	3.04	2.19	5.8	11.68
Suspended solids	mg/L	1	2	<1	3	7	21
Volatile solids	mg/L	1	1	1	2	4	5
Total dissolved solids	mg/L	42	40	38	36	42	69
Total solids	mg/L	43	42	38	39	49	90
Fixed residue	mg/L	0	2	<1	2	4	16
Chemical oxygen demand	mg/L	3	7	8	10	<20	<20
Chloride	mg/L	2.44	3.73	3.13	2.57	4.09	3.8
Nitrogen (as NO ₂ /NO ₃)	mg/L	1.32	1.47	1.42	1.34	0.14	1.26
Sulfate	mg/L	5	5	4	4	4	4
Phosphates	mg/L	0.03	0.02	0.03	0.03	0.03	0.04
Aluminum	mg/L			0.079			0.031
Ammonia nitrogen	mg/L	0.26	0.15	0.18	0.05	0.13	0.08
Calcium	mg/L			3.093			3.116
Copper	mg/L			0.027			0.019
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			0.681			0.656
Manganese	mg/L			0.013			0.013
Mercury	µg/L			2.11			<1.0E-4
Nickel	mg/L			<0.01			<0.01
Sodium	mg/L			5.88			5.992
Iron	mg/L			0.337			0.383
Lead	mg/L			<0.01			<0.01
Chromium	mg/L			<0.01			<0.01
Zinc	mg/L			0.013			0.017

a Metals are analyzed quarterly from a monthly grab composite.

b Field measurements

Table 70
SRS Stream Water Quality

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Four Mile Creek-6

Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	3.50E9	4.07E9	2.50E9	3.14E9	3.66E9	3.23E9
Temperature ^b	°C	24.5	25.7	23	19.2	19.7	10.6
pH ^b	pH	6.6	6.7	6.8	6.4	6.5	7.7
Dissolved oxygen ^b	mg/L	7.4	6.7	7.4	7.6	7	11.3
Alkalinity	mg/L	14	13	13	12	15	9
Conductivity ^b	µmhos/cm	57.4	60	60	66.4		60
Turbidity	NTU	2.41	3.42	1.89	2.36	3.88	4.89
Suspended solids	mg/L	3	5	1	4	6	3
Volatile solids	mg/L	2	1	1	2	3	2
Total dissolved solids	mg/L	47	52	44	61	67	55
Total solids	mg/L	50	57	45	65	73	58
Fixed residue	mg/L	1	4	<1	2	4	1
Chemical oxygen demand	mg/L	<20	<20	<20	<20	<20	<20
Chloride	mg/L	3.99	4.77	4.43	7.08	8.1	10.65
Nitrogen (as NO ₂ /NO ₃)	mg/L	1.2	0.47	0.45	0.94	1.05	1.35
Sulfate	mg/L	5	5	4.98	7.75	8.08	5.41
Phosphates	mg/L	0.03	0.13	0.03	0.01	0.03	0.04
Aluminum	mg/L			0.192			0.12
Ammonia nitrogen	mg/L	0.13	0.03	0.09	<0.02	0.03	0.18
Calcium	mg/L			2.56			2.95
Copper	mg/L			0.017			<0.01
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			0.513			0.806
Manganese	mg/L			0.0219			0.025
Mercury	µg/L			<1.0E-4			<1.0E-4
Nickel	mg/L			<0.05			<0.05
Sodium	mg/L			5.45			6.47
Iron	mg/L			0.409			0.373
Lead	mg/L			<0.003			<0.003
Chromium	mg/L			<0.02			<0.02
Zinc	mg/L			0.01			<0.01

a Metals are analyzed quarterly from a monthly grab composite.

b Field measurements

Table 70
SRS Stream Water Quality

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Upper Three Runs at 1-A

Parameter ^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	8.65E9	7.24E9	7.82E9	6.78E9	6.12E9	7.11E9
Temperature ^b	°C	10.3	11.6	12.2	15.8	14.4	18.8
pH ^b	pH	4.8	5.2	5.55	4.6	7	7.2
Dissolved oxygen ^b	mg/L	10.3	9.8	9.6	8.9	8.5	7.3
Alkalinity	mg/L	<1	<1	<1	2	1	<1
Conductivity ^b	µmhos/cm	17	22	21	21	31.8	28
Turbidity	NTU	1.02	1.28	1.86	1.65	3	4.4
Suspended solids	mg/L	3	4	3	2	6	31
Volatile solids	mg/L	2	3	2	2	3	27
Total dissolved solids	mg/L	17	22	17	18	18	40
Total solids	mg/L	20	26	20	20	24	71
Fixed residue	mg/L	1	2	1	1	3	4
Chemical oxygen demand	mg/L	4	7	6	9	37	<20
Chloride	mg/L	<1	1.84	1.52	1.14	3.1	2.75
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.29	0.25	0.22	0.26	0.13	0.15
Sulfate	mg/L	<1	<1	<1	<1	<1	1
Phosphates	mg/L	0.01	0.06	0.02	0.02	0.03	0.07
Aluminum	mg/L			0.118			0.036
Ammonia nitrogen	mg/L	0.11	0.06	0.09	0.23	0.15	0.07
Calcium	mg/L			0.508			0.645
Copper	mg/L			0.019			<0.01
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			0.415			0.339
Manganese	mg/L			<0.01			<0.01
Mercury	µg/L			<1.0E-4			<1.0E-4
Nickel	mg/L			<0.01			<0.01
Sodium	mg/L			1.451			1.443
Iron	mg/L			0.234			0.214
Lead	mg/L			0.03			<0.01
Chromium	mg/L			<0.01			<0.01
Zinc	mg/L			0.013			0.011

a Metals are analyzed quarterly from a monthly grab composite.

b Field measurements

Table 70
SRS Stream Water Quality

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Upper Three Runs at 1-A

Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	6.12E9	8.20E9	6.98E9	7.59E9	8.23E9	7.82E9
Temperature ^b	°C	21.4	21.8	20	18.5	18.3	10.9
pH ^b	pH	7.2	7.2	6.8	6.3	6.82	8
Dissolved oxygen ^b	mg/L	7.8	7.2	8.8	7.4	6.7	10.2
Alkalinity	mg/L	1	<1	1	2	1	1
Conductivity ^b	µmhos/cm	16.9	35	22	21.9	30	
Turbidity	NTU	2.11	3.29	1.62	1.65	3.15	2.84
Suspended solids	mg/L	5	9	4	4	5	4
Volatile solids	mg/L	4	4	4	2	4	<1.0
Total dissolved solids	mg/L	19	33	84	38	38	22
Total solids	mg/L	24	42	88	42	43	26
Fixed residue	mg/L	1	6	<1	2	1	4
Chemical oxygen demand	mg/L	<20	<20	<20	<20	<20	<20
Chloride	mg/L	2.33	1.76	1.8	2.39	7.37	5.66
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.21	0.32	0.13	0.22	0.21	0.33
Sulfate	mg/L	<1	2	1.3	2.05	5.04	2.08
Phosphates	mg/L	0.02	0.02	0.02	0.01	0.02	0.02
Aluminum	mg/L			0.126			0.089
Ammonia nitrogen	mg/L	0.01	0.02	0.06	0.06	0.01	<0.02
Calcium	mg/L			0.398			0.464
Copper	mg/L			<0.01			0.01
Cadmium	mg/L			<0.01			<0.01
Magnesium	mg/L			0.211			0.316
Manganese	mg/L			0.005			<0.005
Mercury	µg/L			<1.0E-4			<1.0E-4
Nickel	mg/L			<0.05			<0.05
Sodium	mg/L			0.606			1.46
Iron	mg/L			<0.245			0.25
Lead	mg/L			<0.003			<0.003
Chromium	mg/L			<0.02			<0.02
Zinc	mg/L			<0.01			0.017

a Metals are analyzed quarterly from a monthly grab composite.

b Field measurements

Table 70
SRS Stream Water QualityPage 19 of 19

SRS Stream Water Quality: Herbicides and Volatile Organics

Samples from the following locations were analyzed monthly for the constituents listed below. All analyses resulted in less than detectable quantities at all locations.

Locations	Constituent	Water
		Lower Limit of Detection (LLD)— $\mu\text{g/L}$
Tims Branch—5	2,4-D	<0.25
Four Mile Creek—A7	Silvex	<0.25
Steel Creek—4	Methoxychlor	<0.20
Upper Three Runs Creek—4	Toxaphene	<2.60
	Lindane	<0.05
	Endrin	<0.05
	Tetrachloroethylene	<2
	Trichloroethylene	<2
	1,1,1-Trichloroethane	<2

Table 71
Herbicides in Stream and River Water and Sediment

Page 1 of 1

Samples from the following locations were analyzed annually for the constituents listed below. All analyses (results reported by subcontracted off-site laboratory, Thermo-Analytical, Inc.) were below the detection limits.

Locations	Constituents	Water ^a	Sediment
		Lower Limit of Detection (LLD)—μg/L	Lower Limit of Detection (LLD)—μg/kg
Steel Creek-4	Aldrin	<0.05	0.83
Par Pond Pumpouse	Alpha-BHC	<0.05	0.67
Lower Three Runs-3	Beta-BHC	<0.05	0.83
Upper Three Runs at Road A	Delta-BHC	<0.05	0.83
Four Mile Creek at Road A	Lindane	<0.05	0.67
Pen Branch at Road A	Alpha-chlordane	<0.05	0.83
Upper Three Runs at Road F	Gamma-chlordane	<0.05	0.83
River 2	Tech, chlordane	<0.25	83.3
River 10	4,4-DDD	<0.05	1.33
	4,4-DDE	<0.05	1.67
	4,4-DDT	<0.05	1.33
	Dieldrin	<0.05	1.33
	Endosulfan I	<0.05	0.67
	Endosulfan II	<0.05	1.67
	Endosulfan sulfate	<0.05	1.67
	Endrin	<0.05	1.33
	Endrin aldehyde	<0.05	1.67
	Heptachlor	<0.05	0.67
	Heptachlor epoxide	<0.05	0.83
	Methoxychlor	<0.20	6.67
	Toxaphene	<2.50	1.67
	2,4-D	<0.25	5.0
	2,4,5-TP (Silvex) ^b	<0.25	5.0

a Samples were taken June 18, 1992.

b Not tested January through May, 1992

Table 72
Fecal Coliform Bacteria in SRS Streams and Savannah River

Page 1 of 2

LOCATION	Colonies/100mL					
	JAN MIN	JAN MAX	GEO MEAN ^a	FEB MIN	FEB MAX	GEO MEAN
RIVER-2	13	38	22	13	152	40
RIVER-3B	16	167	41	5	148	28
RIVER-10	11	390	35	5	104	27
U3R-1A	46	164	92	48	390	119
U3R-4	50	187	78	34	250	86
FMC-6	8	240	46	11	430	39
PB-3	15	2300	90	5	82	25
SC-4	3	3	b	16	16	b
BDC	8	21	11	5	62	16
L3R-3	56	450	109	39	560	150
L3R-TCR	58	320	108	60	450	104

	Colonies/100mL					
	MAR MIN	MAR MAX	GEO MEAN	APR MIN	APR MAX	GEO MEAN
RIVER-2	13	570	44	8	42	15
RIVER-3B	8	460	46	3	54	14
RIVER-10	21	490	46	20	34	28
U3R-1A	3	52	20	28	360	86
U3R-4	26	84	50	36	340	88
FMC-6	10	60	25	23	84	47
PB-3	15	250	30	13	56	28
SC-4	8	8	b	7	7	b
BDC	3	120	13	3	42	14
L3R-3	10	128	39	42	260	86
L3R-TCR	25	98	65	50	440	143

	Colonies/100mL					
	MAY MIN	MAY MAX	GEO MEAN	JUN MIN	JUN MAX	GEO MEAN
RIVER-2	2	16	7	15	54	26
RIVER-3B	7	20	13	9	134	29
RIVER-10	11	16	14	2	1036	51
U3R-1A	42	131	72	76	873	194
U3R-4	54	210	95	80	2500	236
FMC-6	8	127	26	34	1391	176
PB-3	5	31	18	16	430	48
SC-4	15	15	b	121	121	b
BDC	7	30	13	8	78	25
L3R-3	39	655	112	18	1436	144
L3R-TCR	34	218	87	72	1545	239

a The standard for South Carolina states that the fecal coliform count should not exceed a geometric mean of 200/100 mL, based on five consecutive samples during any 30-day period, nor shall more than 10 percent of the total samples during any 30-day period exceed 400/100 mg/L.

b One sample collected monthly

Table 72
Fecal Coliform Bacteria in SRS Streams and Savannah River

Page 2 of 2

LOCATION	Colonies/100mL					
	JULY MIN	JULY MAX	GEO MEAN ^a	AUG MIN	AUG MAX	GEO MEAN
RIVER-2	15	126	62	15	390	69
RIVER-3B	8	130	34	5	280	32
RIVER-10	16	143	32	7	310	33
U3R-1A	90	149	109	82	133	101
U3R-4	68	591	154	64	152	98
FMC-6	25	918	98	26	125	58
PB-3	30	102	57	15	136	58
SC-4	34	34	^b	92	92	^b
BDC	72	139	97	15	112	41
L3R-3	46	1182	146	50	159	69
L3R-TCR	52	104	80	58	141	82

LOCATION	Colonies/100mL					
	SEPT MIN	SEPT MAX	GEO MEAN	OCT MIN	OCT MAX	GEO MEAN
RIVER-2	54	106	77	28	330	95
RIVER-3B	58	146	75	10	210	63
RIVER-10	21	54	34	20	139	50
U3R-1A	90	270	161	60	480	129
U3R-4	70	420	140	70	350	114
FMC-6	50	86	74	33	1900	105
PB-3	33	104	50	64	121	91
SC-4	23	23	^b	3	3	^b
BDC	28	82	52	15	119	37
L3R-3	76	131	104	66	200	101
L3R-TCR	86	203	114	41	121	80

LOCATION	Colonies/100mL					
	NOV MIN	NOV MAX	GEO MEAN	DEC MIN	DEC MAX	GEO MEAN
RIVER-2	18	800	82	21	250	50
RIVER-3B	5	790	60	23	96	44
RIVER-10	50	250	94	11	82	40
U3R-1A	70	350	154	52	500	108
U3R-4	50	184	108	50	520	104
FMC-6	42	62	49	20	550	58
PB-3	18	151	60	11	153	53
SC-4	9	9	^b	13	13	^b
BDC	15	220	62	10	56	18
L3R-3	13	260	77	92	300	147
L3R-TCR	23	200	89	34	320	105

^a The standard for South Carolina states that the fecal coliform count should not exceed a geometric mean of 200/100 mL, based on five consecutive samples during any 30-day period, nor shall more than 10 percent of the total samples during any 30-day period exceed 400/100 mg/L

^b One sample collected monthly

Table 73
Mercury in Fish

Page 1 of 9

Location/Fish ^a	Mercury
	(µg Hg/g – Parts Per Million)
On-site Locations	
Par Pond	
Bass	0.17
Bass	1.00
Bass	1.23
Bass	1.33
Bass	1.67
Bream	<0.01
Bream	0.33
Crappie	0.33
Crappie	0.33
Crappie	2.13
Pond B	
Bass	0.33
Bass	0.67
Bass	1.00
Bass	1.00
Bass	1.67
Bream	<0.01
Bream	0.33
Bream	0.67
Crappie	0.67
Crappie	1.00
L-Lake	
Bass	0.93
Bass	1.00
Bass	1.33
Bass	1.60
Bass	1.67
Bream	<0.01
Bream	<0.01
Bream	<0.01
Bream	<0.01
Bream	0.33
Catfish	0.33
Catfish	0.33

a See footnote on page 224 for an explanation of the rationale for fish species collected and analyzed.

Table 73
Mercury in Fish

Page 2 of 9

Location/Fish ^a	Mercury (µg Hg/g – Parts Per Million)
On-site Locations	
Lower Three Runs Creek-2	
Bass	0.67
Bass	1.00
Bass	1.00
Bass	1.33
Bass	1.67
Bream	0.33
Bream	0.33
Bream	0.33
Bream	0.33
Bream	0.67
Catfish	0.07
Catfish	0.23
Catfish	0.27
Catfish	0.30
Catfish	0.80
Steel Creek-4	
Bass	1.00
Bass	1.00
Bass	1.00
Bass	1.33
Bass	1.33
Bream	<0.01
Bream	0.33
Bream	0.33
Bream	0.33
Bream	0.33
Catfish	0.33
Catfish	0.40
Catfish	0.53

^a See footnote on page 224 for an explanation of the rationale for fish species collected and analyzed.

Table 73
Mercury in Fish

Page 3 of 9

Location/Fish ^a	Mercury (µg Hg/g – Parts Per Million)
On-site Locations	
Pen Branch-3	
Bass	0.33
Bass	0.67
Bass	1.00
Bass	1.03
Bass	1.07
Bream	0.27
Bream	0.33
Bream	0.33
Bream	0.33
Bream	0.33
Bream	0.33
Catfish	0.33
Catfish	0.33
Catfish	0.33
Catfish	0.33
Catfish	0.67
Beaver Dam Creek	
Bass	0.33
Bream	<0.01
Bream	<0.01
Bream	0.33
Bream	0.33
Bream	0.33
Catfish	<0.01
Catfish	<0.01
Catfish	0.33
Catfish	0.33
Upper Three Runs Creek-4	
Bass	0.47
Bass	0.57
Bream	0.27
Bream	0.30
Bream	0.33
Bream	0.33
Bream	0.37
Catfish	<0.01
Catfish	<0.01
Catfish	0.33
Catfish	0.33
Catfish	0.33

^a See footnote on page 224 for an explanation of the rationale for fish species collected and analyzed.

Table 73
Mercury in Fish

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Location/Fish ^a	Mercury (µg Hg/g – Parts Per Million)
On-site Locations	
Four Mile Creek-6	
Bass	0.73
Bass	1.00
Bass	1.07
Bass	1.10
Bass	1.33
Bream	0.33
Bream	0.33
Bream	0.33
Bream	0.33
Bream	0.47
Catfish	0.37
Catfish	0.53
Catfish	0.63
Catfish	1.23
Catfish	1.37
Upper Three Runs at U.S. 278	
Catfish	<0.01
Catfish	0.33

a See footnote on page 224 for an explanation of the rationale for fish species collected and analyzed.

Table 73
Mercury in Fish

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Location/Fish ^a	Mercury ($\mu\text{g Hg/g}$ – Parts Per Million)
Off-site Locations	
Augusta Lock and Dam (upriver from SRS)	
Bass	0.33
Bass	0.33
Bass	0.33
Bass	0.37
Bass	0.40
Bass	0.53
Bream	<0.01
Bream	0.03
Bream	0.07
Bream	0.07
Bream	0.17
Catfish	0.17
Savannah River at River Mile 160 (upriver from SRS)	
Bass	0.33
Bream	<0.01
Bream	<0.01
Upper Three Runs Creek at Creek Mouth (adjacent to SRS)	
Bass	0.33
Bass	0.47
Bass	0.60
Bass	0.77
Bass	0.93
Bream	<0.01
Bream	<0.01
Bream	0.33
Catfish	<0.01
Catfish	<0.01
Catfish	<0.01
Catfish	0.33
Catfish	0.33
Sunfish	<0.01
Sunfish	<0.01

^a See footnote on page 224 for an explanation of the rationale for fish species collected and analyzed.

Table 73
Mercury in Fish

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Location/Fish ^a	Mercury ($\mu\text{g Hg/g}$ – Parts Per Million)
Off-site Locations	
Beaver Dam Creek at Creek Mouth (adjacent to SRS)	
Bass	0.43
Bass	0.47
Bass	0.67
Bream	0.07
Bream	0.10
Bream	0.13
Bream	0.17
Bream	0.27
Catfish	0.17
Catfish	0.13
Catfish	0.17
Catfish	0.30
Catfish	0.30
Four Mile Creek at Creek Mouth (adjacent to SRS)	
Bass	0.87
Bream	0.07
Bream	0.07
Bream	0.17
Bream	0.23
Bream	0.23
Catfish	0.10
Catfish	0.13
Catfish	0.23
Catfish	0.40
Catfish	1.27

^a See footnote on page 224 for an explanation of the rationale for fish species collected and analyzed.

Table 73
Mercury in Fish

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Location/Fish ^a	Mercury ($\mu\text{g Hg/g}$ – Parts Per Million)
Off-site Locations	
Steel Creek at Creek Mouth (adjacent to SRS)	
Bass	0.57
Bass	0.83
Bass	1.37
Bass	1.43
Bream	<0.01
Bream	<0.01
Bream	<0.01
Bream	0.33
Catfish	0.03
Catfish	0.10
Catfish	0.10
Catfish	0.13
Catfish	0.17
Sunfish	0.33
Savannah River at River Mile 140 (adjacent to SRS)	
Bass	0.67
Bass	1.00
Lower Three Runs Creek at Creek Mouth (downriver from SRS)	
Bass	0.57
Bream	0.17
Bream	0.17
Bream	0.23
Bream	0.40
Bream	0.40
Catfish	0.47
Catfish	0.13
Catfish	0.20
Catfish	0.30
Catfish	0.40

^a See footnote on page 224 for an explanation of the rationale for fish species collected and analyzed.

Table 73
Mercury in Fish

Page 8 of 9

Location/Fish ^a	Mercury ($\mu\text{g Hg/g}$ – Parts Per Million)
Off-site Locations	
Savannah River at Highway 301 Bridge (downriver from SRS)	
Bass	0.73
Bass	0.87
Bass	0.90
Bass	0.93
Bass	1.10
Bream	0.23
Bream	0.23
Bream	0.30
Bream	0.40
Bream	0.87
Catfish	0.13
Catfish	0.17
Catfish	0.17
Catfish	0.43
Catfish	0.53
Stokes Bluff Landing (downriver from SRS)	
Bass	1.00
Bass	1.07
Bass	1.07
Bass	1.17
Bass	1.40
Bream	0.33
Bream	0.40
Bream	0.50
Bream	0.53
Bream	0.63

a See footnote on page 224 for an explanation of the rationale for fish species collected and analyzed.

Table 73
Mercury in Fish

Page 9 of 9

Location/Fish ^a	Mercury ($\mu\text{g Hg/g}$ – Parts Per Million)
Off-site Locations	
Savannah River at 17A Bridge (downriver from SRS)	
Bass	0.37
Bass	0.53
Bass	0.60
Bass	0.87
Bass	0.93
Bream	<0.01
Bream	0.03
Bream	0.07
Bream	0.20
Bream	0.20
Catfish	0.30
Catfish	0.37
Catfish	0.77
Catfish	0.77
Catfish	0.77
Mullet	0.43
Mullet	0.43
Mullet	0.47
Mullet	0.47
Mullet	0.57
West Bank Landing, Edisto River (control location)	
Bass	0.33
Bass	0.43
Bass	0.57
Bass	0.60
Bass	0.67
Bream	0.23
Bream	0.30
Bream	0.33

^a EMS collects fish for nonradiological analyses in the same manner as for radiological analyses. Freshwater species sampled in 1992 were predators (bass); pan fish (bream, crappie, sunfish); and bottom-dwellers (catfish). The only saltwater species sampled was a filter-feeder (mullet). Freshwater fish analyzed represent the most common edible species of fish in the CSRA, while the saltwater fish analyzed are the most often sought after and caught saltwater species, according to the latest GDNR Creel Survey. The radiological fish monitoring program was developed by WSRC in coordination with GDNR, SCDHEC, EPA, and DOE. See above note for explanation of the rationale for fish species collected and analyzed.

Table 74
Chlorocarbon Monitoring Results from A-Area Wells

Page 1 of 4

Sample Description	Location	Date	111 Trichloroethane		(u/gL) Trichloroethylene		Tetrachloroethylene	
			SRS	TMA ^a	SRS	TMA	SRS	TMA
3/700 Area	905-82A	1/8/92	<5 ^b	<2	<1	<2	<1	<2
Domestic H ₂ O	905-82A	2/5/92	<5	<2	<5	<2	<5	<2
	905-82A	3/4/92	<5	<2	<1	<2	<1	<2
	905-112G							
	905-113G	2/5/92	<5	<2	<5	<2	<5	<2
3/700 Area	735-A	1/8/92	<5	<2	<1	<2	<1	<2
Drinking H ₂ O	735-A	2/5/92	<5	<2	<5	<2	<5	<2
	735-A	3/4/92	<5	<2	<5	<2	<5	<2
	784-A	2/5/92	<5	<2	<5	<2	<5	<2
TSC Backup	905-68A	1/8/92	<5	<2	<5	3.8	<5	<2
Domestic H ₂ O	905-68A	2/5/92	<5	<2	<5	<2	<5	<2
	905-68A	3/4/92	<5	<2	<5	<2	<5	<2
3/700 Area	905-20A	1/8/92	<5	<2	92	119	<5	<2
Process H ₂ O Wells	905-20A	2/5/92	<5	<2	94.4	91	<5	<2
	905-20A	3/4/92	<5	<2	74.3	62.5	<5	<2
	Service H ₂ O	1/8/92	<5	<2	<5	<2	<5	<2
	Service H ₂ O	2/5/92	<5	<2	7.3	13.8	<5	<2
	Service H ₂ O	3/4/92	<5	<2	35.6	38.9	<5	<2
	905-53A							
	905-53A	2/5/92	<5	<2	137.3	141	9	10.7
	905-53A	3/4/92	<5	<2	124	112	7.7	10
Other SRS	400-D	2/5/92	<5	<2	<5	<2	<5	<2
Domestic H ₂ O Supplies								
3/700 Area	905-82A							
Domestic H ₂ O	905-82A	5/6/92	<5	<2	<5	<2	<5	<2
	905-82A	6/9/92	<5	<2	<5	<2	<5	<2

a Analyses performed by Thermo-Analytical Laboratory, Inc.

b "<" indicates value was less than detection limit.

Table 74
Chlorocarbon Monitoring Results from A-Area Wells

Page 2 of 4

Sample Description	Location	Date	(u/gL)					
			111 Trichloroethane		Trichloroethylene		Tetrachloroethylene	
			SRS	TMA ^a	SRS	TMA	SRS	TMA
3/700 Area, con't.	905-112G	5/6/92	<5 ^b	<2	<5	<2	<5	<2
	905-113G							
3/700 Area	735-A	4/2/92	<5	<2	<5	<2	<5	<2
Drinking H ₂ O	735-A	5/6/92	<5	<2	<5	<2	<5	<2
	735-A	6/9/92		<2		<2		<2
	784-A	5/6/92	<5	<2	<5	<2	<5	<2
TSC Backup	905-68A	4/2/92	<5	<2	<5	6	<5	<2
Domestic H ₂ O	905-68A	5/6/92	<5	<2	<5	3.7	<5	<2
	905-68A	6/9/92	<5	<2	<5	<2	<5	<2
3/700 Area	905-20A	4/2/92	<5	<2	65.9	95	<5	<2
Process H ₂ O	905-20A							
Wells	905-20A	6/9/92	<5	<2	71.2	80.5	3.1	2.6
	Service H ₂ O	4/2/92	<5	<2	<5	<2	<5	<2
	Service H ₂ O	5/6/92	<5	<2	50.4	56.5	<5	2.8
	Service H ₂ O	6/9/92	<5	<2	<5	<2	<5	<2
	905-53A	4/2/92	<5	<2	89.3	143	8.9	9.5
	905-53A							
	905-53A	6/9/92	<5	<2	100.6	112	8	15.4
Other SRS	400-D	5/6/92	<5	<2	<5	<2	<5	<2
Domestic H ₂ O								
Supplies								
3/700 Area	905-82A							
Domestic H ₂ O	905-82A							
	905-82A							
	905-112G	8/5/92	<5	<2	<5	<2	<5	<2
	905-113G	8/5/92	<5	<2	<5	<2	<5	<2

a Analyses performed by Thermo-Analytical Laboratory

b "<" indicates value was less than detection limit.

Table 74
Chlorocarbon Monitoring Results from A-Area Wells

Page 3 of 4

Sample Description	Location	Date	(u/gL)					
			111 Trichloroethane		Trichloroethylene		Tetrachlorchloroethylene	
			SRS	TMA ^a	SRS	TMA	SRS	TMA
3/700 Area	735-A	7/1/92	<5 ^b	<2	<5	<2	<5	<2
Drinking H ₂ O	735-A	8/5/92	<5	<2	<5	<2	<5	<2
	735-A	9/2/92	<5	<2	<5	<2	<5	<2
	784-A	8/5/92	<5	<2	<5	<2	<5	<2
TSC Backup	905-68A	7/1/92	<5	<2	<5	3.2	<5	<2
Domestic H ₂ O	905-68A	8/5/92	<5	<2	<5	<2	<5	<2
	905-68A	9/2/92	<5	<2	<5	<2	<5	<2
3/700 Area	905-20A	7/1/92	<5	<2	69.1	54	<5	<2.2
Process H ₂ O	905-20A	8/5/92	<5	<2	<5	92.4	<5	<2.5
	905-20A	9/2/92	<5	<2	67.74	72	<5	<2
Wells	Service H ₂ O	7/1/92	<5	<2	<5	3.2	<5	<2
	Service H ₂ O	8/5/92	<5	<2	<5	<2	<5	<2
	Service H ₂ O	9/2/92	<5	<2	<5	<2	<5	<2
	905-53A	7/1/92	<5	<2	116.3	90	11.5	10.5
	905-53A	8/5/92	<5	<2	41.7	153	<5	15.7
	905-53A	9/2/92	<5	<2	49.57	147	<5	9.5
Other SRS	400-D	8/5/92	<5	<2	<5	<2	<5	<2
Domestic H ₂ O								
Supplies								
3/700 Area	905-82A							
Domestic H ₂ O	905-82A							
	905-82A							
	905-112G	11/4/92	<0.50	<2	<0.50	<2	<0.50	<2
	905-113G	11/4/92	<0.50	<2	<0.50	<2	<0.50	<2
3/700 Area	735-A	10/7/92	<1	<2	<1	<2	<1	<2
Drinking H ₂ O	735-A	11/4/92	<1	<2	<1	<2	<1	<2
	735-A	12/2/92	<1	<2	<1	<2	<1	<2

^a Analyses performed by Thermo-Analytical Laboratory

^b "<" indicates value was less than detection limit.

Table 74
Chlorocarbon Monitoring Results from A-Area Wells

Page 4 of 4

Sample Description	Location	Date	(u/gL)					
			111 Trichloroethane		Trichloroethylene		Tetrachlorchloroethylen	
			SRS	TMA ^a	SRS	TMA	SRS	TMA
	784-A	11/4/92	<0.25	<2 ^b	<0.25	<2	<0.25	<2
TSC Backup	905-68A	10/7/92	<1.25	<2	<1.25	<2	<1.25	<2
Domestic H ₂ O	905-68A	11/4/92	<0.25	<2	<0.25	<2	<0.25	<2
	905-68A	12/2/92	<0.25	<2	<0.25	<2	<0.25	<2
3/700 Area	905-20A	10/7/92	<10	<2	51.26	60.5	<10	<2
Process H ₂ O	905-20A	11/4/92	<2	<2	25.5	53.5	0.95	<2
Wells	905-20A	12/2/92	<10	<2	25	39.2	<10	<2
	Service H ₂ O	10/7/92	<1	<2	3.35	4	<1	<2
	Service H ₂ O	11/4/92	<0.25	<2	<0.25	<2	<0.25	<2
	Service H ₂ O	12/2/92	<1	<2	6.3	2.95	<1	<2
	905-53A	10/7/92	<10	<2	107.34	179	9.9	9.9
	905-53A	11/4/92	<10	<2	62.6	121	3.4	<2
	905-53A	12/2/92	<10	<2	107	85.3	9	8.38
Other SRS	400-D	11/4/92	<1	<2	<1	<2	<1	<2
Domestic H ₂ O								
Supplies								

^a Analyses performed by Thermo-Analytical Laboratory

^b "<" indicates value was less than detection limit.

Table 75
SRS Drinking Water Chlorocarbon Surveillance Results

Page 1 of 1

Sample Location	Maximum Concentration (µg/L) ^a					
	1,1,1-Trichloroethane		Trichloroethylene		Tetrachloroethylene	
	1/14/92	7/14/92	1/14/92	7/14/92	1/14/92	7/14/92
C-Area	<2	<2	<2	<2	<2	<2
K-Area	<2	<2	<2	<2	<2	<2
P-Area	<2	<2	<2	<2	<2	<2
L-Area	<2	<2	<2	<2	<2	<2
F-Area	<2	<2	<2	<2	<2	<2
H-Area	<2	<2	<2	<2	<2	<2
D-Area	<2	<2	<2	<2	<2	<2
Classification Yard	<2	<2	<2	<2	<2	<2
River Pump Station (1G)	<2	<2	<2	<2	<2	<2
River Pump Station (3G)	<2	<2	<2	<2	<2	<2
Central Shops	<2	<2	<2	<2	<2	<2
Par Pond Lab	<2	<2	<2	<2	<2	<2
Forestry	<2	<2	<2	<2	<2	<2
Jackson Barricade	<2	<2	<2	<2	<2	<2
Talatha Barricade	<2	<2	<2	<2	<2	<2
Williston Barricade	<2	<2	<2	<2	<2	<2
Barnwell Barricade	<2	<2	<2	<2	<2	<2
Allendale Barricade	<2	b	<2	b	<2	b
Patrol Gate 6	<2	<2	<2	<2	<2	<2
Patrol Gate 7	<2	<2	<2	<2	<2	<2
Patrol Gate 8	<2	<2	<2	<2	<2	<2
A-Area Cafeteria	<2	<2	<2	<2	<2	<2
Emergency Operating Center	<2	<2	<2	<2	<2	<2
Firing Range	<2	<2	<2	<2	<2	<2
TNX	<2	<2	<2	<2	<2	<2
S-Area (DWPF)	<2	<2	<2	<2	<2	<2
B-Area	<2	<2	<2	<2	<2	<2
Z-Area	<2	<2	<2	<2	<2	<2
Wackenhut (ATTA)	<2	<2	<2	<2	<2	<2

a Analyses performed by Thermo Analytical Laboratory, Inc.

b No sample collected

Table 76
Blind Sample Results for Conductivity Field Measurements

Page 1 of 1

Sample Identification	(μmhos/cm)		Difference
	Measured Value	Actual Value	
BC-01-1	150	157	7 μmhos/cm
BC-01-2	130	135	5 μmhos/cm
BC-01-3	168	177	9 μmhos/cm
BC-01-4	161	165	4 μmhos/cm
BC-02-1	173	164	9 μmhos/cm
BC-02-2	144	150	6 μmhos/cm
BC-02-3	136	141	5 μmhos/cm
BC-03-1	156	161	5 μmhos/cm
BC-03-2	149	151	2 μmhos/cm
BC-03-3	137	145	8 μmhos/cm
BC-03-4	105	113	8 μmhos/cm
BC-04-1	148	152	5 μmhos/cm
BC-04-2	125	129	4 μmhos/cm
BC-04-3	137	144	7 μmhos/cm
BC-05-1	123	130	7 μmhos/cm
BC-05-2	111	114	3 μmhos/cm
BC-05-3	135	135	0 μmhos/cm
BC-06-1	112	129	17 μmhos/cm
BC-06-2	116	116	0 μmhos/cm
BC-06-3	168	171	3 μmhos/cm
BC-07-1	96	99	3 μmhos/cm
BC-07-2	126	143	17 μmhos/cm
BC-08-1	112	114	2 μmhos/cm
BC-08-2	160	163	3 μmhos/cm
BC-08-3	185	192	7 μmhos/cm
BC-09-1	113	115	2 μmhos/cm
BC-09-2	169	173	4 μmhos/cm
BC-09-3	146	144	2 μmhos/cm
BC-10-1	176	155	21 μmhos/cm
BC-10-2	179	188	9 μmhos/cm
BC-10-3	164	160	4 μmhos/cm
BC-11-1	103	103	0 μmhos/cm
BC-11-2	199	191	8 μmhos/cm
BC-11-3	150	148	2 μmhos/cm
BC-12-1	117	119	2 μmhos/cm
BC-12-2	107	104	3 μmhos/cm
BC-12-3	130	127	3 μmhos/cm

Table 77
Blind Sample Results for pH Field Measurements

Page 1 of 1

Sample Identification	pH Units		Difference
	Measured Value	Actual Value	
BpH-01-1	7.20	7.07	0.13 units
BpH-01-2	4.70	4.50	0.20 units
BpH-01-3	7.36	7.31	0.05 units
BpH-01-4	7.30	7.17	0.13 units
BpH-01-5	7.70	7.47	0.25 units
BpH-02-1	7.04	7.00	0.04 units
BpH-02-2	7.50	7.33	0.17 units
BpH-02-3	7.45	7.27	0.18 units
BpH-02-4	4.55	4.42	0.13 units
BpH-03-1	3.40	3.25	0.16 units
BpH-03-2	9.20	9.73	0.53 units
BpH-03-3	7.10	7.02	0.08 units
BpH-03-4	7.03	6.94	0.09 units
BpH-04-2	6.90	7.93	0.03 units
BpH-04-3	5.74	5.83	0.09 units
BpH-05-1	7.00	7.05	0.05 units
BpH-05-2	8.80	9.07	0.27 units
BpH-05-3	8.90	9.04	0.14 units
BpH-05-4	7.39	7.33	0.06 units
BpH-06-1	7.10	7.20	0.10 units
BpH-06-2	9.00	9.05	0.05 units
BpH-06-3	7.99	7.99	0.00 units
BpH-06-4	6.90	6.89	0.01 units
BpH-07-1	3.95	4.03	0.08 units
BpH-07-2	7.40	6.88	0.52 units
BpH-08-1	7.47	7.45	0.02 units
BpH-08-2	9.87	9.94	0.07 units
BpH-08-3	4.03	3.98	0.05 units
BpH-08-4	8.95	8.97	0.02 units
BpH-09-1	6.70	7.45	0.75 units
BpH-09-2	10.60	10.14	0.46 units
BpH-10-1	6.86	6.93	0.07 units
BpH-10-2	4.00	4.02	0.02 units
BpH-10-3	9.80	9.16	0.64 units
BpH-11-1	6.93	6.60	0.33 units
BpH-11-2	4.05	4.05	0.00 units
BpH-11-3	9.05	9.21	0.16 units
BpH-12-1	10.00	10.27	0.27 units
BpH-12-2	7.40	7.52	0.12 units
BpH-12-3	4.40	4.37	0.03 units

Table 78
EMS Blind Sample Results for Tritium

Page 1 of 1

Sample	pCi/ml		Ratio
	Measured Value	Actual Value	
86	9.87 ± 1.08	9.01 ± 0.8	1.10 ± 0.15
88	8.30 ± 0.54	8.01 ± 0.8	1.04 ± 0.12
89	1.23 ± 0.79	1.41 ± 0.8	0.87 ± 0.75
90	1.56 ± 0.76	2.26 ± 0.8	0.69 ± 0.42
91	4.43 ± 0.79	5.85 ± 0.8	0.76 ± 0.17
94	2.45 ± 0.43	3.06 ± 0.8	0.80 ± 0.25
97	0.86 ± 0.74	0.99 ± 0.8	0.87 ± 1.03
98	2.31 ± 0.45	2.20 ± 0.8	1.05 ± 0.43
100	3.31 ± 0.45	3.55 ± 0.8	0.93 ± 0.25
101	5.66 ± 0.95	5.66 ± 0.8	1.00 ± 0.22
102	1.79 ± 0.83	2.18 ± 0.8	0.82 ± 0.49

Table 79
EMS Blind Sample Results for Gamma-Emitting Radionuclides

Page 1 of 1

Sample Number	Nuclide	pCi/L		Ratio
		Measured Value	Actual Value	
92	Co-60	42 ± 7	40 ± 3	1.05 ± 0.19
	Zn-65	148 ± 31	149 ± 9	0.99 ± 0.22
	Ru-106	187 ± 67	195 ± 18	0.96 ± 0.35
	Cs-134	24 ± 5	29 ± 3	0.83 ± 0.19
	Cs-137	51 ± 10	51 ± 4	1.00 ± 0.21
	Ba-133	74 ± 11	75 ± 6	0.99 ± 0.17
95	Co-60	NR ^a (MDA ^b 29)	21 ± 2	N/A ^c
	Zn-65	102 ± 32	105 ± 8	0.92 ± 0.30
	Ru-106	NR (MDA 252)	138 ± 12	N/A
	Cs-134	NR (MDA 24)	15 ± 2	N/A
	Cs-137	NR (MDA 23)	16 ± 4	N/A
	Ba-133	88 ± 13	96 ± 7	0.92 ± 0.16
104	Co-60	NR (MDA 19)	11 ± 2	N/A
	Zn-65	179 ± 54	157 ± 9	1.14 ± 0.35
	Ru-106	262 ± 93	161 ± 15	1.63 ± 0.60
	Cs-134	17 ± 7	8 ± 2	2.12 ± 1.02
	Cs-137	19 ± 13	9 ± 2	2.11 ± 1.52
	Ba-133	70 ± 18	73 ± 5	0.96 ± 0.26

- a Not reported
b Minimum detectable activity
c Not applicable

Table 80
EMS Blind Sample Results for Gross Alpha and Beta

Page 1 of 1

Sample Number	Nuclide	pCi/L		Ratio
		Measured Value	Actual Value	
87	Gross Alpha	5.19 ± 1.8	10.4 ± 3.1	0.50 ± 0.23
	Gross Beta	18.3 ± 3.0	20.3 ± 3.7	0.90 ± 0.22
93	Gross Alpha	14.0 ± 3.0	14.0 ± 5.0	1.00 ± 0.42
	Gross Beta	29.0 ± 5.0	43.0 ± 7.0	0.67 ± 0.16
103	Gross Alpha	36.0 ± 24	36.0 ± 11.0	1.0 ± 0.73
	Gross Beta	42.0 ± 18	49.0 ± 9	0.86 ± 0.40

Table 81
QAD Interlaboratory Comparison of Analytical Results

Page 1 of 2

Nuclide	Sample Date	SRS Value	QAD Value ^a	SRS/QAD Ratio	No. of Labs	Mean Value of Labs	% Labs within 2σ of QAD Value ^b
Water Samples (pCi/L)							
Alpha	1-31-92	16 ± 4	30 ± 8	0.5	181	24.0 ± 7.8	83
	4-14-92	23 ± 3	40 ± 10	0.6	151	40 ± 9.4	91
	5-15-92	12 ± 3.6	15 ± 5	0.8	190	14 ± 5	88
	9-18-92	39.5 ± 4.24	45 ± 11	0.9	139	36.46 ± 11.5	78
Ba-133	2-14-92	72 ± 12	76 ± 8.0	0.9	155	75.1 ± 5.8	91
	6-05-92	97 ± 8	98 ± 10	1.0	162	96 ± 7	90
	10-09-92	72 ± 11	74 ± 7	1.0	144	73.05 ± 5.18	92
Beta	1-31-92	27 ± 4	30 ± 5	0.9	182	29.9 ± 5.4	84
	4-14-92	97 ± 9	140 ± 21	0.7	152	118 ± 17	80
	5-15-92	35 ± 4.5	44 ± 5	0.8	191	43 ± 7	78
	9-18-92	42.7 ± 4.82	50 ± 5	0.9	142	48.61 ± 9.14	67
Co-60	2-14-92	41 ± 8	40 ± 5.0	1.0	158	40 ± 3.4	92
	4-14-92	58.7 ± 3.6	56 ± 5	1.0	120	56.4 ± 3.0	88
	6-05-92	22 ± 2.2	20 ± 5	1.1	163	21 ± 2.3	92
	10-09-92	13 ± 7	10.00 ± 5.00	1.3	147	10.96 ± 2.10	96
Cs-134	2-14-92	32 ± 6	31 ± 5	1.0	158	29.4 ± 2.7	94
	4-14-92	23.7 ± 3.0	24 ± 5	1.0	120	23.4 ± 2.0	94
	6-05-92	15 ± 1.8	15 ± 5	1.0	162	14.8 ± 2.0	91
	10-09-92	9 ± 2	8 ± 5	1.1	146	8.14 ± 1.64	99
Cs-137	2-14-92	50 ± 11	49.0 ± 5.0	1.0	158	50.7 ± 3.7	88
	4-14-92	28.0 ± 3.0	22 ± 5	1.3	121	23.2 ± 2.4	95
	6-05-92	18 ± 2	15 ± 5	1.2	162	16 ± 4	92
	10-09-92	10 ± 4	8 ± 5	1.3	145	8.73 ± 1.70	99
H-3	1-23-92	5387 ± 281	5962 ± 596	0.9	139	5997 ± 566	86
	2-21-92	8203 ± 325	7904 ± 790	1.0	144	7943 ± 702	89
	6-19-92	1940 ± 740	2125 ± 347	0.9	149	2102 ± 221	95
Pu-239	1-24-92	13.0 ± 0.3	16.8 ± 1.7	0.8	45	15.6 ± 1.7	82
	8-21-92	7.5 ± .26	9.0 ± .9	0.8	60	8.58 ± 1.16	83
Ru-106	2-14-92	196 ± 65	203 ± 20	1.0	103	195 ± 18.3	85
	6-05-92	145 ± 20	141 ± 14	1.0	160	138 ± 12	86
	10-09-92	159 ± 18	175 ± 18	0.9	143	160.6 ± 14.6	86
Sr-89	1-17-92	46 ± 5	51 ± 5	0.9	81	47 ± 11	74
	4-14-92	20.7 ± 6.5	15 ± 5	1.4	79	15.5 ± 3.2	94
	5-08-92	23 ± 5	29 ± 5	0.6	85	28 ± 5.5	82

a Environmental Protection Agency Quality Assurance Division (QAD).

b Percentage of participating laboratories that had results falling within 2σ of QAD value.

Table 81
QAD Interlaboratory Comparison of Analytical Results

Page 2 of 2

Nuclide	Sample Date	SRS Value	QAD Value ^a	SRS/QAD Ratio	No. of Labs	Mean Value of Labs	% Labs within 2 σ of QAD Value ^b
Sr-90	1-17-92	17 $\pm$ 4	20 $\pm$ 5	0.9	75	19.3 $\pm$ 2.5	77
	4-14-92	11.3 $\pm$ 4.5	17 $\pm$ 5	0.7	83	15.8 $\pm$ 2.4	90
	5-08-92	8 $\pm$ 3	8 $\pm$ 5	1.0	92	7.7 $\pm$ 2.0	93
U	7-24-92	4.1 $\pm$.23	4.0 $\pm$ 3.0	1.0	121	3.97 $\pm$.72	98
U Nat	3-13-92	24.4 $\pm$ 1.6	25.3 $\pm$ 3.0	1.0	112	23.7 $\pm$ 4.17	79
	4-14-92	4.3 $\pm$.22	4.0 $\pm$ 3.0	1.1	106	4.3 $\pm$ 1.1	94
Zn-65	2-14-92	155 $\pm$ 25	148 $\pm$ 15	1.0	157	149 $\pm$ 9.1	92
	6-05-92	104 $\pm$ 10	99 $\pm$ 10	1.1	161	105 $\pm$ 8	87
	10-09-92	170 $\pm$ 10	148 $\pm$ 15	1.1	147	157.1 $\pm$ 9.35	92
Air Filter Samples (pCi/filter)							
Alpha	3-27-92	8 $\pm$ 1.6	7 $\pm$ 5	1.1	142	8 $\pm$ 1.7	97
	8-28-92	27.3 $\pm$ 3.0	30 $\pm$ 8	0.9	138	30.9 $\pm$ 5.3	97
Beta	3-27-92	36 $\pm$ 2.7	41 $\pm$ 5	0.9	146	42 $\pm$ 3.3	84
	8-28-92	58.7 $\pm$ 3.5	69 $\pm$ 10	0.9	139	72.0 $\pm$ 6.4	93
Cs-137	3-27-92	15 $\pm$ 5.7	10 $\pm$ 5	1.5	129	11 $\pm$ 2	94
	8-28-92	21 $\pm$ 6	18 $\pm$ 5	1.2	131	19.7 $\pm$ 2.9	95
Milk Samples (pCi/L)							
Cs-137	4-22-92	43 $\pm$ 4	39 $\pm$ 5	1.1	88	40 $\pm$ 3.6	93
	9-25-92	16 $\pm$ 3	15 $\pm$ 5	1.1	90	16.1 $\pm$ 1.9	99
I-131	4-22-92	77 $\pm$ 8	78 $\pm$ 8	1.0	86	78.4 $\pm$ 6.1	91
	9-25-92	107 $\pm$ 8	100 $\pm$ 10	1.1	84	101 $\pm$ 6.7	94
K	4-22-92	1788 $\pm$ 125	1710 $\pm$ 86	1.0	76	1704 $\pm$ 106	80
K-40	9-25-92	1807 $\pm$ 95	1750 $\pm$ 88	1.0	78	1712 $\pm$ 93	80
Sr-90	4-22-92	22.3 $\pm$ 4.3	29 $\pm$ 5	0.8	42	24.7 $\pm$ 5.4	86
	9-25-92	19 $\pm$ 5	15 $\pm$ 5	1.3	51	12.82 $\pm$ 2.71	92

^a Environmental Protection Agency Quality Assurance Division (QAD).

^b Percentage of participating laboratories that had results falling within 2 σ of QAD value.

Table 82
QAP Interlaboratory Comparison of Analytical Results

Page 1 of 2

Nuclide	SRS Value ^a	QAP Value ^b	SRS/ QAP Ratio	No. of Labs	Mean Value of Labs	Labs 20% QAP Value ^c
March-June 1992						
Air						
Be-7	29.5 ± 2.7	28.6	1.03	44	29.1	78%
Ce-144	74 ± 5.6	63.9	1.16	43	64.9	71%
Co-57	7.7 ± .6	7.93	0.97	49	7.05	70%
Co-60	6 ± .4	5.81	1.03	49	5.49	86%
Cs-134	4.8 ± .3	4.44	1.08	47	4.36	81%
Cs-137	6.4 ± .5	5.76	1.11	49	5.75	84%
Mn-54	6.6 ± .5	5.97	1.11	49	5.81	92%
Pu-238	.248 ± .007	.27	0.92	27	.263	77%
Pu-239	.254 ± .007	.285	0.89	28	.267	71%
U	3.21 ± .12	7.88	0.41	10	8.21	53%
Soil						
Cs-137	5.4 ± 1.3	5.23	1.03	39	5.73	58%
K-40	802 ± 66	719	1.12	41	770	73%
Pu-238	.019 ± .014	.05	0.38	5	.0451	0%
Pu-239	21.3 ± .4	25.5	0.84	27	27.5	57%
Sr-90	4.736 ± 2.301	4.5	1.05	11	4.75	30%
Vegetation						
Cs-137	28.1 ± 4.7	24.6	1.14	36	27	60%
K-40	311 ± 59	294	1.06	30	314	66%
Pu-238	1.081 ± .082	1.08	1.00	19	1.18	65%
Pu-239	.29 ± .041	.311	0.93	21	.348	54%
Sr-90	287 ± 26	376	0.76	21	335	68%
Water						
Am-241	.63 ± .44	.51	1.24	20	.503	60%
Ce-144	194 ± 18.8	189	1.03	47	184	85%
Co-60	96 ± 5	94	1.02	51	93.4	90%
Cs-134	74 ± 2.8	71.8	1.03	51	73.8	92%
Cs-137	90 ± 6.8	84.6	1.06	51	86	88%
H-3	269 ± 21	227	1.19	34	235	69%
Mn-54	56 ± 4.5	56.6	0.99	50	54.7	90%
Pu-238	.39 ± .03	.45	0.87	30	.473	78%
Pu-239	.44 ± .03	.58	0.76	33	.565	77%
Sr-90	1.269 ± .992	2.13	0.60	24	2	58%
U	.032 ± .002	.033	0.97	15	.036	63%

a Values are Bq/L, Bq/Kg, Bq/filter, except U, whose values are ug/g and ug/filter.

b Quality Assessment Program (QAP) conducted by the DOE Environmental Measurements Laboratory (EML).

c Percentage of participating laboratories that had results falling between the ±20% acceptance range.

Table 82
QAP Interlaboratory Comparison of Analytical Results

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Nuclide	SRS Value ^a	QAP Value ^b	SRS/ QAP Ratio	No. of Labs	Mean Value of Labs	Labs 20% QAP Value ^c
September-December 1992						
Air						
Be-7	290 ± 25	308	0.94	58	301	83%
Ce-144	37 ± 5	43.3	0.85	55	36.3	64%
Co-57	5.6 ± 0.8	6.4	0.87	57	5.5	63%
Co-60	3.2 ± .5	3.06	1.05	62	3.11	88%
Cs-134	3.5 ± .8	3.72	0.94	60	3.4	78%
Cs-137	5.7 ± .8	5.82	0.98	62	5.69	77%
Mn-54	25 ± 3	25.9	0.97	59	25.1	86%
Pu-238	.0025 ± .0005	.042	0.06	27	.0337	47%
Pu-239	.0023 ± .0006	.045	0.05	30	.046	63%
Sr-90	.128 ± .125	.137	0.93	15	.147	30%
U	.694 ± .015	1.28	0.54	13	1.42	50%
Soil						
Cs-137	326 ± 22	265	1.23	63	316	63%
K-40	441 ± 122	384	1.15	55	409	68%
Sr-90	8.9 ± 5.01	9.57	0.93	24	9.71	50%
Vegetation						
Cs-137	33 ± 8	29.2	1.13	51	31.8	75%
K-40	1114 ± 109	1010	1.10	48	1040	82%
Pu-238	.974 ± .247	1.25	0.78	25	1.21	61%
Pu-239	.33 ± .148	.379	0.88	26	.376	56%
Sr-90	271 ± 20	489	0.55	27	412	51%
Water						
Am-241	.32 ± .1	.205	1.56	24	.218	46%
Ce-144	61 ± 9	51.2	1.19	62	55.5	81%
Co-60	29 ± 3	27.8	1.04	64	29	88%
Cs-134	52 ± 3	44.1	1.18	61	50.5	69%
Cs-137	34 ± 4	29	1.17	66	32.7	68%
H-3	113.5 ± 10.1	118	0.96	43	129	61%
Mn-54	37 ± 3	33.3	1.11	64	35.8	88%
Pu-238	1.79 ± .197	1.97	0.91	43	1.87	75%
Pu-239	.202 ± .037	.238	0.85	42	.251	66%
Sr-90	2.28 ± 1.09	2.2	1.04	34	2.35	60%
U	.0074 ± .0002	.0090	0.82	19	.0086	79%

a Values are Bq/L, Bq/Kg, Bq/filter, except U, whose values are ug/g and ug/filter.

b Quality Assessment Program (QAP) conducted by the DOE Environmental Measurements Laboratory (EML).

c Percentage of participating laboratories that had results falling between the ±20% acceptance range.

Table 83
NPDES Blind Sample Results

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First Quarter

NPDES Site	Parameter Sampled	Unit	NPDES Result	Blind Sample Result	Difference
A-003	Chromium	mg/L	<0.02	<0.02	<0.02
D-003	Total suspended solids	mg/L	8	6	2
D-003	Oil and grease	mg/L	<1	<1	<1
F-003	Biochemical oxygen demand	mg/L	<1	<1	<1
SC-4	Lead	mg/L	<0.003	<0.003	<0.003
SC-4	Phosphates	mgP/L	0.019	0.02	.001

Third Quarter

NPDES Site	Parameter Sampled	Unit	NPDES Result	Blind Sample Result	Difference
A-001	Total suspended solids	mg/L	2	8	6
A-001	Biochemical oxygen demand	mg/L	1.0	<1	<1
A-001	Oil and grease	mg/L	2.1	2	.1
A-011	Oil and grease	mg/L	3.4	1.4	2
A-011	Total suspended solids	mg/L	<1	2	<2
M-004	Nitrates	mgN/L	1300	1070	230
M-004	Nickel	mg/L	<0.003	<0.003	<0.003
X-008	Iron	mg/L	1.02	0.959	.061000
X-008	Aluminum	mg/L	0.055	<0.05	<0.055

Table 84
NPDES Duplicate Sample Results

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First Quarter

Sample	Analyte	Result 1	Result 2	Difference
A-001	Biochemical oxygen demand, mg/L	<1	<1	<1
A-001	Oil and grease, mg/L	<1	1.3	.3
A-003	Total suspended solids, mg/L	<1	<1	<1
A-003	Oil and grease, mg/L	<1	<1	<1
A-003	Chromium, mg/L	<0.02	<0.02	<0.02
A-003	Chromium, mg/L	<0.02	<0.02	<0.02
A-003	Chromium, mg/L	<0.02	<0.02	<0.02
A-005	Coliform, colonies/100mL	<2	<2	<2
A-005	Total suspended solids, mg/L	<1	<1	<1
A-005	Oil and grease, mg/L	<1	<1	<1
A-005	1,1,1-Trichloroetha, µg/L	<2	<2	<2
A-005	Trichloroethene, µg/L	<2	<2	<2
A-005	Tetrachloroethene, µg/L	<2	<2	<2
A-011	Total suspended solids, mg/L	<1	<1	<1
A-011	Oil and grease, mg/L	<1	<1	<1
A-014	Oil and grease, mg/L	<1	<1	<1
A-014	Biochemical oxygen demand, mg/L	3.5	3.7	.2
A-014	Total suspended solids, mg/L	<1	<1	<1
C-001	Oil and grease, mg/L	<1	<1	<1
C-001	Total suspended solids, mg/L	1	1	0
C-003	Total suspended solids, mg/L	<1	<1	<1
C-003	Oil and grease, mg/L	<1	<1	<1
D-001C	Oil and grease, mg/L	<1	<1	<1
D-001C	Total suspended solids, mg/L	7	8	1
D-003	Total suspended solids, mg/L	6	8	2
D-003	Oil and grease, mg/L	<1	<1	<1
D-006	Total suspended solids, mg/L	4	5	1
D-006	Oil and grease, mg/L	1.5	<1	<1.5
F-001	Total suspended solids, mg/L	5	4	1
F-001	Oil and grease, mg/L	<1	<1	<1
F-002	Total suspended solids, mg/L	8	3	5
F-002	Oil and grease, mg/L	<1	<1	<1

Table 84
NPDES Duplicate Sample Results

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First Quarter				
Sample	Analyte	Result 1	Result 2	Difference
F-003	Oil and grease, mg/L	<1	<1	<1
F-003	Oil and grease, mg/L	<1	<1	<1
F-003	Biochemical oxygen demand, mg/L	<1	<1	<1
F-003	Total suspended solids, mg/L	2	2	0
H-016	Ammonia , mgN/L	<0.5	<0.5	<0.5
H-016	Nitrate, mgN/L	20.0	20.0	0
M-004	Uranium, mg/L	<0.02	<0.02	<0.02
M-005	1,1,1-Trichloroetha, µg/L	<2	<2	<2
M-005	1,1,1-Trichloroetha, µg/L	<2	<2	<2
M-005	Trichloroethene, µg/L	<2	<2	<2
M-005	Trichloroethene, µg/L	<2	<2	<2
M-005	Tetrachloroethene, µg/L	<2	<2	<2
M-005	Tetrachloroethene, µg/L	<2	<2	<2
SC-004	Lead, mg/L	<0.003	<0.003	<0.003
SC-004	Phosphate, mgP/L	0.019	0.020	.001

Table 84
NPDES Duplicate Sample Results

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Second Quarter				
Sample	Analyte	Result 1	Result 2	Difference
A-003	Chromium, mg/L	<0.02	<0.02	<0.02
DW-002	Oil and grease, mg/L	<1	<1	<1
F-005	Oil and grease, mg/L	<1	<1	<1
F-008	Total suspended solids, mg/L	5	5	0
F-008	Total suspended solids, mg/L	2	4	2
F-008	Oil and grease, mg/L	<1	1.7	<1.7
H-002	Oil and grease, mg/L	<1	1.8	<1.8
H-002	Total suspended solids, mg/L	2	2	0
H-008	Total suspended solids, mg/L	1	1	0
H-008	Oil and grease, mg/L	1.0	<1	<1
H-016	Biochemical oxygen demand, mg/L	<1	<1	<1
H-016	Biochemical oxygen demand, mg/L	<1	<1	<1
H-016	Mercury, mg/L	<0.0001	<0.0001	<0.0001
H-016	Oil and grease, mg/L	<1	<1	<1
H-016	Total suspended solids, mg/L	<1	<1	<1
H-016	Zinc, mg/L	<0.01	<0.012	<0.01
K-006	Total suspended solids, mg/L	4	4	0
K-006	Oil and grease, mg/L	<1	1.2	<1.2
K-011	Total suspended solids, mg/L	10	11	1
K-011	Oil and grease, mg/L	<1	<1	<1
L-008	Total suspended solids, mg/L	5	5	0
L-008	Oil and grease, mg/L	<1	1.9	<1.9
M-004	Phosphate, mgP/L	0.125	0.125	0
M-004	Nitrate, mg/L	141	84.2	56.8
M-004	Oil and grease, mg/L	<1	1.4	<1.4
M-004	Total suspended solids, mg/L	4	7	3
M-004	Aluminum, mg/L	0.192	0.247	.055
SC-004	Cadmium, mg/L	<0.01	<0.01	<0.001
SC-004	Phosphate, mgP/L	0.021	<0.025	.004
SC-004	Lead, mg/L	<0.003	<0.0034	<0.003
X-014	Benzene, mg/L	<1	<1	<1

Table 84
NPDES Duplicate Sample Results

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Third Quarter				
Sample	Analyte	Result 1	Result 2	Difference
A-001	Total suspended solids, mg/L	2	6	4
A-001	Biochemical oxygen demand, mg/L	<1	1.0	<1
A-001	Oil and grease, mg/L	2.1	1.6	.5
A-003	Chromium, mg/L	<0.01	<0.01	<0.01
A-003	Total suspended solids, mg/L	<1	<1	<1
A-003	Oil and grease, mg/L	<1	<1	<1
A-011	Total suspended solids, mg/L	<1	<1	<1
A-011	Oil and grease, mg/L	2.1	1.6	.5
C-001	Total suspended solids, mg/L	<1	<1	<1
C-001	Oil and grease, mg/L	2.3	1.6	.7
C-003	Total suspended solids, mg/L	<1	<1	<1
C-003	Oil and grease, mg/L	3	3.6	.6
C-004	Oil and grease, mg/L	1.0	<1	<1
C-004	Total suspended solids, mg/L	2	1	1
D-006	Total suspended solids, mg/L	6	6	0
D-006	Oil and grease, mg/L	<1	<1	<1
F-001	Total suspended solids, mg/L	3	3	0
F-001	Oil and grease, mg/L	<1	<1	<1
H-012	Total suspended solids, mg/L	<1	<1	<1
H-012	Oil and grease, mg/L	<1	1.4	<1.4
H-016	Biochemical oxygen demand, mg/L	2.2	1.9	.3
H-016	Nickel, mg/L	<0.01	<0.01	<0.01
M-004	Oil and grease, mg/L	<1	2.2	<2.2
M-004	Nickel, mg/L	<0.003	<0.003	<0.003
M-004	Total suspended solids, mg/L	3	3	0
M-004	Nitrate, mgN/L	1300	1120	180
M-004	Phosphate, mgP/L	8.10	8.34	.24
SC-004	Silver, mg/L	<0.0005	<0.0005	<0.0005
SC-004	Nitrate, mgN/L	0.07	0.07	0
SC-004	Phosphate, mgP/L	0.034	0.034	0
X-004	Total suspended solids, mg/L	2	2	0
X-004	Oil and grease, mg/L	1.8	<1	<1.8
X-008	Oil and grease, mg/L	<1	<1	<1

Table 84
NPDES Duplicate Sample Results

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Third Quarter				
Sample	Analyte	Result 1	Result 2	Difference
X-008	Total suspended solids, mg/L	2	2	0
X-008	Aluminum, mg/L	0.055	0.057	0.002
X-008	Iron, mg/L	1.02	1.01	0.01
X-014	Oil and grease, mg/L	2.8	2.0	.8
X-014	Total organic carbon, mg/L	<1	<1	<1
X-014	Biochemical oxygen demand, mg/L	5.8	5.6	.2
X-014	Total suspended solids, mg/L	2	2	0

Table 84
NPDES Duplicate Sample Results

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Fourth Quarter				
Sample	Analyte	Result 1	Result 2	Difference
A-014	Oil and grease, mg/L	<1	<1	<1
C-004	Oil and grease, mg/L	<1	<1	<1
F-001	Total suspended solids, mg/L	1	<1	<1
F-001	Oil and grease, mg/L	<1	<1	<1
F-002	Total suspended solids, mg/L	<1	<1	<1
F-002	Oil and grease, mg/L	<1	<1	<1
F-003	Total suspended solids, mg/L	14	6	8
F-003	Oil and grease, mg/L	<1	<1	<1
F-005	Oil and grease, mg/L	<1	<1	<1
F-005	Total suspended solids, mg/L	3	4	1
F-008	Oil and grease, mg/L	1.3	1.5	.2
F-008	Total suspended solids, mg/L	1	1	0
H-002	Total suspended solids, mg/L	2	1	1
H-002	Oil and grease, mg/L	<1	1.2	<1.2
H-004	Total suspended solids, mg/L	<1	<1	<1
H-004	Oil and grease, mg/L	<1	<1	<1
H-008	Oil and grease, mg/L	<1	<1	<1
H-008	Total suspended solids, mg/L	3	2	1
M-004	Copper, mg/L	<0.01	<0.01	<0.01
M-004	Total suspended solids, mg/L	3	3	0
M-004	Nickel, mg/L	<0.05	<0.05	<0.05
SC-004	Selenium, mg/L	<0.003	<0.003	<0.003
SC-004	Arsenic, mg/L	<0.003	<0.003	<0.003
SC-004	Chromium, mg/L	<0.02	<0.02	<0.02
X-014	Biochemical oxygen demand, mg/L	5.5	6.1	.6
X-014	Biochemical oxygen demand, mg/L	11.5	12.3	.8
X-014	Total suspended solids, mg/L	20	12	8

Table 85
May 25 K-Area Tritium Release Sample Results

Page 1 of 1

Date	Location	Type	H-3 (pCi/mL)
5/26/92	Barnwell Gate	Rainwater	0.09 ± 0.69
5/26/92	Barnwell Gate	Silica Gel	2.45 ± 0.76
5/26/92	Road C, #1	Water	1.19 ± 0.77
5/26/92	Road C, #2	Water	1.11 ± 0.81
5/26/92	Road C, #3	Water	1.93 ± 0.81
5/26/92	Road C, #1	Vegetation	11.2 ± 1.03
5/26/92	Road C, #2	Vegetation	1.52 ± 0.76
5/26/92	Road C, #3	Vegetation	4.40 ± 0.85
5/26/92	Road 8, #1 (Road 8 at F)	Vegetation	2.12 ± 0.78
5/26/92	Road 8, #2	Vegetation	3.54 ± 0.82
5/26/92	Road 8, #3	Vegetation	2.47 ± 0.79
5/26/92	Road B, at Site Boundary	Vegetation	0.86 ± 0.73

Table 86
August 17 C-Area Release Sample Results

Page 1 of 1

Collection Period		Sample Type	H-3 (pCi/mL)
Start	End		
8/11/92	8/18/92	Routine	24.40 ± 0.67
8/18/92	8/25/92	Routine	8.77 ± 0.46
8/20/92	8/20/92	Special	10.20 ± 0.57

Table 87
July 12 H-Area Release Sample Results

Page 1 of 1

Tritium in Atmospheric Moisture	
Location	pCi/m ³
Windsor Road	66 ± 17
Highway 39	181 ± 20
Darkhorse	147 ± 18
Tritium in Water	
Location	pCi/mL
Darkhorse	1.40 ± 0.72
Highway 39	1.29 ± 0.72
Windsor Road	-0.11 ± 0.66
Highway 278, 4 miles southeast of Windsor Road	1.83 ± 0.78
Tritium In Vegetation	
Location	pCi/mL free water
Intersection Road 2-1 and Road 2-1-1	0.57 ± 0.67
Road 2-1, 1.5 miles southeast of Road 2-1 and Road 2-1-1	1.21 ± 1.14
Road 2-1, 2.5 miles southeast of Road 2-1 and Road 2-1-1	20.1 ± 1.73
Road 2-1, 3.5 miles southeast of Road 2-1 and Road 2-1-1	15.0 ± 1.09
Windsor Road	0.49 ± 0.68
Highway 278, 2 miles southeast of Windsor Road	0.34 ± 1.11
Highway 278, 4 miles southeast of Windsor Road	3.81 ± 0.80
Darkhorse	1.48 ± 0.70

Table 88
November 24 Z-Area Occurrence Sample Results

Page 1 of 1

Start Date	Stop Date	Location	Type	Cs-137 ^a	Gross Alpha ^a	Gross Beta ^a
11/25/92	11/25/92	Basin	Water	<LLD (18.7)	4.5 ± 1.0	3.2 ± 1.0
11/27/92	12/3/92	Basin	Water	18.4 ± 8.8	2.7 ± 0.8	41.1 ± 2.2
11/25/92	11/25/92	Basin Outlet	Soil	<LLD	N/A ^b	N/A
1/20/93	1/20/93	Northeast	Soil	3.65 ± 0.15	N/A	N/A
1/20/93	1/20/93	Northwest	Soil	2.82 ± 0.15	N/A	N/A
1/20/93	1/20/93	South	Soil	2.98 ± 0.12	N/A	N/A
1/20/93	1/20/93	Southeast	Soil	4.57 ± 0.18	N/A	N/A

a Sediment gamma results are in pCi/g; all water results are in pCi/L

b Not analyzed.

Table 89
Beaufort-Jasper Survey, Vegetation Analytical Results

Page 1 of 4

Location	Date	Cs-137 (pCi/g)	Gross Alpha (pCi/g)	GrossBeta (pCi/g)
T-0 NB ^a	5/16	LLD ^b	0.25 ± 1.58	46.1 ± 6.26
T-0 Center	5/16	0.16 ± 0.08	2.57 ± 2.40	16.6 ± 3.24
T-0 SB ^c	5/16	0.22 ± 0.09	0 ± 1.01	30.5 ± 4.66
T-1 NB	5/16	LLD	0 ± 1.04	21.2 ± 3.71
T-1 SB	5/16	LLD	0 ± 1.16	41.6 ± 5.82
T-2 NB	5/16	LLD	0 ± 0.62	11.0 ± 2.54
T-2 SB	5/16	0.19 ± 0.06	0.12 ± 1.10	19.1 ± 3.43
T-3 NB	5/16	LLD	1.71 ± 2.12	20.2 ± 3.63
T-3 SB	5/16	0.29 ± 0.13	0.61 ± 1.42	24.9 ± 4.05
T-4 NB	5/16	LLD	0 ± 0.68	29.9 ± 4.55
T-4 SB	5/16	0.26 ± 0.08	0.42 ± 1.24	12.9 ± 2.77
T-5 NB	5/16	0.40 ± 0.09	0.15 ± 1.19	17.5 ± 3.30
T-5 SB	5/16	0.25 ± 0.08	0 ± 1.00	10.7 ± 2.57
T-6 NB	5/16	0.23 ± 0.07	0.58 ± 1.60	10.4 ± 2.59
T-6 SB	5/16	LLD	0.79 ± 1.66	16.3 ± 3.20
T-7 NB	5/16	N/A ^d	0.10 ± 1.35	25.8 ± 4.21
T-7 SB	5/16	0.33 ± 0.07	1.57 ± 1.98	22.4 ± 3.83
T-8 NB	5/16	LLD	0.20 ± 1.00	6.5 ± 2.01
T-8 SB	5/16	LLD	0 ± 0.71	4.4 ± 1.70
T-9 NB	5/23	LLD	0 ± 0.35	10.0 ± 2.71
T-9 SB	5/23	LLD	1.79 ± 1.98	21.8 ± 3.72
T-10 NB	5/23	0.19 ± 0.07	0 ± 0.39	17.1 ± 3.69
T-10 SB	5/23	LLD	0 ± 0.87	16.6 ± 3.16
T-11 NB	5/23	LLD	0 ± 0.28	7.1 ± 2.28
T-11 SB	5/23	LLD	0.70 ± 0.73	14.4 ± 3.31
T-12 NB	5/23	LLD	0 ± 0.28	5.0 ± 1.96
T-12 Center	5/23	LLD	1.92 ± 1.90	15.4 ± 3.03
T-12 SB	5/23	LLD	0 ± 0.84	28.8 ± 4.35
T-13 NB	5/23	LLD	0 ± 0.29	2.4 ± 1.54
T-13 SB	5/23	LLD	0 ± 0.71	9.2 ± 2.28

- a North bank of canal
 b Activity is below detector (lower limit of detection)
 c South bank of canal
 d Sample not analyzed

Table 89
Beaufort-Jasper Survey, Vegetation Analytical Results

Page 2 of 4

Location	Date	Cs-137 (pCi/g)	Gross Alpha (pCi/g)	GrossBeta (pCi/g)
T-14 NB ^a	5/23	LLD ^b	0.17 ± 0.55	15.0 ± 3.41
T-14 SB ^c	5/23	0.22 ± 0.05	2.45 ± 2.06	9.6 ± 2.40
T-15 NB	5/23	0.15 ± 0.05	0.34 ± 0.54	7.9 ± 2.40
T-15 SB	5/23	0.18 ± 0.05	0 ± 0.29	3.9 ± 1.79
RWHP ^d NB	5/23	LLD	0.15 ± 1.05	15.0 ± 2.98
RWHP SB	5/23	0.19 ± 0.06	0 ± 0.29	5.6 ± 2.06
BWP ^e -1 NB	5/29	LLD	0 ± 0.26	4.3 ± 1.84
BWP-1 SB	5/29	LLD	0 ± 0.27	6.8 ± 2.23
BWP-2 NB	5/29	LLD	0 ± 0.28	4.5 ± 1.87
BWP-2 SB	5/29	LLD	0 ± 0.26	2.9 ± 1.62

- a North bank of canal
 b Activity is below detector (lower limit of detection)
 c South bank of canal
 d Raw water holding pond
 e Backwash pond

Table 89
Beaufort-Jasper Survey, Vegetation Analytical Results

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Location	Date	Sr-89,90 (pCi/g)	H-3 (pCi/mL Free Water)
T-0 NB ^a	5/16	0.37 ± 0.14	0.12 ± 0.01
T-0 Center	5/16	N/A ^b	0.10 ± 0.02
T-0 SB ^c	5/16	0.66 ± 0.17	0.47 ± 0.06
T-1 NB	5/16	0.15 ± 0.12	0.92 ± 0.08
T-1 SB	5/16	N/A	0.13 ± 0.02
T-2 NB	5/16	N/A	0.10 ± 0.02
T-2 SB	5/16	N/A	0.31 ± 0.05
T-3 NB	5/16	0.37 ± 0.14	N/A
T-3 SB	5/16	0.19 ± 0.13	0.09 ± 0.02
T-4 NB	5/16	0.58 ± 0.16	N/A
T-4 SB	5/16	N/A	0.13 ± 0.02
T-5 NB	5/16	N/A	0.09 ± 0.02
T-5 SB	5/16	N/A	0.13 ± 0.02
T-6 NB	5/16	N/A	0.05 ± 0.01
T-6 SB	5/16	N/A	N/A
T-7 NB	5/16	0.33 ± 0.14	0.19 ± 0.03
T-7 SB	5/16	0.16 ± 0.13	0.33 ± 0.06
T-8 NB	5/16	N/A	0.37 ± 0.07
T-8 SB	5/16	N/A	1.51 ± 0.10
T-9 NB	5/23	N/A	N/A
T-9 SB	5/23	N/A	N/A
T-10 NB	5/23	N/A	N/A
T-10 SB	5/23	N/A	N/A
T-11 NB	5/23	N/A	N/A
T-11 SB	5/23	N/A	N/A
T-12 NB	5/23	N/A	N/A
T-12 Center	5/23	N/A	N/A
T-12 SB	5/23	N/A	N/A
T-13 NB	5/23	N/A	N/A
T-13 SB	5/23	N/A	N/A

a North bank of canal
b Sample not analyzed
c South bank of canal

Table 89
Beaufort-Jasper Survey, Vegetation Analytical Results

Page 4 of 4

Location	Date	Sr-89,90 (pCi/g)	H-3 (pCi/mL Free Water)
T-14 NB ^a	5/23	N/A ^b	N/A
T-14 SB ^c	5/23	N/A	N/A
T-15 NB	5/23	N/A	N/A
T-15 SB	5/23	N/A	N/A
RWHP ^d NB	5/23	N/A	N/A
RWHP SB	5/23	N/A	N/A
BWP ^e -1 NB	5/29	N/A	0.34 ± 0.05
BWP-1 SB	5/29	N/A	0.30 ± 0.05
BWP-2 NB	5/29	N/A	N/A
BWP-2 SB	5/29	N/A	0.13 ± 0.02

- a North bank of canal
 b Sample not analyzed
 c South bank of canal
 d Raw water holding pond
 e Backwash pond

Table 90
Beaufort-Jasper Survey, Sediment Analytical Results

Page 1 of 1

Location	Date	Cs-137 (pCi/g)	Sr-89,90 (pCi/g) ^a
T-0	5/16	0.87 ± 0.09	-0.04 ± 0.21
T-1	5/16	LLD ^b	-0.13 ± 0.28
T-2	5/16	0.99 ± 0.14	-0.24 ± 0.23
T-3	5/16	0.29 ± 0.07	-0.12 ± 0.22
T-4	5/16	0.53 ± 0.09	-0.14 ± 0.23
T-5	5/16	0.53 ± 0.06	0.02 ± 0.24
T-6	5/16	0.80 ± 0.12	0.33 ± 0.24
T-7	5/16	1.05 ± 0.13	-0.04 ± 0.24
T-8	5/16	0.20 ± 0.05	0.20 ± 0.23
T-9	5/23	0.24 ± 0.07	-0.21 ± 0.35
T-10	5/23	0.19 ± 0.06	0.24 ± 0.48
T-11	5/23	0.13 ± 0.05	-0.45 ± 0.26
T-12	5/23	0.24 ± 0.07	-0.66 ± 0.41
T-13	5/23	0.26 ± 0.06	-0.20 ± 0.32
T-14	5/23	N/A ^c	0.04 ± 0.67
T-15	5/23	0.35 ± 0.05	-0.14 ± 0.26
RWHP ^d	5/23	0.32 ± 0.06	0.05 ± 0.33
BWP-1 ^e	5/29	0.24 ± 0.05	0.02 ± 0.03
BWP-2	5/29	0.29 ± 0.07	0.02 ± 0.02

- a Total strontium results are mean of duplicate analyses.
b Activity is below detector (lower limit of detection)
c Sample not analyzed
d Raw water holding pond
e Backwash pond

Table 91
Beaufort-Jasper Survey, Total Suspended Solids Analytical Results

Page 1 of 1

Location	Date	Total Suspended Solids (mg/L)
T-0	5/16	2
T-1	5/16	6
T-2	5/16	4
T-3	5/16	4
T-3(dup)	5/16	5
T-4	5/16	4
T-5	5/16	9
T-6	5/16	9
T-7	5/16	8
T-7(dup)	5/16	9
T-8	5/16	10
T-9	5/23	9
T-10	5/23	28
T-11	5/23	38
T-11(dup)	5/23	35
T-12	5/23	26
T-13	5/23	6
T-14	5/23	13
T-14(dup)	5/23	10
T-15	5/23	20
RWHP ^a	5/23	6
BWP ^b -1	5/29	2
BWP-2	5/29	4

a Raw water holding pond
b Backwash pond

Table 92
Port Wentworth Survey, Vegetation Analytical Results

Page 1 of 1

Location	Date	Cs-137 (pCi/g)	Gross Alpha (pCi/g)	Gross Beta (pCi/g)
SB ^a	7/18	N/A ^b	0.50 ± 1.19	8.7 ± 2.12
SAM ^c	7/18	0.20 ± 0.06	0.53 ± 1.32	10.5 ± 2.32
SA1 ^d	7/18	0.30 ± 0.10	N/A	N/A
ABM ^e	7/18	N/A	0.67 ± 1.68	16.1 ± 2.92
AB1 ^f	7/18	0.30 ± 0.10	-0.37 ± 0.79	17.0 ± 2.99

Location	Date	Tritium (pCi/mL Free Water)
SB	7/18	0.15 ± 0.02
SAM	7/18	0.66 ± 0.07
SA1	7/18	0.42 ± 0.06
ABM	7/18	0.21 ± 0.03
AB1	7/18	0.33 ± 0.03

- a Settling basin
 b Sample not analyzed
 c Mouth of St. Augustine Creek
 d One mile upstream of St. Augustine Creek mouth
 e Mouth of Abecorn Creek
 f One mile upstream of Abecorn Creek mouth, at pump station

Table 93
Port Wentworth Survey, Sediment and Marsh Mud Analytical Results

Page 1 of 1

Location	Date	Sample Type	Cs-137 (pCi/g)	Sr-89,90 (pCi/g)
SB ^a	7/18	S ^b	0.05 ± 0.03	0.17 ± 0.27
SAM ^c	7/18	S	0.79 ± 0.08	0.01 ± 0.15
SAM	7/18	M ^d	0.83 ± 0.12	0.02 ± 0.18
SA1 ^e	7/18	S	0.37 ± 0.08	0.21 ± 0.33
SA1	7/18	M	1.51 ± 0.17	-0.01 ± 0.15
ABM ^f	7/18	S	0.29 ± 0.05	0.01 ± 0.02
ABM	7/18	M	0.09 ± 0.04	0.01 ± 0.02
AB1 ^g	7/18	S	2.03 ± 0.21	0.02 ± 0.02
AB1	7/18	M	1.96 ± 0.20	0.01 ± 0.03

- a Settling basin
 b Sediment
 c Mouth of St. Augustine Creek
 d Marsh
 e One mile upstream of St. Augustine Creek
 f Mouth of Abecorn Creek
 g One mile upstream of Abecorn Creek, at pump station

Table 93
Port Wentworth Survey, Sediment and Marsh Mud Analytical Results

Page 1 of 1

Location	Date	Sample Type	Cs-137 (pCi/g)	Sr-89,90 (pCi/g)
SB ^a	7/18	S ^b	0.05 ± 0.03	0.17 ± 0.27
SAM ^c	7/18	S	0.79 ± 0.08	0.01 ± 0.15
SAM	7/18	M ^d	0.83 ± 0.12	0.02 ± 0.18
SA1 ^e	7/18	S	0.37 ± 0.08	0.21 ± 0.33
SA1	7/18	M	1.51 ± 0.17	-0.01 ± 0.15
ABM ^f	7/18	S	0.29 ± 0.05	0.01 ± 0.02
ABM	7/18	M	0.09 ± 0.04	0.01 ± 0.02
AB1 ^g	7/18	S	2.03 ± 0.21	0.02 ± 0.02
AB1	7/18	M	1.96 ± 0.20	0.01 ± 0.03

- a Settling basin
 b Sediment
 c Mouth of St. Augustins Creek
 d Marsh
 e One mile upstream of St. Augustine Creek
 f Mouth of Abecorn Creek
 g One mile upstream of Abecorn Creek, at pump station

Table 94
Par Pond Core Samples

Page 1 of 16

Location	Date Sampled	Segment Depth (In)	Cs-137 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-238 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-239 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Sr-89,90 Concentration (Numbers with $\pm$ Values) or MDA pCi/g
Pond C 1 ^a	30-Jul-91	0-2	2.40 $\pm$ 0.19	0.23	0.27	0.67 $\pm$ 0.64
Pond C 1	30-Jul-91	2-4	0.44 $\pm$ 0.12	0.39	0.16	0.40
Pond C 1	30-Jul-91	4-6	0.08 $\pm$ 0.07	0.27	0.27	0.71 $\pm$ 0.74
Pond C 1	30-Jul-91	6-8	0.13 $\pm$ 0.06	0.18	0.21	0.31
Pond C 1	30-Jul-91	8-10	0.06 $\pm$ 0.05	0.33	0.22	0.41
Pond C 2	30-Jul-91	0-2	2.54 $\pm$ 0.20	0.60	0.51	0.51
Pond C 2	30-Jul-91	2-4	1.17 $\pm$ 0.18	0.48	0.35	0.30
Pond C 2	30-Jul-91		0.27 $\pm$ 0.08	0.58	0.30	1.10 $\pm$ 0.71
Pond C 2	30-Jul-91	6-8	0.25 $\pm$ 0.13	0.51	0.71	0.30
Pond C 2	30-Jul-91	8-10	0.20 $\pm$ 0.10	0.34	0.41	0.30
Pond C 2	30-Jul-91	10-12	0.13 $\pm$ 0.07	0.38	0.20	0.13 $\pm$ 0.58
Pond C 3	30-Jul-91	0-2	49.70 $\pm$ 2.80	0.36	0.17	0.66 $\pm$ 0.90
Pond C 3	30-Jul-91	2-4	116.50 $\pm$ 3.70	0.52	0.35	0.99 $\pm$ 1.12
Pond C 3	30-Jul-91	4-6	74.60 $\pm$ 3.80	0.38	0.22	0.99 $\pm$ 1.09
Pond C 3	30-Jul-91	6-8	0.25 $\pm$ 0.26	0.22	0.22	0.16
Pond C 3	30-Jul-91	8-10	0.45 $\pm$ 0.12	0.19	0.11	0.34 $\pm$ 0.58
Pond C 4	30-Jul-91	0-2	5.50 $\pm$ 0.29	0.23	0.15	0.24 $\pm$ 0.75
Pond C 4	30-Jul-91	2-4	32.00 $\pm$ 0.85	0.28	0.15	0.29 $\pm$ 0.93
Pond C 4	30-Jul-91	4-6	40.30 $\pm$ 0.99	0.27	0.31	1.30 $\pm$ 0.92
Pond C 4	30-Jul-91	6-8	21.20 $\pm$ 0.64	0.22	0.18	1.16 $\pm$ 0.79
Pond C 4	30-Jul-91	8-10	9.20 $\pm$ 0.36	0.24	0.19	0.26 $\pm$ 0.82
Pond C 4	30-Jul-91	10-12	6.50 $\pm$ 0.31	0.36	0.30	0.39 $\pm$ 0.76

^a Core samples were taken at five locations in Pond C and at 17 locations along Par Pond. Pond C was sampled only once because the water level in the pond was maintained at 195 ft. Par Pond samples are identified as X.Y, where X represents the sampling location (1–17), and Y represents the water level (1 corresponds to 195 ft; 2 corresponds to 190 ft; 3 corresponds to 185 ft; and 4 corresponds to 182 ft).

Table 94
Par Pond Core Samples

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Location	Date Sampled	Segment Depth (In)	Cs-137 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-238 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-239 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Sr-89,90 Concentration (Numbers with $\pm$ Values) or MDA pCi/g
Pond C 5 ^a	30-Jul-91	0-2	0.56 $\pm$ 0.14	0.20	0.10	0.36
Pond C 5	30-Jul-91	2-4	0.17 $\pm$ 0.06	0.21	0.25	0.53 $\pm$ 0.70
Pond C 5	30-Jul-91	4-6	0.11 $\pm$ 0.07	0.20	0.23	0.43 $\pm$ 0.70
Par 1.1	28-Jul-91	0-2	3.60 $\pm$ 0.41	0.49	0.28	0.33
Par 1.1	28-Jul-91	2-4	1.30 $\pm$ 0.14	0.21	0.12	0.37
Par 1.1	28-Jul-91	4-6	0.73 $\pm$ 0.12	0.26	0.30	1.00 $\pm$ 0.82
Par 1.1	28-Jul-91	6-8	0.17 $\pm$ 0.09	0.11	0.22	1.60 $\pm$ 0.94
Par 1.1	28-Jul-91	8-10	0.12 $\pm$ 0.10	0.73	0.38	0.31
Par 1.1	28-Jul-91	10-12	0.24 $\pm$ 0.09	0.56	0.56	7.60 $\pm$ 1.60
Par 1.2	15-Sep-91	0-2	6.10 $\pm$ 0.63	0.42	0.54	0.37
Par 1.2	15-Sep-91	2-4	2.20 $\pm$ 0.19	0.58	0.51	0.39
Par 1.2	15-Sep-91	4-6	0.42 $\pm$ 0.11	0.47	0.55	0.52 $\pm$ 0.76
Par 1.2	15-Aug-91	6-8	0.22 $\pm$ 0.08	0.75	0.49	0.34
Par 1.3	04-Sep-91	0-2	2.80 $\pm$ 0.21	0.47	0.43	0.37
Par 1.3	04-Sep-91	2-4	0.89 $\pm$ 0.11	0.43	0.34	0.31
Par 1.3	04-Sep-91	4-6	0.26 $\pm$ 0.08	0.80	0.64	1.10 $\pm$ 0.92
Par 1.3	04-Sep-91	6-8	0.20 $\pm$ 0.13	0.39	0.15	1.60 $\pm$ 0.85
Par 1.4	03-Oct-91	0-2	5.50 $\pm$ 0.26	0.20	0.20	0.26
Par 1.4	03-Oct-91	2-4	40.00 $\pm$ 0.70	0.30	0.30	0.35
Par 1.4	03-Oct-91	4-6	5.90 $\pm$ 0.25	0.40	0.20	0.27
Par 1.4	03-Oct-91	6-8	0.86 $\pm$ 0.13	0.40	0.40	0.27

a Core samples were taken at five locations in Pond C and at 17 locations along Par Pond. Pond C was sampled only once because the water level in the pond was maintained at 195 ft. Par Pond samples are identified as X.Y, where X represents the sampling location (1-17), and Y represents the water level (1 corresponds to 195 ft; 2 corresponds to 190 ft; 3 corresponds to 185 ft; and 4 corresponds to 182 ft).

Table 94
Par Pond Core Samples

Page 3 of 16

Location	Date Sampled	Segment Depth (In)	Cs-137 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-238 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-239 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Sr-89,90 Concentration (Numbers with $\pm$ Values) or MDA pCi/g
Par 2.1 ^a	28-Jul-91	0-2	6.80 $\pm$ 0.64	0.83	0.47	0.42
Par 2.1	28-Jul-91	2-4	12.90 $\pm$ 0.38	0.73	0.67	0.30
Par 2.1	28-Jul-91	4-6	0.22 $\pm$ 0.11	0.17	0.27	0.32
Par 2.1	28-Jul-91	6-8	0.20 $\pm$ 0.09	0.27	0.27	1.50 $\pm$ 1.00
Par 2.1	28-Jul-91	8-10	0.13 $\pm$ 0.12	0.49	0.23	7.00 $\pm$ 3.50
Par 2.1	28-Jul-91	10-12	0.39 $\pm$ 0.13	0.61	0.61	13.00 $\pm$ 5.50
Par 2.2	15-Aug-91	0-2	7.30 $\pm$ 0.37	0.52	0.41	0.43
Par 2.2	15-Aug-91	2-4	1.30 $\pm$ 0.17	0.72	0.38	14.50 $\pm$ 2.00
Par 2.2	15-Aug-91	4-6	0.15 $\pm$ 0.06	0.20	0.31	0.38
Par 2.3	04-Sep-91	0-2	5.20 $\pm$ 0.30	0.97	0.50	0.38
Par 2.3	04-Sep-91	2-4	0.82 $\pm$ 0.14	0.61	0.99	0.91 $\pm$ 0.79
Par 2.3	04-Sep-91	4-6	0.13 $\pm$ 0.08	0.77	0.61	0.65 $\pm$ 0.76
Par 2.4	03-Oct-91	0-2	4.00 $\pm$ 0.25	0.46	0.37	0.54 $\pm$ 0.77
Par 2.4	03-Oct-91	2-4	0.25 $\pm$ 0.09	0.35	0.32	0.30
Par 2.4	03-Oct-91	4-6	0.16 $\pm$ 0.10	0.27	0.27	0.28
Par 2.4	03-Oct-91	6-8	0.13 $\pm$ 0.05	0.55	0.25	0.58 $\pm$ 0.79
Par 3.1	28-Jul-91	0-2	78.60 $\pm$ 1.60	0.53	0.28	0.32
Par 3.1	28-Jul-91	2-4	14.30 $\pm$ 0.64	0.28	0.31	0.33
Par 3.1	28-Jul-91	4-6	1.10 $\pm$ 0.14	0.73	0.67	0.32
Par 3.1	28-Jul-91	6-8	0.58 $\pm$ 0.13	0.33	0.38	0.31
Par 3.1	28-Jul-91	8-10	0.32 $\pm$ 0.08	0.33	0.33	0.34
Par 3.1	28-Jul-91	10-12	0.12 $\pm$ 0.10	0.46	0.22	0.93 $\pm$ 0.81

a Core samples were taken at five locations in Pond C and at 17 locations along Par Pond. Pond C was sampled only once because the water level in the pond was maintained at 195 ft. Par Pond samples are identified as X-Y, where X represents the sampling location (1-17), and Y represents the water level (1 corresponds to 195 ft; 2 corresponds to 190 ft; 3 corresponds to 185 ft; and 4 corresponds to 182 ft).

Table 94
Par Pond Core Samples

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Location	Date Sampled	Segment Depth (In)	Cs-137 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-238 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-239 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Sr-89,90 Concentration (Numbers with $\pm$ Values) or MDA pCi/g
Par 3.2 ^a	15-Aug-91	0-2	0.33 $\pm$ 0.10	0.21	0.16	0.32
Par 3.3	04-Sep-91	0-2	7.20 $\pm$ 0.45	0.36	0.31	0.36
Par 3.3	04-Sep-91	2-4	3.60 $\pm$ 0.25	0.33	0.24	0.66 $\pm$ 0.73
Par 3.3	04-Sep-91	4-6	2.70 $\pm$ 0.20	0.23	0.23	0.78 $\pm$ 0.84
Par 3.3	04-Sep-91	6-8	0.61 $\pm$ 0.15	0.30	0.35	0.43
Par 3.4	03-Oct-91	0-2	57.6 $\pm$ 1.50	0.29	0.27	0.41
Par 3.4	03-Oct-91	2-4	6.00 $\pm$ 0.28	0.26	0.26	0.41 $\pm$ 0.59
Par 3.4	03-Oct-91	4-6	0.74 $\pm$ 0.13	0.30	0.15	0.58 $\pm$ 0.72
Par 3.4	03-Oct-91	6-8	0.22 $\pm$ 0.09	0.20	0.32	0.36
Par 3.4	03-Oct-91	8-10	0.23 $\pm$ 0.09	0.17	0.15	0.33 $\pm$ 0.64
Par 3.4	03-Oct-91	10-12	0.10 $\pm$ 0.08	0.21	0.17	0.35 $\pm$ 0.74
Par 4.1	28-Jul-91	0-2	2.50 $\pm$ 0.30	0.48	0.44	0.30
Par 4.1	28-Jul-91	2-4	0.10 $\pm$ 0.10	0.51	0.39	0.30
Par 4.1	28-Jul-91	4-6	0.10 $\pm$ 0.10	5.00	0.24	0.30
Par 4.1	28-Jul-91	6-8	0.10 $\pm$ 0.10	1.00	0.74	0.30
Par 4.1	28-Jul-91	8-10	0.10 $\pm$ 0.10	0.76	0.69	0.30
Par 4.2	15-Aug-91	0-2	75.00 $\pm$ 4.50	0.78	0.31	0.70 $\pm$ 0.80
Par 4.2	15-Aug-91	2-4	4.50 $\pm$ 0.36	0.31	0.27	0.36
Par 4.2	15-Aug-91	4-6	0.66 $\pm$ 0.11	0.35	0.26	0.60 $\pm$ 0.68
Par 4.2	15-Aug-91	6-8	0.07 $\pm$ 0.09	0.21	0.21	0.34
Par 4.2	15-Aug-91	8-10	0.19 $\pm$ 0.09	0.28	0.33	0.40 $\pm$ 0.87
Par 4.2	15-Aug-91	10-12	0.18 $\pm$ 0.08	0.24	0.13	0.39 $\pm$ 0.69

a Core samples were taken at five locations in Pond C and at 17 locations along Par Pond. Pond C was sampled only once because the water level in the pond was maintained at 195 ft. Par Pond samples are identified as X-Y, where X represents the sampling location (1-17), and Y represents the water level (1 corresponds to 195 ft; 2 corresponds to 190 ft; 3 corresponds to 185 ft, and 4 corresponds to 182 ft).

Table 94
Par Pond Core Samples

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Location	Date Sampled	Segment Depth (In)	Cs-137 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-238 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-239 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Sr-89,90 Concentration (Numbers with $\pm$ Values) or MDA pCi/g
Par 4.3 ^a	04-Sep-91	0-2	3.40 $\pm$ 0.31	0.31	0.31	0.74 $\pm$ 0.75
Par 4.3	04-Sep-91	2-4	1.60 $\pm$ 0.18	0.20	0.13	0.79 $\pm$ 0.82
Par 4.3	04-Sep-91	4-6	0.38 $\pm$ 0.14	0.25	0.40	0.32
Par 4.3	04-Sep-91	6-8	0.12 $\pm$ 0.08	0.28	0.24	0.86 $\pm$ 0.76
Par 4.4	03-Oct-91	0-2	1.60 $\pm$ 0.20	0.33	0.17	0.62 $\pm$ 0.87
Par 4.4	03-Oct-91	2-4	0.24 $\pm$ 0.11	0.30 $\pm$ 0.26	0.32	0.34
Par 4.4	03-Oct-91	4-6	0.10	0.30	0.24	0.42 $\pm$ 0.74
Par 4.4	03-Oct-91	6-8	0.08 $\pm$ 0.07	0.31	0.24	0.41
Par 5.1	28-Jul-91	0-2	1.7 $\pm$ 0.2	0.63	0.47	0.6 $\pm$ 0.8
Par 5.1	28-Jul-91	2-4	0.25 $\pm$ 0.06	0.19	0.28	0.3
Par 5.1	28-Jul-91	4-6	0.2 $\pm$ 0.08	0.31	0.31	0.38 $\pm$ 0.6
Par 5.1	28-Jul-91	6-8	0.34 $\pm$ 0.09	0.44	0.44	0.28
Par 5.1	28-Jul-91	8-10	0.05 $\pm$ 0.04	0.35	0.21	0.47 $\pm$ 0.63
Par 5.1	28-Jul-91	10-12	0.2 $\pm$ 0.1	0.36	0.22	0.49 $\pm$ 0.61
Par 5.2	15-Aug-91	0-2	3.9 $\pm$ 0.25	0.27	0.33	0.81 $\pm$ 0.77
Par 5.2	15-Aug-91	2-4	1.1 $\pm$ 0.13	0.73	0.64	0.58 $\pm$ 0.76
Par 5.2	15-Aug-91	4-6	0.20 $\pm$ 0.06	0.53	0.53	0.30
Par 5.3	04-Sep-91	0-2	1.70 $\pm$ 0.16	0.27	0.25	0.37
Par 5.3	04-Sep-91	2-4	0.74 $\pm$ 0.13	0.28	0.28	0.32
Par 5.3	04-Sep-91	4-6	0.19 $\pm$ 0.06	0.29	0.15	0.36
Par 5.3	04-Sep-91	6-8	0.14 $\pm$ 0.07	0.21	0.32	0.40
Par 5.3	04-Sep-91	8-10	0.12 $\pm$ 0.07	0.13	0.20	0.81 $\pm$ 0.84
Par 5.3	04-Sep-91	10-12	0.13 $\pm$ 0.06	0.20	0.35	0.33

^a Core samples were taken at five locations in Pond C and at 17 locations along Par Pond. Pond C was sampled only once because the water level in the pond was maintained at 195 ft. Par Pond samples are identified as X.Y, where X represents the sampling location (1-17), and Y represents the water level (1 corresponds to 195 ft; 2 corresponds to 190 ft; 3 corresponds to 185 ft, and 4 corresponds to 182 ft).

Table 94
Par Pond Core Samples

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Location	Date Sampled	Segment Depth (In)	Cs-137 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-238 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-239 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Sr-89,90 Concentration (Numbers with $\pm$ Values) or MDA pCi/g
Par 5.4 ^a	03-Oct-91	0-2	5.70 $\pm$ 0.29	0.34	0.53	0.10
Par 5.4	03-Oct-91	2-4	1.60 $\pm$ 0.17	0.61	1.00	0.10
Par 5.4	03-Oct-91	4-6	0.18 $\pm$ 0.08	0.69 $\pm$ 0.65	0.93	0.10
Par 5.4	03-Oct-91	6-8	0.17 $\pm$ 0.08	0.61	0.53	0.10
Par 5.4	03-Oct-91	8-10	0.20 $\pm$ 0.07	0.54	0.54	0.10
Par 6.1	28-Jul-91	0-2	2.02 $\pm$ 0.18	0.46	0.24	0.68 $\pm$ 0.62
Par 6.1	28-Jul-91	2-4	2.06 $\pm$ 0.15	0.23	0.34	0.51
Par 6.1	28-Jul-91	4-6	1.61 $\pm$ 0.16	0.29	0.29	0.32 $\pm$ 0.57
Par 6.1	28-Jul-91	6-8	1.65 $\pm$ 0.18	0.63	0.63	0.33 $\pm$ 0.59
Par 6.1	28-Jul-91	8-10	2.17 $\pm$ 0.17	0.47	0.28	0.31
Par 6.1	28-Jul-91	10-12	0.45 $\pm$ 0.87	0.64	0.39	0.51 $\pm$ 0.63
Par 6.2	15-Aug-91	0-2	2.30 $\pm$ 0.23	0.82	0.72	0.39
Par 6.2	15-Aug-91	2-4	2.20 $\pm$ 0.23	0.89	0.89	0.81 $\pm$ 0.79
Par 6.2	15-Aug-91	4-6	0.09 $\pm$ 0.06	0.48	0.73	0.91 $\pm$ 0.81
Par 6.2	15-Aug-91	6-8	0.09	0.87	0.87	0.48 $\pm$ 0.95
Par 6.2	15-Aug-91	8-10	0.08 $\pm$ 0.06	0.50	0.88	1.30 $\pm$ 0.93
Par 6.2	15-Aug-91	10-12	0.16 $\pm$ 0.07	0.84	0.70	0.37
Par 6.3	04-Sep-91	0-2	3.40 $\pm$ 0.26	0.25	0.28	2.30 $\pm$ 1.10
Par 6.3	04-Sep-91	2-4	0.66 $\pm$ 0.15	0.52	0.33	0.35
Par 6.3	04-Sep-91	4-6	0.14 $\pm$ 0.08	0.31	0.15	0.60 $\pm$ 0.80
Par 6.3	04-Sep-91	6-8	0.10 $\pm$ 0.04	0.37	0.21	0.50
Par 6.3	04-Sep-91	8-10	0.10 $\pm$ 0.07	0.38	0.51	0.90 $\pm$ 0.90

a Core samples were taken at five locations in Pond C and at 17 locations along Par Pond. Pond C was sampled only once because the water level in the pond was maintained at 195 ft. Par Pond samples are identified as X.Y, where X represents the sampling location (1-17), and Y represents the water level (1 corresponds to 195 ft; 2 corresponds to 190 ft; 3 corresponds to 185 ft; and 4 corresponds to 182 ft).

Table 94
Par Pond Core Samples

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Location	Date Sampled	Segment Depth (In)	Cs-137 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-238 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-239 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Sr-89,90 Concentration (Numbers with $\pm$ Values) or MDA pCi/g
Par 6.4 ^a	03-Oct-91	0-2	6.50 $\pm$ 0.42	0.23	0.13	0.41
Par 6.4	03-Oct-91	2-4	0.84 $\pm$ 0.12	0.24	0.30	0.37
Par 6.4	03-Oct-91	4-6	0.10 $\pm$ 0.07	0.29	0.25	0.42 $\pm$ 0.82
Par 6.4	03-Oct-91	6-8	0.11 $\pm$ 0.09	0.25	0.30	0.24 $\pm$ 0.44
Par 7.1	28-Jul-91	0-2	2.30 $\pm$ 0.22	0.47	0.47	0.17 $\pm$ 0.57
Par 7.1	28-Jul-91	2-4	0.35 $\pm$ 0.11	0.42	0.32	0.33 $\pm$ 0.59
Par 7.1	28-Jul-91	4-6	0.26 $\pm$ 0.11	0.20	0.32	0.32 $\pm$ 58.00
Par 7.1	28-Jul-91	6-8	0.08	0.33	0.27	0.34
Par 7.1	28-Jul-91	8-10	0.08	0.38	0.18	0.38
Par 7.1	28-Jul-91	10-12	0.08	0.36	0.24	0.41
Par 7.2	15-Aug-91	0-2	1.90 $\pm$ 0.17	0.25	0.14	0.60 $\pm$ 0.84
Par 7.2	15-Aug-91	2-4	0.23 $\pm$ 0.08	0.38	0.28	0.38
Par 7.3	04-Sep-91	0-2	12.80 $\pm$ 0.57	0.30	0.30	0.39
Par 7.3	04-Sep-91	2-4	3.00 $\pm$ 0.22	0.37	0.19	0.31
Par 7.3	04-Sep-91	4-6	0.26 $\pm$ 0.09	0.46	0.51	0.33
Par 7.3	04-Sep-91	6-8	0.20 $\pm$ 0.09	0.47	0.42	1.00 $\pm$ 0.81
Par 7.4	03-Oct-91	0-2	2.20 $\pm$ 0.18	1.00	1.00	0.29
Par 7.4	03-Oct-91	2-4	0.18 $\pm$ 0.07	0.90	0.90	0.32
Par 7.4	03-Oct-91	4-6	0.12 $\pm$ 0.05	0.37	0.17	0.30
Par 7.4	03-Oct-91	6-8	0.20 $\pm$ 0.12	1.00	0.95	0.30
Par 7.4	03-Oct-91	8-10	0.08 $\pm$ 0.06	0.77	0.97	0.32 $\pm$ 0.68
Par 7.4	03-Oct-91	10-12	0.08 $\pm$ 0.05	0.80	0.80	0.30

a Core samples were taken at five locations in Pond C and at 17 locations along Par Pond. Pond C was sampled only once because the water level in the pond was maintained at 195 ft. Par Pond samples are identified as X.Y, where X represents the sampling location (1-17), and Y represents the water level (1 corresponds to 195 ft; 2 corresponds to 190 ft; 3 corresponds to 185 ft; and 4 corresponds to 182 ft).

Table 94
Par Pond Core Samples

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Location	Date Sampled	Segment Depth (In)	Cs-137 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-238 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-239 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Sr-89,90 Concentration (Numbers with $\pm$ Values) or MDA pCi/g
Par 8.1 ^a	28-Jul-91	0-2	4.00 $\pm$ 0.41	0.25	0.20	0.37
Par 8.1	28-Jul-91	2-4	2.60 $\pm$ 0.20	0.28	0.23	0.46 $\pm$ 0.69
Par 8.1	28-Jul-91	4-6	3.00 $\pm$ 0.21	0.24	0.11	0.62 $\pm$ 0.79
Par 8.1	28-Jul-91	6-8	2.10 $\pm$ 0.19	0.27	0.17	0.39
Par 8.1	26-Jul-91	8-10	2.50 $\pm$ 0.20	0.15	0.08	0.68 $\pm$ 0.77
Par 8.1	28-Jul-91	10-12	17.00 $\pm$ 0.55	0.17	0.17	0.35
Par 8.2	15-Aug-91	0-2	2.50 $\pm$ 0.30	0.33	0.33	0.41
Par 8.2	15-Aug-91	2-4	3.40 $\pm$ 0.21	0.67	0.61	0.36
Par 8.2	15-Aug-91	4-6	4.40 $\pm$ 0.25	0.30	0.47	0.69 $\pm$ 0.89
Par 8.2	15-Aug-91	6-8	3.50 $\pm$ 0.25	0.24	0.38	0.44
Par 8.3	04-Sep-91	0-2	72.80 $\pm$ 2.60	0.37	0.37	0.50 $\pm$ 0.77
Par 8.3	04-Sep-91	2-4	14.90 $\pm$ 0.49	0.64	0.59	0.37
Par 8.3	04-Sep-91	4-6	1.40 $\pm$ 0.14	0.38	0.38	1.30 $\pm$ 0.92
Par 8.3	04-Sep-91	6-8	0.16 $\pm$ 0.06	0.35	0.18	0.33
Par 8.4	03-Oct-91	0-2	38.60 $\pm$ 1.10	0.35	0.26	0.46 $\pm$ 0.67
Par 8.4	03-Oct-91	2-4	10.60 $\pm$ 0.41	0.29	0.29	0.33
Par 8.4	03-Oct-91	4-6	2.00 $\pm$ 0.21	0.27	0.30	0.30
Par 8.4	03-Oct-91	6-8	0.66 $\pm$ 0.17	0.38	0.20	0.32
Par 8.4	03-Oct-91	8-10	0.17 $\pm$ 0.09	0.19	0.21	0.34
Par 8.4	03-Oct-91	10-12	0.50 $\pm$ 0.13	0.28	0.25	0.28
Par 9.1	28-Jul-91	0-2	5.00 $\pm$ 0.29	0.25	0.28	0.35
Par 9.1	28-Jul-91	2-4	0.57 $\pm$ 0.16	0.32	0.28	0.36 $\pm$ 0.65
Par 9.1	28-Jul-91	4-6	0.05 $\pm$ 0.06	0.34	0.27	0.69 $\pm$ 0.70
Par 9.1	28-Jul-91	6-8	0.08	0.36	0.33	0.35

^a Core samples were taken at five locations in Pond C and at 17 locations along Par Pond. Pond C was sampled only once because the water level in the pond was maintained at 195 ft. Par Pond samples are identified as X.Y, where X represents the sampling location (1-17), and Y represents the water level (1 corresponds to 195 ft; 2 corresponds to 190 ft; 3 corresponds to 185 ft; and 4 corresponds to 182 ft).

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Par Pond Core Samples

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Location	Date Sampled	Segment Depth (In)	Cs-137 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-238 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-239 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Sr-89,90 Concentration (Numbers with $\pm$ Values) or MDA pCi/g
Par 9.1 ^a	28-Jul-91	8-10	0.09	0.22	0.22	0.66 $\pm$ 0.67
Par 9.1	28-Jul-91	10-12	0.17 $\pm$ 0.08	0.15	0.34	0.34
Par 9.2	15-Aug-91	0-2	8.30 $\pm$ 0.33	0.20	0.22	0.51 $\pm$ 0.74
Par 9.2	15-Aug-91	2-4	1.30 $\pm$ 0.13	0.26	0.23	0.61 $\pm$ 0.80
Par 9.2	15-Aug-91	4-6	0.18 $\pm$ 0.08	0.23	0.18	0.53 $\pm$ 0.64
Par 9.3	04-Sep-91	0-2	12.60 $\pm$ 0.70	0.69	0.55	0.34
Par 9.3	04-Sep-91	2-4	10.40 $\pm$ 0.35	0.52	0.52	0.41
Par 9.3	04-Sep-91	4-6	0.82 $\pm$ 0.11	0.86	0.79	0.50 $\pm$ 0.80
Par 9.3	04-Sep-91	6-8	0.11 $\pm$ 0.08	0.27	0.27	1.10 $\pm$ 0.90
Par 9.3	04-Sep-91	8-10	0.22 $\pm$ 0.11	0.39	0.20	0.32
Par 9.4	03-Oct-91	0-2	3.40 $\pm$ 0.21	0.24	0.12	0.30
Par 9.4	03-Oct-91	2-4	0.25 $\pm$ 0.08	1.10	0.52	0.46 $\pm$ 0.67
Par 9.4	03-Oct-91	4-6	0.11 $\pm$ 0.07	0.92	1.10	0.31
Par 9.4	03-Oct-91	6-8	0.16 $\pm$ 0.07	1.00	0.94	0.34
Par 9.4	03-Oct-91	8-10	0.08 $\pm$ 0.05	0.70	0.55	1.30 $\pm$ 0.86
Par 10.1	28-Jul-91	0-2	2.50 $\pm$ 0.26	0.30	0.19	0.72 $\pm$ 1.00
Par 10.1	28-Jul-91	2-4	0.61 $\pm$ 0.13	0.20	0.11	0.66 $\pm$ 0.82
Par 10.1	28-Jul-91	4-6	0.48 $\pm$ 0.11	0.19	0.19	0.35
Par 10.1	28-Jul-91	6-8	0.12 $\pm$ 0.09	0.20	0.11	0.31
Par 10.1	28-Jul-91	8-10	0.09 $\pm$ 0.06	0.28	0.15	0.36 $\pm$ 0.67
Par 10.1	28-Jul-91	10-12	0.14 $\pm$ 0.09	0.13	0.20	0.33

^a Core samples were taken at five locations in Pond C and at 17 locations along Par Pond. Pond C was sampled only once because the water level in the pond was maintained at 195 ft. Par Pond samples are identified as X.Y, where X represents the sampling location (1-17), and Y represents the water level (1 corresponds to 195 ft; 2 corresponds to 190 ft; 3 corresponds to 185 ft; and 4 corresponds to 182 ft).

Table 94
Par Pond Core Samples

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Location	Date Sampled	Segment Depth (In)	Cs-137 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-238 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-239 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Sr-89,90 Concentration (Numbers with $\pm$ Values) or MDA pCi/g
Par 10.2 ^a	15-Aug-91	0-2	5.20 $\pm$ 3.70	0.75	0.59	0.67 $\pm$ 1.00
Par 10.2	15-Aug-91	2-4	40.50 $\pm$ 2.50	1.00	1.00	0.77 $\pm$ 0.79
Par 10.2	15-Aug-91	4-6	3.10 $\pm$ 0.33	0.98	0.47	0.74 $\pm$ 0.71
Par 10.2	15-Aug-91	6-8	0.98 $\pm$ 0.14	0.51	0.34	0.75 $\pm$ 0.91
Par 10.2	15-Aug-91	8-10	0.33 $\pm$ 0.08	0.59	0.38	0.71 $\pm$ 0.68
Par 10.2	15-Aug-91	10-12	0.13 $\pm$ 0.08	0.56	0.34	0.32
Par 10.3	04-Sep-91	0-2	11.90 $\pm$ 0.40	1.00	1.00	0.10
Par 10.3	04-Sep-91	2-4	1.80 $\pm$ 0.16	1.00	1.00	0.10
Par 10.3	04-Sep-91	4-6	0.23 $\pm$ 0.09	0.25	0.14	0.63 $\pm$ 0.76
Par 10.3	04-Sep-91	6-8	0.08	0.20	0.20	0.33
Par 10.3	04-Sep-91	8-10	0.12	0.27	0.16	0.45 $\pm$ 0.75
Par 10.4	03-Oct-91	0-2	3.90 $\pm$ 0.25	0.44	0.20	0.32
Par 10.4	03-Oct-91	2-4	1.80 $\pm$ 0.15	0.44	0.44	0.28
Par 10.4	03-Oct-91	4-6	0.15 $\pm$ 0.07	0.64	0.49	0.29
Par 10.4	03-Oct-91	6-8	0.18 $\pm$ 0.11	0.39	0.30	0.29
Par 10.4	03-Oct-91	8-10	0.21 $\pm$ 0.12	0.51	0.44	0.37 $\pm$ 0.59
Par 10.4	03-Oct-91	10-12	0.17 $\pm$ 0.06	0.71	0.53	0.29
Par 11.1	28-Jul-91	0-2	5.10 $\pm$ 0.30	0.22	0.26	0.36
Par 11.1	28-Jul-91	2-4	8.40 $\pm$ 0.37	1.00	0.51	0.39
Par 11.1	28-Jul-91	4-6	2.70 $\pm$ 0.25	0.20	0.20	0.34 $\pm$ 0.66
Par 11.1	28-Jul-91	6-8	1.60 $\pm$ 0.15	0.18	0.20	0.36
Par 11.1	28-Jul-91	8-10	1.40 $\pm$ 0.13	0.24	0.15	0.40
Par 11.1	28-Jul-91	10-12	3.50 $\pm$ 0.23	0.23	0.14	0.60 $\pm$ 0.79

a Core samples were taken at five locations in Pond C and at 17 locations along Par Pond. Pond C was sampled only once because the water level in the pond was maintained at 195 ft. Par Pond samples are identified as X.Y, where X represents the sampling location (1-17), and Y represents the water level (1 corresponds to 195 ft; 2 corresponds to 190 ft; 3 corresponds to 185 ft; and 4 corresponds to 182 ft)

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Par Pond Core Samples

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Location	Date Sampled	Segment Depth (In)	Cs-137 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-238 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-239 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Sr-89,90 Concentration (Numbers with $\pm$ Values) or MDA pCi/g
Par 11.2 ^a	15-Aug-91	0-2	1.80 $\pm$ 0.20	0.20	0.16	0.37
Par 11.2	15-Aug-91	2-4	0.94 $\pm$ 0.18	0.27	0.22	0.61 $\pm$ 0.69
Par 11.2	15-Aug-91	4-6	0.25 $\pm$ 0.11	0.35	0.15	0.36
Par 11.3	04-Sep-91	0-2	0.54 $\pm$ 0.11	0.47	0.53	0.31
Par 11.3	04-Sep-91	2-4	0.06 $\pm$ 0.08	0.60	0.38	4.20 $\pm$ 1.30
Par 11.3	04-Sep-91	4-6	0.10 $\pm$ 0.06	0.78	0.38	0.30
Par 11.3	04-Sep-91	6-8	0.12 $\pm$ 0.09	0.44	0.25	0.33
Par 11.3	04-Sep-91	8-10	0.12 $\pm$ 0.08	0.66	0.88	2.60 $\pm$ 1.30
Par 11.4	03-Oct-91	0-2	0.87 $\pm$ 0.12	0.38	0.19	0.32
Par 11.4	03-Oct-91	2-4	3.00 $\pm$ 0.19	0.48	0.67	0.33
Par 11.4	03-Oct-91	4-6	3.10 $\pm$ 0.22	0.50	0.62	0.34
Par 11.4	03-Oct-91	6-8	0.26 $\pm$ 0.09	0.54	0.58	0.47 $\pm$ 0.63
Par 11.4	03-Oct-91	8-10	0.21 $\pm$ 0.08	0.56	81.00	0.32
Par 11.4	03-Oct-91	10-12	0.39 $\pm$ 0.10	0.40	0.20	0.26
Par 12.1	28-Jul-91	0-2	44.5 $\pm$ 4.20	0.35	0.54	0.75
Par 12.1	28-Jul-91	2-4	7.60 $\pm$ 0.50	0.33	0.52	0.42 $\pm$ 0.75
Par 12.1	28-Jul-91	4-6	1.30 $\pm$ 0.16	0.24	0.21	0.37
Par 12.1	28-Jul-91	6-8	0.30 $\pm$ 0.10	0.38	0.59	0.54 $\pm$ 0.67
Par 12.1	28-Jul-91	8-10	0.09 $\pm$ 0.07	0.47	0.24	0.35
Par 12.1	28-Jul-91	10-12	0.12 $\pm$ 0.07	0.39	0.22	0.41
Par 12.2	15-Aug-91	0-2	1.30 $\pm$ 0.17	0.21	0.23	0.34
Par 12.2	15-Aug-91	2-4	0.27 $\pm$ 0.08	0.19	0.21	0.42

^a Core samples were taken at five locations in Pond C and at 17 locations along Par Pond. Pond C was sampled only once because the water level in the pond was maintained at 195 ft. Par Pond samples are identified as X.Y, where X represents the sampling location (1-17), and Y represents the water level (1 corresponds to 195 ft; 2 corresponds to 190 ft; 3 corresponds to 185 ft; and 4 corresponds to 182 ft).

Table 94
Par Pond Core Samples

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Location	Date Sampled	Segment Depth (In)	Cs-137 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-238 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-239 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Sr-89,90 Concentration (Numbers with $\pm$ Values) or MDA pCi/g
Par 12.3 ^a	04-Sep-91	0-2	36.20 $\pm$ 0.88	0.73	0.74	0.36
Par 12.3	04-Sep-91	2-4	11.20 $\pm$ 0.43	0.79	0.41	0.80 $\pm$ 0.90
Par 12.3	04-Sep-91	4-6	6.30 $\pm$ 0.38	0.45	0.49	2.00 $\pm$ 1.00
Par 12.3	04-Sep-91	6-8	0.77 $\pm$ 0.12	0.81	0.74	0.90 $\pm$ 0.80
Par 12.4	03-Oct-91	0-2	1.10 $\pm$ 0.13	0.40	0.40	0.60 $\pm$ 0.65
Par 12.4	03-Oct-91	2-4	0.42 $\pm$ 0.07	0.40	0.50	0.27
Par 12.4	03-Oct-91	4-6	0.16 $\pm$ 0.10	0.30	0.20	0.41 $\pm$ 0.70
Par 12.4	03-Oct-91	6-8	0.51 $\pm$ 0.10	0.40	0.60	0.28
Par 13.1	28-Jul-91	0-2	2.10 $\pm$ 0.31	0.64	0.74	0.34
Par 13.1	28-Jul-91	2-4	0.71 $\pm$ 0.12	0.24	0.47	0.75 $\pm$ 0.89
Par 13.1	28-Jul-91	4-6	0.20 $\pm$ 0.09	1.00	0.58	0.44
Par 13.2	15-Aug-91	0-2	3.00 $\pm$ 0.23	0.16	0.20	0.31
Par 13.2	15-Aug-91	2-4	2.00 $\pm$ 0.19	0.24	0.08	0.36
Par 13.2	15-Aug-91	4-6	0.63 $\pm$ 0.13	0.24	0.24	0.41 $\pm$ 0.67
Par 13.3	04-Sep-91	0-2	14.80 $\pm$ 0.83	0.27	0.14	1.30 $\pm$ 0.87
Par 13.3	04-Sep-91	2-4	3.20 $\pm$ 0.29	0.26	0.29	0.94 $\pm$ 0.93
Par 13.3	04-Sep-91	4-6	0.49 $\pm$ 0.15	0.28	0.24	1.00 $\pm$ 0.79
Par 13.3	04-Sep-91	6-8	0.18 $\pm$ 0.09	0.28	0.22	0.47 $\pm$ 0.70
Par 13.4	03-Oct-91	0-2	0.50 $\pm$ 0.80	0.73	0.58	0.40
Par 13.4	03-Oct-91	2-4	0.40 $\pm$ 0.10	0.56	0.56	0.40
Par 13.4	03-Oct-91	4-6	0.10 $\pm$ 0.10	0.32	0.21	0.40
Par 13.4	03-Oct-91	6-8	0.20 $\pm$ 0.10	0.53	0.49	0.50 $\pm$ 0.80

^a Core samples were taken at five locations in Pond C and at 17 locations along Par Pond. Pond C was sampled only once because the water level in the pond was maintained at 195 ft. Par Pond samples are identified as X.Y, where X represents the sampling location (1-17), and Y represents the water level (1 corresponds to 195 ft; 2 corresponds to 190 ft; 3 corresponds to 185 ft; and 4 corresponds to 182 ft).

Table 94
Par Pond Core Samples

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Location	Date Sampled	Segment Depth (In)	Cs-137 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-238 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-239 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Sr-89,90 Concentration (Numbers with $\pm$ Values) or MDA pCi/g
Par 13.4 ^a	03-Oct-91	8-10	0.10 $\pm$ 0.10	0.55	0.47	0.40
Par 13.4	03-Oct-91	10-12	0.20 $\pm$ 0.10	0.48	0.48	0.40
Par 14.1	28-Jul-91	0-2	1.60 $\pm$ 0.21	0.33	0.28	0.37
Par 14.1	28-Jul-91	2-4	2.20 $\pm$ 0.23	0.29	0.21	0.91 $\pm$ 0.75
Par 14.1	28-Jul-91	4-6	1.10 $\pm$ 0.17	0.34	0.34	0.52 $\pm$ 0.82
Par 14.1	28-Jul-91	6-8	0.12 $\pm$ 0.09	0.25	0.29	0.41
Par 14.1	28-Jul-91	8-10	0.15	0.57	0.30	0.34 $\pm$ 0.68
Par 14.2	15-Aug-91	0-2	1.80 $\pm$ 0.18	0.18	0.27	0.28
Par 14.2	15-Aug-91	2-4	0.61 $\pm$ 0.11	0.30	0.26	0.36 $\pm$ 0.72
Par 14.2	15-Aug-91	4-6	0.15 $\pm$ 0.06	0.29	0.24	0.35
Par 14.2	15-Aug-91	6-8	0.10	0.40	0.16	0.28
Par 14.3	04-Sep-91	0-2	0.30 $\pm$ 0.12	0.23	0.15	0.50 $\pm$ 0.75
Par 14.3	04-Sep-91	2-4	0.39 $\pm$ 0.10	0.40	0.36	0.85 $\pm$ 1.20
Par 14.3	04-Sep-91	4-6	0.11 $\pm$ 0.06	0.47	0.59	0.90 $\pm$ 0.82
Par 14.3	04-Sep-91	6-8	0.07	1.10	0.94	0.70 $\pm$ 0.89
Par 14.3	04-Sep-91	8-10	0.07	0.36	0.45	0.49
Par 14.3	04-Sep-91	10-12	0.06	0.58	0.58	0.41
Par 14.4	03-Oct-91	0-2	0.96 $\pm$ 0.17	0.30	0.30	0.46 $\pm$ 0.67
Par 14.4	03-Oct-91	2-4	0.58 $\pm$ 0.12	0.30	0.30	0.26
Par 14.4	03-Oct-91	4-6	0.23 $\pm$ 0.08	0.60 $\pm$ 0.60	0.70	0.27
Par 14.4	03-Oct-91	6-8	0.16 $\pm$ 0.07	0.30	0.50	1.23 $\pm$ 1.81
Par 14.4	03-Oct-91	8-10	0.06 $\pm$ 0.05	0.50	0.30	0.27
Par 14.4	03-Oct-91	10-12	0.10 $\pm$ 0.08	0.60	0.50	0.27

a Core samples were taken at five locations in Pond C and at 17 locations along Par Pond. Pond C was sampled only once because the water level in the pond was maintained at 195 ft. Par Pond samples are identified as X:Y, where X represents the sampling location (1-17), and Y represents the water level (1 corresponds to 195 ft; 2 corresponds to 190 ft; 3 corresponds to 185 ft; and 4 corresponds to 182 ft).

Table 94
Par Pond Core Samples

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Location	Date Sampled	Segment Depth (In)	Cs-137 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-238 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-239 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Sr-89,90 Concentration (Numbers with $\pm$ Values) or MDA pCi/g
Par 15.1 ^a	28-Jul-91	0-2	2.60 $\pm$ 0.26	0.27	0.42	0.41 $\pm$ 0.90
Par 15.1	28-Jul-91	2-4	0.43 $\pm$ 0.17	0.42	0.22	0.38 $\pm$ 0.69
Par 15.1	28-Jul-91	4-6	0.28 $\pm$ 0.17	0.27	0.29	1.00 $\pm$ 0.89
Par 15.1	28-Jul-91	6-8	0.35 $\pm$ 0.12	0.25	0.21	0.82 $\pm$ 1.00
Par 15.2	15-Aug-91	0-2	2.60 $\pm$ 0.25	0.23	0.17	0.35
Par 15.2	15-Aug-91	2-4	0.15 $\pm$ 0.09	0.09	0.09	0.31
Par 15.3	04-Sep-91	0-2	8.80 $\pm$ 0.40	0.89	0.39	1.00 $\pm$ 0.84
Par 15.3	04-Sep-91	2-4	1.10 $\pm$ 0.14	1.00	0.46	0.39
Par 15.3	04-Sep-91	4-6	0.32 $\pm$ 0.10	0.51	0.51	0.33
Par 15.3	04-Sep-91	6-8	0.14 $\pm$ 0.09	0.31	0.35	0.39
Par 15.3	04-Sep-91	8-10	0.17 $\pm$ 0.06	0.82	0.55	0.80 $\pm$ 1.00
Par 15.3	04-Sep-91	10-12	0.11 $\pm$ 0.08	0.97	0.63	0.57 $\pm$ 0.80
Par 15.4	03-Oct-91	0-2	5.50 $\pm$ 0.28	0.27	0.32	0.34
Par 15.4	03-Oct-91	2-4	1.70 $\pm$ 0.16	0.44	0.17	4.30
Par 15.4	03-Oct-91	4-6	0.24 $\pm$ 0.08	0.25	0.25	0.57 $\pm$ 0.75
Par 15.4	03-Oct-91	6-8	0.16 $\pm$ 0.10	0.22	0.25	0.57 $\pm$ 0.85
Par 15.4	03-Oct-91	8-10	0.10 $\pm$ 0.08	0.32	0.21	0.42
Par 15.4	03-Oct-91	10-12	0.14 $\pm$ 0.08	0.216	0.17	0.37
Par 16.1	28-Jul-91	0-2	8.00 $\pm$ 0.66	0.29	0.23	1.90 $\pm$ 0.95
Par 16.1	28-Jul-91	2-4	1.60 $\pm$ 0.28	0.28	0.26	0.54 $\pm$ 0.84
Par 16.1	28-Jul-91	4-6	0.44 $\pm$ 0.21	0.37	0.37	1.90 $\pm$ 0.85
Par 16.1	28-Jul-91	6-8	0.90 $\pm$ 0.18	0.35	0.18	1.00 $\pm$ 0.78

a Core samples were taken at five locations in Pond C and at 17 locations along Par Pond. Pond C was sampled only once because the water level in the pond was maintained at 195 ft. Par Pond samples are identified as X.Y, where X represents the sampling location (1-17), and Y represents the water level (1 corresponds to 195 ft; 2 corresponds to 190 ft; 3 corresponds to 185 ft; and 4 corresponds to 182 ft).

Table 94
Par Pond Core Samples

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Location	Date Sampled	Segment Depth (In)	Cs-137 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-238 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-239 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Sr-89,90 Concentration (Numbers with $\pm$ Values) or MDA pCi/g
Par 16.1 ^a	28-Jul-91	8-10	1.60 $\pm$ 0.18	0.13	0.21	0.38
Par 16.1	28-Jul-91	10-12	0.56 $\pm$ 0.12	0.46	0.18	0.42 $\pm$ 0.67
Par 16.2	15-Aug-91	0-2	111.7 $\pm$ 5.80	0.17	0.46 $\pm$ 0.34	0.86 $\pm$ 0.77
Par 16.2	15-Aug-91	2-4	5.90 $\pm$ 0.52	0.10	0.19 $\pm$ 0.17	0.41 $\pm$ 0.77
Par 16.2	15-Aug-91	4-6	1.00 $\pm$ 0.20	0.18	0.12	0.41
Par 16.2	15-Aug-91	6-8	0.27 $\pm$ 0.16	0.23	0.23	0.48 $\pm$ 0.74
Par 16.2	15-Aug-91	8-10	0.11	0.22	0.19	0.56 $\pm$ 0.80
Par 16.2	15-Aug-91	10-12	0.13	0.19	0.19	1.50 $\pm$ 0.93
Par 16.3	04-Sep-91	0-2	43.60 $\pm$ 1.10	1.00	1.00	0.26
Par 16.3	04-Sep-91	2-4	3.10 $\pm$ 0.21	0.70	0.83	0.10
Par 16.3	04-Sep-91	4-6	0.11 $\pm$ 0.07	0.22	0.22	0.10
Par 16.3	04-Sep-91	6-8	0.08 $\pm$ 0.08	0.26	0.45	0.10
Par 16.4	03-Oct-91	0-2	33.60 $\pm$ 0.96	0.15	0.15	0.22
Par 16.4	03-Oct-91	2-4	2.50 $\pm$ 0.19	0.20	0.20	0.38
Par 16.4	03-Oct-91	4-6	0.69 $\pm$ 0.11	0.28	0.28	0.58 $\pm$ 0.75
Par 16.4	03-Oct-91	6-8	0.05 $\pm$ 0.11	0.14	0.22	0.37
Par 16.4	03-Oct-91	8-10	0.06 $\pm$ 0.06	0.18	0.27	0.40
Par 16.4	03-Oct-91	10-12	0.14	0.21	0.14	0.34
Par 17.1	28-Jul-91	0-2	5.90 $\pm$ 0.43	0.24	0.28	0.34
Par 17.1	28-Jul-91	2-4	2.10 $\pm$ 0.20	0.32	0.20	0.38
Par 17.1	28-Jul-91	4-6	0.38 $\pm$ 0.12	0.19	0.12	0.33
Par 17.1	28-Jul-91	6-8	0.14 $\pm$ 0.07	0.24	0.11	0.35

^a Core samples were taken at five locations in Pond C and at 17 locations along Par Pond. Pond C was sampled only once because the water level in the pond was maintained at 195 ft. Par Pond samples are identified as X.Y, where X represents the sampling location (1-17), and Y represents the water level (1 corresponds to 195 ft; 2 corresponds to 190 ft; 3 corresponds to 185 ft; and 4 corresponds to 182 ft).

Table 94
Par Pond Core Samples

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Location	Date Sampled	Segment Depth (In)	Cs-137 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-238 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Pu-239 Concentration (Numbers with $\pm$ Values) or MDA pCi/g	Sr-89,90 Concentration (Numbers with $\pm$ Values) or MDA pCi/g
Par 17.1 ^a	28-Jul-91	8-10	0.19 $\pm$ 0.15	0.22	0.26	0.77 $\pm$ 0.75
Par 17.1	28-Jul-91	10-12	0.08	0.28	0.21	0.47 $\pm$ 0.70
Par 17.2	15-Aug-91	0-2	2.90 $\pm$ 0.26	0.31	0.11	0.97 $\pm$ 0.81
Par 17.2	15-Aug-91	2-4	0.87 $\pm$ 0.14	0.30	0.25	0.41 $\pm$ 0.79
Par 17.2	15-Aug-91	4-6	0.14 $\pm$ 0.09	0.36	0.26	0.32
Par 17.2	15-Aug-91	6-8	0.03 $\pm$ 0.06	0.20	0.20	0.46 $\pm$ 0.67
Par 17.2	15-Aug-91	8-10	0.11 $\pm$ 0.07	0.21	0.24	0.37
Par 17.2	15-Aug-91	10-12	0.12 $\pm$ 0.06	0.29	0.14	0.81 $\pm$ 0.70
Par 17.3	04-Sep-91	0-2	2.90 $\pm$ 0.22	0.31	0.25	0.59 $\pm$ 0.70
Par 17.3	04-Sep-91	2-4	0.43 $\pm$ 0.07	0.34	0.18	0.24
Par 17.3	04-Sep-91	4-6	0.11 $\pm$ 0.07	0.26	0.30	0.58 $\pm$ 0.65
Par 17.3	04-Sep-91	6-8	0.13 $\pm$ 0.08	0.29	0.33	0.23
Par 17.3	04-Sep-91	8-10	0.14 $\pm$ 0.07	0.44	0.38	0.24
Par 17.4	03-Oct-91	0-2	82.90 $\pm$ 4.20	0.41	0.64	0.80 $\pm$ 0.90
Par 17.4	03-Oct-91	2-4	5.89 $\pm$ 0.30	0.42	0.63	0.30

END DATE

11-16-93

a Core samples were taken at five locations in Pond C and at 17 locations along Par Pond. Pond C was sampled only once because the water level in the pond was maintained at 195 ft. Par Pond samples are identified as X.Y, where X represents the sampling location (1-17), and Y represents the water level (1 corresponds to 195 ft; 2 corresponds to 190 ft; 3 corresponds to 185 ft; and 4 corresponds to 182 ft).