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Savannah River Site Environmental Data for 1993

**Environmental Monitoring Section
Environmental Protection Department**

**Westinghouse Savannah River Company
Savannah River Site
Aiken, SC 29808**

MASTER

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Savannah River Site Environmental Data for 1993

Editor

Margaret W. Arnett

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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.

Data tables sometimes present fewer results than would be expected according to the frequency described in the sampling and analysis schedules. There are several reasons for this. Problems may have arisen with sample collection, such as loss of power to the sampling site or inaccessibility to the sampling site (locked gates, flooding, etc.). Results for collected samples can be rejected for such reasons as insufficient sample volume, low chemical yield, or equipment failure. The "number of samples" columns in the tables refer to the number of results used to determine maximum, minimum, and average concentrations.

The following 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.
- In tables containing arithmetic mean, maximum, and minimum columns, when only one sample was collected, the single result is reported in the arithmetic mean column.

Information in this book is summarized in the *Savannah River Site Environmental Report for 1993* (WSRC-TR-94-075). 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

Manager, Environmental Publications
Westinghouse Savannah River Company
Building 735-16A
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Radionuclide and Chemical Nomenclature

Nomenclature and Half-life for Radionuclides

Radionuclide	Symbol	Half-life ^{a,b}
Americium-241	Am-241	432.7 y
Americium-243	Am-243	7.37E3 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 y
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	312 d
Niobium-95	Nb-95	35 d
Osmium-185	Os-185	94 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
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

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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

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

M9300508.01

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

Figure 4 Off-Site TLD Surveillance Locations

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

M9300557.01

Figure 5 Surface Water Sampling Locations

Figure 5 Surface Water Sampling Locations
Surveillance and sampling points are located on SRS streams and seepage basins and on the Savannah River.

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

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 Gamma emitters (including I-131)
Silica gel	Continuous	Biweekly Tritium
Thermoluminescent dosimeters	Continuous	Quarterly Gamma emitters
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
		Annually 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	
Food		
Milk	Monthly	Gamma emitters and tritium
	Quarterly	Sr-90
Eggs	Quarterly	Tritium, gamma emitters, Sr-90, U/Pu,
Other foodstuffs	Annually	Tritium, gamma emitters, Sr-90, U/Pu, Pu-238, and Pu-239
Drinking water		
On site	Monthly or quarterly	Alpha, beta, and tritium
Off site	Semiannually	Alpha, beta, and tritium
Water treatment plants	Daily	Monthly 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	Monthly, quarterly, biweekly, 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-Area, H-Area, S-Area, and Z-Area	Quarterly	
Outside burial ground fence	Quarterly	
Inside burial ground fence	Annually	
Seepage/retention basins	Annually	
Site perimeter	Quarterly	
Off site	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	Sampling Frequency	Frequency of Analysis
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
Fish	Monthly	Mercury
Sediments	Annually	Herbicides and Inorganics

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	0.5 gm
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	0.5 gm
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
Minimum Detectable Concentrations for Gamma Analysis of Soil, Food,
Fish and Wildlife, and Vegetation Samples

Page 1 of 1

Nuclide	pCi/g				pCi/L
	Soil ^a	Foods ^a	Fish and Wildlife ^a	Vegetation ^a	Milk ^a
Ce-141	.097	.098	.158	0.4	3
Ce-144	.139	.040	.227	0.5	12
Co-58	.042	.021	.074	0.2	2
Co-60	.029	.007	.052	0.1	3
Cr-51	.771	.979	1.322	2.9	19
Cs-134	.026	.007	.045	0.1	2
Cs-137	.024	.007	.042	0.1	3
I-131	3.949	Decayed	6.790	15.0	3
Mn-54	.032	.008	.057	0.1	2
Nb-95	.084	.074	.147	0.3	3
Ru-103	.060	.049	.104	0.2	2
Ru-106	.279	.072	.486	1.1	23
Sb-125	.061	.018	.106	0.2	6
Zn-65	.066	.021	.117	0.3	5
Zr-95	.083	.039	.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%. 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 5
Minimum Detectable Concentrations for Gamma Analysis
of Water and Air Samples

Page 1 of 1

Nuclide	pCi/L		pCi/m ²	pCi/m ³
	River Water ^a	Stream Water ^a	Rain Water ^a	Air Filter ^a
Ce-141	0.8	14	36	.012
Ce-144	2.9	48	125	.033
Co-58	0.6	11	29	.010
Co-60	1.0	11	32	.011
Cr-51	5.8	90	246	.093
Cs-134	0.7	10	27	.008
Cs-137	0.7	9	26	.008
I-131	1.2	26	72	.017
Mn-54	0.7	12	32	.011
Nb-95	0.8	13	36	.014
Ru-103	0.6	10	28	.010
Ru-106	5.5	100	278	.088
Sb-125	1.8	23	63	.019
Zn-65	1.4	23	64	.022
Zr-95	1.4	20	55	.019

^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%. 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
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 m² per collection area for rainwater, 2L for river water, 10g for soils, and 100g for foodstuff. The typical recovery was 42%; the typical counting efficiency was 27%. The LLD for the actual samples is variable because of the detector used and 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 $\mu\text{Ci}/\text{sample}$
Gross beta	1.55E-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, and Sr-90. The LLD for the actual samples is variable because of the detector used and 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 Weak Beta Emitters

Sample:	Lower Limit of Detection:
Tritium ^a	1.3E-06 $\mu\text{Ci}/\text{mL}$
Tritium ^b	4.5E-07 $\mu\text{Ci}/\text{mL}$
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, 88% for Pm-147, and 88% for S-35. The LLD for the actual samples is variable because of the detector used and 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, foodstuffs, and rainwater are analyzed using a 150-minute count.

Table 7
Calculated Migration of Radioactivity from Seepage Basins

Page 1 of 1

Location	Source Description	Tritium (Curies)		
		1991	1992	1993
FMA7(FM3A+FM2B)	200-F seepage basins to Four Mile Creek	5,750	4,260	2,180
FM2B-FM1C	200-H seepage basins to Four Mile Creek	1,810	1,470	1,020
FM3A-FM3	200-H seepage basin 4 and Solid Waste Disposal Facility to Four Mile Creek	6,420	4,090	5,330
IGB21	K-Area retention basin to Indian Grave Branch	2,160	1,530	1,100
SC2A	100-P seepage basin to Steel Creek ^a	364	232	382

Location	Source Description	Total Strontium (Millicuries)		
		1991	1992	1993
FMA7(FM3A+FM2B)	200-F seepage basins to Four Mile Creek	460	194	150
FM2B-FM1C	200-H seepage basins to Four Mile Creek	72	78	65

^a Includes some secondary effluent releases from P Area when water is diverted from Par Pond.

Table 8
1993 Radioactive Atmospheric Releases by Source

Page 1 of 1

Radio-nuclide	Half-life	Curies ^{a,b}						Diffuse and Fugitive ^c	Total
		Reactors	Separations	Reactor Materials	Heavy Water	SRTC			
GASES AND VAPORS									
H-3 (oxide)	12.3 y	3.85E+04	9.39E+04		4.48E+02		4.31E+01	1.33E+05	
H-3 (elem)	12.3 y		5.82E+04					5.82E+04	
H-3 Total	12.3 y	3.85E+04	1.52E+05		4.48E+02		4.31E+01	1.91E+05	
C-14	5.7E3 y		1.69E-02				4.00E-06	1.69E-02	
Xe-135	9.1 h					3.19E-02		3.19E-02	
I-129	1.6E7 y		4.96E-03				6.88E-07	4.96E-03	
I-131	8 d		8.89E-05			5.92E-05		1.48E-04	
I-133	20.8 h					1.96E-03		1.96E-03	
PARTICULATES									
S-35	87.2 d						2.00E-06	2.00E-06	
Co-60	5.3 y		5.89E-09				3.34E-17	5.89E-09	
Ni-63	100 y						2.00E-07	2.00E-07	
Sr-89,90 ^d	29.1 y	1.81E-04	1.88E-03	8.32E-05	7.19E-06	1.19E-05	1.11E-04	2.27E-03	
Zr-95	64 d						2.39E-14	2.39E-14	
Ru-106	1.0 y	3.99E-06	5.76E-09				4.96E-12	4.00E-06	
Sb-125	2.8 y						7.27E-15	7.27E-15	
Cs-134	2.1 y		1.49E-06				1.40E-17	1.49E-06	
Cs-137	30.2 y	1.04E-04	5.28E-04			1.51E-06	4.33E-11	6.34E-04	
Ce-144	285 d						1.13E-13	1.13E-13	
Eu-154	8.6 y						3.44E-13	3.44E-13	
Eu-155	4.7 y						1.63E-13	1.63E-13	
U-235,238	4.5E9 y		1.86E-03	1.55E-05		2.89E-08	4.74E-05	1.92E-03	
Pu-238	87.7 y		1.21E-03			1.00E-08	4.63E-12	1.21E-03	
Pu-239 ^d	2.4E4 y	4.11E-06	1.06E-03	3.50E-06	8.42E-07	9.41E-06	4.70E-07	1.08E-03	
Am-241,243	7.4E3 y		1.42E-04			1.34E-06	8.86E-13	1.43E-04	
Cm-242,244	18.1 y		4.96E-05			6.83E-06	7.33E-12	5.64E-05	

a One curie equals 3.7 E+10 Becquerels.

b Blank space indicates no quantifiable activity.

c Estimated releases from minor unmonitored diffuse and fugitive sources

d Includes unidentified beta-gamma emissions

e Includes unidentified alpha emissions

Table 9
1993 Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides (DCGs)

Page 1 of 5

Stack or Facility	Radionuclide	Quantity Released During 1993 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1993 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
A-Area (SRTC)					
735-A	U-235,238	2.89E-02	4.65E+14	6.21E-17	1.0E-13
	Pu-238	1.00E-02	4.65E+14	2.15E-17	3.0E-14
	Am-241,243	1.71E-02	4.65E+14	3.68E-17	2.0E-14
	Cm-242,244	9.30E-02	4.65E+14	2.00E-16	4.0E-14
773-A, B wing	Cs-137	1.17E+00	1.10E+15	1.06E-15	4.0E-10
	Am-241,243	1.32E+00	1.10E+15	1.20E-15	2.0E-14
	Cm-242,244	6.74E+00	1.10E+15	6.13E-15	4.0E-14
773-A, C wing	I-131	2.93E-01	1.10E+15	2.66E-16	4.0E-10
773-A, Sandfilter	I-131	5.88E+01	1.10E+15	5.35E-14	4.0E-10
	I-133	1.96E+03	1.10E+15	1.78E-12	2.0E-09
	Xe-135	3.19E+04	1.10E+15	2.90E-11	none listed
	Cs-137	3.36E-01	1.10E+15	3.05E-16	4.0E-10
	I-131	6.51E-02	1.37E+14	4.75E-16	4.0E-10
776-A	I-133	1.38E-01	1.37E+14	1.01E-15	2.0E-09
C-Area (C-Reactor)					
C, Main Stack	H-3 (oxide)	1.46E+08	1.78E+15	8.20E-08	1.0E-07
D-Area (Heavy Water Rework)					
420-D	H-3 (oxide)	4.08E+08	2.23E+14	1.83E-06	1.0E-07
421-2D	H-3 (oxide)	1.33E+07	1.52E+14	8.75E-08	1.0E-07
772-D	H-3 (oxide)	2.62E+07	2.60E+14	1.01E-07	1.0E-07
F-Area (Separations and Waste Management)					
235-F, Sandfilter	Pu-238	7.16E-03	5.26E+14	1.36E-17	3.0E-14
	Pu-239	1.71E-02	5.26E+14	3.25E-17	2.0E-14
	U-235,238	7.49E-02	5.26E+14	1.42E-16	1.0E-13

^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 effective dose equivalent 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
1993 Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides (DCGs)

Page 2 of 5

Stack or Facility	Radionuclide	Quantity Released During 1993 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1993 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
F-Area (Separations and Waste Management), cont.					
	Am-241,243	5.07E-02	5.26E+14	9.64E-17	2.0E-14
	Cm-242,244	2.22E-03	5.26E+14	4.22E-18	4.0E-14
241-F, Misc.	Cs-137	1.41E-01	8.66E+13	1.63E-15	4.0E-10
241-F, Purge	Cs-137	1.86E+00	7.72E+13	2.41E-14	4.0E-10
	Am-241,243	1.84E-03	7.72E+13	2.38E-17	2.0E-14
241-F, Annulus	Co-60	5.89E-03	2.30E+14	2.56E-17	8.0E-11
	Cs-137	1.83E+00	2.30E+14	7.96E-15	4.0E-10
	Am-241,243	1.03E-01	2.30E+14	4.48E-16	2.0E-14
247-F, Main	U-235,238	6.92E-01	1.50E+15	4.61E-16	1.0E-13
	Pu-238	6.15E-03	1.50E+15	4.10E-18	3.0E-14
	Pu-239	1.68E-02	1.50E+15	1.12E-17	2.0E-14
6.1-D, Dissolver	Cs-137	9.30E-04	3.09E+12	3.01E-16	4.0E-10
6.4-D, Dissolver	Cs-137	2.95E-02	2.97E+12	9.93E-15	4.0E-10
800 Cell	Cs-137	3.70E-02	8.90E+13	4.16E-16	4.0E-10
772-F, Temp.	U-235,238	1.02E+00	5.88E+14	1.73E-15	1.0E-13
	Pu-238	2.53E-01	5.88E+14	4.30E-16	3.0E-14
	Pu-239	9.55E-02	5.88E+14	1.62E-16	2.0E-14
772-4F (Lab)	U-235,238	1.12E+00	8.13E+14	1.38E-15	1.0E-13
	Pu-238	6.52E-02	8.13E+14	8.02E-17	3.0E-14
	Pu-239	1.61E-01	8.13E+14	1.98E-16	2.0E-14
221-F, A Line	U-235,238	2.55E-01	3.53E+13	7.22E-15	1.0E-13
	Pu-238	1.81E-02	3.53E+13	5.13E-16	3.0E-14
	Pu-239	1.63E-02	3.53E+13	4.62E-16	2.0E-14
F, Main Stack	C-14	1.48E+04	4.20E+15	3.52E-12	4.0E-06
	Sr-89,90	3.86E+02	4.20E+15	9.19E-14	9.0E-12

^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 effective dose equivalent 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
1993 Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides (DCGs)

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Stack or Facility	Radionuclide	Quantity Released During 1993 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1993 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
F-Area (Separations and Waste Management), cont.					
	I-129	2.53E+03	4.20E+15	6.02E-13	7.0E-11
	I-131	2.94E+00	4.20E+15	7.00E-16	4.0E-10
	Cs-134	1.38E+00	4.20E+15	3.29E-16	2.0E-10
	Cs-137	4.62E+02	4.20E+15	1.10E-13	4.0E-10
	U-235,238	1.76E+03	4.20E+15	4.19E-13	1.0E-13
	Pu-238	3.26E+02	4.20E+15	7.76E-14	3.0E-14
	Pu-239	5.75E+02	4.20E+15	1.37E-14	2.0E-14
	Am-241,243	6.08E+01	4.20E+15	1.45E-14	2.0E-14
	Cm-242,244	4.31E+01	4.20E+15	1.03E-14	4.0E-14
H-Area (Separations and Waste Management)					
230-H, Process	None	N/A	N/A	N/A	N/A
241-84H, ETF	None	N/A	N/A	N/A	N/A
241-H, Misc.	Cs-134	1.48E-02	1.03E+14	1.44E-16	2.0E-10
	Cs-137	2.86E+00	1.03E+14	2.78E-14	4.0E-10
241-H, Purge	Ru-106	5.76E-03	1.47E+14	3.92E-17	3.0E-11
	Cs-134	1.63E-02	1.47E+14	1.11E-16	2.0E-10
	Cs-137	3.96E+00	1.47E+14	2.69E-14	4.0E-10
241-H, Annulus	Cs-134	8.20E-02	8.70E+14	9.43E-17	2.0E-10
	Cs-137	1.50E+01	8.70E+14	1.72E-14	4.0E-10
244-H, RBOF ^b	Cs-137	1.57E-01	3.53E+14	4.45E-16	4.0E-10
244-H, RBOF VV ^c	Cs-137	4.92E-02	5.46E+12	9.01E-15	4.0E-10
253-H, Waste	H-3 (oxide)	1.67E+06	5.21E+13	3.21E-08	1.0E-07
299-H, Building	Cs-137	6.31E-02	2.76E+14	2.29E-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.

^b Receiving Basin for Offsite Fuel

^c Receiving Basin for Offsite Fuel Vessel Vent

Table 9
1993 Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides (DCGs)

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Stack or Facility	Radionuclide	Quantity Released During 1993 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1993 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
H-Area (Separations and Waste Management), cont.					
Tritium Facilities	H-3 (oxide)	9.39E+10	1.69E+15	5.56E-05	1.0E-07
	H-3 (elemental)	5.82E+10	1.69E+15	3.44E-05	2.0E-02
H, Main Stack	C-14	2.13E+03	3.97E+15	5.37E-13	4.0E-06
	Sr-89,90	5.95E+01	3.97E+15	1.50E-14	9.0E-12
	I-129	2.43E+03	3.97E+15	6.12E-13	7.0E-11
	I-131	8.60E+01	3.97E+15	2.17E-14	4.0E-10
	Cs-137	4.00E+01	3.97E+15	1.01E-14	4.0E-10
	U-235,238	9.46E+01	3.97E+15	2.38E-14	1.0E-13
	Pu-238	8.85E+02	3.97E+15	2.23E-13	3.0E-14
	Pu-239	1.38E+02	3.97E+15	3.48E-14	2.0E-14
	Am-241,243	8.07E+01	3.97E+15	2.03E-14	2.0E-14
	Cm-242,244	6.52E+00	3.97E+15	1.64E-15	4.0E-14
K-Area (K-Reactor)					
K, Main Stack	H-3 (oxide)	3.40E+10	2.74E+15	1.24E-05	1.0E-07
K, Disassembly	H-3 (oxide)	1.13E+09	1.16E+15	9.74E-07	1.0E-07
	Cs-137	1.12E+00	1.16E+15	9.66E-16	4.0E-10
L-Area (L-Reactor)					
L, Main Stack	H-3 (oxide)	1.60E+09	2.62E+15	6.11E-07	1.0E-07
L, Disassembly	H-3 (oxide)	2.61E+08	1.19E+15	2.19E-07	1.0E-07
	Ru-106	3.99E+00	1.19E+15	3.35E-15	3.0E-11
	Cs-137	1.03E+02	1.19E+15	8.66E-14	4.0E-10
M-Area (Reactor Materials)					
313-M	U-235,238	4.57E+00	9.45E+13	4.84E-14	1.0E-13
320-M	U-235,238	2.75E-02	2.65E+13	1.04E-15	1.0E-13
321-M	U-235,238	3.41E-01	5.91E+14	5.77E-16	1.0E-13

^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
1993 Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides (DCGs)

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Stack or Facility	Radionuclide	Quantity Released During 1993 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1993 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
M-Area (Reactor Materials), cont.					
321-M (Mach.)	U-235,238	5.29E+00	8.68E+13	6.09E-14	1.0E-13
322-M	U-235,238	5.31E+00	6.27E+14	8.47E-15	1.0E-13
P-Area (P-Reactor)					
P, Main Stack	H-3 (oxide)	1.19E+09	1.22E+15	9.75E-07	1.0E-07
P, Disassembly	H-3 (oxide)	1.22E+08	2.86E+14	4.27E-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 10
1993 Radioactive Liquid Releases by Source
(Including Direct and Seepage Basin Migration Releases)

Page 1 of 1

Radio-nuclide	Half-life	Curies ^{a,b}					Total
		Reactors	Separations	Reactor Materials	Heavy Water	SRTC/TNX	
H-3 (oxide)	12.3 y	2.29E+03	9.88E+03		4.99E+02	1.29E-01	1.27E+04
Sr-89,90 ^c	29.1 y	1.87E-01	2.41E-01		4.65E-02	2.02E-03	4.77E-01
I-129	1.6E7 y		2.20E-02				2.20E-02
Cs-137	30.2 y	1.29E-02	2.33E-01				2.46E-01
Pm-147	2.6 y		7.03E-03				7.03E-03
U-235,238	4.5E9 y		1.14E-05				1.14E-05
Pu-239 ^d	2.4E4 y	5.97E-04	8.65E-03	7.64E-05		2.66E-04	9.59E-03

a One curie equals 3.7E+10 Becquerels.

b Blank space indicates no quantifiable activity.

c Includes unidentified beta-gamma

d Includes unidentified alpha

Table 11
1993 Liquid Radioactive Releases by Facility and Comparison of Annual Average Radionuclide Concentrations to DOE Derived Concentration Guides (DCGs)

Page 1 of 4

Stack or Facility	Radionuclide	Quantity of Radionuclides Released During 1993 (Ci)	Average Effluent Concentration During 1993 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)	Fraction of DOE DCG
A-Area (SRTC)					
TB-2 A-1 Outfall	H-3	9.32E-02	2.02E-07	2.0E-03	1.01E-04
	U/Pu (Pu-239)	Below MDL	8.60E-11	3.0E-08	2.87E-03
				Sum of Fractions -	2.97E-03
C-Area (C-Reactor)					
C-Canal	H-3	1.20E+01	6.77E-07	2.0E-03	3.39E-04
	Sr-89,90	Below MDL	1.99E-10	1.0E-06	1.99E-04
				Sum of Fractions -	5.38E-04
D-Area (Heavy Water Rework)					
D-Area Effluent	H-3	4.99E+02	7.99E-06	2.0E-03	3.99E-03
	Sr-89,90	Below MDL	2.49E-10	1.0E-06	2.49E-04
				Sum of Fractions -	4.24E-03
F-Area (Separations and Waste Management)					
F-001	H-3	3.67E-01	8.95E-07	2.0E-03	4.48E-04
	Sr-89,90	Below MDL	6.91E-11	1.0E-06	6.91E-05
				Sum of Fractions -	5.17E-04
F-012 (281-8F)	H-3	7.59E-02	2.25E-07	2.0E-03	1.12E-04
	Sr-89,90	2.22E-05	3.62E-09	1.0E-06	3.62E-03
	Cs-137	1.22E-03	2.51E-08	3.0E-06	8.37E-03
				Sum of Fractions -	1.21E-02
F-013 (200-F)	H-3	8.02E-02	1.58E-06	2.0E-03	7.90E-04
	Sr-89,90	1.17E-05	2.60E-09	1.0E-06	2.60E-03
	Cs-137	2.03E-03	5.99E-09	3.0E-06	2.00E-03
				Sum of Fractions -	5.39E-03

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. DCGs are defined as the concentration of that radionuclide that will give a 50-year committed effective dose equivalent 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 11
1993 Liquid Radioactive Releases by Facility and Comparison of Annual Average Radionuclide Concentrations to DOE Derived Concentration Guides (DCGs)

Page 2 of 4

Stack or Facility	Radionuclide	Quantity of Radionuclides Released During 1993 (Ci)	Average Effluent Concentration During 1993 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)	Fraction of DOE DCG
F-Area (Separations and Waste Management), cont.					
FM-3 (F-Area)	H-3	3.69E+00	1.65E-06	2.0E-03	8.26E-04
	Sr-89,90	3.77E-04	6.54E-10	1.0E-06	6.54E-04
	Cs-137	3.67E-04	5.85E-09	3.0E-06	1.95E-03
	Pm-147	4.24E-03	8.31E-10	1.0E-04	8.31E-06
				Sum of Fractions -	3.44E-03
U3R-2 (F-Storm Sewer)	H-3	6.42E-01	1.95E-06	2.0E-03	9.77E-04
	Sr-89,90	Below MDL	2.08E-10	1.0E-06	2.08E-04
	Cs-137	4.48E-05	7.08E-09	3.0E-06	2.36E-03
	Pm-147	4.59E-04	1.56E-09	1.0E-04	1.56E-05
	U/Pu (Pu-239)	3.30E-04	8.58E-10	3.0E-08	2.86E-02
				Sum of Fractions -	3.22E-02
U3RF-3 (N.F.)	H-3	1.33E-01	3.61E-06	2.0E-03	1.80E-03
	Sr-89,90	Below MDL	4.68E-11	1.0E-06	0.00E+00
	Pm-147	1.26E-04	1.78E-09	1.0E-04	1.78E-05
	U-235,238	1.14E-05	5.15E-10	6.0E-07	8.58E-04
				Sum of Fractions -	2.68E-03
H-Area (Separations and Waste Management)					
FM-1C (H-Area)	H-3	6.17E+00	1.35E-05	2.0E-03	6.76E-03
	Sr-89,90	1.56E-04	9.12E-10	1.0E-06	9.12E-04
	Cs-137	5.44E-03	2.55E-08	3.0E-06	8.50E-03
	Pm-147	1.34E-03	2.17E-09	1.0E-04	2.17E-05
				Sum of Fractions -	1.62E-02

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. DCGs are defined as the concentration of that radionuclide that will give a 50-year committed effective dose equivalent 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 11
1993 Liquid Radioactive Releases by Facility and Comparison of Annual Average Radionuclide Concentrations to DOE Derived Concentration Guides (DCGs)

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Stack or Facility	Radionuclide	Quantity of Radionuclides Released During 1993 (Ci)	Average Effluent Concentration During 1993 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)	Fraction of DOE DCG
H-Area (Separations and Waste Management), cont.					
H-017 (281-8H)	H-3	1.06E+00	6.62E-06	2.0E-03	3.31E-03
	Sr-89,90	1.29E-03	1.00E-08	1.0E-06	1.00E-02
	Cs-137	6.02E-02	5.84E-07	3.0E-06	1.95E-01
				Sum of Fractions -	2.08E-01
H-018 (200-H)	H-3	3.36E-02	2.13E-05	2.0E-03	1.06E-02
	Sr-89,90	4.61E-04	2.11E-07	1.0E-06	2.11E-01
	Cs-137	2.41E-03	8.44E-07	3.0E-06	2.81E-01
				Sum of Fractions -	5.03E-01
HP-15 (Tritium)	H-3	1.93E+00	N/A (part year)	2.0E-03	N/A
				Sum of Fractions -	N/A
HP-52	H-3	3.14E+00	3.84E-06	2.0E-03	1.92E-03
	Sr-89,90	Below MDL	5.00E-10	1.0E-06	5.00E-04
				Sum of Fractions -	2.42E-03
McQueen's Br.	H-3	1.36E+01	1.08E-05	2.0E-03	5.40E-03
				Sum of Fractions -	5.40E-03
U3R-2A (ETF)	H-3	3.95E+02	7.72E-03	2.0E-03	3.86E+00
	Sr-89,90	Below MDL	2.30E-10	1.0E-06	2.30E-04
	Cs-137	6.93E-03	1.34E-07	3.0E-06	4.48E-02
	Pm-147	8.67E-04	-7.96E-09	1.0E-04	0.00E+00
				Sum of Fractions -	3.90E+00
K-Area (K-Reactor)					
K-Canal	H-3	1.55E+01	6.98E-07	2.0E-03	3.49E-04
	Sr-89,90	Below MDL	1.58E-10	1.0E-06	1.58E-04
	Cs-137	1.15E-02	2.78E-08	3.0E-06	9.26E-03
				Sum of Fractions -	9.76E-03

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. DCGs are defined as the concentration of that radionuclide that will give a 50-year committed effective dose equivalent 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 11
1993 Liquid Radioactive Releases by Facility and Comparison of Annual Average Radionuclide Concentrations to DOE Derived Concentration Guides (DCGs)

Page 4 of 4

Stack or Facility	Radionuclide	Quantity of Radionuclides Released During 1993 (Ci)	Average Effluent Concentration During 1993 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)	Fraction of DOE DCG
K-Area (K-Reactor), cont.					
PB-1 (Sec. Eff.)	H-3	1.96E-01	7.79E-06	2.0E-03	3.90E-03
				Sum of Fractions -	3.90E-03
K-Area Purge	H-3	8.05E+01	2.69E-01	2.0E-03	1.35E+02
				Sum of Fractions -	1.35E+02
L-Area (L-Reactor)					
L-007	H-3	9.31E+00	2.13E-07	2.0E-03	1.07E-04
	Sr-89,90	Below MDL	1.29E-10	1.0E-06	1.29E-04
				Sum of Fractions -	2.35E-04
M-Area (Reactor Materials)					
TB-3 (M-Area)	U-235,238	Below MDL	1.47E-09	6.0E-07	2.45E-03
				Sum of Fractions -	2.45E-03
P-Area (P-Reactor)					
P-019	H-3	2.86E+00	9.61E-07	2.0E-03	4.81E-04
	Sr-89,90	Below MDL	1.47E-10	1.0E-06	1.47E-04
				Sum of Fractions -	6.27E-04
TNX Area					
TNX-1	H-3	3.56E-02	-1.83E-08	2.0E-03	0.00E+00
	U/Pu (Pu-239)	Below MDL	5.97E-11	3.0E-08	1.99E-03
				Sum of Fractions -	1.99E-03

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. DCGs are defined as the concentration of that radionuclide that will give a 50-year committed effective dose equivalent 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 12
Estimated Tritium Releases in SRS Streams and the Savannah River

Page 1 of 3

		Direct Releases (Curies)					
Area	Release Point	1988	1989	1990	1991	1992	1993
Reactor							
100-P	Par Pond overflow to Lower-Three Runs Creek	327	(321) ^a	(207) ^a	221	100	64
	*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	(3) ^a
100-L	L-Lake overflow to Steel Creek	502	(556) ^a	(358) ^a	723	515	650
	*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	(9) ^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	16
	(K008)					3	
	K-Area secondary effluent				6	3	
100-C	Process Sewer to Four Mile Creek (C-Canal)	11	16	1	13	28	12
	Subtotal	3,570	978	710	7,510	775	742
Separations							
200-F	Effluent to Four Mile Creek	14	8	327	6	5	4
	Effluent to Upper Three Runs		2	0	0	1	1
200-H	Effluent to Four Mile Creek	12	20	22	14	13	12
	Effluent to Upper Three Runs		1	4	5	15	17
	Effluent Treatment Facility	101	2,070	1,200	3,070	1,010	395
	Subtotal	127	3,100	1,550	3,090	1,040	426
400-D	Process sewer to Beaver Dam Creek	1,740	562	358	681	576	499
	Subtotal	1,740	562	358	681	576	499
	Total Direct Releases ^c	5,440	3,640	2,620	11,300	2,390	1,670

a Not used in totals because release was counted elsewhere

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

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

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

Page 2 of 3

Area	Release Point	Migration (Curies)					
		1988	1989	1990	1991	1992	1993
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	5,330
	200-F seepage basin to Four Mile Creek	3,330	4,440	3,570	5,750	4,260	2,180
	200-H seepage basin to Four Mile Creek	3,980	3,310	1,900	1,810	1,470	1,020
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	1,100
100-P	Seepage basin to Steel Creek	133	137	224	(364) ^a	(232) ^a	(382) ^a
	Subtotal	13,900	13,700	13,500	16,100	11,400	9,630
	Total Direct Releases and Migration^b	19,300	17,300	16,100	27,400	13,800	11,300

Area	Release Point	Stream Transport (Curies)					
		1988	1989	1990	1991	1992	1993
400-D	Beaver Dam Creek at swamp	2,510	879	756	801	576	499
20-F&H	Four Mile Creek at Road A13	11,200	11,200	9,370	13,300	8,710	9,000
100-K	Pen Branch at Road A	3,220	2,700	2,510	7,100	1,850	1,580
100-L	Steel Creek at Road A	502	556	358	723	515	650
100-P	Lower Three Runs at Road B	327	321	207	221	100	64
ETF	Upper Three Runs at Road A	535	2,160	2,380	4,410	1,300	879
	Total^b	18,300	17,800	15,600	26,600	13,100	12,700

^a Not used in totals because release was counted elsewhere

^b Because of rounding, sums 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)					
	1988	1989	1990	1991	1992	1993
Tritium measured in the Savannah River below SRS		17,110	16,570	28,700	16,000	12,600
Tritium measured in the Savannah River above SRS		1,480	2,080	2,420	2,210	433
Tritium measured in the Savannah River below SRS (downriver minus upriver) ^a	14,600	15,600	14,490	26,300	13,800	12,200

^a Because of rounding, differences in individual columns might not equal totals.

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

Page 1 of 1

Nuclide	MDA (pCi/sample)	Nuclide	MDA (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

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

Page 1 of 4

Location	Process/Back-ground	First Quarter		
		TSS mg/L	Nonsettleable Solids mg/L	Settleable Solids mg/L
TB-2	Process	1.00	<1.00	1.00
U3R-1A	Background	3.00	1.00	2.00
C-004	Process	3.00	<1.00	2.00
FMC RD F	Background	4.00	1.00	3.00
FMC-3	Process	2.00	1.00	1.00
FMC RD F	Background	4.00	1.00	3.00
FMC-1C	Process	10.00	2.00	9.00
FMC RD F	Background	4.00	1.00	3.00
HP-52	Process	2.00	1.00	1.00
FMC RD F	Background	4.00	1.00	3.00
K CAN.HEAD WALL	Process	8.00	2.00	6.00
PB RD B	Background	2.00	<1.00	2.00
L-007	Process	3.00	1.00	2.00
PB RD B	Background	2.00	<1.00	2.00
TB-3	Process	<1.00	<1.00	<1.00
U3R-1A	Background	3.00	1.00	2.00
P-19	Process	1.00	<1.00	1.00
U3R-1A	Background	3.00	1.00	2.00
BDC	Process	10.00	2.00	8.00
U3R-1A	Background	3.00	1.00	2.00
TNX-1	Process	1.00	<1.00	1.00
PB RD B	Background	2.00	<1.00	2.00

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

Page 2 of 4

Location	Process/Back-ground	Second Quarter		
		TSS mg/L	Nonsettleable Solids mg/L	Settleable Solids mg/L
TB-2	Process	<1.00	<1.00	<1.00
U3R-1A	Background	<1.00	<1.00	<1.00
C-004	Process	4.00	3.00	<1.00
FMC RD F	Background	76.00	41.00	35.00
FMC-3	Process	8.00	1.00	6.00
FMC RD F	Background	76.00	41.00	35.00
FMC-1C	Process	1.00	<1.00	1.00
FMC RD F	Background	76.00	41.00	35.00
HP-52	Process	12.00	4.00	8.00
FMC RD F	Background	76.00	41.00	35.00
K CAN.HEAD WALL	Process	12.00	4.00	9.00
PB RD B	Background	12.00	1.00	11.00
L-007	Process	2.00	<1.00	2.00
PB RD B	Background	12.00	1.00	11.00
TB-3	Process	1.00	<1.00	1.00
U3R-1A	Background	<1.00	<1.00	<1.00
P-19	Process	1.00	<1.00	1.00
U3R-1A	Background	<1.00	<1.00	<1.00
BDC	Process	8.00	2.00	6.00
U3R-1A	Background	<1.00	<1.00	<1.00
TNX-1	Process	9.00	1.00	8.00
PB RD B	Background	12.00	1.00	11.00

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

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Location	Process/Back-ground	Third Quarter		
		TSS mg/L	Nonsettleable Solids mg/L	Settleable Solids mg/L
TB-2	Process	<1.00	<1.00	<1.00
U3R-1A	Background	3.00	<1.00	3.00
C-004	Process	<1.00	<1.00	<1.00
FMC RD F	Background	15.00	6.00	10.00
FMC-3	Process	12.00	<1.00	12.00
FMC RD F	Background	15.00	6.00	10.00
FMC-1C	Process	1.00	<1.00	<1.00
FMC RD F	Background	15.00	6.00	10.00
HP-52	Process	2.00	1.00	1.00
FMC RD F	Background	15.00	6.00	10.00
K CAN.HEAD WALL	Process	2.00	<1.00	2.00
PB RD B	Background	2.00	1.00	1.00
L-007	Process	3.00	1.00	2.00
PB RD B	Background	2.00	1.00	1.00
TB-3	Process	<1.00	<1.00	<1.00
U3R-1A	Background	3.00	<1.00	3.00
P-19	Process	1.00	1.00	<1.00
U3R-1A	Background	3.00	<1.00	3.00
BDC	Process	8.00	2.00	6.00
U3R-1A	Background	3.00	<1.00	3.00
TNX-1	Process	1.00	<1.00	1.00
PB RD B	Background	2.00	1.00	1.00

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

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Location	Process/Back-ground	Fourth Quarter		
		TSS mg/L	Nonsettleable Solids mg/L	Settleable Solids mg/L
TB-2	Process	5.00	2.00	3.00
U3R-1A	Background	<1.00	<1.00	<1.00
C-004	Process	<1.00	<1.00	<1.00
FMC RD F	Background	15.00	6.00	9.00
FMC-3	Process	80.00	37.00	43.00
FMC RD F	Background	15.00	6.00	9.00
FMC-1C	Process	103.00	28.00	75.00
FMC RD F	Background	15.00	6.00	9.00
HP-52	Process	30.00	6.00	24.00
FMC RD F	Background	15.00	6.00	9.00
K CAN.HEAD WALL	Process	<1.00	<1.00	<1.00
PB RD B	Background	6.00	1.00	5.00
L-007	Process	<1.00	<1.00	<1.00
PB RD B	Background	6.00	1.00	5.00
TB-3	Process	<1.00	<1.00	<1.00
U3R-1A	Background	<1.00	<1.00	<1.00
P-19	Process	<1.00	<1.00	<1.00
U3R-1A	Background	<1.00	<1.00	<1.00
BDC	Process	2.00	<1.00	2.00
U3R-1A	Background	<1.00	<1.00	<1.00
TNX-1	Process	<1.00	<1.00	<1.00
PB RD B	Background	6.00	1.00	5.00

Table 15
Radioactivity In Air

Page 1 of 6

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3 ($\mu\text{Ci/cc}$)				
On Site				
A-Area	41	$(3.49 \pm 4.29)\text{E-11}$	$(2.50 \pm 0.17)\text{E-10}$	$(-1.21 \pm 7.02)\text{E-12}$
Burial Ground North	34	$(2.92 \pm 2.52)\text{E-10}$	$(1.31 \pm 0.04)\text{E-09}$	$(5.87 \pm 0.48)\text{E-11}$
Burial Ground South	43	$(3.64 \pm 3.77)\text{E-10}$	$(1.94 \pm 0.05)\text{E-09}$	$(2.90 \pm 0.27)\text{E-11}$
F-Area	40	$(1.09 \pm 0.93)\text{E-10}$	$(5.47 \pm 0.36)\text{E-10}$	$(1.84 \pm 0.24)\text{E-11}$
H-Area	42	$(1.06 \pm 1.13)\text{E-09}$	$(5.26 \pm 0.08)\text{E-09}$	$(2.99 \pm 0.37)\text{E-11}$
Site Perimeter				
Allendale Gate	32	$(9.08 \pm 6.65)\text{E-12}$	$(2.33 \pm 1.32)\text{E-11}$	$(-5.72 \pm 2.23)\text{E-12}$
Barnwell Gate	33	$(2.58 \pm 4.09)\text{E-11}$	$(2.33 \pm 0.20)\text{E-10}$	$(-0.69 \pm 3.37)\text{E-12}$
D-Area	33	$(6.03 \pm 4.53)\text{E-11}$	$(1.61 \pm 0.13)\text{E-10}$	$(1.92 \pm 1.95)\text{E-12}$
Darkhorse @ Williston Gate	41	$(3.04 \pm 2.95)\text{E-11}$	$(1.55 \pm 0.13)\text{E-10}$	$(-1.61 \pm 4.33)\text{E-12}$
East Talatha	42	$(2.94 \pm 3.22)\text{E-11}$	$(1.75 \pm 0.13)\text{E-10}$	$(-0.58 \pm 2.43)\text{E-12}$
Green Pond	32	$(3.16 \pm 3.45)\text{E-11}$	$(1.36 \pm 0.14)\text{E-10}$	$(2.74 \pm 3.26)\text{E-12}$
Highway 125 @ Road A-14	30	$(3.79 \pm 3.51)\text{E-11}$	$(1.46 \pm 0.18)\text{E-10}$	$(7.34 \pm 9.72)\text{E-12}$
Highway 21/167	36	$(2.74 \pm 3.01)\text{E-11}$	$(1.35 \pm 0.16)\text{E-10}$	$(1.94 \pm 3.52)\text{E-12}$
Highway 39 @ Williston Gate	42	$(2.82 \pm 2.66)\text{E-11}$	$(1.23 \pm 0.17)\text{E-10}$	$(-0.43 \pm 1.39)\text{E-11}$
Jackson	32	$(3.55 \pm 4.88)\text{E-11}$	$(1.86 \pm 0.06)\text{E-10}$	$(-0.13 \pm 2.44)\text{E-12}$
Patterson Mill Road	31	$(1.38 \pm 1.49)\text{E-11}$	$(6.25 \pm 1.45)\text{E-11}$	$(-1.67 \pm 3.93)\text{E-12}$
Talatha Gate	41	$(3.63 \pm 3.82)\text{E-11}$	$(1.64 \pm 0.13)\text{E-10}$	$(0.32 \pm 2.02)\text{E-12}$
West Jackson	29	$(2.67 \pm 2.38)\text{E-11}$	$(1.06 \pm 0.15)\text{E-10}$	$(2.78 \pm 2.54)\text{E-12}$
Windsor Road	41	$(2.61 \pm 2.21)\text{E-11}$	$(1.19 \pm 0.18)\text{E-10}$	$(0.41 \pm 3.23)\text{E-12}$
25-Mile-Radius				
Aiken Airport	28	$(7.39 \pm 8.28)\text{E-12}$	$(3.07 \pm 0.90)\text{E-11}$	$(-5.14 \pm 3.24)\text{E-12}$
Aiken State Park	32	$(0.84 \pm 1.02)\text{E-11}$	$(3.10 \pm 0.63)\text{E-11}$	$(-1.09 \pm 1.34)\text{E-11}$
Allendale, SC	34	$(5.23 \pm 9.16)\text{E-12}$	$(4.19 \pm 0.58)\text{E-11}$	$(-5.02 \pm 4.35)\text{E-12}$
Augusta, GA	43	$(0.85 \pm 1.23)\text{E-11}$	$(5.06 \pm 0.86)\text{E-11}$	$(-6.47 \pm 9.57)\text{E-12}$
Highway 301 @ State Line	26	$(7.41 \pm 7.52)\text{E-12}$	$(2.55 \pm 1.50)\text{E-11}$	$(-4.76 \pm 8.82)\text{E-12}$
Langley, SC	40	$(9.00 \pm 8.53)\text{E-12}$	$(3.53 \pm 0.84)\text{E-11}$	$(-0.04 \pm 6.65)\text{E-12}$
Lees, SC	39	$(0.98 \pm 1.31)\text{E-11}$	$(5.28 \pm 0.69)\text{E-11}$	$(-6.66 \pm 3.75)\text{E-12}$
Olar, SC	39	$(0.86 \pm 1.16)\text{E-11}$	$(4.35 \pm 0.65)\text{E-11}$	$(-8.32 \pm 6.28)\text{E-12}$

Table 15
Radioactivity in Air

Page 2 of 6

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Perkins, GA	42	$(1.02 \pm 1.37)E-11$	$(7.46 \pm 1.66)E-11$	$(-0.27 \pm 1.56)E-11$
South Richmond, GA	43	$(1.11 \pm 1.62)E-11$	$(7.60 \pm 1.61)E-11$	$(-0.79 \pm 1.79)E-11$
Springfield, SC	34	$(1.00 \pm 1.21)E-11$	$(5.04 \pm 1.29)E-11$	$(-4.65 \pm 7.23)E-12$
Waynesboro, GA	42	$(1.44 \pm 1.79)E-11$	$(8.92 \pm 0.66)E-11$	$(-3.89 \pm 4.42)E-12$
100-Mile-Radius				
Columbia, SC	4	$(6.95 \pm 8.42)E-12$	$(1.95 \pm 0.78)E-11$	$(1.80 \pm 4.28)E-12$
Greenville, SC	4	$(-1.84 \pm 9.31)E-12$	$(7.95 \pm 8.20)E-12$	$(-1.33 \pm 1.36)E-11$
Macon, GA	4	$(3.26 \pm 4.96)E-12$	$(1.02 \pm 0.53)E-11$	$(1.53 \pm 5.61)E-12$
Savannah, GA	3	$(1.05 \pm 1.18)E-11$	$(2.40 \pm 1.59)E-11$	$(1.81 \pm 6.24)E-12$
Mn-54 ($\mu\text{Ci/cc}$)				
Site Perimeter				
Barnwell Gate	2	$(9.54 \pm 2.24)E-15$	$(1.11 \pm 0.10)E-14$	$(7.96 \pm 0.79)E-15$
Site Perimeter	1	$(9.32 \pm 1.55)E-16$	$(9.32 \pm 1.55)E-16$	$(9.32 \pm 1.55)E-16$
Co-60 ($\mu\text{Ci/cc}$)				
Site Perimeter				
Barnwell Gate	2	$(4.09 \pm 0.35)E-14$	$(4.33 \pm 0.11)E-14$	$(3.84 \pm 0.10)E-14$
Site Perimeter	2	$(2.99 \pm 0.89)E-15$	$(3.62 \pm 0.25)E-15$	$(2.36 \pm 0.24)E-15$
Pu-238 ($\mu\text{Ci/cc}$)				
On Site				
A-Area	11	$(0.61 \pm 1.71)E-18$	$(3.69 \pm 1.95)E-18$	$(-2.55 \pm 1.90)E-18$
Burial Ground North	12	$(1.32 \pm 4.32)E-17$	$(1.49 \pm 0.19)E-16$	$(-1.72 \pm 0.86)E-17$
Burial Ground South	10	$(3.41 \pm 3.51)E-18$	$(9.60 \pm 1.82)E-18$	$(-1.18 \pm 1.18)E-18$
F-Area	11	$(2.21 \pm 1.80)E-17$	$(5.88 \pm 0.49)E-17$	$(0.74 \pm 1.64)E-18$
H-Area	11	$(3.59 \pm 5.59)E-17$	$(1.93 \pm 0.12)E-16$	$(1.69 \pm 0.64)E-18$
Site Perimeter				
Site Perimeter	45	$(5.19 \pm 9.86)E-19$	$(4.81 \pm 1.29)E-18$	$(-1.72 \pm 0.99)E-18$
25-Mile-Radius				
25-Mile-Radius	49	$(3.86 \pm 8.98)E-19$	$(3.65 \pm 2.58)E-18$	$(-1.35 \pm 1.35)E-18$
100-Mile-Radius				
100-Mile-Radius	45	$(0.70 \pm 1.59)E-18$	$(5.86 \pm 3.10)E-18$	$(-2.37 \pm 1.68)E-18$

Table 15
Radioactivity in Air

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Pu-239 ($\mu\text{Ci/cc}$)				
On Site				
A-Area	11	$(1.33 \pm 1.39)\text{E-18}$	$(4.60 \pm 2.66)\text{E-18}$	$(00.00 \pm 2.04)\text{E-18}$
Burial Ground North	12	$(5.23 \pm 3.77)\text{E-18}$	$(1.31 \pm 0.62)\text{E-17}$	$(8.58 \pm 6.79)\text{E-19}$
Burial Ground South	9	$(2.02 \pm 1.85)\text{E-18}$	$(3.44 \pm 1.27)\text{E-18}$	$(-1.95 \pm 3.39)\text{E-18}$
F-Area	11	$(2.27 \pm 3.29)\text{E-17}$	$(1.19 \pm 0.02)\text{E-16}$	$(4.40 \pm 1.80)\text{E-18}$
H-Area	11	$(1.15 \pm 1.65)\text{E-17}$	$(5.77 \pm 0.63)\text{E-17}$	$(0.85 \pm 2.24)\text{E-18}$
Site Perimeter				
Site Perimeter	47	$(2.57 \pm 7.15)\text{E-19}$	$(2.06 \pm 0.97)\text{E-18}$	$(-2.76 \pm 1.60)\text{E-18}$
25-Mile-Radius				
25-Mile-Radius	44	$(3.02 \pm 9.88)\text{E-19}$	$(3.64 \pm 3.64)\text{E-18}$	$(-3.06 \pm 2.28)\text{E-18}$
100-Mile-Radius				
100-Mile-Radius	45	$(-0.04 \pm 2.05)\text{E-18}$	$(4.44 \pm 1.90)\text{E-18}$	$(-1.04 \pm 0.77)\text{E-17}$
Sr-89,90 ($\mu\text{Ci/cc}$)				
On Site				
A-Area	12	$(0.33 \pm 4.41)\text{E-16}$	$(1.10 \pm 0.54)\text{E-15}$	$(-5.05 \pm 3.12)\text{E-16}$
Burial Ground North	12	$(1.39 \pm 4.55)\text{E-16}$	$(1.19 \pm 0.53)\text{E-15}$	$(-5.91 \pm 3.22)\text{E-16}$
Burial Ground South	12	$(2.42 \pm 4.36)\text{E-16}$	$(1.27 \pm 0.54)\text{E-15}$	$(-3.69 \pm 3.34)\text{E-16}$
F-Area	12	$(0.32 \pm 3.19)\text{E-16}$	$(8.29 \pm 5.12)\text{E-16}$	$(-4.59 \pm 2.31)\text{E-16}$
H-Area	12	$(0.50 \pm 3.10)\text{E-16}$	$(5.45 \pm 3.27)\text{E-16}$	$(-4.53 \pm 3.26)\text{E-16}$
Site Perimeter				
Site Perimeter	52	$(-0.06 \pm 8.89)\text{E-17}$	$(2.67 \pm 1.18)\text{E-16}$	$(-1.82 \pm 1.01)\text{E-16}$
25-Mile-Radius				
25-Mile-Radius	51	$(0.69 \pm 9.67)\text{E-17}$	$(3.27 \pm 1.46)\text{E-16}$	$(-1.86 \pm 1.03)\text{E-16}$
100-Mile-Radius				
100-Mile-Radius	52	$(-0.32 \pm 3.00)\text{E-16}$	$(5.79 \pm 4.65)\text{E-16}$	$(-6.92 \pm 2.99)\text{E-16}$
Gross A ($\mu\text{Ci/cc}$)				
On Site				
A-Area	51	$(1.89 \pm 0.89)\text{E-15}$	$(4.01 \pm 0.77)\text{E-15}$	$(3.44 \pm 2.65)\text{E-16}$
Burial Ground North	45	$(2.12 \pm 0.87)\text{E-15}$	$(4.06 \pm 0.77)\text{E-15}$	$(4.96 \pm 2.06)\text{E-16}$
Burial Ground South	51	$(1.74 \pm 0.72)\text{E-15}$	$(3.56 \pm 0.75)\text{E-15}$	$(3.90 \pm 1.89)\text{E-16}$
F-Area	51	$(1.89 \pm 0.71)\text{E-15}$	$(3.63 \pm 0.45)\text{E-15}$	$(4.49 \pm 2.87)\text{E-16}$

Table 15
Radioactivity in Air

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-Area	50	$(1.96 \pm 0.84)E-15$	$(3.75 \pm 0.45)E-15$	$(3.69 \pm 1.90)E-16$
PP-2 Par Pond Pumphouse ^a	3	$(1.59 \pm 0.84)E-15$	$(2.52 \pm 0.39)E-15$	$(9.05 \pm 2.55)E-16$
Par Pond Bubble-Up ^a	3	$(9.74 \pm 8.16)E-16$	$(1.88 \pm 0.34)E-15$	$(3.08 \pm 1.79)E-16$
Site Perimeter				
Allendale Gate	50	$(1.74 \pm 0.73)E-15$	$(3.61 \pm 0.73)E-15$	$(4.56 \pm 1.99)E-16$
Barnwell Gate	51	$(1.78 \pm 0.82)E-15$	$(3.99 \pm 0.74)E-15$	$(4.78 \pm 3.68)E-16$
D-Area	51	$(1.67 \pm 0.70)E-15$	$(3.97 \pm 0.47)E-15$	$(4.19 \pm 2.85)E-16$
Darkhorse @ Williston Gate	50	$(2.09 \pm 0.94)E-15$	$(4.35 \pm 0.78)E-15$	$(4.56 \pm 3.10)E-16$
East Talatha	51	$(2.00 \pm 0.85)E-15$	$(4.35 \pm 0.79)E-15$	$(5.35 \pm 2.96)E-16$
Green Pond	51	$(1.75 \pm 0.85)E-15$	$(4.74 \pm 0.81)E-15$	$(3.32 \pm 2.55)E-16$
Highway 125 @ Road A-14	49	$(1.71 \pm 0.90)E-15$	$(3.65 \pm 0.67)E-15$	$(1.31 \pm 1.47)E-16$
Highway 21/167	51	$(2.05 \pm 0.88)E-15$	$(4.33 \pm 0.79)E-15$	$(5.64 \pm 2.15)E-16$
Highway 39 @ Williston Gate	52	$(2.00 \pm 0.93)E-15$	$(4.72 \pm 0.83)E-15$	$(5.44 \pm 3.01)E-16$
Jackson	51	$(1.48 \pm 0.76)E-15$	$(3.28 \pm 0.71)E-15$	$(3.55 \pm 2.74)E-16$
Patterson Mill Road	51	$(1.95 \pm 0.97)E-15$	$(5.02 \pm 0.83)E-15$	$(4.35 \pm 2.79)E-16$
Talatha Gate	50	$(1.60 \pm 0.76)E-15$	$(3.99 \pm 0.77)E-15$	$(3.24 \pm 2.34)E-16$
West Jackson	49	$(1.58 \pm 0.71)E-15$	$(3.26 \pm 0.62)E-15$	$(0.98 \pm 1.99)E-16$
Windsor Road	51	$(2.05 \pm 0.81)E-15$	$(4.54 \pm 0.51)E-15$	$(4.33 \pm 2.77)E-16$
25-Mile-Radius				
Aiken Airport	47	$(2.00 \pm 0.81)E-15$	$(4.01 \pm 0.75)E-15$	$(3.99 \pm 2.71)E-16$
Aiken State Park	51	$(1.71 \pm 0.74)E-15$	$(3.51 \pm 0.65)E-15$	$(3.30 \pm 2.54)E-16$
Allendale, SC	45	$(1.55 \pm 0.87)E-15$	$(4.38 \pm 0.79)E-15$	$(4.26 \pm 2.84)E-16$
Augusta, GA	49	$(1.96 \pm 0.83)E-15$	$(4.52 \pm 0.82)E-15$	$(3.09 \pm 2.56)E-16$
Highway 301 @ State Line	34	$(1.84 \pm 0.93)E-15$	$(4.48 \pm 0.81)E-15$	$(6.57 \pm 3.24)E-16$
Langley, SC	48	$(1.79 \pm 0.96)E-15$	$(4.36 \pm 0.87)E-15$	$(3.97 \pm 2.82)E-16$
Lees, SC	51	$(1.64 \pm 0.82)E-15$	$(4.04 \pm 0.75)E-15$	$(3.78 \pm 2.95)E-16$
Olar, SC	49	$(1.73 \pm 1.01)E-15$	$(5.11 \pm 0.84)E-15$	$(2.99 \pm 2.50)E-16$
Perkins, GA	51	$(1.85 \pm 0.89)E-15$	$(4.09 \pm 0.78)E-15$	$(1.19 \pm 1.46)E-16$
South Richmond, GA	49	$(1.92 \pm 0.98)E-15$	$(3.99 \pm 0.74)E-15$	$(4.41 \pm 2.82)E-16$

^a Temporary sampling location installed and operated to support the 1991 drawdown of Par Pond; removed from service in February 1993

Table 15
Radioactivity in Air

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Springfield, SC	50	(1.68 $\pm$ 0.76)E-15	(3.99 $\pm$ 0.74)E-15	(5.11 $\pm$ 2.94)E-16
Waynesboro, GA	47	(1.82 $\pm$ 0.77)E-15	(3.44 $\pm$ 0.45)E-15	(3.30 $\pm$ 2.57)E-16
100-Mile-Radius				
Columbia, SC	51	(2.26 $\pm$ 1.06)E-15	(4.92 $\pm$ 0.86)E-15	(7.45 $\pm$ 3.42)E-16
Greenville, SC	41	(1.99 $\pm$ 0.90)E-15	(3.86 $\pm$ 0.63)E-15	(5.46 $\pm$ 3.14)E-16
Macon, GA	42	(1.93 $\pm$ 0.98)E-15	(4.15 $\pm$ 0.51)E-15	(4.41 $\pm$ 1.98)E-16
Savannah, GA	51	(1.75 $\pm$ 0.82)E-15	(3.69 $\pm$ 0.73)E-15	(0.95 $\pm$ 1.92)E-16
Gross B (μCl/cc)				
On Site				
A-Area	51	(1.74 $\pm$ 0.57)E-14	(3.67 $\pm$ 0.11)E-14	(5.84 $\pm$ 0.55)E-15
Burial Ground North	45	(1.80 $\pm$ 0.59)E-14	(3.10 $\pm$ 0.15)E-14	(5.11 $\pm$ 0.55)E-15
Burial Ground South	51	(1.58 $\pm$ 0.45)E-14	(3.61 $\pm$ 0.11)E-14	(6.34 $\pm$ 0.58)E-15
F-Area	51	(1.92 $\pm$ 0.57)E-14	(4.11 $\pm$ 0.12)E-14	(5.84 $\pm$ 0.57)E-15
H-Area	50	(1.75 $\pm$ 0.52)E-14	(3.63 $\pm$ 0.11)E-14	(4.63 $\pm$ 0.54)E-15
PP-2 Par Pond Pumphouse ^a	3	(1.73 $\pm$ 1.09)E-14	(2.99 $\pm$ 0.11)E-14	(1.08 $\pm$ 0.09)E-14
Par Pond Bubble-Up ^a	3	(1.62 $\pm$ 1.10)E-14	(2.88 $\pm$ 0.11)E-14	(8.89 $\pm$ 0.88)E-15
Site Perimeter				
Allendale Gate	50	(1.83 $\pm$ 0.53)E-14	(3.51 $\pm$ 0.11)E-14	(4.50 $\pm$ 0.53)E-15
Barnwell Gate	51	(1.98 $\pm$ 1.01)E-14	(6.30 $\pm$ 0.15)E-14	(6.92 $\pm$ 0.60)E-15
D-Area	51	(1.70 $\pm$ 0.46)E-14	(3.43 $\pm$ 0.11)E-14	(5.59 $\pm$ 0.56)E-15
Darkhorse @ Williston Gate	50	(2.08 $\pm$ 0.62)E-14	(4.11 $\pm$ 0.12)E-14	(5.99 $\pm$ 0.58)E-15
East Talatha	51	(2.04 $\pm$ 0.70)E-14	(4.42 $\pm$ 0.12)E-14	(2.94 $\pm$ 0.70)E-15
Green Pond	51	(1.78 $\pm$ 0.51)E-14	(3.63 $\pm$ 0.11)E-14	(6.75 $\pm$ 0.60)E-15
Highway 125 @ Road A-14	49	(1.74 $\pm$ 0.49)E-14	(3.29 $\pm$ 0.11)E-14	(5.26 $\pm$ 0.56)E-15
Highway 21/167	51	(2.08 $\pm$ 0.60)E-14	(4.09 $\pm$ 0.12)E-14	(5.86 $\pm$ 0.57)E-15
Highway 39 @ Williston Gate	52	(1.99 $\pm$ 0.60)E-14	(3.81 $\pm$ 0.12)E-14	(6.75 $\pm$ 0.60)E-15
Jackson	51	(1.56 $\pm$ 0.50)E-14	(3.36 $\pm$ 0.11)E-14	(5.62 $\pm$ 0.57)E-15
Patterson Mill Road	51	(1.93 $\pm$ 0.53)E-14	(2.99 $\pm$ 0.15)E-14	(5.29 $\pm$ 0.56)E-15
Talatha Gate	50	(1.67 $\pm$ 0.51)E-14	(3.40 $\pm$ 0.11)E-14	(3.87 $\pm$ 0.68)E-15

^a Temporary sampling location installed and operated to support the 1991 drawdown of Par Pond; removed from service in February 1993

Table 15
Radioactivity in Air

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
West Jackson	49	$(1.69 \pm 0.48)E-14$	$(3.83 \pm 0.11)E-14$	$(5.74 \pm 0.57)E-15$
Windsor Road	51	$(2.03 \pm 0.60)E-14$	$(4.55 \pm 0.12)E-14$	$(6.79 \pm 0.60)E-15$
25-Mile-Radius				
Aiken Airport	47	$(1.83 \pm 0.51)E-14$	$(3.63 \pm 0.12)E-14$	$(5.80 \pm 0.81)E-15$
Aiken State Park	51	$(1.74 \pm 0.46)E-14$	$(3.52 \pm 0.11)E-14$	$(6.63 \pm 0.60)E-15$
Allendale, SC	45	$(1.62 \pm 0.54)E-14$	$(3.31 \pm 0.11)E-14$	$(5.81 \pm 0.81)E-15$
Augusta, GA	49	$(1.76 \pm 0.56)E-14$	$(3.40 \pm 0.19)E-14$	$(5.79 \pm 0.57)E-15$
Highway 301 @ State Line	34	$(1.94 \pm 0.50)E-14$	$(3.05 \pm 0.19)E-14$	$(1.16 \pm 0.10)E-14$
Langley, SC	48	$(1.91 \pm 0.65)E-14$	$(3.41 \pm 0.18)E-14$	$(6.44 \pm 0.59)E-15$
Lees, SC	51	$(1.75 \pm 0.57)E-14$	$(2.93 \pm 0.10)E-14$	$(5.75 \pm 0.58)E-15$
Olar, SC	49	$(1.85 \pm 0.61)E-14$	$(3.35 \pm 0.11)E-14$	$(7.82 \pm 0.63)E-15$
Perkins, GA	51	$(1.86 \pm 0.54)E-14$	$(2.98 \pm 0.14)E-14$	$(5.59 \pm 0.56)E-15$
South Richmond, GA	49	$(1.87 \pm 0.58)E-14$	$(3.17 \pm 0.11)E-14$	$(7.25 \pm 0.61)E-15$
Springfield, SC	50	$(1.81 \pm 0.51)E-14$	$(3.46 \pm 0.11)E-14$	$(2.49 \pm 0.47)E-15$
Waynesboro, GA	47	$(1.85 \pm 0.47)E-14$	$(3.41 \pm 0.11)E-14$	$(4.32 \pm 0.53)E-15$
100-Mile-Radius				
Columbia, SC	51	$(1.99 \pm 0.50)E-14$	$(3.47 \pm 0.12)E-14$	$(1.10 \pm 0.07)E-14$
Greenville, SC	41	$(2.21 \pm 0.74)E-14$	$(4.29 \pm 0.29)E-14$	$(1.01 \pm 0.10)E-14$
Macon, GA	42	$(1.92 \pm 0.62)E-14$	$(3.96 \pm 0.12)E-14$	$(9.00 \pm 0.95)E-15$
Savannah, GA	51	$(1.81 \pm 0.53)E-14$	$(3.28 \pm 0.10)E-14$	$(6.17 \pm 0.53)E-15$

Table 16
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	0.24	0.24	0.23	0.26	88.4
643-7G BUILDING TLD 2	0.25	0.24	0.25	0.26	90.5
643-7G BUILDING TLD 3	0.36	0.32	0.33	0.35	124.5
643-7G BUILDING TLD 4	0.78	0.73	0.75	0.71	270.7
643-G BUILDING TLD 1	0.22	0.21	0.22	0.23	80.1
643-G BUILDING TLD 2	0.27	0.26	0.27	0.29	98.8
643-G BUILDING TLD 3	0.94	0.95	0.94	0.95	344.7
643-G BUILDING TLD 4	0.29	0.29	0.29	0.31	106.7
B-AREA TLD 1	0.65	0.69	0.65	0.73	248.6
B-AREA TLD 2	0.20	0.18	0.20	0.22	72.4
B-AREA TLD 3	0.20	0.18	0.20	0.20	71.5
B-AREA TLD 4	0.20	0.18	0.20	0.20	71.1
C AREA TLD 1	0.17	0.18	0.20	0.18	67.3
C AREA TLD 2	0.17	0.18	0.20	0.19	67.5
C AREA TLD 3	0.18	0.19	0.20	0.20	70.5
C AREA TLD 4	0.17	0.18	0.20	0.20	68.6
CLASSIFICATION YARD TLD 1	0.17	0.18	0.20	0.19	67.1
CLASSIFICATION YARD TLD 2	0.17	0.19	0.21	0.19	69.6
CLASSIFICATION YARD TLD 3	0.20	0.21	0.23	0.22	78.2
CLASSIFICATION YARD TLD 4	0.16	0.16	0.17	0.17	60.1
D AREA TLD 1	0.17	0.18	0.20	0.20	68.1
D AREA TLD 2	0.15	0.16	0.17	0.16	58.9
D AREA TLD 3	0.20	0.19	0.22	0.21	74.9
D AREA TLD 4	0.20	0.20	0.23	0.21	76.8
D AREA TLD 5	0.16	0.16	0.19	0.18	62.8
D AREA TLD 6	0.16	0.15	0.15	0.16	55.9
F AREA TLD 1	0.22	0.19	0.20	0.21	74.7
F AREA TLD 2	0.23	0.20	0.22	0.24	80.4

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 16
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	0.24	0.22	0.23	0.24	85.0
F AREA TLD 4	0.24	0.22	0.23	0.25	86.1
F AREA TLD 5	0.36	0.33	0.35	0.34	125.7
F AREA TLD 6	0.27	0.24	0.26	0.28	95.7
H AREA TLD 1	0.24	0.21	0.23	0.23	84.2
H AREA TLD 2	0.36	c	0.24	0.26	103.9
H AREA TLD 3	0.23	0.30	0.22	0.23	89.1
H AREA TLD 4	0.39	0.39	0.40	0.41	145.9
H AREA TLD 5	0.34	0.32	0.36	0.42	132.7
H AREA TLD 6	0.25	0.23	0.25	0.26	89.9
H AREA TLD 7	0.25	0.24	0.23	0.25	88.2
H AREA TLD 8	0.25	0.22	0.25	0.25	88.3
K AREA TLD 1	0.21	0.21	0.24	0.24	82.5
K AREA TLD 2	0.17	0.17	0.19	0.18	64.6
K AREA TLD 3	0.24	0.25	0.27	0.26	93.0
K AREA TLD 4	0.20	0.21	0.22	0.21	76.0
L AREA TLD 1	0.18	0.19	0.20	0.20	70.9
L AREA TLD 2	0.18	0.18	0.21	0.20	69.6
L AREA TLD 3	0.18	0.19	0.20	0.21	70.1
L AREA TLD 4	0.20	0.20	0.22	0.22	76.8
M AREA TLD 1	0.26	0.25	0.26	0.27	95.1
M AREA TLD 2	0.19	0.18	0.19	0.19	69.2
M AREA TLD 3	0.29	0.26	0.29	0.29	102.6
M AREA TLD 4	0.21	0.20	0.20	0.21	74.4
M AREA TLD 5	0.22	0.21	0.22	0.23	80.0
M AREA TLD 6	0.20	0.18	0.19	0.20	70.9
M AREA TLD 7	0.26	0.23	0.25	0.25	90.4
M AREA TLD 8	0.28	0.27	0.28	0.31	103.5

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 Blank spaces indicate missing TLD results.

Table 16
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
N-AREA TLD 1	0.24	0.25	0.28	0.27	95.4
N-AREA TLD 2	0.23	0.24	0.27	0.26	91.5
N-AREA TLD 3	0.31	0.32	0.35	0.34	120.8
N-AREA TLD 4	0.31	0.33	0.35	0.35	122.2
N-AREA TLD 5	1.52	1.49	1.14	0.89	460.4
P AREA TLD 1	0.19	0.21	0.22	0.22	77.0
P AREA TLD 2	0.17	0.18	0.20	0.19	67.7
P AREA TLD 3	0.19	0.18	0.21	0.20	70.4
P AREA TLD 4	0.19	0.19	0.22	0.21	74.1
R AREA TLD 1	0.18	0.18	0.20	0.19	68.5
R AREA TLD 2	0.19	0.19	0.22	0.21	74.3
R AREA TLD 3	0.16	c	0.18	0.18	62.9
R AREA TLD 4	0.19	0.19	0.22	0.22	74.8
R AREA TLD 5	0.18	0.19	0.22	0.21	73.3
R AREA TLD 6	0.18	0.17	0.20	0.19	67.2
R AREA TLD 7	0.18	0.19	0.21	0.20	71.6
RAILROAD AT ROADS E & F 1	0.23	0.22	0.23	0.24	83.6
RAILROAD AT ROADS E & F 2	0.24	0.22	0.24	0.24	85.8
S AREA TLD 1	0.23	0.21	0.23	0.25	84.1
S AREA TLD 2	0.32	0.31	0.32	0.34	116.8
S AREA TLD 3	0.30	0.28	0.28	0.31	106.7
S AREA TLD 4	0.28	0.25	0.25	0.27	95.4
TECHNICAL AREA TLD 1	0.23	0.20	0.22		78.6
TECHNICAL AREA TLD 2	0.30	0.27	0.29	0.29	104.7
TECHNICAL AREA TLD 3	0.23	0.23	0.23	0.24	84.5
TECHNICAL AREA TLD 4	0.25	0.29	0.31	0.25	99.8
TECHNICAL AREA TLD 5	0.23	0.22	0.22	0.23	82.1
TECHNICAL AREA TLD 6	0.23	0.22	0.23	0.24	83.9

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 Blank spaces indicate missing TLD results.

Table 16
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
TECHNICAL AREA TLD 7	0.26	0.24	0.24	0.23	88.4
TECHNICAL AREA TLD 8	0.25	0.22	0.21	0.25	84.6
T AREA TLD 1	0.16	0.16	0.18	0.17	61.8
T AREA TLD 2	0.21	0.22	0.26	0.23	83.5
T AREA TLD 3	0.20	0.21	0.21	0.19	74.3
T AREA TLD 4	0.26	0.26	0.29	0.28	100.5
Z AREA TLD 1	0.20	0.18	0.20	0.19	70.3
Z AREA TLD 2	0.19	0.18	0.19	0.20	69.6
Z AREA TLD 3	0.19	0.18	0.18	0.21	69.3
Z AREA TLD 4	0.23	0.21	0.22	0.22	80.1

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 17
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	0.16	0.17	0.16	0.18	61.1
SITE PERIMETER TLD 1.25	0.17	0.18	0.17	0.18	64.0
SITE PERIMETER TLD 1.5	0.18	0.19	0.17	0.20	66.7
SITE PERIMETER TLD 1.75	0.16	0.17	0.15	0.17	60.3
SITE PERIMETER TLD 2	0.23	0.25	0.24	0.23	86.8
SITE PERIMETER TLD 2.25	0.19	0.19	0.19	0.21	71.0
SITE PERIMETER TLD 2.5	0.17	0.19	0.17	c	63.8
SITE PERIMETER TLD 2.75	0.16	0.18	0.16	0.18	61.5
SITE PERIMETER TLD 3	0.16	0.17	0.17	0.18	62.7
SITE PERIMETER TLD 3.25		0.18	0.15		61.7
SITE PERIMETER TLD 3.5	0.17	0.17	0.16	0.18	62.6
SITE PERIMETER TLD 3.75	0.20	0.21	0.20	0.23	77.6
SITE PERIMETER TLD 4	0.20	0.21	0.20	0.22	75.0
SITE PERIMETER TLD 4.25	0.17	0.17	0.16	0.18	63.6
SITE PERIMETER TLD 4.5	0.17	0.20	0.17	0.19	66.9
SITE PERIMETER TLD 4.75	0.16	0.17	0.16	0.18	62.5
SITE PERIMETER TLD 5	0.20	0.21	0.19	0.23	75.9
SITE PERIMETER TLD 5.25	0.19	0.20	0.18	0.21	70.9
SITE PERIMETER TLD 5.5	0.20	0.22	0.21	0.21	76.3
SITE PERIMETER TLD 5.75	0.23	0.26	0.24	0.27	91.6
SITE PERIMETER TLD 6	0.25	0.26	0.24	0.27	92.7
SITE PERIMETER TLD 6.25	0.25	0.26	0.25	0.18	85.9
SITE PERIMETER TLD 6.5	0.20	0.21	0.20	0.23	76.6
SITE PERIMETER TLD 6.75	0.16	0.18	0.16	0.18	62.7
SITE PERIMETER TLD 7	0.21	0.22	0.19	0.22	77.2
SITE PERIMETER TLD 7.25	0.22	0.23	0.22		81.7
SITE PERIMETER TLD 7.5	0.19	0.19	0.18	0.21	70.0
SITE PERIMETER TLD 7.75	0.19	0.31	0.19	0.21	82.6

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 results.

Table 17
TLD Results: Site Perimeter Stations

Page 2 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 8	0.18	0.19	0.18	0.20	68.1
SITE PERIMETER TLD 8.25	0.20	0.22	0.20	0.23	77.7
SITE PERIMETER TLD 8.5	0.20	0.22	0.19	0.22	76.6
SITE PERIMETER TLD 8.75	0.19	0.20	0.18	°	68.4
SITE PERIMETER TLD 9	0.20	0.21	0.19	0.21	73.4
SITE PERIMETER TLD 9.25	0.17	0.18	0.16	0.19	63.1
SITE PERIMETER TLD 9.5	0.17	0.17	0.16	0.18	62.7
SITE PERIMETER TLD 9.75	0.17	0.17	0.15	0.18	61.5
SITE PERIMETER TLD 10	0.15	0.17	0.15	0.18	60.7
SITE PERIMETER TLD 11	0.17	0.17	0.16	0.19	62.6
SITE PERIMETER TLD 12	0.17	0.18	0.16	0.19	63.6
SITE PERIMETER TLD 13	0.16		0.15	0.18	59.5
SITE PERIMETER TLD 14	0.17		0.17	0.19	65.6
SITE PERIMETER TLD 15	0.17		0.17	0.20	66.5
SITE PERIMETER TLD 16			0.20	0.24	81.1
SITE PERIMETER TLD 17	0.21		0.21	0.24	80.6
SITE PERIMETER TLD 18	0.18		0.19	0.21	70.9
SITE PERIMETER TLD 19	0.18		0.19	0.21	69.9
SITE PERIMETER TLD 20	0.27	0.26	0.31	0.27	101.9
SITE PERIMETER TLD 21	0.20	0.18	0.22	0.18	71.2
SITE PERIMETER TLD 22	0.20	0.20	0.22	0.19	73.7
SITE PERIMETER TLD 23	0.22	0.21	0.25	0.20	79.7
SITE PERIMETER TLD 24	0.19	0.19	0.22	0.18	71.9
SITE PERIMETER TLD 25	0.18	0.19	0.22	0.18	69.7
SITE PERIMETER TLD 26	0.19	0.18	0.21	0.17	68.8
SITE PERIMETER TLD 27	0.21	0.20	0.22	0.19	75.1
SITE PERIMETER TLD 28	0.21	0.20	0.23	0.19	76.2
SITE PERIMETER TLD 29	0.18	0.18	0.21	0.16	66.6

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 results.

Table 17
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 30	0.21	0.21	0.24	0.20	77.5
SITE PERIMETER TLD 31	0.19	0.19	0.21	0.18	70.0
SITE PERIMETER TLD 32	0.20	0.19	0.23	0.19	73.5
SITE PERIMETER TLD 33	0.21	0.20	0.24	0.19	76.2
SITE PERIMETER TLD 34	0.20	0.19	0.23	0.19	74.2
SITE PERIMETER TLD 35	0.19	0.19	0.21	0.17	70.8
SITE PERIMETER TLD 36	0.22	0.21	0.25	0.20	79.8
SITE PERIMETER TLD 37	0.21	0.21	0.24	0.19	77.4
SITE PERIMETER TLD 38	0.23	0.22	0.28	0.23	87.9
SITE PERIMETER TLD 39	0.18	c	0.22	0.18	72.0
SITE PERIMETER TLD 40	0.17		0.21	0.16	64.7
SITE PERIMETER TLD 41	0.16		0.20	0.18	65.9
SITE PERIMETER TLD 42	0.19				68.6
SITE PERIMETER TLD 43	0.20		0.25	0.23	82.7
SITE PERIMETER TLD 44	0.16		0.21	0.18	67.4
SITE PERIMETER TLD 45	0.17		0.20	0.18	66.8
SITE PERIMETER TLD 46	0.18		0.22	0.19	71.5
SITE PERIMETER TLD 47	0.18		0.21	0.18	69.3
SITE PERIMETER TLD 48	0.18		0.21	0.18	70.4
SITE PERIMETER TLD 49	0.24		0.29	0.26	97.8
SITE PERIMETER TLD 50	0.16		0.20	0.16	64.4
SITE PERIMETER TLD 51	0.17		0.21	0.17	66.1
SITE PERIMETER TLD 52	0.19		0.23	0.19	73.9
SITE PERIMETER TLD 53	0.16		0.19	0.16	61.9
SITE PERIMETER TLD 54	0.15		0.18	0.15	59.1
SITE PERIMETER TLD 55	0.14		0.18	0.14	56.7
SITE PERIMETER TLD 56	0.14	0.15	0.17	0.13	54.8
SITE PERIMETER TLD 57	0.15	0.16	0.19	0.16	59.6

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 results.

Table 17
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 57.25	0.16	0.17	0.20	0.17	63.1
SITE PERIMETER TLD 57.5	0.16	0.17	0.20	0.17	64.0
SITE PERIMETER TLD 57.75	0.17	0.17	0.20	0.18	65.9
SITE PERIMETER TLD 58	0.20	0.21	0.23	0.21	78.0
SITE PERIMETER TLD 58.25	0.17	0.17	0.20	0.17	64.8
SITE PERIMETER TLD 58.5	0.16	0.18	0.2	0.17	65.8
SITE PERIMETER TLD 58.75	0.17	0.19	0.21	c	69.1
SITE PERIMETER TLD 59	0.16	0.17	0.19	0.17	62.7
SITE PERIMETER TLD 59.25	0.18	0.19	0.21	0.17	68.6
SITE PERIMETER TLD 59.5	0.20	0.22	0.24	0.21	78.6
SITE PERIMETER TLD 59.75	0.17	0.19	0.21	0.19	69.8
SITE PERIMETER TLD 60	0.19	0.20	0.24	0.20	76.4
SITE PERIMETER TLD 60.25	0.16	0.18	0.20	0.16	64.0
SITE PERIMETER TLD 60.5	0.15	0.17	0.19	0.17	61.7
SITE PERIMETER TLD 60.75	0.16	0.28	0.19	0.17	72.3
SITE PERIMETER TLD 61	0.17	0.18	0.20	0.17	65.7
SITE PERIMETER TLD 61.25	0.18	0.18	0.22	0.18	68.9
SITE PERIMETER TLD 61.5	0.16	0.17	0.19	0.16	62.5
SITE PERIMETER TLD 61.75	0.18	0.19	0.22	0.19	71.3
SITE PERIMETER TLD 62	0.16	0.18	0.21	0.17	66.1
SITE PERIMETER TLD 62.25	0.16	0.17	0.19	0.17	63.3
SITE PERIMETER TLD 62.5	0.18	0.19	0.22	0.19	71.4
SITE PERIMETER TLD 62.75	0.22	0.22	0.25	0.21	83.4
SITE PERIMETER TLD 63	0.18		0.19	0.17	65.8
SITE PERIMETER TLD 63.25	0.18	0.16	0.18	0.17	63.3
SITE PERIMETER TLD 63.5	0.18	0.16	0.18	0.18	64.1
SITE PERIMETER TLD 63.75	0.17	0.15	0.17	0.15	58.2
SITE PERIMETER TLD 64	0.17	0.15	0.17	0.16	58.6

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 results.

Table 17
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 64.25	0.16	0.14	0.16	0.15	56.8
SITE PERIMETER TLD 64.5	0.18	0.15	0.17	0.16	60.5
SITE PERIMETER TLD 64.75	0.17	0.15	0.17	0.16	58.5
SITE PERIMETER TLD 65	0.19	0.17	0.19	0.19	67.0
SITE PERIMETER TLD 65.25	°	0.19	0.22	0.21	76.3
SITE PERIMETER TLD 65.5	0.25	0.24	0.26	0.25	90.6
SITE PERIMETER TLD 65.75	0.22	0.19	0.22	0.21	76.4
SITE PERIMETER TLD 66	0.23	0.22	0.25	0.24	87.2
SITE PERIMETER TLD 66.25	0.25	0.23	0.25	0.26	90.4
SITE PERIMETER TLD 66.5	0.19	0.17	0.19	0.19	67.1
SITE PERIMETER TLD 66.75	0.21	0.18	0.20	0.20	72.9
SITE PERIMETER TLD 67	0.19	0.16	0.19	0.17	64.8
SITE PERIMETER TLD 67.25	0.21	0.19	0.21	0.20	72.8
SITE PERIMETER TLD 67.5		0.17	0.21	0.19	69.3
SITE PERIMETER TLD 67.75	0.17	0.15	0.16	0.16	58.9
SITE PERIMETER TLD 68	0.17	0.14	0.17	0.16	58.6
SITE PERIMETER TLD 68.25	0.17	0.15	0.17	0.16	59.3
SITE PERIMETER TLD 68.5	0.20	0.17	0.19	0.18	67.8
SITE PERIMETER TLD 68.75	0.20	0.18	0.22	0.20	73.8
SITE PERIMETER TLD 69	0.24	0.21	0.23	0.22	81.9
SITE PERIMETER TLD 69.25	0.17	0.15	0.17	0.16	59.0
SITE PERIMETER TLD 69.5	0.18	0.16	0.18	0.17	62.2
SITE PERIMETER TLD 69.75	0.21	0.18	0.19	0.19	69.8
SITE PERIMETER TLD 70	0.19	0.17	0.19	0.18	67.8
SITE PERIMETER TLD 70.25	0.17	0.15	0.16	0.15	57.9
SITE PERIMETER TLD 70.5	0.19	0.16	0.18	0.17	63.5
SITE PERIMETER TLD 70.75	0.20	0.18	0.20	0.19	71.0
SITE PERIMETER TLD 71	0.18	0.16	0.18	0.17	62.2

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 results.

Table 17
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 71.25	0.21	0.18	0.20	0.20	71.9
SITE PERIMETER TLD 71.5	0.20	0.18	0.20	0.19	70.2
SITE PERIMETER TLD 71.75	0.21	0.19	0.21	0.20	73.7
SITE PERIMETER TLD 72	0.20	0.17	0.19	0.18	68.4
SITE PERIMETER TLD 72.25	0.18	0.16	0.18	0.18	64.1
SITE PERIMETER TLD 72.5	0.19	0.17	0.18	0.18	65.6
SITE PERIMETER TLD 72.75	0.18	0.16	0.18	0.17	63.6
SITE PERIMETER TLD 73	0.17	0.15	0.17	0.16	59.7
SITE PERIMETER TLD 73.25	0.18	0.17	0.19	0.18	65.0
SITE PERIMETER TLD 73.5	0.19	0.16	0.18	0.17	64.1
SITE PERIMETER TLD 73.75	0.17	0.15	0.18	0.16	60.1
SITE PERIMETER TLD 74	0.17	0.15	0.17	0.16	59.2
SITE PERIMETER TLD 74.25	0.16	0.14	0.16	0.15	55.7
SITE PERIMETER TLD 74.5	0.16	0.13	0.16	0.15	55.8
SITE PERIMETER TLD 74.75	0.17	c	0.17	0.16	61.9
SITE PERIMETER TLD 75	0.16	0.14	0.16	0.15	55.4
SITE PERIMETER TLD 75.25	0.17	0.15	0.17	0.16	58.8
SITE PERIMETER TLD 75.5	0.15	0.13	0.15	0.15	52.8
SITE PERIMETER TLD 75.75	0.16	0.14	0.16	0.15	55.5
SITE PERIMETER TLD 76	0.17	0.15	0.16	0.16	58.3
SITE PERIMETER TLD 76.25	0.18	0.16	0.18	0.17	63.0
SITE PERIMETER TLD 76.5	0.18	0.15	0.17	0.16	60.5
SITE PERIMETER TLD 76.75	0.18	0.15	0.18	0.16	60.6
SITE PERIMETER TLD 77	0.19	0.16	0.18	0.16	63.1
SITE PERIMETER TLD 78	0.19	0.16	0.18	0.18	65.4
SITE PERIMETER TLD 79	0.19	0.16	0.19	0.18	65.4
SITE PERIMETER TLD 79.25	0.20	0.17	0.18	0.18	67.0
SITE PERIMETER TLD 79.5	0.21	0.19	0.21	0.20	73.8

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 results.

Table 17
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 79.75	0.22	0.20	0.21	0.20	76.7
ALLIED GENERAL 1	0.31	0.20	0.25	0.20	87.1
ALLIED GENERAL 2	0.17	0.16	0.20	0.16	62.7
ALLIED GENERAL 3	0.19	0.18	0.22	0.17	68.5
ALLIED GENERAL 4	0.17	0.17	0.20	0.16	64.8
PUMPHOUSE ROAD 1	0.20	0.19	0.21	0.21	74.0
PUMPHOUSE ROAD 2	0.15	0.16	0.22	0.21	69.1
PUMPHOUSE ROAD 3	0.20	0.14	0.16	0.15	58.4
PUMPHOUSE ROAD 4	0.17	0.15	0.17	0.16	58.8
PUMPHOUSE ROAD 5	0.24	0.22	0.25	0.23	85.6
PUMPHOUSE ROAD 6	0.20	0.18	0.21	0.20	71.8

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

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

Table 18
TLD Results: Environmental Surveillance (Air Monitoring) 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
400 D BUILDING 614 ^c	0.16	0.22	0.17	0.20	68.0
A AREA BUILDING 614	0.21	0.25	0.24	0.25	87.4
AIKEN AIRPORT BUILDING 614	0.18	0.22	0.18	0.20	71.4
AIKEN STATE PARK BUILDING 614	0.14	0.18	0.14	0.16	56.8
ALLENDALE BUILDING 614	0.16	0.25	0.37	0.12	82.3
ALLENDALE GATE BUILDING 614	0.13	0.17	0.13	0.16	53.5
AUGUSTA BUILDING 614	0.20	0.21	0.20	0.23	77.5
BARNWELL GATE BUILDING 614	0.17	0.23	0.17	0.21	70.8
BURIAL GROUND-NORTH BUILDING 614	0.27	0.35	0.32	0.35	117.8
BURIAL GROUND-SOUTH BUILDING 614	0.19	0.24	0.22	0.24	81.2
COLUMBIA BUILDING 614 TLD 2	0.23	0.23	0.23	0.24	85.5
COLUMBIA BUILDING 614 TLD 1	0.23	0.23	0.26	0.21	84.7
DARKHORSE BUILDING 614	0.17	0.22	0.18	0.19	70.0
EAST TALATHA BUILDING 614	0.17	0.19	0.18	d	65.6
F-AREA BUILDING 614	0.25	0.30	0.28	0.30	103.2
GREENPOND BUILDING 614	0.15	0.21	0.16	0.20	65.7
GREENVILLE BUILDING 614 TLD 2	0.30	0.29	0.37	0.34	119.3
GREENVILLE BUILDING 614 TLD 1	0.28	0.30	0.34	0.38	118.3
H-AREA BUILDING 614	0.22	0.27	0.29	0.32	100.4
HWY 39 BUILDING 614	0.17	0.21	0.19	0.20	70.8
HWY 301 BUILDING 614	0.44			0.25	126.0
INTERSECTION OF HWYS 21 & 167	0.22	0.28	0.23	0.26	89.4
JACKSON BUILDING 614	0.17	0.24	0.18	0.21	73.2

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.

d Blank spaces indicate missing TLD results.

Table 18
TLD Results: Environmental Surveillance (Air Monitoring) 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
LANGLEY BUILDING 614 ^c	0.21	0.28	0.23	0.26	89.2
LEES BUILDING 614	0.14	0.18	0.14	0.16	57.1
MACON BUILDING 614 TLD 2	d	0.28	0.28		98.7
MACON BUILDING 614 TLD 1		0.30	0.31	0.31	109.7
OLAR BUILDING 614	0.15	0.19	0.16	0.17	60.9
PATTERSON MILL RD. BUILDING 614 ^c	0.14	0.20	0.15	0.18	61.2
PERKINS BUILDING 614	0.15	0.22	0.16	0.19	64.8
RD. A-14 BUILDING 614	0.17	0.20	0.16	0.19	65.1
SAVANNAH BUILDING 614 TLD 2	0.20	0.17	0.18	0.19	66.7
SAVANNAH BUILDING 614 TLD 1	0.19	0.17	0.20	0.21	68.4
SOUTH RICHMOND BUILDING 614	0.22	0.30	0.23	0.26	92.8
SPRINGFIELD BUILDING 614	0.25	0.30	0.25	0.28	99.7
TALATHA GATE BUILDING 614	0.19	0.24	0.21	0.23	80.0
WAYNESBORO BUILDING 614	0.21	0.24	0.21	0.24	82.4
WEST JACKSON BUILDING 614	0.22	0.24	0.21	0.23	83.1
WINDSOR ROAD BUILDING 614	0.16	0.19	0.18	0.19	66.1

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.

d Blank spaces indicate missing TLD results.

Table 19
TLD Results: Population Centers

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
AIKEN (LAURENS ST)	0.23	0.25	0.27	0.27	88.9
AIKEN (SILVER BLUFF RD)	0.26	0.27	0.27	0.28	95.0
ALEXANDER	0.16	c	0.18	0.21	58.3
ALLENDALE	0.18	0.19	0.12	0.21	59.9
AUGUSTA (CENTRAL AVE)	0.23	0.24	0.26	0.32	91.2
AUGUSTA (CENTRAL & TOUPE)	0.21	0.22	0.22	0.26	79.2
AUGUSTA (EVE & ELLIS)	0.20	0.20	0.21	0.24	74.6
AUGUSTA (MILLEDGEVILLE RD)	0.21	0.22	0.23	0.26	79.6
AUGUSTA (REYNOLDS ST)	0.27	0.27	0.28	0.31	98.4
AUGUSTA (WALTON WAY)	0.28	0.27	0.28	0.30	98.9
AUGUSTA (WATKINS ST)	0.24	0.25	0.25	0.28	88.6
BARNWELL	0.25	0.24	0.33	0.26	95.3
BATESBURG	0.28	0.28	0.33	0.30	102.6
BEECH ISLAND	0.27	0.26	0.35	0.25	100.3
BLACKVILLE	0.22	0.25	0.27	0.28	88.2
COLUMBIA (ATLAS ST)	0.26	0.26	0.27	0.25	94.8
COLUMBIA (DENTSVILLE)	0.28	0.28	0.27	0.31	103.4
COLUMBIA (EAU CLAIRE)			0.29	0.33	113.9
COLUMBIA (HARDEN ST)	0.26	0.28	0.27	0.30	102.1
COLUMBIA (HEADQUARTERS)	0.27	0.28	0.29	0.33	106.4
COLUMBIA (INDUSTRIAL PARK)	0.26	0.27	0.27	0.32	101.0
COLUMBIA (NORTH COLUMBIA)	0.25	0.26	0.25	0.27	93.7
COLUMBIA (SHANDON)	0.23	0.25	0.25	0.27	90.7
COLUMBIA (ST ANDREWS)	0.26	0.27	0.27	0.28	99.2
COUCHTON		0.27	0.30	0.28	100.5
EDGEFIELD	0.27	0.25	0.26	0.27	92.2
ESTILL	0.31	0.26	0.23	0.33	100.4
GIRARD	0.26	0.28	0.30	0.32	100.9
GRANITEVILLE	0.24	0.22	0.29		87.7
HAMPTON	0.28	0.22	0.29	0.35	101.6
HEPHZIBAH	0.17	0.17		0.18	61.3

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 results.

Table 19
TLD Results: Population Centers

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
JACKSON	0.24	0.24	0.25	0.25	85.6
JOHNSTON	0.31	0.29	0.32	0.33	109.0
LEXINGTON	0.20	0.21	0.21	0.22	76.1
LINCOLNTON	0.27	0.26	0.29	0.32	100.1
LOUISVILLE	0.37	0.36	0.32	0.33	25.2
MARTIN	0.18	c	0.22	0.17	6.5
MCBEAN	0.26	0.25	0.25	0.29	92.2
MCCORMICK	0.24	0.24	0.26	0.28	88.6
MILLEN	0.24	0.21	0.19	0.21	76.0
NEW ELLENTON	0.25	0.25	0.27	0.28	92.4
NEWINGTON	0.30	0.29	0.25	0.26	100.2
NORTH AUGUSTA	0.34	0.32	0.39	0.33	121.3
NORTH	0.32			0.34	116.8
OLAR	0.29	0.29	0.31	0.31	105.3
ORANGEBURG	0.35	0.29	0.29	0.36	115.7
SALUDA	0.35	0.37	0.39	0.41	132.8
SARDIS	0.23	0.23	0.24	0.26	83.8
SMOAKS	0.25		0.21	0.27	87.0
SPRINGFIELD	0.25	0.26	0.28	0.29	94.7
ST MATTHEWS		0.30	0.29	0.36	111.6
STATESBORO	0.26	0.23	0.21	0.23	83.1
SWANSEA	0.37	0.31	0.33	0.36	122.2
SYLVANIA	0.30	0.27	0.24	0.27	98.2
THOMPSON	0.39	0.36	0.37	0.34	128.1
WADLEY	0.31	0.29	0.26	0.28	102.8
WAGENER	0.20	0.23	0.26	0.23	80.7
WAYNESBORO	0.21	0.21	0.23	0.20	73.8
WEST COLUMBIA	0.38	0.37	0.38	0.36	136.7
WILLISTON	0.30	0.27	0.33	0.29	104.5
WINDSOR	0.19	0.17	0.22	0.18	67.5
WRENS	0.28	0.22	0.23	0.21	85.4

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 results.

Table 20
TLD Results: Vogtle Electric Generating Plant Vicinity

Page 1 of 1

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	0.14	0.18	0.15	0.18	59.5
GEORGIA POWER TLD 1 LOW	0.14	0.18	0.15	0.18	60.2
GEORGIA POWER TLD 2 HIGH	0.15	0.21	0.16	0.19	65.1
GEORGIA POWER TLD 2 LOW	0.16	0.19	0.15	c	60.9
GEORGIA POWER TLD 3 HIGH	0.16	0.20	0.16	0.19	63.9
GEORGIA POWER TLD 3 LOW	0.15	0.19	0.16	0.18	61.8
GEORGIA POWER TLD 4 HIGH	0.15	0.19	0.15	0.19	63.3
GEORGIA POWER TLD 4 LOW	0.15	0.19	0.15	0.19	62.6
GEORGIA POWER TLD 5 HIGH	0.15	0.19	0.15	0.17	60.7
GEORGIA POWER TLD 5 LOW	0.15	0.19	0.14	0.17	59.7
NRC TLD 1	0.30	0.20	0.17	0.20	79.2
NRC TLD 2	0.14	0.16	0.13	0.16	52.7
NRC TLD 3	0.14	0.16	0.13	0.16	53.2
NRC TLD 4	0.15	0.17	0.14	0.19	60.1
NRC TLD 5	0.20	0.22	0.20	0.22	77.9
NRC TLD 6	0.16	0.18	0.15	0.18	61.1
NRC TLD 7	0.15	0.17	0.14	0.17	58.0
NRC TLD 8	0.14	0.17	0.15	0.18	58.2

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 results.

Table 21
Radioactivity in Seepage Basin Water

Page 1 of 1

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3 ($\mu\text{Ci/mL}$)				
Burial Ground Seepage Basin	12	$(4.32 \pm 3.16)\text{E-05}$	$(9.03 \pm 0.19)\text{E-05}$	$(9.01 \pm 0.54)\text{E-06}$
CSB-1 C-Area Seepage Basin	3	$(2.43 \pm 2.77)\text{E-05}$	$(5.53 \pm 0.42)\text{E-05}$	$(2.13 \pm 3.79)\text{E-06}$
E Basin North	11	$(1.06 \pm 1.07)\text{E-05}$	$(4.00 \pm 0.10)\text{E-05}$	$(2.39 \pm 0.49)\text{E-06}$
E Basin South	3	$(3.99 \pm 3.75)\text{E-05}$	$(8.31 \pm 0.19)\text{E-05}$	$(1.50 \pm 0.06)\text{E-05}$
LSB-1 L-Area Seepage Basin	4	$(2.04 \pm 2.11)\text{E-06}$	$(3.25 \pm 3.22)\text{E-06}$	$(-1.13 \pm 3.74)\text{E-06}$
PSB-1 P-Area Seepage Basin	2	$(-0.86 \pm 4.04)\text{E-05}$	$(1.99 \pm 6.34)\text{E-05}$	$(-3.72 \pm 7.86)\text{E-05}$
TNX-SB Seepage Basin	12	$(2.92 \pm 0.73)\text{E-06}$	$(3.97 \pm 0.50)\text{E-06}$	$(1.76 \pm 0.36)\text{E-06}$
Cs-137 ($\mu\text{Ci/mL}$)				
CSB-1 C-Area Seepage Basin	2	$(1.74 \pm 0.30)\text{E-08}$	$(1.95 \pm 0.73)\text{E-08}$	$(1.52 \pm 0.54)\text{E-08}$
PSB-1 P-Area Seepage Basin	2	$(2.90 \pm 0.26)\text{E-08}$	$(3.09 \pm 0.54)\text{E-08}$	$(2.71 \pm 0.65)\text{E-08}$
Sr-89,90 ($\mu\text{Ci/mL}$)				
LSB-1 L-Area Seepage Basin	4	$(1.28 \pm 2.06)\text{E-08}$	$(4.22 \pm 1.94)\text{E-08}$	$(-0.32 \pm 1.64)\text{E-08}$
U/Pu ($\mu\text{Ci/mL}$)				
TNX-SB Seepage Basin	12	$(2.44 \pm 6.15)\text{E-09}$	$(1.43 \pm 0.88)\text{E-08}$	$(-4.08 \pm 3.51)\text{E-09}$
Gross A ($\mu\text{Ci/mL}$)				
Burial Ground Seepage Basin	11	$(1.23 \pm 0.95)\text{E-09}$	$(3.89 \pm 2.24)\text{E-09}$	$(4.52 \pm 4.67)\text{E-10}$
CSB-1 C-Area Seepage Basin	3	$(0.16 \pm 1.01)\text{E-09}$	$(0.76 \pm 1.48)\text{E-09}$	$(-1.00 \pm 0.85)\text{E-09}$
E Basin North	11	$(2.10 \pm 1.94)\text{E-09}$	$(5.30 \pm 1.44)\text{E-09}$	$(1.52 \pm 4.11)\text{E-10}$
E Basin South	3	$(1.57 \pm 1.47)\text{E-09}$	$(3.24 \pm 0.97)\text{E-09}$	$(4.98 \pm 5.11)\text{E-10}$
LSB-1 L-Area Seepage Basin	4	$(0.82 \pm 1.90)\text{E-09}$	$(3.51 \pm 2.11)\text{E-09}$	$(-8.49 \pm 8.14)\text{E-10}$
PSB-1 P-Area Seepage Basin	2	$(1.14 \pm 0.69)\text{E-09}$	$(1.62 \pm 1.71)\text{E-09}$	$(0.65 \pm 1.48)\text{E-09}$
TNX-SB Seepage Basin	12	$(-0.19 \pm 2.40)\text{E-09}$	$(4.34 \pm 4.44)\text{E-09}$	$(-3.16 \pm 2.85)\text{E-09}$
Gross B ($\mu\text{Ci/mL}$)				
Burial Ground Seepage Basin	11	$(1.08 \pm 0.52)\text{E-08}$	$(1.86 \pm 0.18)\text{E-08}$	$(4.81 \pm 1.09)\text{E-09}$
CSB-1 C-Area Seepage Basin	3	$(6.33 \pm 2.75)\text{E-08}$	$(9.25 \pm 0.81)\text{E-08}$	$(3.78 \pm 0.58)\text{E-08}$
E Basin North	11	$(3.54 \pm 1.47)\text{E-09}$	$(6.36 \pm 1.21)\text{E-09}$	$(1.01 \pm 0.87)\text{E-09}$
E Basin South	3	$(4.43 \pm 3.36)\text{E-09}$	$(8.11 \pm 1.28)\text{E-09}$	$(1.51 \pm 0.95)\text{E-09}$
LSB-1 L-Area Seepage Basin	4	$(1.58 \pm 0.90)\text{E-08}$	$(2.44 \pm 0.55)\text{E-08}$	$(3.24 \pm 4.01)\text{E-09}$
PSB-1 P-Area Seepage Basin	2	$(3.51 \pm 0.76)\text{E-08}$	$(4.05 \pm 0.62)\text{E-08}$	$(2.97 \pm 0.54)\text{E-08}$
TNX-SB Seepage Basin	12	$(4.95 \pm 7.36)\text{E-09}$	$(2.02 \pm 1.02)\text{E-08}$	$(-0.77 \pm 1.06)\text{E-08}$

Table 22
Radioactivity in SRS Stream Water

Page 1 of 5

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3 ($\mu\text{Ci/mL}$)				
Tims Branch				
TB-5 Near Road C	26	$(9.88 \pm 3.15)\text{E-07}$	$(1.56 \pm 0.31)\text{E-06}$	$(3.03 \pm 4.25)\text{E-07}$
Upper Three Runs				
Crouch Branch at Road 4	26	$(2.09 \pm 0.44)\text{E-05}$	$(3.23 \pm 0.09)\text{E-05}$	$(1.18 \pm 0.05)\text{E-05}$
U3R-1A Treadway Bridge Rd. 8-1	52	$(5.48 \pm 4.47)\text{E-07}$	$(2.73 \pm 0.42)\text{E-06}$	$(-2.35 \pm 4.09)\text{E-07}$
U3R-3 at Road C	26	$(3.67 \pm 3.15)\text{E-06}$	$(1.32 \pm 0.05)\text{E-05}$	$(6.07 \pm 3.02)\text{E-07}$
U3R-4 at Road A	26	$(3.58 \pm 3.55)\text{E-06}$	$(1.79 \pm 0.07)\text{E-05}$	$(-1.40 \pm 4.13)\text{E-07}$
Four Mile Creek				
Caster Creek—SE of C-Area	53	$(3.90 \pm 0.43)\text{E-06}$	$(4.79 \pm 0.49)\text{E-06}$	$(2.38 \pm 0.39)\text{E-06}$
FM-2 at Road 4	26	$(4.33 \pm 1.77)\text{E-05}$	$(6.84 \pm 0.19)\text{E-05}$	$(1.10 \pm 0.06)\text{E-05}$
FM-2B Above F-Area Effluent	26	$(1.26 \pm 0.22)\text{E-04}$	$(1.64 \pm 0.07)\text{E-04}$	$(7.65 \pm 0.51)\text{E-05}$
FM-3A Below F-Area Effluent	26	$(2.04 \pm 0.47)\text{E-03}$	$(3.39 \pm 0.05)\text{E-03}$	$(1.44 \pm 0.03)\text{E-03}$
FM-6 at Road A-12.2	26	$(2.22 \pm 0.55)\text{E-04}$	$(3.09 \pm 0.02)\text{E-04}$	$(6.13 \pm 0.08)\text{E-05}$
FM-A7 at Road A-7	26	$(5.17 \pm 1.11)\text{E-04}$	$(6.89 \pm 0.10)\text{E-04}$	$(3.36 \pm 0.09)\text{E-04}$
H-008 Outfall	52	$(2.79 \pm 1.88)\text{E-06}$	$(9.12 \pm 0.44)\text{E-06}$	$(0.23 \pm 3.79)\text{E-07}$
HP-50 Tritium Facility Outfall	26	$(2.38 \pm 3.79)\text{E-05}$	$(1.86 \pm 0.02)\text{E-04}$	$(3.61 \pm 0.35)\text{E-06}$
Twin Lakes—West of C-Area	53	$(1.81 \pm 0.15)\text{E-05}$	$(2.19 \pm 0.08)\text{E-05}$	$(1.52 \pm 0.07)\text{E-05}$
Pen Branch				
IGB-21 800ft South of Rd. 6-1	52	$(1.07 \pm 0.27)\text{E-03}$	$(1.72 \pm 0.03)\text{E-03}$	$(4.21 \pm 0.11)\text{E-04}$
K-011 Outfall at B Road	52	$(0.95 \pm 1.32)\text{E-04}$	$(7.48 \pm 0.03)\text{E-04}$	$(3.22 \pm 0.07)\text{E-05}$
PB-3 at Road A-13.2	26	$(4.02 \pm 1.14)\text{E-05}$	$(6.50 \pm 0.15)\text{E-05}$	$(1.72 \pm 0.07)\text{E-05}$
Steel Creek				
SC-2A 1 mile above Road B	26	$(1.62 \pm 0.86)\text{E-04}$	$(2.59 \pm 0.04)\text{E-04}$	$(9.46 \pm 0.55)\text{E-06}$
SC-4 Steel Creek at Road A	26	$(5.15 \pm 0.53)\text{E-06}$	$(6.20 \pm 0.51)\text{E-06}$	$(4.13 \pm 0.46)\text{E-06}$
Lower Three Runs Creek				
L3R-1A at Road B	26	$(1.93 \pm 0.80)\text{E-06}$	$(3.51 \pm 0.47)\text{E-06}$	$(9.38 \pm 3.04)\text{E-07}$
L3R-2 Patterson Mill Rd	26	$(9.03 \pm 3.89)\text{E-07}$	$(1.69 \pm 0.32)\text{E-06}$	$(0.91 \pm 4.07)\text{E-07}$
L3R-3 at Highway 125	12	$(5.38 \pm 2.37)\text{E-07}$	$(9.07 \pm 4.08)\text{E-07}$	$(1.31 \pm 4.07)\text{E-07}$
R-Area Downstream of R-1	52	$(3.69 \pm 3.75)\text{E-06}$	$(2.04 \pm 0.06)\text{E-05}$	$(1.04 \pm 0.41)\text{E-06}$

Table 22
Radioactivity in SRS Stream Water

Page 2 of 5

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
S-35 ($\mu\text{Ci/mL}$)				
Four Mile Creek				
FM-6 at Road A-12.2	12	$(0.71 \pm 1.14)\text{E-09}$	$(2.78 \pm 0.83)\text{E-09}$	$(-1.69 \pm 0.60)\text{E-09}$
Pen Branch				
PB-3 at Road A-13.2	12	$(0.02 \pm 2.18)\text{E-09}$	$(5.46 \pm 0.56)\text{E-09}$	$(-3.36 \pm 0.96)\text{E-09}$
Steel Creek				
SC-4 Steel Creek at Road A	12	$(-0.34 \pm 1.40)\text{E-09}$	$(2.03 \pm 0.80)\text{E-09}$	$(-3.36 \pm 0.96)\text{E-09}$
Lower Three Runs Creek				
L3R-2 Patterson Mill Rd	12	$(-0.27 \pm 2.54)\text{E-09}$	$(6.99 \pm 0.54)\text{E-09}$	$(-3.00 \pm 0.99)\text{E-09}$
Cs-137 ($\mu\text{Ci/mL}$)				
Four Mile Creek				
FM-2 at Road 4	13	$(1.91 \pm 0.81)\text{E-08}$	$(3.32 \pm 0.42)\text{E-08}$	$(8.42 \pm 1.71)\text{E-09}$
FM-2B Above F-Area Effluent	13	$(1.72 \pm 0.52)\text{E-08}$	$(2.89 \pm 0.38)\text{E-08}$	$(1.04 \pm 0.38)\text{E-08}$
FM-3A Below F-Area Effluent	2	$(9.25 \pm 7.93)\text{E-09}$	$(1.49 \pm 0.42)\text{E-08}$	$(3.65 \pm 1.12)\text{E-09}$
FM-6 at Road A-12.2	2	$(7.68 \pm 4.39)\text{E-09}$	$(1.08 \pm 0.29)\text{E-08}$	$(4.57 \pm 1.24)\text{E-09}$
FM-A7 at Road A-7	6	$(1.16 \pm 0.39)\text{E-08}$	$(1.94 \pm 0.59)\text{E-08}$	$(8.44 \pm 1.24)\text{E-09}$
H-008 Outfall	2	$(5.58 \pm 3.15)\text{E-09}$	$(7.81 \pm 2.78)\text{E-09}$	$(3.36 \pm 1.25)\text{E-09}$
Steel Creek				
SC-2A 1 mile above Road B	3	$(1.39 \pm 0.62)\text{E-08}$	$(2.08 \pm 0.41)\text{E-08}$	$(8.81 \pm 2.53)\text{E-09}$
Lower Three Runs Creek				
L3R-2 Patterson Mill Rd	1	$(3.75 \pm 0.92)\text{E-09}$	$(3.75 \pm 0.92)\text{E-09}$	$(3.75 \pm 0.92)\text{E-09}$
R-Area Downstream of R-1	2	$(1.52 \pm 0.16)\text{E-08}$	$(1.64 \pm 0.48)\text{E-08}$	$(1.41 \pm 0.24)\text{E-08}$
Pm-147 ($\mu\text{Ci/mL}$)				
Upper Three Runs				
U3R-3 at Road C	12	$(2.58 \pm 7.86)\text{E-09}$	$(1.35 \pm 0.23)\text{E-08}$	$(-1.93 \pm 0.44)\text{E-08}$
Sr-89,90 ($\mu\text{Ci/mL}$)				
Upper Three Runs				
Crouch Branch at Road 4	12	$(4.01 \pm 6.78)\text{E-10}$	$(1.53 \pm 0.52)\text{E-09}$	$(-5.44 \pm 3.97)\text{E-10}$
U3R-3 at Road C	12	$(0.72 \pm 4.25)\text{E-10}$	$(7.83 \pm 4.73)\text{E-10}$	$(-4.43 \pm 3.79)\text{E-10}$
Four Mile Creek				
FM-2 at Road 4	12	$(3.53 \pm 2.02)\text{E-09}$	$(6.08 \pm 1.10)\text{E-09}$	$(-0.42 \pm 1.30)\text{E-09}$
FM-2B Above F-Area Effluent	12	$(8.27 \pm 2.18)\text{E-09}$	$(1.24 \pm 0.10)\text{E-08}$	$(5.92 \pm 0.86)\text{E-09}$

Table 22
Radioactivity in SRS Stream Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
FM-3A Below F-Area Effluent	12	(3.96 $\pm$ 7.34)E-10	(1.18 $\pm$ 0.66)E-09	(-1.44 $\pm$ 1.08)E-09
FM-6 at Road A-12.2	12	(5.22 $\pm$ 1.16)E-09	(6.50 $\pm$ 0.39)E-09	(2.78 $\pm$ 0.28)E-09
FM-A7 at Road A-7	12	(1.27 $\pm$ 0.14)E-08	(1.53 $\pm$ 0.14)E-08	(1.03 $\pm$ 0.13)E-08
H-008 Outfall	12	(3.43 $\pm$ 6.30)E-10	(1.64 $\pm$ 0.51)E-09	(-5.76 $\pm$ 4.33)E-10
Pen Branch				
IGB-21 800ft South of Rd. 6-1	4	(1.71 $\pm$ 3.81)E-10	(6.72 $\pm$ 4.99)E-10	(-2.47 $\pm$ 4.01)E-10
K-011 Outfall at B Road	12	(2.70 $\pm$ 4.93)E-10	(1.12 $\pm$ 0.50)E-09	(-6.04 $\pm$ 3.94)E-10
PB-3 at Road A-13.2	12	(1.79 $\pm$ 1.52)E-10	(4.90 $\pm$ 1.81)E-10	(-0.84 $\pm$ 1.48)E-10
Steel Creek				
SC-2A 1 mile above Road B	12	(3.60 $\pm$ 3.14)E-10	(8.35 $\pm$ 5.29)E-10	(-2.88 $\pm$ 4.15)E-10
SC-4 Steel Creek at Road A	12	(1.82 $\pm$ 1.60)E-10	(4.63 $\pm$ 1.83)E-10	(-0.98 $\pm$ 1.34)E-10
Lower Three Runs Creek				
L3R-1A at Road B	12	(5.17 $\pm$ 4.56)E-10	(1.33 $\pm$ 0.59)E-09	(-0.77 $\pm$ 4.27)E-10
L3R-2 Patterson Mill Rd	12	(1.92 $\pm$ 1.69)E-10	(5.79 $\pm$ 1.80)E-10	(-0.64 $\pm$ 1.46)E-10
L3R-3 at Highway 125	12	(1.78 $\pm$ 3.52)E-10	(8.18 $\pm$ 3.70)E-10	(-5.15 $\pm$ 2.67)E-10
U/Pu (μCl/mL)				
Upper Three Runs				
U3R-4 at Road A	25	(0.49 $\pm$ 1.44)E-10	(2.98 $\pm$ 1.94)E-10	(-2.66 $\pm$ 2.44)E-10
Four Mile Creek				
FM-6 at Road A-12.2	25	(0.57 $\pm$ 1.77)E-10	(4.67 $\pm$ 2.87)E-10	(-1.80 $\pm$ 1.75)E-10
Pen Branch				
PB-3 at Road A-13.2	25	(0.22 $\pm$ 1.19)E-10	(2.97 $\pm$ 2.39)E-10	(-1.71 $\pm$ 1.57)E-10
Lower Three Runs Creek				
L3R-2 (Weekly Grab)	45	(0.44 $\pm$ 1.76)E-10	(7.15 $\pm$ 4.41)E-10	(-2.69 $\pm$ 2.44)E-10
L3R-2 Patterson Mill Rd	24	(0.68 $\pm$ 1.52)E-10	(3.56 $\pm$ 3.60)E-10	(-2.67 $\pm$ 2.44)E-10
Gross A (μCl/mL)				
Tims Branch				
TB-5 Near Road C	26	(1.54 $\pm$ 1.01)E-09	(4.99 $\pm$ 1.05)E-09	(3.06 $\pm$ 2.06)E-10
Upper Three Runs				
Crouch Branch at Road 4	26	(2.64 $\pm$ 3.56)E-10	(1.67 $\pm$ 0.84)E-09	(-1.81 $\pm$ 1.62)E-10
U3R-1A Treadway Bridge RD 8-1	51	(2.26 $\pm$ 1.27)E-09	(5.92 $\pm$ 0.79)E-09	(5.25 $\pm$ 2.54)E-10

Table 22
Radioactivity in SRS Stream Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
U3R-3 at Road C	26	$(1.77 \pm 0.86)E-09$	$(3.90 \pm 0.75)E-09$	$(5.30 \pm 2.92)E-10$
U3R-4 at Road A	26	$(1.77 \pm 0.97)E-09$	$(3.57 \pm 0.57)E-09$	$(-1.06 \pm 0.98)E-10$
Four Mile Creek				
FM-2 at Road 4	26	$(1.20 \pm 0.80)E-09$	$(4.18 \pm 0.83)E-09$	$(4.59 \pm 2.66)E-10$
FM-2B Above F-Area Effluent	26	$(4.28 \pm 7.14)E-10$	$(3.64 \pm 1.40)E-09$	$(-2.44 \pm 1.66)E-10$
FM-3A Below F-Area Effluent	26	$(1.50 \pm 0.75)E-09$	$(3.60 \pm 0.76)E-09$	$(2.49 \pm 2.55)E-10$
FM-6 at Road A-12.2	26	$(3.50 \pm 3.08)E-10$	$(1.03 \pm 0.45)E-09$	$(-1.85 \pm 1.46)E-10$
FM-A7 at Road A-7	26	$(1.15 \pm 0.65)E-09$	$(2.68 \pm 0.60)E-09$	$(0.73 \pm 2.82)E-10$
H-008 Outfall	52	$(2.35 \pm 0.98)E-09$	$(5.14 \pm 0.90)E-09$	$(3.90 \pm 3.50)E-10$
HP-50 Tritium Facility Outfall	26	$(3.16 \pm 1.44)E-09$	$(6.85 \pm 0.99)E-09$	$(1.54 \pm 0.42)E-09$
Pen Branch				
IGB-21 800ft South of Rd. 6-1	4	$(1.38 \pm 1.51)E-10$	$(3.50 \pm 2.40)E-10$	$(-0.06 \pm 2.28)E-10$
K-011 Outfall at B Road	52	$(1.11 \pm 2.21)E-10$	$(9.45 \pm 7.70)E-10$	$(-2.08 \pm 1.87)E-10$
PB-3 at Road A-13.2	26	$(2.59 \pm 3.45)E-10$	$(1.27 \pm 0.43)E-09$	$(-1.53 \pm 1.37)E-10$
Steel Creek				
SC-2A 1 mile above Road B	26	$(5.41 \pm 2.92)E-10$	$(1.47 \pm 0.46)E-09$	$(-0.25 \pm 1.83)E-10$
SC-4 Steel Creek at Road A	26	$(0.46 \pm 3.05)E-10$	$(1.22 \pm 0.48)E-09$	$(-1.81 \pm 1.63)E-10$
Lower Three Runs Creek				
L3R-1A at Road B	26	$(0.69 \pm 1.86)E-10$	$(5.54 \pm 2.67)E-10$	$(-1.65 \pm 1.47)E-10$
L3R-2 Patterson Mill Rd	26	$(1.26 \pm 1.89)E-10$	$(5.99 \pm 3.33)E-10$	$(-1.49 \pm 1.34)E-10$
L3R-3 at Highway 125	12	$(1.60 \pm 2.65)E-10$	$(6.92 \pm 3.83)E-10$	$(-3.40 \pm 3.24)E-10$
R-Area Downstream of R-1	52	$(3.31 \pm 3.90)E-10$	$(1.75 \pm 0.62)E-09$	$(-1.90 \pm 1.48)E-10$
Gross B ($\mu\text{Ci/mL}$)				
Tims Branch				
TB-5 Near Road C	26	$(2.48 \pm 1.23)E-09$	$(5.33 \pm 0.80)E-09$	$(4.08 \pm 4.19)E-10$
Upper Three Runs				
Crouch Branch at Road 4	26	$(1.94 \pm 0.64)E-09$	$(3.86 \pm 0.62)E-09$	$(1.13 \pm 0.57)E-09$
U3R-1A Treadway Bridge RD 8-1	51	$(1.41 \pm 0.89)E-09$	$(3.54 \pm 0.46)E-09$	$(-1.10 \pm 4.09)E-10$
U3R-3 at Road C	26	$(1.46 \pm 0.82)E-09$	$(3.94 \pm 0.82)E-09$	$(4.97 \pm 3.62)E-10$
U3R-4 at Road A	26	$(1.50 \pm 1.01)E-09$	$(3.94 \pm 0.83)E-09$	$(2.05 \pm 4.36)E-10$

Table 22
Radioactivity in SRS Stream Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Four Mile Creek				
FM-2 at Road 4	26	$(1.91 \pm 1.07)E-08$	$(4.24 \pm 0.15)E-08$	$(6.49 \pm 0.70)E-09$
FM-2B Above F-Area Effluent	26	$(2.75 \pm 1.15)E-08$	$(7.27 \pm 0.21)E-08$	$(1.61 \pm 0.10)E-08$
FM-3A Below F-Area Effluent	26	$(4.76 \pm 1.05)E-09$	$(6.92 \pm 0.78)E-09$	$(2.66 \pm 0.46)E-09$
FM-6 at Road A-12.2	26	$(1.41 \pm 0.37)E-08$	$(2.20 \pm 0.12)E-08$	$(5.41 \pm 0.68)E-09$
FM-A7 at Road A-7	26	$(3.16 \pm 0.58)E-08$	$(4.35 \pm 0.17)E-08$	$(2.05 \pm 0.11)E-08$
H-008 Outfall	52	$(5.31 \pm 1.31)E-09$	$(8.65 \pm 0.81)E-09$	$(3.09 \pm 0.56)E-09$
HP-50 Tritium Facility Outfall	26	$(3.64 \pm 1.65)E-09$	$(8.12 \pm 0.79)E-09$	$(1.42 \pm 0.48)E-09$
Pen Branch				
IGB-21 800ft South of Rd. 6-1	4	$(8.39 \pm 4.21)E-10$	$(1.41 \pm 0.50)E-09$	$(4.02 \pm 5.08)E-10$
K-011 Outfall at B Road	52	$(1.71 \pm 0.63)E-09$	$(3.16 \pm 0.63)E-09$	$(2.32 \pm 4.30)E-10$
PB-3 at Road A-13.2	26	$(1.22 \pm 0.54)E-09$	$(2.86 \pm 0.57)E-09$	$(3.68 \pm 3.62)E-10$
Steel Creek				
SC-2A 1 mile above Road B	26	$(4.27 \pm 1.67)E-09$	$(9.78 \pm 0.87)E-09$	$(1.70 \pm 0.50)E-09$
SC-4 Steel Creek at Road A	26	$(1.49 \pm 0.55)E-09$	$(2.79 \pm 0.56)E-09$	$(6.88 \pm 4.42)E-10$
Lower Three Runs Creek				
L3R-1A at Road B	26	$(3.32 \pm 1.05)E-09$	$(5.46 \pm 0.71)E-09$	$(1.73 \pm 0.49)E-09$
L3R-2 Patterson Mill Rd	26	$(2.74 \pm 1.09)E-09$	$(5.33 \pm 0.74)E-09$	$(1.22 \pm 0.49)E-09$
L3R-3 at Highway 125	12	$(2.06 \pm 0.68)E-09$	$(3.43 \pm 0.80)E-09$	$(1.16 \pm 0.57)E-09$
R-Area Downstream of R-1	52	$(8.28 \pm 4.11)E-09$	$(2.42 \pm 0.13)E-08$	$(3.60 \pm 0.59)E-09$

Table 23
Radioactivity in Transport at Sample Points on Four Mile Creek

Page 1 of 1

Location	Tritium (Curies)		
	1991	1992	1993
FM3	6	5	4
FM1C	11	5	6
H-017			1
H-008	5	4	5
FM2	456	421	322
FM2B	1820	1480	1040
FM3A	6430	4100	5320
FMA7	14000	9840	8560
FM6	13300	8710	9000

Location	Total Strontium (MilliCuries)		
	1991	1992	1993
FM3	4	1	a
FM1C	3	1	a
H-017		7	1
FM2	51	42	26
FM2B	83	86	66
FM3A	4	1	a
FMA7	547	280	216
FM6	377	219	227

Description of Cesium-137 from Four Mile Creek (MilliCuries)

1993

160^b

a No activity quantified for year

b Amount of Cs-137 estimated in transport at FMA7 minus direct releases. This value is included in dose calculations and reflects previous releases to Four Mile Creek that were sorbed in the creek bed.

Table 24
Radioactivity in Savannah River Water

Page 1 of 4

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3 ($\mu\text{Ci/mL}$)				
Edisto River				
E-1 Edisto River, Aiken State Park	52	$(1.66 \pm 1.37)\text{E-07}$	$(4.39 \pm 2.98)\text{E-07}$	$(-1.83 \pm 1.15)\text{E-07}$
Savannah River				
River Mile 160	2	$(1.81 \pm 1.19)\text{E-07}$	$(2.65 \pm 1.41)\text{E-07}$	$(0.96 \pm 1.41)\text{E-07}$
R-2 (RM-160) above SRS	50	$(0.70 \pm 1.73)\text{E-07}$	$(7.26 \pm 3.52)\text{E-07}$	$(-2.08 \pm 1.39)\text{E-07}$
R-2 (monthly grab)	13	$(0.79 \pm 1.40)\text{E-07}$	$(2.97 \pm 1.09)\text{E-07}$	$(-1.80 \pm 1.39)\text{E-07}$
R-3A (RM-151) above Vogtle	52	$(2.82 \pm 3.36)\text{E-07}$	$(1.48 \pm 0.12)\text{E-06}$	$(-1.85 \pm 1.43)\text{E-07}$
Vogtle Discharge	19	$(8.77 \pm 8.63)\text{E-07}$	$(3.84 \pm 0.17)\text{E-06}$	$(-0.86 \pm 1.42)\text{E-07}$
River Mile 150	1	$(3.55 \pm 0.17)\text{E-06}$	$(3.55 \pm 0.17)\text{E-06}$	$(3.55 \pm 0.17)\text{E-06}$
R-3B (monthly grab)	13	$(1.72 \pm 3.95)\text{E-07}$	$(1.36 \pm 0.15)\text{E-06}$	$(-1.35 \pm 1.40)\text{E-07}$
R-3B (RM-150) below Vogtle	52	$(6.11 \pm 8.97)\text{E-07}$	$(5.69 \pm 0.17)\text{E-06}$	$(-1.47 \pm 1.41)\text{E-07}$
R-8A (RM-141) below Steel Crk	26	$(9.37 \pm 5.11)\text{E-07}$	$(1.92 \pm 0.15)\text{E-06}$	$(0.66 \pm 1.41)\text{E-07}$
R-8C (RM-134) below Little Hell	26	$(1.22 \pm 0.58)\text{E-06}$	$(2.33 \pm 0.34)\text{E-06}$	$(1.06 \pm 1.42)\text{E-07}$
River Mile 140	3	$(2.25 \pm 0.15)\text{E-06}$	$(2.39 \pm 0.16)\text{E-06}$	$(2.08 \pm 0.15)\text{E-06}$
River Mile 120 (monthly grab)	13	$(1.36 \pm 0.88)\text{E-06}$	$(3.83 \pm 0.13)\text{E-06}$	$(0.58 \pm 1.42)\text{E-07}$
River Mile 120	53	$(1.24 \pm 0.46)\text{E-06}$	$(2.32 \pm 0.33)\text{E-06}$	$(4.11 \pm 1.48)\text{E-07}$
S-35 ($\mu\text{Ci/mL}$)				
Savannah River				
River Mile 160	1	$(-2.57 \pm 4.74)\text{E-10}$	$(-2.57 \pm 4.74)\text{E-10}$	$(-2.57 \pm 4.74)\text{E-10}$
R-2 (RM-160) above SRS	12	$(1.10 \pm 1.90)\text{E-09}$	$(5.41 \pm 0.55)\text{E-09}$	$(-1.06 \pm 0.69)\text{E-09}$
Plant Vogtle	5	$(6.41 \pm 9.84)\text{E-10}$	$(2.02 \pm 0.45)\text{E-09}$	$(-7.18 \pm 4.95)\text{E-10}$
R-3B (RM-150) below Vogtle	12	$(4.86 \pm 9.77)\text{E-10}$	$(2.19 \pm 0.45)\text{E-09}$	$(-9.12 \pm 4.95)\text{E-10}$
River Mile 120	12	$(1.03 \pm 1.72)\text{E-09}$	$(5.32 \pm 0.55)\text{E-09}$	$(-8.70 \pm 8.21)\text{E-10}$
Sr-90, $\mu\text{Ci/mL}$				
Savannah River				
River Mile 160	1	$(9.06 \pm 5.24)\text{E-11}$	$(9.06 \pm 5.24)\text{E-11}$	$(9.06 \pm 5.24)\text{E-11}$
River Mile 160	1	$(1.97 \pm 2.67)\text{E-11}$	$(1.97 \pm 2.67)\text{E-11}$	$(1.97 \pm 2.67)\text{E-11}$
R-2 (RM-160) above SRS	12	$(0.60 \pm 1.13)\text{E-10}$	$(1.74 \pm 0.87)\text{E-10}$	$(-2.51 \pm 1.51)\text{E-10}$
R-2 (monthly grab)	12	$(7.09 \pm 7.40)\text{E-11}$	$(2.07 \pm 0.90)\text{E-10}$	$(-0.62 \pm 1.10)\text{E-10}$

Table 24
Radioactivity in Savannah River Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
R-3A (RM-151) above Vogtle	12	$(7.68 \pm 8.06)E-11$	$(2.41 \pm 1.35)E-10$	$(-1.42 \pm 8.62)E-11$
Plant Vogtle	5	$(1.35 \pm 1.29)E-10$	$(3.45 \pm 1.40)E-10$	$(0.51 \pm 8.82)E-11$
River Mile 150	1	$(0.04 \pm 2.22)E-10$	$(0.04 \pm 2.22)E-10$	$(0.04 \pm 2.22)E-10$
R-3B (RM-150) below Vogtle	12	$(1.20 \pm 0.73)E-10$	$(2.44 \pm 0.98)E-10$	$(0.17 \pm 9.92)E-11$
River Mile 140	1	$(5.43 \pm 8.48)E-11$	$(5.43 \pm 8.48)E-11$	$(5.43 \pm 8.48)E-11$
River Mile 120	12	$(1.24 \pm 0.60)E-10$	$(2.23 \pm 0.95)E-10$	$(0.09 \pm 1.22)E-10$
Pu-238, $\mu\text{Ci/mL}$				
Savannah River				
River Mile 160	1	$(-3.71 \pm 3.71)E-13$	$(-3.71 \pm 3.71)E-13$	$(-3.71 \pm 3.71)E-13$
R-2 (RM-160) above SRS	10	$(1.27 \pm 6.88)E-13$	$(0.86 \pm 1.92)E-12$	$(-1.18 \pm 0.62)E-12$
R-3A (RM-151) above Vogtle	12	$(3.25 \pm 8.76)E-13$	$(2.21 \pm 1.11)E-12$	$(-8.63 \pm 4.99)E-13$
Plant Vogtle	5	$(0.30 \pm 1.02)E-12$	$(1.21 \pm 0.86)E-12$	$(-1.40 \pm 0.66)E-12$
River Mile 150	1	$(6.56 \pm 6.56)E-13$	$(6.56 \pm 6.56)E-13$	$(6.56 \pm 6.56)E-13$
R-3B (RM-150) below Vogtle	12	$(1.37 \pm 6.35)E-13$	$(1.18 \pm 0.84)E-12$	$(-1.17 \pm 0.83)E-12$
River Mile 140	1	$(1.56 \pm 0.90)E-12$	$(1.56 \pm 0.90)E-12$	$(1.56 \pm 0.90)E-12$
River Mile 120	12	$(0.22 \pm 7.45)E-13$	$(1.74 \pm 1.05)E-12$	$(-1.08 \pm 0.62)E-12$
Pu-239, $\mu\text{Ci/mL}$				
Savannah River				
River Mile 160	1	$(-3.70 \pm 8.28)E-13$	$(-3.70 \pm 8.28)E-13$	$(-3.70 \pm 8.28)E-13$
R-2 (RM-160) above SRS	12	$(2.64 \pm 6.14)E-13$	$(9.85 \pm 5.21)E-13$	$(-0.83 \pm 2.20)E-12$
R-3A (RM-151) above Vogtle	11	$(4.01 \pm 6.10)E-13$	$(1.31 \pm 0.65)E-12$	$(-2.88 \pm 7.61)E-13$
Plant Vogtle	3	$(-1.51 \pm 4.92)E-13$	$(0.00 \pm 2.48)E-10$	$(-7.00 \pm 5.22)E-13$
River Mile 150	1	$(-0.65 \pm 1.13)E-12$	$(-0.65 \pm 1.13)E-12$	$(-0.65 \pm 1.13)E-12$
R-3B (RM-150) below Vogtle	9	$(1.06 \pm 6.52)E-13$	$(9.07 \pm 5.24)E-13$	$(-1.18 \pm 0.84)E-12$
River Mile 140	1	$(0.00 \pm 7.32)E-13$	$(0.00 \pm 7.32)E-13$	$(0.00 \pm 7.32)E-13$
River Mile 120	12	$(-0.47 \pm 1.05)E-12$	$(1.20 \pm 0.69)E-12$	$(-2.87 \pm 2.14)E-12$
Sr-89,90, $\mu\text{Ci/mL}$				
Savannah River				
R-8A (RM-141) below Steel Crk	12	$(0.94 \pm 5.09)E-10$	$(1.10 \pm 0.57)E-09$	$(-6.85 \pm 5.77)E-10$
R-8B (RM-141) below Steel Crk	12	$(3.58 \pm 4.10)E-10$	$(8.92 \pm 6.89)E-10$	$(-3.40 \pm 5.37)E-10$

Table 24
Radioactivity in Savannah River Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
R-8C (RM-134) below Little Hell	12	$(4.30 \pm 4.72)E-10$	$(1.34 \pm 0.72)E-09$	$(-2.79 \pm 4.53)E-10$
Gross A, $\mu\text{Ci/mL}$				
Edisto River				
E-1 Edisto River, Aiken State Park	51	$(1.06 \pm 0.49)E-09$	$(2.47 \pm 0.60)E-09$	$(2.72 \pm 2.14)E-10$
Savannah River				
River Mile 160	2	$(3.21 \pm 2.53)E-10$	$(5.00 \pm 3.95)E-10$	$(1.42 \pm 3.17)E-10$
R-2 (RM-160) above SRS	50	$(0.39 \pm 2.00)E-10$	$(5.86 \pm 3.61)E-10$	$(-2.86 \pm 2.56)E-10$
R-2 (monthly grab)	13	$(2.51 \pm 3.35)E-10$	$(1.00 \pm 0.37)E-09$	$(-1.62 \pm 1.55)E-10$
R-3A (RM-151) above Vogtle	52	$(0.73 \pm 2.01)E-10$	$(6.93 \pm 3.72)E-10$	$(-2.06 \pm 1.95)E-10$
Vogtle Discharge	19	$(1.27 \pm 3.47)E-10$	$(9.61 \pm 6.30)E-10$	$(-2.32 \pm 2.06)E-10$
River Mile 150	1	$(5.29 \pm 4.36)E-10$	$(5.29 \pm 4.36)E-10$	$(5.29 \pm 4.36)E-10$
R-3B (monthly grab)	13	$(2.50 \pm 3.69)E-10$	$(9.40 \pm 7.07)E-10$	$(-1.86 \pm 1.76)E-10$
R-3B (RM-150) below Vogtle	52	$(1.11 \pm 1.79)E-10$	$(5.14 \pm 2.96)E-10$	$(-1.99 \pm 1.80)E-10$
R-8A (RM-141) below Steel Crk	26	$(0.55 \pm 2.03)E-10$	$(5.68 \pm 3.08)E-10$	$(-1.83 \pm 1.63)E-10$
R-8B (RM-141) below Steel Crk	26	$(0.35 \pm 2.25)E-10$	$(5.94 \pm 4.07)E-10$	$(-2.70 \pm 2.41)E-10$
R-8C (RM-134) below Little Hell 26	26	$(0.60 \pm 2.05)E-10$	$(4.05 \pm 2.70)E-10$	$(-1.83 \pm 1.63)E-10$
River Mile 140	3	$(0.95 \pm 2.23)E-10$	$(3.53 \pm 3.95)E-10$	$(-0.35 \pm 2.71)E-10$
River Mile 120 (monthly grab)	13	$(1.55 \pm 2.90)E-10$	$(7.05 \pm 4.36)E-10$	$(-1.92 \pm 1.59)E-10$
River Mile 120	53	$(0.09 \pm 1.44)E-10$	$(3.25 \pm 3.42)E-10$	$(-2.91 \pm 2.61)E-10$
Gross B, $\mu\text{Ci/mL}$				
Edisto River				
E-1 Edisto River, Aiken State Park	51	$(1.40 \pm 0.49)E-09$	$(2.68 \pm 0.57)E-09$	$(0.58 \pm 4.50)E-10$
Savannah River				
River Mile 160	2	$(1.77 \pm 0.66)E-09$	$(2.24 \pm 0.58)E-09$	$(1.30 \pm 0.53)E-09$
R-2 (RM-160) above SRS	50	$(1.72 \pm 0.63)E-09$	$(3.17 \pm 0.78)E-09$	$(3.93 \pm 4.97)E-10$
R-2 (monthly grab)	13	$(1.77 \pm 0.69)E-09$	$(2.85 \pm 0.69)E-09$	$(9.91 \pm 5.20)E-10$
R-3A (RM-151) above Vogtle	52	$(1.78 \pm 0.67)E-09$	$(3.29 \pm 0.66)E-09$	$(5.95 \pm 4.36)E-10$
Vogtle Discharge	19	$(2.57 \pm 0.85)E-09$	$(4.36 \pm 0.69)E-09$	$(1.53 \pm 0.54)E-09$

Table 24
Radioactivity in Savannah River Water

Page 4 of 4

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
River Mile 150	1	$(3.53 \pm 0.64)E-09$	$(3.53 \pm 0.64)E-09$	$(3.53 \pm 0.64)E-09$
R-3B (monthly grab)	13	$(1.88 \pm 0.39)E-09$	$(2.70 \pm 0.62)E-09$	$(1.35 \pm 0.45)E-09$
R-3B (RM-150) below Vogtle	52	$(1.85 \pm 0.50)E-09$	$(3.41 \pm 0.61)E-09$	$(9.01 \pm 5.28)E-10$
R-8A (RM-141) below Steel Crk	26	$(1.77 \pm 0.50)E-09$	$(2.89 \pm 0.63)E-09$	$(8.65 \pm 4.52)E-10$
R-8B (RM-141) below Steel Crk	26	$(1.72 \pm 0.59)E-09$	$(2.69 \pm 0.63)E-09$	$(6.22 \pm 4.60)E-10$
R-8C (RM-134) below Little Hell	26	$(1.71 \pm 0.63)E-09$	$(2.97 \pm 0.66)E-09$	$(7.22 \pm 4.17)E-10$
River Mile 140	3	$(2.24 \pm 1.38)E-09$	$(3.82 \pm 0.66)E-09$	$(1.30 \pm 0.49)E-09$
River Mile 120 (monthly grab)	13	$(1.92 \pm 0.55)E-09$	$(2.89 \pm 0.59)E-09$	$(8.81 \pm 5.42)E-10$
River Mile 120	53	$(1.76 \pm 0.51)E-09$	$(3.12 \pm 0.63)E-09$	$(9.59 \pm 5.28)E-10$

Table 25
Summary of SRS Tritium Transport, 1960-1993

Page 1 of 1

Year	Estimated Tritium Transport (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	62,800	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
1993	11,300	12,700	12,200

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 26
Radioactivity in Drinking Water

Page 1 of 9

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, $\mu\text{Ci/mL}$				
On Site				
105-C C-Area Dom. Water Faucet	12	$(-1.24 \pm 1.43)\text{E-07}$	$(0.86 \pm 1.21)\text{E-07}$	$(-3.59 \pm 1.37)\text{E-07}$
105-K K-Area Dom. Water Faucet	12	$(-0.51 \pm 2.17)\text{E-07}$	$(2.56 \pm 1.53)\text{E-07}$	$(-3.66 \pm 1.41)\text{E-07}$
105-L L-Area Dom. Water Faucet	12	$(-1.13 \pm 1.28)\text{E-07}$	$(1.20 \pm 1.11)\text{E-07}$	$(-3.40 \pm 1.37)\text{E-07}$
105-P P-Area Dom. Water Faucet	12	$(2.11 \pm 4.17)\text{E-07}$	$(1.39 \pm 0.15)\text{E-06}$	$(-1.85 \pm 1.37)\text{E-07}$
221-F F-Area Dom. Water Faucet	12	$(-1.46 \pm 0.89)\text{E-07}$	$(-0.07 \pm 1.43)\text{E-07}$	$(-3.21 \pm 1.40)\text{E-07}$
221-H H-Area Dom. Water Faucet	12	$(-1.80 \pm 1.53)\text{E-07}$	$(0.37 \pm 1.54)\text{E-07}$	$(-4.19 \pm 1.37)\text{E-07}$
241-24H H-Area Dom. Water Faucet	4	$(-1.44 \pm 1.00)\text{E-07}$	$(-0.53 \pm 1.09)\text{E-07}$	$(-2.84 \pm 1.44)\text{E-07}$
617-G Wackenhut Training Facility	4	$(9.74 \pm 2.07)\text{E-07}$	$(1.26 \pm 0.13)\text{E-06}$	$(7.70 \pm 1.44)\text{E-07}$
618-G Class. Yard Lunchroom	4	$(-1.83 \pm 1.12)\text{E-07}$	$(-0.51 \pm 1.21)\text{E-07}$	$(-2.77 \pm 1.37)\text{E-07}$
661-G Firing Range (pumphouse)	4	$(9.38 \pm 1.65)\text{E-07}$	$(1.11 \pm 0.15)\text{E-06}$	$(7.50 \pm 1.42)\text{E-07}$
679-T TNX Dom. Water Faucet	4	$(-2.64 \pm 1.18)\text{E-07}$	$(-1.45 \pm 1.47)\text{E-07}$	$(-4.24 \pm 1.35)\text{E-07}$
681-1G Dom. Water Faucet	2	$(-1.65 \pm 0.65)\text{E-07}$	$(-1.19 \pm 1.20)\text{E-07}$	$(-2.11 \pm 1.44)\text{E-07}$
681-3G Dom. Water Faucet	4	$(-6.35 \pm 8.34)\text{E-08}$	$(0.29 \pm 1.21)\text{E-07}$	$(-1.57 \pm 1.37)\text{E-07}$
701-12G Patrol Gate 7	4	$(-2.65 \pm 4.46)\text{E-08}$	$(0.40 \pm 1.39)\text{E-07}$	$(-0.53 \pm 1.21)\text{E-07}$
701-13G Patrol Gate 6	4	$(2.53 \pm 0.15)\text{E-06}$	$(2.71 \pm 0.14)\text{E-06}$	$(2.40 \pm 0.16)\text{E-06}$
701-1F F-Area Dom. Water Faucet	4	$(-1.72 \pm 1.11)\text{E-07}$	$(-0.53 \pm 1.21)\text{E-07}$	$(-2.92 \pm 1.36)\text{E-07}$
701-1H H-Area Dom. Water Faucet	4	$(-2.23 \pm 1.71)\text{E-07}$	$(0.18 \pm 1.21)\text{E-07}$	$(-3.76 \pm 1.36)\text{E-07}$
701-3G Barnwell Gate	3	$(-1.74 \pm 0.69)\text{E-07}$	$(-1.29 \pm 1.38)\text{E-07}$	$(-2.53 \pm 1.19)\text{E-07}$
701-4G Williston Gate	4	$(-1.33 \pm 0.44)\text{E-07}$	$(-0.81 \pm 1.37)\text{E-07}$	$(-1.77 \pm 1.38)\text{E-07}$
701-5G Talatha Gate	4	$(5.02 \pm 0.82)\text{E-07}$	$(5.96 \pm 1.25)\text{E-07}$	$(4.14 \pm 1.40)\text{E-07}$
701-6G Jackson Gate	4	$(-2.03 \pm 1.50)\text{E-07}$	$(0.20 \pm 1.47)\text{E-07}$	$(-3.08 \pm 1.38)\text{E-07}$
701-8G Patrol Gate 8	4	$(2.16 \pm 0.06)\text{E-06}$	$(2.21 \pm 0.16)\text{E-06}$	$(2.10 \pm 0.15)\text{E-06}$
703-A EOC (kitchen)	4	$(-1.89 \pm 1.45)\text{E-07}$	$(0.21 \pm 1.47)\text{E-07}$	$(-3.14 \pm 1.37)\text{E-07}$

Table 26
Radioactivity in Drinking Water

Page 2 of 9

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
704-F F-Area Dom. Water Faucet	4	(0.01 $\pm$ 1.29)E-07	(1.15 $\pm$ 1.52)E-07	(-1.83 $\pm$ 1.39)E-07
704-H H-Area Dom. Water Faucet	4	(-0.16 $\pm$ 1.60)E-07	(1.73 $\pm$ 1.53)E-07	(-2.18 $\pm$ 1.39)E-07
704-S S-Area Dom. Water Faucet	4	(-0.79 $\pm$ 2.06)E-07	(1.94 $\pm$ 1.48)E-07	(-2.46 $\pm$ 1.36)E-07
708-A A-Area Cafeteria	4	(-1.71 $\pm$ 1.66)E-07	(0.00 $\pm$ 1.46)E-07	(-3.63 $\pm$ 1.36)E-07
735-7G Par Pond Lab	3	(-1.68 $\pm$ 1.16)E-07	(-0.96 $\pm$ 1.46)E-07	(-3.02 $\pm$ 1.39)E-07
760-G Forestry Building	4	(8.03 $\pm$ 1.97)E-07	(1.04 $\pm$ 0.15)E-06	(6.38 $\pm$ 1.41)E-07
772-F F-Area Dom. Water Faucet	4	(-1.29 $\pm$ 1.10)E-07	(-0.58 $\pm$ 1.09)E-07	(-2.93 $\pm$ 1.39)E-07
Central Shops 690-G Ford Building	4	(-1.52 $\pm$ 1.25)E-07	(-0.40 $\pm$ 1.37)E-07	(-2.86 $\pm$ 1.36)E-07
TC-1 B-Area Cafeteria	4	(-1.60 $\pm$ 1.82)E-07	(0.62 $\pm$ 1.48)E-07	(-3.29 $\pm$ 1.36)E-07
Z-Area Building 704-Z	4	(-1.83 $\pm$ 0.81)E-07	(-0.78 $\pm$ 1.46)E-07	(-2.74 $\pm$ 1.37)E-07
Surrounding Towns				
Aiken SC, Post Office	2	(1.08 $\pm$ 0.28)E-07	(1.28 $\pm$ 1.48)E-07	(0.88 $\pm$ 1.41)E-07
Allendale SC, Post Office	2	(-1.84 $\pm$ 0.02)E-07	(-1.82 $\pm$ 1.41)E-07	(-1.85 $\pm$ 1.45)E-07
Augusta GA, Post Office (8th St.)	2	(-3.61 $\pm$ 1.36)E-08	(-0.27 $\pm$ 1.46)E-07	(-0.46 $\pm$ 1.40)E-07
Barnwell SC, Post Office	2	(-2.43 $\pm$ 0.61)E-07	(-2.00 $\pm$ 1.40)E-07	(-2.86 $\pm$ 1.46)E-07
Bath SC, Post Office	2	(1.05 $\pm$ 0.90)E-07	(1.68 $\pm$ 1.43)E-07	(0.41 $\pm$ 1.47)E-07
Blackville SC, Post Office	2	(1.16 $\pm$ 2.85)E-08	(0.32 $\pm$ 1.46)E-07	(-0.09 $\pm$ 1.41)E-07
Clearwater SC, Post Office	2	(2.28 $\pm$ 0.88)E-07	(2.90 $\pm$ 1.44)E-07	(1.66 $\pm$ 1.49)E-07
Jackson SC, Post Office	2	(4.15 $\pm$ 1.90)E-07	(5.49 $\pm$ 1.51)E-07	(2.81 $\pm$ 1.41)E-07
Langley SC, Post Office	2	(-1.23 $\pm$ 1.09)E-07	(-0.46 $\pm$ 1.46)E-07	(-2.00 $\pm$ 1.39)E-07
N. Augusta SC, Post Office	2	(-1.30 $\pm$ 0.99)E-07	(-0.61 $\pm$ 1.39)E-07	(-2.00 $\pm$ 1.47)E-07
New Ellenton SC, Post Office	2	(1.80 $\pm$ 2.11)E-07	(3.30 $\pm$ 1.50)E-07	(0.31 $\pm$ 1.42)E-07
ORA Site, ORA Building	2	(-1.17 $\pm$ 0.69)E-07	(-0.69 $\pm$ 1.45)E-07	(-1.66 $\pm$ 1.39)E-07
Sardis GA, Post Office (Farm St.)	2	(-2.69 $\pm$ 3.56)E-08	(-0.02 $\pm$ 1.47)E-07	(-0.52 $\pm$ 1.39)E-07
Talatha SC, Tap Near Water Tank	2	(1.64 $\pm$ 1.00)E-07	(2.34 $\pm$ 1.48)E-07	(0.93 $\pm$ 1.41)E-07
Waynesboro GA, Post Office	2	(-0.13 $\pm$ 2.05)E-07	(1.32 $\pm$ 1.41)E-07	(-1.58 $\pm$ 1.46)E-07
Williston SC, Post Office	2	(0.43 $\pm$ 1.53)E-07	(1.51 $\pm$ 1.45)E-07	(-0.65 $\pm$ 1.46)E-07

Table 26
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Drinking Water from Water Treatment Plants				
Beaufort Finished	12	$(7.12 \pm 4.63)E-07$	$(1.25 \pm 0.12)E-06$	$(-0.03 \pm 1.20)E-07$
Beaufort Raw	12	$(7.24 \pm 4.25)E-07$	$(1.38 \pm 0.12)E-06$	$(1.11 \pm 1.21)E-07$
D-Area Finished	12	$(-0.17 \pm 2.18)E-07$	$(2.95 \pm 1.49)E-07$	$(-2.98 \pm 1.37)E-07$
D-Area Raw	12	$(1.93 \pm 1.35)E-07$	$(3.81 \pm 1.51)E-07$	$(-0.87 \pm 1.52)E-07$
N. Augusta Finished	12	$(0.40 \pm 1.03)E-07$	$(2.20 \pm 1.22)E-07$	$(-1.17 \pm 1.53)E-07$
N. Augusta Raw	12	$(0.32 \pm 1.82)E-07$	$(1.92 \pm 1.11)E-07$	$(-4.52 \pm 1.51)E-07$
Savannah Finished	12	$(9.67 \pm 2.48)E-07$	$(1.35 \pm 0.12)E-06$	$(6.02 \pm 1.51)E-07$
Savannah Raw	12	$(9.83 \pm 3.42)E-07$	$(1.35 \pm 0.15)E-06$	$(4.19 \pm 1.50)E-07$
EMS Sampler				
Beaufort Raw	22	$(7.75 \pm 4.58)E-07$	$(1.37 \pm 0.15)E-06$	$(0.51 \pm 1.55)E-07$
Sr-90, $\mu\text{Ci/mL}$				
On Site^a				
105-L L-Area Dom. Water Faucet	1	$(-2.43 \pm 3.92)E-10$		
221-F F-Area Dom. Water Faucet	1	$(1.28 \pm 4.35)E-10$		
221-H H-Area Dom. Water Faucet	1	$(6.40 \pm 4.64)E-10$		
617-G Wackenhut Training Facility	1	$(-2.56 \pm 4.49)E-10$		
681-1G Dom. Water Faucet	1	$(1.11 \pm 4.61)E-10$		
701-1H H-Area Dom. Water Faucet	1	$(-2.32 \pm 4.52)E-10$		
701-5G Taiatha Gate	1	$(4.00 \pm 4.21)E-10$		
703-A EOC (kitchen)	1	$(2.35 \pm 5.26)E-10$		
704-H H-Area Dom. Water Faucet	1	$(-1.21 \pm 6.33)E-10$		
704-S S-Area Dom. Water Faucet	1	$(-3.40 \pm 4.49)E-10$		
735-7G Par Pond Lab	1	$(-3.31 \pm 3.99)E-10$		
Central Shops 690-G Ford Building	1	$(-2.28 \pm 4.27)E-10$		
TC-1 B-Area Cafeteria	1	$(-0.03 \pm 4.42)E-10$		

a Annual result reported in arithmetic mean column

Table 26
Radioactivity in Drinking Water

Page 4 of 9

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Surrounding Towns^a				
Aiken SC, Post Office	1	(8.35 $\pm$ 5.03)E-10		
Allendale SC, Post Office	1	(3.56 $\pm$ 9.76)E-10		
Augusta GA, Post Office (8th St.)	1	(-0.95 $\pm$ 5.52)E-10		
Barnwell SC, Post Office	1	(-0.23 $\pm$ 6.75)E-10		
Bath SC, Post Office	1	(9.17 $\pm$ 6.17)E-10		
Blackville SC, Post Office	1	(4.16 $\pm$ 5.77)E-10		
Clearwater SC, Post Office	1	(1.12 $\pm$ 6.32)E-10		
Jackson SC, Post Office	1	(-0.75 $\pm$ 2.47)E-09		
Langley SC, Post Office	1	(-7.28 $\pm$ 7.71)E-10		
N. Augusta SC, Post Office	1	(-2.76 $\pm$ 5.34)E-10		
New Ellenton SC, Post Office	1	(5.84 $\pm$ 5.26)E-10		
ORA Site, ORA Building	1	(-2.60 $\pm$ 5.76)E-10		
Sardis GA, Post Office (Farm St.)	1	(-4.47 $\pm$ 7.30)E-10		
Talatha SC, Tap Near Water Tank	1	(-2.06 $\pm$ 5.90)E-10		
Waynesboro GA, Post Office	1	(3.67 $\pm$ 8.05)E-10		
Williston SC, Post Office	1	(7.22 $\pm$ 5.19)E-10		
Drinking Water from Water Treatment Plants^a				
Beaufort Finished	1	(4.44 $\pm$ 5.88)E-10		
Beaufort Raw	1	(2.77 $\pm$ 4.34)E-10		
D-Area Finished	1	(-3.60 $\pm$ 6.16)E-10		
D-Area Raw	1	(2.49 $\pm$ 5.13)E-10		
N. Augusta Finished	1	(2.01 $\pm$ 5.20)E-10		
N. Augusta Raw	1	(3.88 $\pm$ 5.43)E-10		
Savannah Finished	1	(1.41 $\pm$ 4.85)E-10		
Savannah Raw	1	(-2.77 $\pm$ 5.28)E-10		
Gross A, $\mu\text{Ci/mL}$				
On Site				
105-C C-Area Dom. Water Faucet	12	(4.96 $\pm$ 5.18)E-10	(1.92 $\pm$ 0.48)E-09	(-0.05 $\pm$ 1.78)E-

^a Annual result reported in arithmetic mean column

Table 26
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
105-K K-Area Dom. Water Faucet	12	$(4.38 \pm 4.91)E-10$	$(1.24 \pm 0.44)E-09$	$(-1.66 \pm 1.37)E-$
105-L L-Area Dom. Water Faucet	12	$(4.83 \pm 3.01)E-10$	$(9.99 \pm 4.51)E-10$	$(-0.07 \pm 1.89)E-$
105-P P-Area Dom. Water Faucet	12	$(6.22 \pm 6.62)E-10$	$(2.11 \pm 0.53)E-09$	$(-0.07 \pm 1.65)E-$
221-F F-Area Dom. Water Faucet	12	$(3.84 \pm 1.35)E-09$	$(6.12 \pm 1.22)E-09$	$(1.83 \pm 0.74)E-0$
221-H H-Area Dom. Water Faucet	12	$(3.26 \pm 2.05)E-09$	$(7.44 \pm 1.21)E-09$	$(6.49 \pm 3.82)E-1$
241-24H H-Area Dom. Water Faucet	4	$(4.17 \pm 3.04)E-09$	$(8.41 \pm 1.14)E-09$	$(1.48 \pm 0.58)E-09$
617-G Wackenhut Training Facility	4	$(2.21 \pm 0.60)E-09$	$(2.86 \pm 0.56)E-09$	$(1.60 \pm 0.46)E-09$
618-G Class. Yard Lunch-room	4	$(1.48 \pm 0.45)E-09$	$(1.73 \pm 0.55)E-09$	$(8.01 \pm 6.71)E-10$
661-G Firing Range (pumphouse)	4	$(2.37 \pm 1.50)E-09$	$(3.78 \pm 0.60)E-09$	$(2.66 \pm 5.82)E-10$
679-T TNX Dom. Water Faucet	4	$(2.16 \pm 1.88)E-09$	$(4.42 \pm 2.10)E-09$	$(3.95 \pm 5.72)E-10$
681-1G Dom. Water Faucet	2	$(9.07 \pm 2.84)E-10$	$(1.11 \pm 0.43)E-09$	$(7.06 \pm 3.83)E-10$
681-3G Dom. Water Faucet	4	$(1.19 \pm 0.18)E-09$	$(1.36 \pm 0.47)E-09$	$(9.73 \pm 3.92)E-10$
701-12G Patrol Gate 7	4	$(5.20 \pm 4.70)E-10$	$(1.21 \pm 0.40)E-09$	$(1.54 \pm 2.83)E-10$
701-13G Patrol Gate 6	4	$(1.58 \pm 0.43)E-09$	$(1.95 \pm 0.48)E-09$	$(1.04 \pm 0.38)E-09$
701-1F F-Area Dom. Water Faucet	4	$(3.43 \pm 1.18)E-09$	$(5.11 \pm 1.38)E-09$	$(2.45 \pm 0.41)E-09$
701-1H H-Area Dom. Water Faucet	4	$(3.90 \pm 2.15)E-09$	$(5.41 \pm 0.90)E-09$	$(7.15 \pm 4.43)E-10$
701-3G Barnwell Gate	3	$(1.68 \pm 2.43)E-10$	$(4.42 \pm 2.85)E-10$	$(-0.23 \pm 1.85)E-10$
701-4G Williston Gate	4	$(0.39 \pm 1.90)E-10$	$(3.12 \pm 2.45)E-10$	$(-1.27 \pm 1.15)E-10$
701-5G Talatha Gate	4	$(1.32 \pm 0.10)E-08$	$(1.46 \pm 0.12)E-08$	$(1.23 \pm 0.12)E-08$
701-6G Jackson Gate	4	$(2.82 \pm 0.45)E-09$	$(3.43 \pm 0.61)E-09$	$(2.46 \pm 0.51)E-09$
701-8G Patrol Gate 8	4	$(6.68 \pm 5.52)E-10$	$(1.38 \pm 0.49)E-09$	$(2.03 \pm 2.06)E-10$
703-A EOC (kitchen)	4	$(9.98 \pm 6.18)E-10$	$(1.59 \pm 0.54)E-09$	$(3.70 \pm 3.04)E-10$
704-F F-Area Dom. Water Faucet	4	$(2.54 \pm 1.27)E-09$	$(3.77 \pm 0.59)E-09$	$(1.03 \pm 0.55)E-09$
704-H H-Area Dom. Water Faucet	4	$(2.78 \pm 1.62)E-09$	$(4.32 \pm 0.75)E-09$	$(5.03 \pm 5.62)E-10$

Table 26
Radioactivity in Drinking Water

Page 6 of 9

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
704-S S-Area Dom. Water Faucet	4	$(3.23 \pm 0.30)E-09$	$(3.51 \pm 0.69)E-09$	$(2.86 \pm 0.60)E-09$
708-A A-Area Cafe (restroom)	4	$(1.23 \pm 0.41)E-09$	$(1.62 \pm 0.80)E-09$	$(8.07 \pm 5.21)E-10$
735-7G Par Pond Lab	3	$(4.75 \pm 5.43)E-09$	$(1.09 \pm 0.14)E-08$	$(5.15 \pm 4.68)E-10$
760-G Forestry Building	4	$(2.68 \pm 0.95)E-09$	$(4.03 \pm 0.73)E-09$	$(2.00 \pm 0.48)E-09$
772-F F-Area Dom. Water Faucet	4	$(3.68 \pm 1.46)E-09$	$(5.82 \pm 1.11)E-09$	$(2.60 \pm 0.86)E-09$
Central Shops 690-G Ford Building	4	$(0.50 \pm 3.03)E-10$	$(3.38 \pm 3.58)E-10$	$(-3.40 \pm 3.28)E-10$
TC-1 B-Area Cafeteria	4	$(1.17 \pm 0.50)E-09$	$(1.68 \pm 0.51)E-09$	$(5.40 \pm 4.92)E-10$
Z-Area Building 704-Z	4	$(2.77 \pm 1.41)E-09$	$(4.13 \pm 0.78)E-09$	$(1.07 \pm 0.40)E-09$
Surrounding Towns				
Aiken SC, Post Office	2	$(1.40 \pm 0.40)E-09$	$(1.69 \pm 0.53)E-09$	$(1.12 \pm 0.36)E-09$
Allendale SC, Post Office	2	$(-1.51 \pm 2.39)E-10$	$(0.17 \pm 4.97)E-10$	$(-3.20 \pm 2.90)E-10$
Augusta GA, Post Office (8th St.)	2	$(0.10 \pm 1.82)E-10$	$(1.39 \pm 2.57)E-10$	$(-1.19 \pm 1.06)E-10$
Barnwell SC, Post Office	2	$(0.87 \pm 1.33)E-10$	$(1.82 \pm 2.04)E-10$	$(-0.07 \pm 2.58)E-10$
Bath SC, Post Office	2	$(1.32 \pm 0.74)E-09$	$(1.84 \pm 0.55)E-09$	$(7.95 \pm 2.82)E-10$
Blackville SC, Post Office	2	$(1.94 \pm 0.58)E-10$	$(2.34 \pm 4.97)E-10$	$(1.53 \pm 3.34)E-10$
Clearwater SC, Post Office	2	$(1.16 \pm 0.10)E-09$	$(1.23 \pm 0.75)E-09$	$(1.09 \pm 1.22)E-09$
Jackson SC, Post Office	2	$(2.88 \pm 1.79)E-09$	$(4.15 \pm 0.94)E-09$	$(1.62 \pm 0.49)E-09$
Langley SC, Post Office	2	$(1.81 \pm 1.47)E-09$	$(2.84 \pm 0.61)E-09$	$(7.68 \pm 2.58)E-10$
N. Augusta SC, Post Office	2	$(-8.31 \pm 8.79)E-11$	$(-0.21 \pm 1.66)E-10$	$(-1.45 \pm 1.42)E-10$
New Ellenton SC, Post Office	2	$(6.42 \pm 4.34)E-10$	$(9.48 \pm 3.86)E-10$	$(3.35 \pm 2.18)E-10$
ORA Site, ORA Building	2	$(6.69 \pm 6.47)E-10$	$(1.13 \pm 0.41)E-09$	$(2.12 \pm 1.70)E-10$
Sardis GA, Post Office (Farm St.)	2	$(-4.01 \pm 4.11)E-10$	$(-1.10 \pm 8.79)E-10$	$(-6.92 \pm 4.89)E-10$
Talatha SC, Tap Near Water Tank	2	$(3.98 \pm 2.33)E-10$	$(5.63 \pm 3.51)E-10$	$(2.33 \pm 1.88)E-10$
Waynesboro GA, Post Office	2	$(6.74 \pm 5.84)E-10$	$(1.09 \pm 1.22)E-09$	$(2.61 \pm 4.69)E-10$
Williston SC, Post Office	2	$(4.14 \pm 6.06)E-10$	$(8.42 \pm 4.14)E-10$	$(-0.14 \pm 3.79)E-10$
Drinking Water from Water Treatment Plants				
Beaufort Finished	12	$(0.47 \pm 2.14)E-10$	$(5.15 \pm 4.23)E-10$	$(-2.47 \pm 2.01)E-10$
Beaufort Raw	12	$(1.88 \pm 1.94)E-10$	$(5.49 \pm 2.67)E-10$	$(-0.44 \pm 3.28)E-10$
D-Area Finished	12	$(-0.34 \pm 3.05)E-10$	$(7.48 \pm 5.61)E-10$	$(-2.91 \pm 2.54)E-10$

Table 26
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
D-Area Raw	12	$(0.65 \pm 1.07)E-10$	$(2.16 \pm 2.43)E-10$	$(-0.44 \pm 1.98)E-10$
N. Augusta Finished	12	$(0.11 \pm 1.11)E-10$	$(2.21 \pm 2.48)E-10$	$(-1.69 \pm 1.47)E-10$
N. Augusta Raw	12	$(0.25 \pm 1.37)E-10$	$(1.02 \pm 2.18)E-10$	$(-1.69 \pm 1.53)E-10$
Savannah Finished	12	$(1.04 \pm 2.17)E-10$	$(5.00 \pm 5.68)E-10$	$(-2.29 \pm 1.93)E-10$
Savannah Raw	12	$(1.36 \pm 2.39)E-10$	$(6.12 \pm 2.99)E-10$	$(-1.22 \pm 1.18)E-10$
EMS Sampler				
Beaufort Raw	22	$(1.62 \pm 2.16)E-10$	$(5.66 \pm 3.64)E-10$	$(-2.29 \pm 1.87)E-10$
Gross B, $\mu\text{Ci/mL}$				
On Site				
105-C C-Area Dom. Water Faucet	12	$(9.17 \pm 3.71)E-10$	$(1.54 \pm 0.49)E-09$	$(3.69 \pm 4.12)E-10$
105-K K-Area Dom. Water Faucet	12	$(3.24 \pm 1.32)E-09$	$(5.46 \pm 0.64)E-09$	$(1.74 \pm 0.51)E-09$
105-L L-Area Dom. Water Faucet	12	$(1.38 \pm 0.36)E-09$	$(1.93 \pm 0.54)E-09$	$(6.24 \pm 4.58)E-10$
105-P P-Area Dom. Water Faucet	12	$(2.05 \pm 0.74)E-09$	$(4.03 \pm 0.72)E-09$	$(1.33 \pm 0.43)E-09$
221-F F-Area Dom. Water Faucet	12	$(3.96 \pm 1.21)E-09$	$(6.49 \pm 0.74)E-09$	$(1.71 \pm 0.56)E-09$
221-H H-Area Dom. Water Faucet	12	$(3.98 \pm 1.10)E-09$	$(5.35 \pm 0.68)E-09$	$(2.38 \pm 0.58)E-09$
241-24H H-Area Dom. Water Faucet	4	$(4.75 \pm 1.75)E-09$	$(7.14 \pm 0.75)E-09$	$(3.12 \pm 0.55)E-09$
617-G Wackenhut Training Facility	4	$(1.60 \pm 0.57)E-09$	$(2.29 \pm 0.53)E-09$	$(9.36 \pm 4.43)E-10$
618-G Class. Yard Lunchroom	4	$(1.69 \pm 0.34)E-09$	$(2.07 \pm 0.62)E-09$	$(1.25 \pm 0.85)E-09$
661-G Firing Range (pumphouse)	4	$(1.56 \pm 0.80)E-09$	$(2.23 \pm 0.50)E-09$	$(4.03 \pm 5.72)E-10$
679-T TNX Dom. Water Faucet	4	$(4.09 \pm 0.46)E-09$	$(4.59 \pm 0.68)E-09$	$(3.55 \pm 0.62)E-09$
681-1G Dom. Water Faucet	2	$(3.64 \pm 0.56)E-09$	$(4.03 \pm 0.72)E-09$	$(3.24 \pm 0.59)E-09$
681-3G Dom. Water Faucet	4	$(3.45 \pm 0.40)E-09$	$(3.72 \pm 0.66)E-09$	$(2.86 \pm 0.57)E-09$
701-12G Patrol Gate 7	4	$(1.42 \pm 0.54)E-09$	$(2.17 \pm 0.59)E-09$	$(9.41 \pm 5.42)E-10$
701-13G Patrol Gate 6	4	$(1.50 \pm 0.56)E-09$	$(2.00 \pm 0.58)E-09$	$(7.28 \pm 4.27)E-10$
701-1F F-Area Dom. Water Faucet	4	$(5.21 \pm 1.21)E-09$	$(6.47 \pm 0.53)E-09$	$(4.00 \pm 0.68)E-09$

Table 26
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
701-1H H-Area Dom. Water Faucet	4	(5.02 $\pm$ 2.22)E-09	(6.82 $\pm$ 0.75)E-09	(2.17 $\pm$ 0.60)E-09
701-3G Barnwell Gate	3	(3.70 $\pm$ 1.86)E-10	(4.86 $\pm$ 4.27)E-10	(1.56 $\pm$ 4.82)E-10
701-4G Williston Gate	4	(1.26 $\pm$ 1.72)E-10	(2.80 $\pm$ 4.70)E-10	(-0.73 $\pm$ 4.01)E-10
701-5G Talatha Gate	4	(7.39 $\pm$ 1.89)E-09	(8.92 $\pm$ 0.79)E-09	(4.94 $\pm$ 0.63)E-09
701-6G Jackson Gate	4	(2.47 $\pm$ 0.33)E-09	(2.86 $\pm$ 0.60)E-09	(2.16 $\pm$ 0.50)E-09
701-8G Patrol Gate 8	4	(1.40 $\pm$ 1.06)E-09	(2.92 $\pm$ 0.66)E-09	(6.76 $\pm$ 4.36)E-10
703-A EOC (kitchen)	4	(1.17 $\pm$ 0.43)E-09	(1.62 $\pm$ 0.52)E-09	(7.03 $\pm$ 4.68)E-10
704-F F-Area Dom. Water Faucet	4	(3.36 $\pm$ 1.67)E-09	(5.69 $\pm$ 0.50)E-09	(2.01 $\pm$ 0.56)E-09
704-H H-Area Dom. Water Faucet	4	(6.77 $\pm$ 3.79)E-09	(1.19 $\pm$ 0.10)E-08	(3.59 $\pm$ 0.51)E-09
704-S S-Area Dom. Water Faucet	4	(3.77 $\pm$ 0.55)E-09	(4.29 $\pm$ 0.68)E-09	(3.12 $\pm$ 0.56)E-09
708-A A-Area Cafeteria (restroom)	4	(1.03 $\pm$ 0.16)E-09	(1.21 $\pm$ 0.59)E-09	(8.81 $\pm$ 4.76)E-10
735-7G Par Pond Lab	3	(2.99 $\pm$ 4.19)E-09	(7.72 $\pm$ 0.83)E-09	(-2.62 $\pm$ 4.70)E-10
760-G Forestry Building	4	(2.32 $\pm$ 0.59)E-09	(3.13 $\pm$ 0.67)E-09	(1.73 $\pm$ 0.50)E-09
772-F F-Area Dom. Water Faucet	4	(4.37 $\pm$ 0.79)E-09	(4.99 $\pm$ 0.72)E-09	(3.24 $\pm$ 0.62)E-09
Central Shops 690-G Ford Building	4	(7.45 $\pm$ 7.65)E-10	(1.74 $\pm$ 0.53)E-09	(0.50 $\pm$ 7.75)E-10
TC-1 B-Area Cafeteria	4	(1.24 $\pm$ 0.66)E-09	(2.05 $\pm$ 0.52)E-09	(4.86 $\pm$ 4.44)E-10
Z-Area Building 704-Z	4	(2.78 $\pm$ 1.82)E-09	(5.41 $\pm$ 0.75)E-09	(1.54 $\pm$ 0.50)E-09
Surrounding Towns				
Aiken SC, Post Office	2	(1.23 $\pm$ 0.36)E-09	(1.48 $\pm$ 0.55)E-09	(9.69 $\pm$ 3.87)E-10
Allendale SC, Post Office	2	(1.39 $\pm$ 0.55)E-09	(1.77 $\pm$ 0.62)E-09	(9.99 $\pm$ 4.20)E-10
Augusta GA, Post Office (8th St.)	2	(1.73 $\pm$ 0.19)E-09	(1.87 $\pm$ 0.58)E-09	(1.59 $\pm$ 0.42)E-09
Barnwell SC, Post Office	2	(5.96 $\pm$ 4.56)E-10	(9.19 $\pm$ 5.38)E-10	(2.74 $\pm$ 3.48)E-10
Bath SC, Post Office	2	(1.22 $\pm$ 0.14)E-09	(1.32 $\pm$ 0.40)E-09	(1.13 $\pm$ 0.54)E-09
Blackville SC, Post Office	2	(1.19 $\pm$ 0.83)E-09	(1.78 $\pm$ 0.60)E-09	(6.10 $\pm$ 3.90)E-10
Clearwater SC, Post Office	2	(5.66 $\pm$ 6.34)E-10	(1.01 $\pm$ 0.58)E-09	(1.17 $\pm$ 3.79)E-10
Jackson SC, Post Office	2	(1.77 $\pm$ 1.39)E-09	(2.76 $\pm$ 0.64)E-09	(7.84 $\pm$ 3.89)E-10
Langley SC, Post Office	2	(2.02 $\pm$ 0.79)E-09	(2.58 $\pm$ 0.60)E-09	(1.45 $\pm$ 0.40)E-09
N. Augusta SC, Post Office	2	(9.07 $\pm$ 5.19)E-10	(1.27 $\pm$ 0.54)E-09	(5.40 $\pm$ 3.69)E-10

Table 26
Radioactivity In Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
New Ellenton SC, Post Office	2	$(1.28 \pm 1.38)E-09$	$(2.25 \pm 0.58)E-09$	$(3.07 \pm 3.45)E-10$
ORA Site, ORA Building	2	$(0.06 \pm 2.72)E-10$	$(1.99 \pm 4.69)E-10$	$(-1.86 \pm 3.06)E-10$
Sardis GA, Post Office (Farm St.)	2	$(1.07 \pm 0.81)E-09$	$(1.65 \pm 0.63)E-09$	$(5.03 \pm 4.03)E-10$
Talatha SC, Tap Near Water Tank	2	$(9.00 \pm 7.81)E-10$	$(1.45 \pm 0.55)E-09$	$(3.48 \pm 3.44)E-10$
Waynesboro GA, Post Office	2	$(6.40 \pm 6.04)E-10$	$(1.07 \pm 0.57)E-09$	$(2.12 \pm 3.85)E-10$
Williston SC, Post Office	2	$(7.82 \pm 0.87)E-10$	$(8.44 \pm 5.50)E-10$	$(7.21 \pm 3.89)E-10$
Drinking Water from Water Treatment Plants				
Beaufort Finished	12	$(1.81 \pm 0.51)E-09$	$(2.76 \pm 0.65)E-09$	$(1.05 \pm 0.51)E-09$
Beaufort Raw	12	$(1.65 \pm 0.30)E-09$	$(2.12 \pm 0.62)E-09$	$(1.19 \pm 0.50)E-09$
D-Area Finished	12	$(2.01 \pm 0.88)E-09$	$(4.01 \pm 0.70)E-09$	$(1.14 \pm 0.50)E-09$
D-Area Raw	12	$(1.56 \pm 0.45)E-09$	$(2.16 \pm 0.61)E-09$	$(8.45 \pm 3.66)E-10$
N. Augusta Finished	12	$(1.22 \pm 0.63)E-09$	$(2.40 \pm 0.60)E-09$	$(3.44 \pm 5.24)E-10$
N. Augusta Raw	12	$(1.31 \pm 0.27)E-09$	$(1.60 \pm 0.50)E-09$	$(8.48 \pm 4.43)E-10$
Savannah Finished	12	$(1.67 \pm 0.47)E-09$	$(2.46 \pm 0.55)E-09$	$(9.43 \pm 4.90)E-10$
Savannah Raw	12	$(1.65 \pm 0.65)E-09$	$(2.50 \pm 0.53)E-09$	$(8.02 \pm 3.72)E-10$
EMS Sampler				
Beaufort Raw	22	$(1.84 \pm 0.45)E-09$	$(3.18 \pm 0.60)E-09$	$(1.13 \pm 0.56)E-09$

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Table 27
Radioactivity in Rain Ion Columns

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Cs-137 (pCi/sq m)				
On Site				
H-Area	1	(5.11 $\pm$ 1.53)E+01	(5.11 $\pm$ 1.53)E+01	(5.11 $\pm$ 1.53)E+01
Pu-238 (pCi/sq m)				
On Site				
H-Area	4	(6.00 $\pm$ 7.68)E-02	(1.75 $\pm$ 0.41)E-01	(1.32 $\pm$ 0.99)E-02
Site Perimeter				
Barnwell Gate	2	(1.92 $\pm$ 0.06)E-02	(1.96 $\pm$ 1.73)E-02	(1.88 $\pm$ 1.88)E-02
Darkhorse @ Williston Gate	4	(-0.13 $\pm$ 1.44)E-02	(1.83 $\pm$ 1.12)E-02	(-1.48 $\pm$ 1.81)E-02
25-mile Radius				
Olar (SC)	3	(0.14 $\pm$ 1.46)E-02	(1.67 $\pm$ 0.84)E-02	(-1.25 $\pm$ 1.25)E-02
100-mile Radius				
Columbia, SC	4	(3.03 $\pm$ 9.05)E-03	(1.33 $\pm$ 1.33)E-02	(-7.81 $\pm$ 7.81)E-03
Greenville, SC	4	(2.89 $\pm$ 6.43)E-02	(1.18 $\pm$ 0.30)E-01	(-3.10 $\pm$ 3.10)E-02
Macon, GA	4	(-0.22 $\pm$ 1.68)E-02	(1.69 $\pm$ 0.98)E-02	(-2.04 $\pm$ 1.44)E-02
Savannah, GA	3	(1.41 $\pm$ 0.93)E-02	(2.44 $\pm$ 1.41)E-02	(6.31 $\pm$ 6.31)E-03
Pu-239 (pCi/sq m)				
On Site				
H-Area	4	(0.97 $\pm$ 1.75)E-01	(3.56 $\pm$ 0.57)E-01	(-2.12 $\pm$ 3.00)E-02
Site Perimeter				
Barnwell Gate	4	(1.19 $\pm$ 1.90)E-02	(3.54 $\pm$ 1.31)E-02	(-0.65 $\pm$ 1.46)E-02
Darkhorse @ Williston Gate	4	(-1.83 $\pm$ 3.66)E-03	(0.00 $\pm$ 2.46)E-02	(-0.73 $\pm$ 1.95)E-02
25-mile Radius				
Olar, SC	4	(7.52 $\pm$ 5.32)E-03	(1.25 $\pm$ 2.80)E-02	(00.00 $\pm$ 5.90)E-03
100-mile Radius				
Columbia, SC	4	(0.44 $\pm$ 3.98)E-02	(0.64 $\pm$ 3.03)E-01	(-1.77 $\pm$ 1.09)E-02
Greenville, SC	4	(-0.97 $\pm$ 3.05)E-02	(3.09 $\pm$ 3.09)E-02	(-4.27 $\pm$ 3.19)E-02
Macon, GA	4	(-0.61 $\pm$ 1.18)E-02	(1.02 $\pm$ 2.28)E-02	(-1.70 $\pm$ 1.50)E-02
Savannah, GA	3	(6.10 $\pm$ 2.13)E-03	(8.13 $\pm$ 8.13)E-03	(3.88 $\pm$ 8.67)E-03

Table 27
Radioactivity in Rain Ion Columns

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Sr-89,90 (pCi/sq m)				
On Site				
H-Area	4	$(1.56 \pm 2.22)E+00$	$(3.97 \pm 3.97)E+00$	$(-1.04 \pm 4.04)E+00$
Site Perimeter				
Barnwell Gate	4	$(1.72 \pm 2.89)E+00$	$(5.15 \pm 4.16)E+00$	$(-1.73 \pm 6.16)E+00$
Darkhorse @ WillistonGate	4	$(1.58 \pm 5.11)E+00$	$(7.34 \pm 7.03)E+00$	$(-4.88 \pm 4.37)E+00$
25-mile Radius				
Olar, SC	4	$(0.73 \pm 3.87)E+00$	$(4.75 \pm 6.68)E+00$	$(-4.00 \pm 4.27)E+00$
100-mile Radius				
Columbia, SC	4	$(0.88 \pm 1.92)E+00$	$(3.45 \pm 4.64)E+00$	$(-1.17 \pm 5.53)E+00$
Greenville, SC	4	$(-1.91 \pm 5.07)E+00$	$(4.24 \pm 5.62)E+00$	$(-8.17 \pm 4.19)E+00$
Macon, GA	4	$(4.68 \pm 9.30)E+00$	$(1.79 \pm 0.82)E+01$	$(-2.18 \pm 4.72)E+00$
Savannah, GA	4	$(1.81 \pm 3.87)E+00$	$(6.97 \pm 5.40)E+00$	$(-2.16 \pm 4.70)E+00$
Gross A (pCi/sq m)				
On Site				
H-Area	13	$(1.92 \pm 2.57)E+00$	$(8.86 \pm 4.21)E+00$	$(-0.29 \pm 2.07)E+00$
Site Perimeter				
Barnwell Gate	13	$(-0.05 \pm 1.42)E+00$	$(2.17 \pm 2.65)E+00$	$(-2.97 \pm 1.70)E+00$
Darkhorse @ WillistonGate	13	$(-0.39 \pm 1.63)E+00$	$(3.44 \pm 2.92)E+00$	$(-1.72 \pm 1.43)E+00$
25-mile Radius				
Olar, SC	13	$(0.28 \pm 1.68)E+00$	$(3.94 \pm 2.59)E+00$	$(-1.80 \pm 1.47)E+00$
100-mile Radius				
Columbia, SC	4	$(6.53 \pm 4.11)E+00$	$(1.17 \pm 0.77)E+01$	$(1.87 \pm 4.39)E+00$
Greenville, SC	4	$(3.17 \pm 5.80)E+00$	$(9.42 \pm 8.53)E+00$	$(-2.71 \pm 2.40)E+00$
Macon, GA	4	$(6.00 \pm 7.71)E+00$	$(1.47 \pm 1.02)E+01$	$(-0.67 \pm 4.33)E+00$
Savannah, GA	4	$(4.82 \pm 5.06)E+00$	$(1.01 \pm 0.77)E+01$	$(-0.47 \pm 3.54)E+00$
Gross B (pCi/sq m)				
On Site				
H-Area	13	$(5.96 \pm 5.01)E+01$	$(1.72 \pm 0.13)E+02$	$(2.94 \pm 4.46)E+00$
Site Perimeter				
Barnwell Gate	13	$(7.27 \pm 7.95)E+01$	$(2.50 \pm 0.13)E+02$	$(4.75 \pm 4.59)E+00$
Darkhorse @ WillistonGate	13	$(5.66 \pm 4.28)E+01$	$(1.63 \pm 0.12)E+02$	$(9.71 \pm 4.84)E+00$

Table 27
Radioactivity in Rain Ion Columns

Page 3 of 3

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
25-mile Radius				
Olar, SC	13	$(5.81 \pm 4.14)E+01$	$(1.49 \pm 0.11)E+02$	$(0.84 \pm 4.21)E+00$
100-mile Radius				
Columbia, SC	4	$(3.14 \pm 1.87)E+02$	$(5.79 \pm 0.32)E+02$	$(1.39 \pm 0.17)E+02$
Greenville, SC	4	$(3.62 \pm 3.20)E+02$	$(7.06 \pm 0.31)E+02$	$(5.07 \pm 1.28)E+01$
Macon, GA	4	$(2.97 \pm 3.56)E+02$	$(7.98 \pm 0.31)E+02$	$(-8.14 \pm 7.80)E+00$
Savannah, GA	4	$(1.47 \pm 1.36)E+02$	$(2.82 \pm 0.24)E+02$	$(1.68 \pm 1.16)E+01$

Table 28
Tritium in Rainwater

Page 1 of 2

Location ($\mu\text{Ci/mL}$)	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
On Site				
A-Area	26	$(0.68 \pm 1.20)\text{E-06}$	$(5.36 \pm 0.47)\text{E-06}$	$(-4.20 \pm 3.88)\text{E-07}$
Burial Ground North	26	$(1.11 \pm 1.82)\text{E-05}$	$(6.87 \pm 0.14)\text{E-05}$	$(3.14 \pm 4.04)\text{E-07}$
Burial Ground South	26	$(1.51 \pm 1.59)\text{E-05}$	$(5.24 \pm 0.12)\text{E-05}$	$(3.37 \pm 4.01)\text{E-07}$
F-Area	26	$(5.56 \pm 9.73)\text{E-06}$	$(4.55 \pm 0.11)\text{E-05}$	$(-1.17 \pm 3.83)\text{E-07}$
H-Area	25	$(4.25 \pm 3.05)\text{E-05}$	$(1.10 \pm 0.02)\text{E-04}$	$(5.77 \pm 3.99)\text{E-07}$
Site Perimeter				
Allendale Gate	25	$(1.07 \pm 3.58)\text{E-07}$	$(1.15 \pm 0.42)\text{E-06}$	$(-6.32 \pm 3.70)\text{E-07}$
Barnwell Gate	25	$(0.63 \pm 1.01)\text{E-06}$	$(3.82 \pm 0.46)\text{E-06}$	$(-4.74 \pm 3.88)\text{E-07}$
D-Area	24	$(3.03 \pm 4.92)\text{E-06}$	$(2.23 \pm 0.07)\text{E-05}$	$(-0.30 \pm 2.83)\text{E-07}$
Darkhorse @ Williston Gate	26	$(6.00 \pm 7.92)\text{E-07}$	$(2.85 \pm 0.43)\text{E-06}$	$(-3.72 \pm 3.92)\text{E-07}$
East Talatha	25	$(8.75 \pm 9.10)\text{E-07}$	$(2.90 \pm 0.43)\text{E-06}$	$(-1.79 \pm 3.12)\text{E-07}$
Green Pond	26	$(6.59 \pm 8.58)\text{E-07}$	$(4.51 \pm 0.46)\text{E-06}$	$(-1.87 \pm 3.94)\text{E-07}$
Highway 125 @ Road A-14	25	$(0.75 \pm 1.29)\text{E-06}$	$(4.67 \pm 0.47)\text{E-06}$	$(-4.91 \pm 4.02)\text{E-07}$
Highway 21/167	25	$(2.81 \pm 5.27)\text{E-07}$	$(2.43 \pm 0.43)\text{E-06}$	$(-2.74 \pm 3.87)\text{E-07}$
Highway 39 @ Williston Gate	26	$(4.60 \pm 8.13)\text{E-07}$	$(3.10 \pm 0.28)\text{E-06}$	$(-4.77 \pm 3.70)\text{E-07}$
Jackson	26	$(5.87 \pm 9.88)\text{E-07}$	$(3.56 \pm 0.45)\text{E-06}$	$(-5.05 \pm 3.72)\text{E-07}$
Patterson Mill Road	26	$(2.65 \pm 4.10)\text{E-07}$	$(1.24 \pm 0.41)\text{E-06}$	$(-4.26 \pm 3.81)\text{E-07}$
Talatha Gate	26	$(0.64 \pm 1.34)\text{E-06}$	$(4.36 \pm 0.47)\text{E-06}$	$(-6.05 \pm 3.86)\text{E-07}$
West Jackson	26	$(0.89 \pm 1.27)\text{E-06}$	$(4.15 \pm 0.47)\text{E-06}$	$(-6.84 \pm 3.85)\text{E-07}$
Windsor Road	26	$(6.02 \pm 9.71)\text{E-07}$	$(3.14 \pm 0.44)\text{E-06}$	$(-7.46 \pm 3.89)\text{E-07}$
25-Mile-Radius				
Aiken Airport	26	$(1.20 \pm 3.34)\text{E-07}$	$(7.77 \pm 4.13)\text{E-07}$	$(-6.23 \pm 2.77)\text{E-07}$
Aiken State Park	26	$(3.35 \pm 6.43)\text{E-07}$	$(2.01 \pm 0.42)\text{E-06}$	$(-7.47 \pm 3.82)\text{E-07}$
Allendale, SC	26	$(1.26 \pm 3.02)\text{E-07}$	$(8.67 \pm 3.05)\text{E-07}$	$(-4.13 \pm 4.21)\text{E-07}$
Augusta, GA	23	$(1.23 \pm 5.24)\text{E-07}$	$(1.22 \pm 0.42)\text{E-06}$	$(-6.01 \pm 3.83)\text{E-07}$
Highway 301 @ State Line	18	$(-0.39 \pm 4.08)\text{E-07}$	$(1.02 \pm 0.41)\text{E-06}$	$(-9.61 \pm 3.61)\text{E-07}$
Langley, SC	26	$(1.93 \pm 4.14)\text{E-07}$	$(1.13 \pm 0.41)\text{E-06}$	$(-4.12 \pm 3.80)\text{E-07}$
Lees, SC	26	$(1.49 \pm 4.14)\text{E-07}$	$(1.02 \pm 0.31)\text{E-06}$	$(-6.32 \pm 3.86)\text{E-07}$
Olar, SC	26	$(1.55 \pm 4.01)\text{E-07}$	$(1.16 \pm 0.42)\text{E-06}$	$(-6.63 \pm 3.96)\text{E-07}$
Perkins, GA	25	$(0.54 \pm 2.53)\text{E-07}$	$(6.60 \pm 4.12)\text{E-07}$	$(-4.89 \pm 3.90)\text{E-07}$

Table 28
Tritium in Rainwater

Page 2 of 2

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
South Richmond, GA	26	$(1.31 \pm 4.72)E-07$	$(1.41 \pm 0.32)E-06$	$(-5.92 \pm 3.78)E-07$
Springfield, SC	25	$(2.70 \pm 7.52)E-07$	$(3.15 \pm 0.25)E-06$	$(-9.97 \pm 3.59)E-07$
Waynesboro, GA	26	$(3.18 \pm 7.30)E-07$	$(2.56 \pm 0.43)E-06$	$(-6.51 \pm 3.81)E-07$
100-Mile-Radius				
Columbia, SC	4	$(1.46 \pm 4.01)E-07$	$(7.32 \pm 4.02)E-07$	$(-1.58 \pm 3.90)E-07$
Greenville, SC	4	$(-1.52 \pm 4.12)E-07$	$(3.30 \pm 4.08)E-07$	$(-6.77 \pm 3.81)E-07$
Macon, GA	4	$(0.94 \pm 1.89)E-07$	$(2.71 \pm 2.95)E-07$	$(-1.05 \pm 3.87)E-07$
Savannah, GA	4	$(2.03 \pm 2.26)E-07$	$(5.39 \pm 4.09)E-07$	$(0.65 \pm 4.08)E-07$

Table 29
Radioactivity in River and Stream Sediment

Page 1 of 3

Location	River Mile	Cs-137, pCi/g (dry weight)		
		1991	1992	1993
Savannah River				
Below Four Mile Creek	150.2	(2.30 ± 0.34)E-01	(2.15 ± 0.23)E-01	(1.66 ± 0.35)E-01
Above Little Hell Landing	136.5	(2.20 ± 0.21)E-01	(1.04 ± 0.25)E-01	(2.89 ± 0.24)E-01
Below Little Hell Landing	134.0	<1.75E-01	<1.01E-01	(1.17 ± 0.26)E-01
Above Lower Three Runs	129.5	(7.21 ± 0.56)E-01	(3.96 ± 0.44)E-01	(3.49 ± 0.31)E-01
Highway 301	118.7	(4.32 ± 0.40)E-01	(5.66 ± 0.37)E-01	(1.51 ± 0.29)E-01
Demier's Landing (Control)	160.5	<1.42E-01	(2.84 ± 0.26)E-01	(1.44 ± 0.34)E-01
SRS Stream				
Four Mile at Road A-7		(6.19 ± 0.20)E±00	(2.33 ± 0.08)E±01	(6.46 ± 0.06)E+00
Four Mile A-7A (in a beaver pond)		(5.14 ± 0.15)E±01	(7.44 ± 0.22)E±01	(3.15 ± 0.07)E+00
Four Mile Discharge at Swamp		(5.27 ± 0.29)E-01	(5.52 ± 0.27)E-01	(6.61 ± 0.32)E-01
Pen Branch Discharge at Swamp		(3.99 ± 0.18)E±00	(1.82 ± 0.12)E±00	(3.04 ± 0.10)E+00
Steel Creek at Road B		(9.85 ± 0.42)E-01	(No sample counted)	(1.07 ± 0.01)E+01
Steel Creek Discharge at Swamp		(3.66 ± 0.15)E±00	(6.95 ± 0.35)E-01	(1.37 ± 0.04)E+00
Steel Creek—Pen Branch Mouth		(2.11 ± 0.11)E±00	(4.81 ± 0.19)E±00	(3.68 ± 0.03)E+01
Lower Three Runs Mouth		(5.06 ± 0.47)E-01	(4.01 ± 0.42)E-01	(1.17 ± 0.06)E+00
Upper Three Runs Mouth (Control)		(2.59 ± 0.34)E-01	(2.36 ± 0.34)E-01	(6.45 ± 0.44)E-01

Location	River Mile	Co-60, pCi/g (dry weight)		
		1991	1992	1993
Savannah River				
Below Four Mile Creek	150.2	<1.42E-01	<1.02E-01	a
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		(6.75 ± 0.86)E-02	(3.02 ± 0.28)E-01	(8.74 ± 1.32)E-02
Four Mile A-7A (in a beaver pond)		(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	(2.61 ± 0.47)E-01
Steel Creek at Road B		<4.41E-02	(No sample counted)	(1.45 ± 0.19)E-01
Steel Creek Discharge at Swamp		<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	(1.02 ± 0.05)E+00
Lower Three Runs Mouth		<1.61E-01	<7.37E-02	
Upper Three Runs Mouth (Control)		<1.72E-01	<8.59E-02	

a Blank space indicates activity was below the lower limit of detection.

Table 29
Radioactivity in River and Stream Sediment

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		Sr-90, pCi/g (dry weight)		
Location	River Mile	1991	1992	1993
Savannah River				
Below Four Mile Creek	150.2	(1.62 ± 1.89)E-02	(1.12 ± 1.84)E-02	(5.40 ± 3.17)E-02
Above Little Hell Landing	136.5	(-0.17 ± 1.76)E-02	(1.29 ± 2.13)E-02	(-2.49 ± 1.41)E-02
Below Little Hell Landing	134.0	(-1.36 ± 2.24)E-02	(-0.94 ± 5.13)E-02	(-0.18 ± 1.91)E-02
Above Lower Three Runs	129.5	(3.85 ± 2.06)E-02	(-1.84 ± 4.88)E-02	(-2.43 ± 1.38)E-02
Highway 301	118.7	(2.10 ± 1.72)E-02	(3.10 ± 5.44)E-02	(-1.45 ± 1.47)E-02
Demier's Landing (Control)	160.5	(-2.42 ± 2.41)E-02	(3.03 ± 1.65)E-02	(6.68 ± 3.23)E-02
SRS Streams				
Four Mile at Road A-7		(4.12 ± 0.39)E-01	(2.34 ± 0.13)E±00	(2.47 ± 0.26)E-01
Four Mile A-7A (in a beaver pond)		(9.11 ± 0.53)E-01	(1.85 ± 0.12)E±00	(4.35 ± 1.71)E-02
Four Mile Discharge at Swamp		(5.10 ± 2.11)E-02	(9.63 ± 5.69)E-02	(1.15 ± 1.56)E-02
Pen Branch Discharge at Swamp		(1.24 ± 0.25)E-01	(-3.34 ± 4.67)E-02	(3.48 ± 2.38)E-02
Steel Creek at Road B		(5.10 ± 1.95)E-02	(-6.87 ± 6.54)E-02	(-0.16 ± 2.23)E-02
Steel Creek Discharge at Swamp		(4.25 ± 2.17)E-02	(4.73 ± 5.10)E-02	(2.71 ± 1.62)E-02
Steel Creek—Pen Branch Mouth		(No sample counted)	(1.78 ± 4.95)E-02	(8.22 ± 2.57)E-02
Lower Three Runs Mouth		(1.29 ± 0.23)E-01	(3.70 ± 2.05)E-02	(-0.96 ± 2.20)E-02
Upper Three Runs Mouth Control		(5.59 ± 3.01)E-02	(1.30 ± 1.65)E-02	(3.49 ± 3.10)E-02
		Pu-238, pCi/g (dry weight)		
Location	River Mile	1991	1992	1993
Savannah River				
Below Four Mile Creek	150.2	(2.89 ± 4.20)E-03	(1.14 ± 0.14)E-02	(-2.15 ± 2.15)E-04
Above Little Hell Landing	136.5	(1.52 ± 0.23)E-03	(1.45 ± 0.23)E-02	(2.02 ± 1.78)E-04
Below Little Hell Landing	134.0	(8.49 ± 0.33)E-04	(1.17 ± 0.94)E-03	(3.78 ± 1.89)E-04
Above Lower Three Runs	129.5	(2.93 ± 1.20)E-04	(3.57 ± 3.14)E-04	(-4.97 ± 4.97)E-04
Highway 301	118.7	(1.42 ± 1.31)E-04	(2.06 ± 1.58)E-03	(00.00 ± 5.65)E-04
Demier's Landing (Control)	160.5	(-0.80 ± 1.00)E-04	(3.60 ± 0.98)E-03	(2.00 ± 2.00)E-04
SRS Streams				
Four Mile at Road A-7		(7.78 ± 0.26)E-02	(2.93 ± 0.08)E-01	(7.50 ± 0.41)E-02
Four Mile A-7A (in a beaver pond)		(1.18 ± 0.01)E±00	(1.82 ± 0.04)E+00	(3.08 ± 0.26)E-02
Four Mile Discharge at Swamp		(1.88 ± 0.27)E-03	(2.51 ± 1.26)E-03	(4.85 ± 0.86)E-03
Pen Branch Discharge at Swamp		(1.00 ± 0.13)E-02	(1.38 ± 0.14)E-02	(4.76 ± 1.12)E-03
Steel Creek at Road B		(1.46 ± 0.17)E-03	(1.55 ± 0.70)E-03	(5.09 ± 1.05)E-03
Steel Creek Discharge at Swamp		(2.90 ± 0.56)E-03	(3.12 ± 1.05)E-03	2.63 ± 0.44)E-03
Steel Creek—Pen Branch Mouth		(1.25 ± 0.10)E-02	(1.66 ± 0.24)E-02	(6.08 ± 0.30)E-02
Lower Three Runs Mouth		(1.05 ± 0.22)E-03	(2.04 ± 0.59)E-03	(00.00 ± 4.13)E-04
Upper Three Runs Mouth (Control)		(5.15 ± 1.88)E-03	(1.70 ± 0.38)E-03	(3.24 ± 0.65)E-03

Table 29
Radioactivity in River and Stream Sediment

Page 3 of 3

Location	River Mile	Pu-239, pCi/g (dry weight)		
		1991	1992	1993
Savannah River				
Below Four Mile Creek	150.2	(0.62 ± 1.38)E-03	(8.61 ± 1.15)E-03	(4.29 ± 3.03)E-04
Above Little Hell Landing	136.5	(8.71 ± 1.51)E-04	(1.60 ± 0.71)E-03	(1.21 ± 0.32)E-03
Below Little Hell Landing	134.0	(1.91 ± 1.71)E-04	(6.64 ± 9.40)E-04	(7.54 ± 2.98)E-04
Above Lower Three Runs	129.5	(2.32 ± 0.23)E-03	(6.21 ± 2.54)E-04	(2.48 ± 5.55)E-04
Highway 301	118.7	(1.48 ± 0.19)E-03	(-0.55 ± 1.66)E-03	(00.00 ± 5.64)E-04
Demier's Landing	160.5	(6.42 ± 8.30)E-05	(2.76 ± 0.83)E-03	(9.97 ± 3.46)E-04
SRS Streams				
Four Mile at Road A-7		(3.16 ± 0.16)E-02	(1.09 ± 0.05)E-01	(3.06 ± 0.25)E-02
Four Mile A-7A (in a beaver pond)		(3.73 ± 0.06)E-01	(6.03 ± 0.15)E-01	(1.55 ± 0.18)E-02
Four Mile Discharge at Swamp		(3.07 ± 0.33)E-03	(6.01 ± 1.41)E-03	(3.76 ± 0.76)E-03
Pen Branch Discharge at Swamp		(2.78 ± 0.21)E-02	(2.34 ± 0.17)E-02	(2.15 ± 0.22)E-02
Steel Creek at Road B		(4.31 ± 0.26)E-03	(3.42 ± 0.83)E-03	(1.24 ± 0.16)E-02
Steel Creek Discharge at Swamp		(7.14 ± 0.83)E-03	(1.41 ± 0.66)E-03	(2.62 ± 0.45)E-03
Steel Creek—Pen Branch Mouth		(2.56 ± 0.14)E-02	(1.52 ± 0.22)E-02	(8.15 ± 0.36)E-02
Lower Three Runs Mouth		(1.71 ± 0.23)E-03	(6.29 ± 3.86)E-04	(1.75 ± 0.82)E-03
Upper Three Runs Mouth (Control)		(6.48 ± 1.66)E-03	(1.51 ± 0.38)E-03	(1.52 ± 0.14)E-02

Table 30
Radioactivity in Soil

Page 1 of 1

Location	pCi/g $\pm$ σ ; dry weight; 0–8 cm depth			
	Sr-90	Cs-137	Pu-238	Pu-239
F-Area				
2000 Feet East	(-0.58 $\pm$ 1.83)E-02	(8.71 $\pm$ 0.37)E-01	(6.30 $\pm$ 0.25)E-02	(3.60 $\pm$ 0.09)E-01
2000 Feet North	(-0.15 $\pm$ 1.55)E-02	(2.84 $\pm$ 0.23)E-01	(2.95 $\pm$ 0.23)E-02	(1.25 $\pm$ 0.05)E-01
2000 Feet South	(1.33 $\pm$ 0.27)E-01	(1.26 $\pm$ 0.07)E+00	(7.84 $\pm$ 0.39)E-02	(6.83 $\pm$ 0.36)E-02
2000 Feet West	(0.23 $\pm$ 1.60)E-02	(5.29 $\pm$ 0.29)E-01	(6.51 $\pm$ 0.48)E-02	(8.64 $\pm$ 0.56)E-02
H-Area				
2000 Feet East	(0.98 $\pm$ 1.72)E-02	(7.37 $\pm$ 0.39)E-01	(1.02 $\pm$ 0.09)E-02	(1.78 $\pm$ 0.05)E-01
2000 Feet North	(-0.29 $\pm$ 1.75)E-02	(6.09 $\pm$ 0.32)E-01	(1.61 $\pm$ 0.11)E-02	(1.43 $\pm$ 0.04)E-01
2000 Feet South	(5.18 $\pm$ 1.87)E-02	(1.57 $\pm$ 0.05)E+00	(2.62 $\pm$ 0.15)E-02	(1.51 $\pm$ 0.05)E-01
2000 Feet West	(8.63 $\pm$ 1.86)E-02	(1.03 $\pm$ 0.04)E+00	(2.47 $\pm$ 0.26)E-02	(1.23 $\pm$ 0.06)E-01
S-Area				
#1	(3.31 $\pm$ 1.76)E-02	(3.53 $\pm$ 0.30)E-01	(7.10 $\pm$ 0.70)E-03	(5.40 $\pm$ 0.22)E-02
#2	(0.37 $\pm$ 2.60)E-02	(1.09 $\pm$ 0.24)E-01	(3.25 $\pm$ 2.86)E-04	(1.40 $\pm$ 0.52)E-03
#3	(1.03 $\pm$ 1.56)E-02	a	(3.55 $\pm$ 0.21)E-02	(4.18 $\pm$ 0.23)E-02
#4	(-0.57 $\pm$ 1.49)E-02		(0.99 $\pm$ 2.62)E-04	(1.88 $\pm$ 0.46)E-03
Z-Area				
#1	(-0.02 $\pm$ 2.31)E-02	(7.23 $\pm$ 2.36)E-02	(1.04 $\pm$ 0.29)E-03	(2.62 $\pm$ 0.46)E-03
#3	(8.25 $\pm$ 2.40)E-02	(2.09 $\pm$ 0.22)E-01	(7.68 $\pm$ 3.08)E-04	(6.31 $\pm$ 0.77)E-03
#5	(-0.30 $\pm$ 1.56)E-02	(7.15 $\pm$ 0.37)E-01	(6.63 $\pm$ 1.14)E-03	(5.04 $\pm$ 0.31)E-02
#7	(1.22 $\pm$ 1.66)E-02	(8.20 $\pm$ 0.48)E-01	(5.96 $\pm$ 0.95)E-03	(3.76 $\pm$ 0.24)E-02
Burial Ground				
643-26E-1	(2.64 $\pm$ 1.84)E-02	(2.71 $\pm$ 0.27)E-01	Not analyzed	Not analyzed
643-26E-2	(2.49 $\pm$ 1.72)E-02	(1.32 $\pm$ 0.20)E-01	Not analyzed	Not analyzed
Site Perimeter				
NE Quadrant	(-0.37 $\pm$ 1.61)E-02	(4.11 $\pm$ 0.27)E-01	(5.24 $\pm$ 3.87)E-04	(1.09 $\pm$ 0.10)E-02
NW Quadrant	(-0.18 $\pm$ 1.62)E-02	(6.52 $\pm$ 0.34)E-01	(1.05 $\pm$ 0.37)E-03	(1.47 $\pm$ 0.11)E-02
SE Quadrant	(0.95 $\pm$ 1.63)E-02	(5.14 $\pm$ 0.30)E-01	(7.23 $\pm$ 2.28)E-04	(2.01 $\pm$ 0.10)E-02
SW Quadrant	(0.30 $\pm$ 1.64)E-02	(5.56 $\pm$ 0.30)E-01	(1.87 $\pm$ 0.72)E-03	(1.47 $\pm$ 0.24)E-02
100-Mile Radius				
Clinton, SC	(7.72 $\pm$ 1.87)E-02	(3.52 $\pm$ 0.28)E-01	(4.23 $\pm$ 3.63)E-04	(8.35 $\pm$ 1.45)E-03
Savannah, GA	(-0.18 $\pm$ 1.48)E-02	(4.41 $\pm$ 1.40)E-02	(1.05 $\pm$ 0.45)E-03	(1.20 $\pm$ 0.47)E-03

a Blank space indicates activity was below lower limit of detection.

Table 31
Radioactivity in Vegetation (Quarterly Samples)

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, pCi/g (wet weight)				
On Site				
200-F #13	4	$(1.04 \pm 0.75)\text{E}+01$	$(1.87 \pm 0.01)\text{E}+01$	$(1.29 \pm 0.02)\text{E}+00$
200-F #21	4	$(2.35 \pm 0.95)\text{E}+00$	$(3.68 \pm 0.04)\text{E}+00$	$(1.47 \pm 0.05)\text{E}+00$
200-H #10	4	$(1.72 \pm 2.50)\text{E}+00$	$(5.43 \pm 0.09)\text{E}+00$	$(2.10 \pm 0.19)\text{E}-01$
200-H #22	4	$(3.10 \pm 3.93)\text{E}+00$	$(8.82 \pm 0.16)\text{E}+00$	$(2.29 \pm 0.41)\text{E}-01$
643-26E-1	4	$(4.78 \pm 3.11)\text{E}+00$	$(7.56 \pm 0.06)\text{E}+00$	$(9.28 \pm 0.36)\text{E}-01$
643-26E-2	4	$(2.67 \pm 1.89)\text{E}+00$	$(4.77 \pm 0.09)\text{E}+00$	$(3.20 \pm 0.19)\text{E}-01$
S-Area #1	4	$(6.41 \pm 3.51)\text{E}+00$	$(9.17 \pm 0.16)\text{E}+00$	$(1.41 \pm 0.04)\text{E}+00$
S-Area #2	4	$(1.83 \pm 0.92)\text{E}+00$	$(3.10 \pm 0.06)\text{E}+00$	$(1.06 \pm 0.04)\text{E}+00$
S-Area #3	4	$(5.45 \pm 8.70)\text{E}+00$	$(1.85 \pm 0.01)\text{E}+01$	$(7.73 \pm 0.27)\text{E}-01$
S-Area #4	4	$(0.73 \pm 1.65)\text{E}+01$	$(2.28 \pm 0.04)\text{E}+01$	$(3.25 \pm 0.16)\text{E}-01$
Z-Area #1	4	$(3.98 \pm 4.06)\text{E}+00$	$(9.66 \pm 0.18)\text{E}+00$	$(4.11 \pm 0.32)\text{E}-01$
Z-Area #2	4	$(1.25 \pm 1.03)\text{E}+00$	$(2.62 \pm 0.04)\text{E}+00$	$(2.90 \pm 0.27)\text{E}-01$
Z-Area #3	4	$(1.83 \pm 1.85)\text{E}+00$	$(4.46 \pm 0.08)\text{E}+00$	$(1.26 \pm 0.12)\text{E}-01$
Z-Area #4	4	$(3.30 \pm 2.79)\text{E}+00$	$(6.00 \pm 0.12)\text{E}+00$	$(2.83 \pm 0.47)\text{E}-01$
Z-Area #5	4	$(1.84 \pm 1.22)\text{E}+00$	$(3.15 \pm 0.05)\text{E}+00$	$(1.96 \pm 0.18)\text{E}-01$
Z-Area #6	4	$(0.99 \pm 1.05)\text{E}+00$	$(2.50 \pm 0.04)\text{E}+00$	$(9.33 \pm 1.31)\text{E}-02$
Z-Area #7	4	$(2.42 \pm 2.33)\text{E}+00$	$(5.38 \pm 0.05)\text{E}+00$	$(2.70 \pm 0.32)\text{E}-01$
Z-Area #8	4	$(4.75 \pm 3.89)\text{E}+00$	$(9.19 \pm 0.05)\text{E}+00$	$(1.75 \pm 0.16)\text{E}-01$
Site Perimeter				
Allendale Gate	4	$(0.54 \pm 1.01)\text{E}-01$	$(2.04 \pm 0.39)\text{E}-01$	$(-1.66 \pm 1.77)\text{E}-02$
Barnwell Gate	4	$(1.30 \pm 1.23)\text{E}-01$	$(2.98 \pm 0.30)\text{E}-01$	$(6.38 \pm 5.84)\text{E}-03$
D-Area	4	$(5.30 \pm 4.77)\text{E}-01$	$(1.05 \pm 0.05)\text{E}+00$	$(6.69 \pm 0.73)\text{E}-02$
Darkhorse @ Williston Gate	4	$(1.13 \pm 0.60)\text{E}-01$	$(1.67 \pm 0.41)\text{E}-01$	$(4.01 \pm 1.18)\text{E}-02$
East Talatha	4	$(2.03 \pm 1.21)\text{E}-01$	$(3.27 \pm 0.46)\text{E}-01$	$(6.18 \pm 2.55)\text{E}-02$
Green Pond	4	$(2.82 \pm 4.68)\text{E}-01$	$(9.80 \pm 0.36)\text{E}-01$	$(-0.27 \pm 1.74)\text{E}-02$
Highway 125 @ Road A-14	4	$(2.69 \pm 2.52)\text{E}-01$	$(5.30 \pm 0.30)\text{E}-01$	$(0.95 \pm 2.62)\text{E}-02$
Highway 21/167	4	$(1.68 \pm 0.83)\text{E}-01$	$(2.74 \pm 0.26)\text{E}-01$	$(8.85 \pm 2.72)\text{E}-02$
Highway 39 @ Williston Gate	4	$(1.49 \pm 1.61)\text{E}-01$	$(3.74 \pm 0.62)\text{E}-01$	$(2.30 \pm 0.84)\text{E}-02$
Jackson	4	$(3.67 \pm 5.65)\text{E}-01$	$(1.20 \pm 0.05)\text{E}+00$	$(2.51 \pm 2.75)\text{E}-02$
Patterson Mill Road	4	$(4.88 \pm 7.19)\text{E}-02$	$(1.54 \pm 0.16)\text{E}-01$	$(-6.31 \pm 8.01)\text{E}-03$

Table 31
Radioactivity in Vegetation (Quarterly Samples)

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Talatha Gate	3	(2.71 $\pm$ 2.30)E-01	(5.15 $\pm$ 0.53)E-01	(5.82 $\pm$ 3.15)E-02
West Jackson	4	(3.13 $\pm$ 4.16)E-01	(9.06 $\pm$ 0.25)E-01	(2.18 $\pm$ 0.92)E-02
Windsor Road	4	(1.18 $\pm$ 0.93)E-01	(2.27 $\pm$ 0.28)E-01	(3.12 $\pm$ 0.98)E-02
25-Mile-Radius				
Allendale, SC	4	(1.06 $\pm$ 7.10)E-02	(1.10 $\pm$ 0.36)E-01	(-5.93 $\pm$ 5.36)E-02
Langley, SC	4	(1.58 $\pm$ 2.97)E-01	(5.97 $\pm$ 0.24)E-01	(-5.80 $\pm$ 5.55)E-02
Springfield, SC	4	(1.33 $\pm$ 1.08)E-01	(2.42 $\pm$ 0.44)E-01	(1.03 $\pm$ 0.79)E-02
Waynesboro, GA	4	(-0.42 $\pm$ 4.95)E-02	(5.82 $\pm$ 1.35)E-02	(-6.27 $\pm$ 4.81)E-02
100-Mile-Radius				
Columbia, SC	4	(6.98 $\pm$ 7.37)E-02	(1.52 $\pm$ 0.13)E-01	(4.31 $\pm$ 7.03)E-03
Greenville, SC	4	(3.03 $\pm$ 3.94)E-02	(8.86 $\pm$ 1.88)E-02	(0.54 $\pm$ 3.42)E-02
Macon, GA	5	(0.91 $\pm$ 1.43)E-01	(3.46 $\pm$ 0.63)E-01	(2.25 $\pm$ 6.31)E-03
Savannah, GA	4	(5.31 $\pm$ 8.80)E-02	(1.51 $\pm$ 0.39)E-01	(-3.41 $\pm$ 6.12)E-02
Cs-137^a, pCi/g (dry weight) The typical lower limit of detection for Cs-137 in vegetation was 1.00E-01 pCi/g.				
On Site				
643-26E-1	1/4	(2.15 $\pm$ 0.42)E-01		
643-26E-2	0/4			
F-Area	2/4	(6.31 $\pm$ 6.45)E-01	(1.09 $\pm$ 0.08)E+00	(1.74 $\pm$ 0.45)E-01
H-Area	2/4	(1.17 $\pm$ 1.37)E+00	(2.14 $\pm$ 0.07)E+00	(2.02 $\pm$ 0.37)E-01
S-Area #1	1/4	(1.35 $\pm$ 0.39)E-01		
S-Area #2	0/4			
S-Area #3	2/4	(2.73 $\pm$ 2.13)E-01	(4.24 $\pm$ 0.52)E-01	(1.22 $\pm$ 0.28)E-01
S-Area #4	2/4	(1.14 $\pm$ 0.79)E-01	(1.70 $\pm$ 0.48)E-01	(5.80 $\pm$ 1.93)E-02
Z-Area #1	0/4			
Z-Area #2	0/4			
Z-Area #3	3/4	(1.13 $\pm$ 0.11)E-01	(1.19 $\pm$ 0.32)E-01	(1.00 $\pm$ 0.37)E-01
Z-Area #4	0/4			
Z-Area #5	0/4			
Z-Area #6	1/4	(1.11 $\pm$ 0.34)E-01		

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 mean, maximum, and minimum generation.

Table 31
Radioactivity in Vegetation (Quarterly Samples)

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Z-Area #7	2/4	(4.25 $\pm$ 2.83)E-01	(6.25 $\pm$ 0.58)E-01	(2.25 $\pm$ 0.60)E-01
Z-Area #8	1/4	(1.69 $\pm$ 0.41)E-01		
Site Perimeter	4/4	(2.10 $\pm$ 0.80)E-01	(2.98 $\pm$ 0.40)E-01	(1.11 $\pm$ 0.24)E-01
25-Mile-Radius	2/4	(1.29 $\pm$ 0.65)E-01	(1.75 $\pm$ 0.27)E-01	(8.33 $\pm$ 1.83)E-02
100-Mile-Radius	1/4	(1.48 $\pm$ 0.42)E-01		
Sr-89,90, pCi/g (dry weight)				
On Site				
643-26E-1	4	(2.86 $\pm$ 2.90)E-01	(5.94 $\pm$ 0.96)E-01	(-0.17 $\pm$ 1.13)E-01
643-26E-2	4	(1.45 $\pm$ 2.07)E-01	(4.52 $\pm$ 1.03)E-01	(0.51 $\pm$ 7.25)E-02
F-Area	4	(8.50 $\pm$ 7.58)E-01	(1.77 $\pm$ 0.12)E+00	(0.88 $\pm$ 1.25)E-01
H-Area	4	(1.39 $\pm$ 0.99)E+00	(2.84 $\pm$ 0.14)E+00	(6.18 $\pm$ 0.83)E-01
S-Area #1	4	(1.33 $\pm$ 1.61)E-01	(3.14 $\pm$ 0.80)E-01	(-0.73 $\pm$ 1.07)E-01
Z-Area #1	4	(2.30 $\pm$ 0.91)E-01	(3.54 $\pm$ 0.83)E-01	(1.39 $\pm$ 0.77)E-01
Site Perimeter	4	(9.36 $\pm$ 8.10)E-01	(1.92 $\pm$ 0.13)E+00	(-0.83 $\pm$ 9.29)E-02
25-Mile-Radius	4	(3.93 $\pm$ 1.88)E-01	(5.75 $\pm$ 0.83)E-01	(1.30 $\pm$ 1.05)E-01
100-Mile-Radius	4	(1.63 $\pm$ 1.14)E-01	(2.56 $\pm$ 0.74)E-01	(0.13 $\pm$ 7.15)E-02
Gross Alpha, pCi/g (dry weight)				
On Site				
200-F #13	4	(0.99 $\pm$ 1.50)E+00	(3.14 $\pm$ 1.16)E+00	(-2.46 $\pm$ 2.17)E-01
200-F #21	4	(0.19 $\pm$ 3.75)E-01	(4.40 $\pm$ 5.25)E-01	(-4.59 $\pm$ 3.73)E-01
200-H #10	4	(0.74 $\pm$ 1.13)E+00	(1.89 $\pm$ 0.75)E+00	(-6.49 $\pm$ 4.11)E-01
200-H #22	4	(0.94 $\pm$ 1.39)E+00	(2.97 $\pm$ 0.98)E+00	(-0.67 $\pm$ 3.63)E-01
643-26E-1	4	(0.70 $\pm$ 1.17)E+00	(1.83 $\pm$ 1.04)E+00	(-0.50 $\pm$ 1.20)E+00
643-26E-2	4	(5.38 $\pm$ 2.30)E-01	(7.77 $\pm$ 6.33)E-01	(2.24 $\pm$ 5.52)E-01
S-Area #1	4	(3.92 $\pm$ 4.80)E-01	(1.02 $\pm$ 0.65)E+00	(-0.80 $\pm$ 3.85)E-01
S-Area #2	4	(8.34 $\pm$ 9.58)E-01	(2.16 $\pm$ 1.32)E+00	(1.08 $\pm$ 6.47)E-01
S-Area #3	4	(-0.52 $\pm$ 1.34)E+00	(4.58 $\pm$ 4.77)E-01	(-2.49 $\pm$ 1.11)E+00
S-Area #4	4	(1.22 $\pm$ 4.09)E-01	(6.79 $\pm$ 5.34)E-01	(-2.44 $\pm$ 2.10)E-01
Z-Area #1	4	(1.32 $\pm$ 0.90)E+00	(2.50 $\pm$ 1.33)E+00	(3.38 $\pm$ 3.93)E-01
Z-Area #2	4	(1.08 $\pm$ 2.12)E+00	(4.25 $\pm$ 1.48)E+00	(-2.54 $\pm$ 2.20)E-01
Z-Area #3	4	(2.77 $\pm$ 5.08)E-01	(7.03 $\pm$ 4.65)E-01	(-4.52 $\pm$ 3.51)E-01
Z-Area #4	4	(6.69 $\pm$ 3.18)E-01	(9.45 $\pm$ 7.98)E-01	(2.15 $\pm$ 3.96)E-01

Table 31
Radioactivity in Vegetation (Quarterly Samples)

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Z-Area #5	4	(1.37 $\pm$ 1.84)E+00	(4.08 $\pm$ 1.64)E+00	(1.01 $\pm$ 6.75)E-01
Z-Area #6	4	(9.83 $\pm$ 8.32)E-01	(1.75 $\pm$ 0.91)E+00	(-1.97 $\pm$ 1.76)E-01
Z-Area #7	4	(0.06 $\pm$ 3.13)E-01	(4.58 $\pm$ 4.90)E-01	(-2.59 $\pm$ 2.09)E-01
Z-Area #8	4	(1.56 $\pm$ 1.90)E+00	(4.30 $\pm$ 1.36)E+00	(-0.52 $\pm$ 3.05)E-01
Site Perimeter				
Allendale Gate	4	(3.00 $\pm$ 5.29)E-01	(7.44 $\pm$ 5.87)E-01	(-3.07 $\pm$ 2.65)E-01
Barnwell Gate	4	(2.19 $\pm$ 3.46)E-01	(6.94 $\pm$ 8.30)E-01	(-0.48 $\pm$ 3.23)E-01
D-Area	4	(8.22 $\pm$ 2.08)E-01	(1.09 $\pm$ 0.61)E+00	(6.27 $\pm$ 6.50)E-01
Darkhorse @ Williston Gate	4	(0.70 $\pm$ 1.05)E+00	(1.98 $\pm$ 0.89)E+00	(-2.67 $\pm$ 2.32)E-01
East Talatha	4	(7.66 $\pm$ 2.99)E-01	(1.21 $\pm$ 0.80)E+00	(5.79 $\pm$ 4.95)E-01
Green Pond	4	(7.75 $\pm$ 5.45)E-01	(1.37 $\pm$ 0.85)E+00	(2.09 $\pm$ 5.05)E-01
Highway 125 @ Road A-14	4	(0.60 $\pm$ 1.11)E+00	(2.22 $\pm$ 1.07)E+00	(-2.95 $\pm$ 2.53)E-01
Highway 21/167	4	(4.63 $\pm$ 4.80)E-01	(1.09 $\pm$ 0.74)E+00	(-0.47 $\pm$ 3.17)E-01
Highway 39 @ Williston Gate	4	(6.93 $\pm$ 9.72)E-01	(1.95 $\pm$ 0.95)E+00	(-2.73 $\pm$ 2.43)E-01
Jackson	4	(0.75 $\pm$ 1.86)E+00	(3.52 $\pm$ 1.45)E+00	(-4.72 $\pm$ 3.81)E-01
Patterson Mill Road	4	(4.67 $\pm$ 6.63)E-01	(1.24 $\pm$ 0.81)E+00	(-2.79 $\pm$ 2.42)E-01
Talatha Gate	4	(2.25 $\pm$ 3.28)E-01	(5.56 $\pm$ 6.61)E-01	(-0.94 $\pm$ 5.13)E-01
West Jackson	4	(3.56 $\pm$ 3.01)E-01	(6.94 $\pm$ 5.87)E-01	(-0.32 $\pm$ 4.26)E-01
Windsor Road	4	(2.91 $\pm$ 5.70)E-01	(7.98 $\pm$ 6.25)E-01	(-3.48 $\pm$ 3.07)E-01
25-Mile-Radius				
Allendale, SC	4	(4.54 $\pm$ 6.42)E-01	(1.34 $\pm$ 0.75)E+00	(-0.40 $\pm$ 2.90)E-01
Langley, SC	4	(-0.09 $\pm$ 3.21)E-01	(2.96 $\pm$ 5.70)E-01	(-4.18 $\pm$ 3.44)E-01
Springfield, SC	4	(3.93 $\pm$ 7.20)E-01	(1.15 $\pm$ 0.93)E+00	(-3.53 $\pm$ 2.95)E-01
Waynesboro, GA	4	(8.08 $\pm$ 2.13)E-01	(1.01 $\pm$ 0.85)E+00	(5.39 $\pm$ 6.35)E-01
100-Mile-Radius				
Columbia, SC	4	(5.09 $\pm$ 3.74)E-01	(9.73 $\pm$ 9.67)E-01	(1.54 $\pm$ 1.00)E-01
Greenville, SC	4	(0.57 $\pm$ 1.21)E+00	(1.95 $\pm$ 1.04)E+00	(-7.34 $\pm$ 5.80)E-01
Macon, GA	4	(0.28 $\pm$ 2.82)E-01	(2.95 $\pm$ 6.33)E-01	(-0.29 $\pm$ 1.70)E+00
Savannah, GA	4	(1.26 $\pm$ 4.08)E-01	(6.27 $\pm$ 6.50)E-01	(-3.17 $\pm$ 2.76)E-01
Gross Beta, pCi/g (dry weight)				
On Site				
200-F #13	4	(1.33 $\pm$ 0.86)E+01	(2.16 $\pm$ 0.18)E+01	(4.37 $\pm$ 1.06)E+00

Table 31
Radioactivity in Vegetation (Quarterly Samples)

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
200-F #21	4	(6.89 $\pm$ 4.23)E+00	(1.20 $\pm$ 0.13)E+01	(2.02 $\pm$ 0.94)E+00
200-H #10	4	(1.47 $\pm$ 1.23)E+01	(3.25 $\pm$ 0.24)E+01	(3.92 $\pm$ 1.03)E+00
200-H #22	4	(1.20 $\pm$ 0.61)E+01	(1.89 $\pm$ 0.17)E+01	(5.55 $\pm$ 1.14)E+00
643-26E-1	4	(2.08 $\pm$ 1.31)E+01	(3.53 $\pm$ 0.22)E+01	(5.03 $\pm$ 1.17)E+00
643-26E-2	4	(9.45 $\pm$ 5.74)E+00	(1.74 $\pm$ 0.17)E+01	(5.14 $\pm$ 1.15)E+00
S-Area #1	4	(1.26 $\pm$ 0.67)E+01	(1.97 $\pm$ 0.16)E+01	(3.62 $\pm$ 1.05)E+00
S-Area #2	4	(1.76 $\pm$ 1.03)E+01	(2.97 $\pm$ 0.23)E+01	(7.99 $\pm$ 1.11)E+00
S-Area #3	4	(2.66 $\pm$ 2.98)E+01	(7.03 $\pm$ 0.31)E+01	(6.79 $\pm$ 1.27)E+00
S-Area #4	4	(8.97 $\pm$ 2.93)E+00	(1.08 $\pm$ 0.12)E+01	(4.65 $\pm$ 1.13)E+00
Z-Area #1	4	(1.19 $\pm$ 0.82)E+01	(2.36 $\pm$ 0.21)E+01	(4.81 $\pm$ 1.16)E+00
Z-Area #2	4	(1.49 $\pm$ 0.78)E+01	(2.43 $\pm$ 0.21)E+01	(7.99 $\pm$ 1.11)E+00
Z-Area #3	4	(8.89 $\pm$ 2.72)E+00	(1.19 $\pm$ 0.15)E+01	(5.30 $\pm$ 1.12)E+00
Z-Area #4	4	(8.62 $\pm$ 3.59)E+00	(1.21 $\pm$ 0.17)E+01	(5.41 $\pm$ 1.16)E+00
Z-Area #5	4	(1.83 $\pm$ 1.46)E+01	(3.17 $\pm$ 0.23)E+01	(1.41 $\pm$ 0.94)E+00
Z-Area #6	4	(7.76 $\pm$ 2.33)E+00	(1.08 $\pm$ 0.14)E+01	(5.17 $\pm$ 0.96)E+00
Z-Area #7	4	(1.12 $\pm$ 0.42)E+01	(1.48 $\pm$ 0.17)E+01	(5.41 $\pm$ 1.13)E+00
Z-Area #8	4	(7.87 $\pm$ 4.69)E+00	(1.25 $\pm$ 0.15)E+01	(3.03 $\pm$ 1.04)E+00
Site Perimeter				
Allendale Gate	4	(7.64 $\pm$ 2.86)E+00	(1.16 $\pm$ 0.14)E+01	(4.79 $\pm$ 1.08)E+00
Barnwell Gate	4	(1.20 $\pm$ 0.37)E+01	(1.54 $\pm$ 0.15)E+01	(6.95 $\pm$ 1.22)E+00
D-Area	4	(1.34 $\pm$ 0.43)E+01	(1.95 $\pm$ 0.20)E+01	(9.92 $\pm$ 1.21)E+00
Darkhorse @ Williston Gate	4	(1.32 $\pm$ 0.49)E+01	(1.75 $\pm$ 0.19)E+01	(8.55 $\pm$ 1.26)E+00
East Talatha	4	(1.64 $\pm$ 0.98)E+01	(3.10 $\pm$ 0.23)E+01	(1.04 $\pm$ 0.12)E+01
Green Pond	4	(1.46 $\pm$ 0.69)E+01	(2.36 $\pm$ 0.21)E+01	(7.93 $\pm$ 1.16)E+00
Highway 125 @ Road A-14	4	(1.37 $\pm$ 0.82)E+01	(2.56 $\pm$ 0.21)E+01	(6.94 $\pm$ 1.09)E+00
Highway 21/167	4	(1.29 $\pm$ 0.67)E+01	(2.22 $\pm$ 0.21)E+01	(6.95 $\pm$ 1.23)E+00
Highway 39 @ Williston Gate	4	(1.30 $\pm$ 0.74)E+01	(2.36 $\pm$ 0.21)E+01	(6.45 $\pm$ 1.06)E+00
Jackson	4	(1.50 $\pm$ 1.48)E+01	(3.64 $\pm$ 0.25)E+01	(4.40 $\pm$ 1.10)E+00
Patterson Mill Road	4	(1.02 $\pm$ 0.60)E+01	(1.88 $\pm$ 0.16)E+01	(5.73 $\pm$ 1.36)E+00
Talatha Gate	4	(1.80 $\pm$ 1.62)E+01	(4.18 $\pm$ 0.26)E+01	(5.95 $\pm$ 1.06)E+00
West Jackson	4	(1.14 $\pm$ 0.24)E+01	(1.35 $\pm$ 0.17)E+01	(8.93 $\pm$ 1.20)E+00
Windsor Road	4	(1.15 $\pm$ 0.15)E+01	(1.35 $\pm$ 0.17)E+01	(9.92 $\pm$ 1.24)E+00

Table 31
Radioactivity in Vegetation (Quarterly Samples)

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
25-Mile-Radius				
Allendale, SC	4	$(1.20 \pm 0.77)E+01$	$(2.22 \pm 0.20)E+01$	$(4.46 \pm 1.08)E+00$
Langley, SC	4	$(2.18 \pm 1.20)E+01$	$(3.37 \pm 0.24)E+01$	$(7.44 \pm 1.13)E+00$
Springfield, SC	4	$(2.03 \pm 1.25)E+01$	$(3.64 \pm 0.25)E+01$	$(8.55 \pm 1.26)E+00$
Waynesboro, GA	4	$(2.33 \pm 1.11)E+01$	$(3.84 \pm 0.25)E+01$	$(1.34 \pm 0.14)E+01$
100-Mile-Radius				
Columbia, SC	4	$(1.41 \pm 0.89)E+01$	$(2.38 \pm 0.19)E+01$	$(2.34 \pm 0.19)E+00$
Greenville, SC	4	$(2.70 \pm 0.89)E+01$	$(3.61 \pm 0.24)E+01$	$(1.75 \pm 0.19)E+01$
Macon, GA	4	$(3.13 \pm 0.89)E+01$	$(3.91 \pm 0.26)E+01$	$(2.03 \pm 0.16)E+01$
Savannah, GA	4	$(1.49 \pm 0.50)E+01$	$(2.22 \pm 0.21)E+01$	$(1.09 \pm 0.13)E+01$

Table 32
Radioactivity in Vegetation (Composites from Seepage and Retention Basins)

Page 1 of 1

Location	pCi/g (Dry Weight)			
	Cs-137	Sr-89,90	Gross Alpha	Gross Beta
A-Area Seepage Basin ^a	(9.08 ± 0.89)E-01	(1.16 ± 0.05)E+01	(-4.09 ± 5.12)E-01	(6.09 ± 0.24)E+01
C-Area Seepage Basin ^b	(1.75 ± 0.41)E-01	(5.74 ± 0.20)E+00	(4.20 ± 4.84)E-01	(3.11 ± 0.15)E+01
F Retention Basin ^c	(1.94 ± 0.54)E-01	(1.42 ± 0.81)E-01	(9.43 ± 5.50)E-01	(1.63 ± 0.12)E+01
F-Area Seepage Basin ^b	^d	(4.31 ± 7.65)E-02	(3.97 ± 4.63)E-01	(1.75 ± 0.12)E+01
H Retention Basin ^c	(2.77 ± 0.12)E+00	(3.64 ± 0.15)E+00	(1.54 ± 0.70)E+00	(4.09 ± 0.17)E+01
H-Area Seepage Basin ^b	(1.30 ± 0.48)E-01	(1.60 ± 0.82)E-01	(9.60 ± 5.15)E-01	(1.50 ± 0.11)E+01
K Retention Basin ^a	(1.61 ± 0.59)E-01	(2.97 ± 0.87)E-01	(5.73 ± 4.63)E-01	(1.39 ± 0.11)E+01
K-Area Seepage Basin ^a	(1.72 ± 0.37)E-01	(1.25 ± 0.16)E+00	(-1.88 ± 3.83)E-01	(1.94 ± 0.13)E+01
L Chemical Basin ^a	(2.04 ± 0.44)E-01	(1.69 ± 0.77)E-01	(5.68 ± 3.86)E-01	(7.43 ± 0.80)E+00
L-Area Seepage Basin ^a	(2.34 ± 0.65)E-01	(9.11 ± 1.08)E-01	(9.43 ± 4.02)E-01	(9.25 ± 0.84)E+00
P-Area Seepage Basin ^a	(5.01 ± 0.83)E-01	(3.36 ± 0.88)E-01	(8.98 ± 4.06)E-01	(5.92 ± 0.76)E+00
R-Area Seepage Basin ^b	(2.32 ± 0.46)E-01	(2.70 ± 0.15)E+00	(8.31 ± 4.30)E-01	(1.04 ± 0.09)E+01

a Four locations

b Eight locations

c Six locations

d Blank space indicates activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in vegetation was 1.00E-01 pCi/g.

Table 33
Radioactivity in Vegetation (Inside Solid Waste Disposal Facility Fences)

Page 1 of 2

Location	Dry Weight		
	Cs-137 (pCi/g) ^b	Gross Alpha (pCi/g)	Gross Beta (pCi/g)
IBG-1 Inside Burial Ground	(3.96 ± 0.40)E-01	(3.62 ± 4.15)E-01	(7.05 ± 1.07)E+00
IBG-1A Inside Burial Ground	(4.47 ± 0.52)E-01	(-2.65 ± 2.36)E-01	(7.37 ± 1.13)E+00
IBG-2 Inside Burial Ground		(-0.59 ± 3.61)E-01	(9.34 ± 1.21)E+00
IBG-3 Inside Burial Ground	(1.50 ± 0.42)E-01	(1.57 ± 3.61)E-01	(7.37 ± 1.11)E+00
IBG-3A Inside Burial Ground	(1.41 ± 0.32)E-01	(0.23 ± 4.56)E-01	(1.18 ± 0.03)E+02
IBG-4 Inside Burial Ground	(2.09 ± 0.48)E-01	(1.72 ± 4.14)E-01	(1.28 ± 0.13)E+01
IBG-4A Inside Burial Ground	(2.22 ± 0.10)E+00	(-6.26 ± 3.01)E-01	(1.48 ± 0.04)E+02
IBG-5 Inside Burial Ground	(2.32 ± 0.46)E-01	(4.08 ± 4.86)E-01	(1.67 ± 0.15)E+01
IBG-6 Inside Burial Ground	(5.19 ± 0.54)E-01	(1.33 ± 3.33)E-01	(1.52 ± 0.14)E+01
IBG-7 Inside Burial Ground		(-2.50 ± 2.28)E-01	(9.67 ± 1.36)E+00
IBG-8 Inside Burial Ground	(1.04 ± 0.37)E-01	(-0.64 ± 3.40)E-01	(1.62 ± 0.14)E+01
IBG-8A Inside Burial Ground	(2.32 ± 0.47)E-01	(-4.91 ± 3.96)E-01	(3.19 ± 0.20)E+01
IBG-9 Inside Burial Ground	(3.39 ± 0.13)E+00	(-4.23 ± 2.74)E-01	(7.86 ± 0.29)E+01
IBG-9A Inside Burial Ground	(7.18 ± 0.90)E-01	(-1.19 ± 3.73)E-01	(6.26 ± 0.28)E+01
IBG-10 Inside Burial Ground	(7.37 ± 0.93)E-01	(1.03 ± 0.62)E+00	(7.86 ± 0.28)E+01
IBG-11 Inside Burial Ground	(1.83 ± 0.38)E-01	(-2.50 ± 2.35)E-01	(6.83 ± 1.25)E+00
IBG-12 Inside Burial Ground	(6.80 ± 0.53)E-01	(-0.63 ± 4.06)E-01	(2.79 ± 0.21)E+01
IBG-13 Inside Burial Ground	(4.13 ± 0.66)E-01	(-0.80 ± 4.73)E-01	(3.02 ± 0.21)E+01
IBG-14 Inside Burial Ground	(1.71 ± 0.36)E-01	(4.28 ± 2.00)E-01	(1.01 ± 1.23)E+01
IBG-14A Inside Burial Ground ^b		(4.44 ± 4.73)E-01	(1.31 ± 0.15)E+01
IBG-15 Inside Burial Ground		(-0.42 ± 3.82)E-01	(1.88 ± 0.17)E+01
IBG-16 Inside Burial Ground	(2.08 ± 0.08)E+00	(1.31 ± 4.59)E-01	(6.83 ± 0.30)E+01
IBG-17 Inside Burial Ground	(2.52 ± 0.41)E-01	(2.67 ± 5.60)E-01	(1.48 ± 0.04)E+02
IBG-18 Inside Burial Ground		(6.83 ± 5.18)E-01	(6.26 ± 1.22)E+00
IBG-19 Inside Burial Ground		(-4.38 ± 3.46)E-01	(3.64 ± 0.23)E+01
IBG-19A Inside Burial Ground		(-0.56 ± 5.01)E-01	(2.16 ± 0.20)E+01
IBG-20 Inside Burial Ground	(3.66 ± 0.46)E-01	(2.11 ± 4.02)E-01	(8.53 ± 1.32)E+00
IBG-20A Inside Burial Ground		(-3.36 ± 2.90)E-01	(1.93 ± 0.18)E+01
IBG-21 Inside Burial Ground		(-3.19 ± 4.62)E-01	(1.42 ± 0.04)E+02

a Blank space indicates activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in vegetation was 1.00E-01 pCi/g.

b Value is an average of two samples.

Table 33
Radioactivity in Vegetation (Inside Solid Waste Disposal Facility Fences)

Page 2 of 2

Location	Dry Weight		
	Cs-137 (pCi/g) ^b	Gross Alpha (pCi/g)	Gross Beta (pCi/g)
IBG-22 Inside Burial Ground		(-4.10 ± 3.37)E-01	(2.84 ± 0.21)E+01
IBG-23 Inside Burial Ground		(-0.27 ± 3.90)E-01	(1.02 ± 0.14)E+01
IBG-23A Inside Burial Ground	(5.97 ± 2.11)E-02	(2.28 ± 4.33)E-01	(9.10 ± 1.35)E+00
IBG-24 Inside Burial Ground	(1.34 ± 0.36)E-01	(-2.84 ± 2.61)E-01	(9.67 ± 1.38)E+00
IBG-25 Inside Burial Ground	(3.48 ± 0.49)E-01	(-2.62 ± 2.28)E-01	(1.59 ± 0.16)E+01
IBG-26 Inside Burial Ground		(4.38 ± 4.55)E-01	(5.35 ± 1.18)E+00
IBG-27 Inside Burial Ground		(3.53 ± 8.63)E-01	(4.15 ± 0.25)E+01
IBG-29 Inside Burial Ground		(6.83 ± 5.09)E-01	(5.01 ± 1.17)E+00
IBG-30 Inside Burial Ground		(5.23 ± 5.46)E-01	(6.83 ± 1.28)E+00
IBG-31 Inside Burial Ground		(2.42 ± 4.50)E-01	(8.28 ± 1.42)E+00
IBG-33 Inside Burial Ground		(2.42 ± 4.59)E-01	(1.08 ± 0.15)E+01
IBG-34 Inside Burial Ground		(7.64 ± 6.01)E-01	(7.00 ± 1.38)E+00
IBG-35 Inside Burial Ground		(-2.67 ± 2.47)E-01	(7.00 ± 1.37)E+00
IBG-36 Inside Burial Ground		(-0.24 ± 3.66)E-01	(1.02 ± 0.15)E+01
IBG-37 Inside Burial Ground		(-2.74 ± 2.55)E-01	(7.00 ± 1.37)E+00
IBG-38 Inside Burial Ground		(-0.40 ± 4.55)E-01	(1.59 ± 0.18)E+01
IBG-39 Inside Burial Ground		(9.55 ± 6.07)E-01	(7.00 ± 1.37)E+00
IBG-40 Inside Burial Ground		(-3.88 ± 3.49)E-01	(1.40 ± 0.17)E+01
IBG-41 Inside Burial Ground		(2.36 ± 4.50)E-01	(9.55 ± 1.49)E+00
IBG-42 Inside Burial Ground		(-0.26 ± 4.03)E-01	(1.08 ± 0.15)E+01

a Blank space indicates activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in vegetation was 1.00E-01 pCi/g.

Table 34
Radioactivity in Vegetation (Outside the Solid Waste Disposal Facility Fences)

Page 1 of 2

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Cs-137^a, pCi/g (dry weight) <i>The typical lower limit of detection of Cs-137 in vegetation was 1.00E-01 pCi/g.</i>				
OBG-1 Outside Burial Ground	1/4	(1.19 $\pm$ 0.44)E-01		
OBG-2 Outside Burial Ground	0/4			
OBG-3 Outside Burial Ground	1/4	(1.06 $\pm$ 0.30)E-01		
OBG-4 Outside Burial Ground	0/4			
OBG-5 Outside Burial Ground	0/4			
OBG-6 Outside Burial Ground	1/4	(1.18 $\pm$ 0.24)E-01		
OBG-7 Outside Burial Ground	4/4	(2.60 $\pm$ 0.95)E-01	(4.00 $\pm$ 0.87)E-01	(1.92 $\pm$ 0.41)E-01
OBG-8 Outside Burial Ground	1/4	(1.28 $\pm$ 0.35)E-01		
OBG-9 Outside Burial Ground	4/4	(3.94 $\pm$ 3.50)E-01	(9.15 $\pm$ 0.70)E-01	(1.66 $\pm$ 0.60)E-01
OBG-10 Outside Burial Ground	3/4	(2.16 $\pm$ 0.81)E-01	(3.07 $\pm$ 0.75)E-01	(1.50 $\pm$ 0.36)E-01
OBG-11 Outside Burial Ground	0/4			
OBG-12 Outside Burial Ground	2/4	(2.59 $\pm$ 0.22)E-01	(2.74 $\pm$ 0.40)E-01	(2.44 $\pm$ 0.45)E-01
OBG-13 Outside Burial Ground	0/4			
Gross Alpha, pCi/g (dry weight)				
OBG-1 Outside Burial Ground	4	(4.31 $\pm$ 5.22)E-01	(9.43 $\pm$ 7.65)E-01	(-2.82 $\pm$ 6.39)E-01
OBG-2 Outside Burial Ground	4	(7.02 $\pm$ 9.78)E-01	(1.84 $\pm$ 0.76)E+00	(-3.75 $\pm$ 3.07)E-01
OBG-3 Outside Burial Ground	4	(2.73 $\pm$ 4.32)E-01	(8.11 $\pm$ 5.41)E-01	(-2.47 $\pm$ 8.35)E-01
OBG-4 Outside Burial Ground	4	(0.76 $\pm$ 1.35)E+00	(2.66 $\pm$ 1.19)E+00	(-4.59 $\pm$ 3.60)E-01
OBG-5 Outside Burial Ground	4	(0.62 $\pm$ 1.28)E+01	(2.54 $\pm$ 0.66)E+01	(-1.13 $\pm$ 0.74)E+00
OBG-6 Outside Burial Ground	4	(0.03 $\pm$ 1.11)E+00	(9.99 $\pm$ 6.80)E-01	(-1.55 $\pm$ 1.07)E+00
OBG-7 Outside Burial Ground	4	(1.21 $\pm$ 1.21)E+00	(2.82 $\pm$ 1.51)E+00	(-0.78 $\pm$ 4.33)E-01
OBG-8 Outside Burial Ground	4	(-0.02 $\pm$ 5.32)E-01	(0.70 $\pm$ 1.05)E+00	(-5.95 $\pm$ 7.83)E-01
OBG-9 Outside Burial Ground	4	(5.32 $\pm$ 1.24)E-01	(7.06 $\pm$ 6.84)E-01	(4.31 $\pm$ 5.16)E-01
OBG-10 Outside Burial Ground	4	(2.76 $\pm$ 3.29)E-01	(6.16 $\pm$ 5.07)E-01	(-1.69 $\pm$ 5.69)E-01
OBG-11 Outside Burial Ground	4	(0.83 $\pm$ 1.05)E+00	(2.33 $\pm$ 1.20)E+00	(-1.40 $\pm$ 6.39)E-01
OBG-12 Outside Burial Ground	4	(3.74 $\pm$ 5.99)E+00	(1.27 $\pm$ 0.59)E+01	(1.95 $\pm$ 4.70)E-01
OBG-13 Outside Burial Ground	4	(9.80 $\pm$ 6.81)E-01	(1.76 $\pm$ 1.62)E+00	(1.65 $\pm$ 3.75)E-01

^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 mean, maximum, and minimum generation.

Table 34
Radioactivity in Vegetation (Outside the Solid Waste Disposal Facility Fences)

Page 2 of 2

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Gross Beta, pCi/g (dry weight)				
OBG-1 Outside Burial Ground	4	(1.56 $\pm$ 0.98)E+01	(2.75 $\pm$ 0.23)E+01	(6.16 $\pm$ 1.17)E+00
OBG-2 Outside Burial Ground	4	(1.43 $\pm$ 0.85)E+01	(2.41 $\pm$ 0.19)E+01	(5.30 $\pm$ 1.16)E+00
OBG-3 Outside Burial Ground	4	(1.52 $\pm$ 1.11)E+01	(3.05 $\pm$ 0.21)E+01	(4.16 $\pm$ 1.09)E+00
OBG-4 Outside Burial Ground	4	(9.16 $\pm$ 2.82)E+00	(1.33 $\pm$ 0.15)E+01	(7.28 $\pm$ 1.23)E+00
OBG-5 Outside Burial Ground	4	(1.95 $\pm$ 1.09)E+01	(3.46 $\pm$ 0.25)E+01	(8.88 $\pm$ 1.29)E+00
OBG-6 Outside Burial Ground	4	(1.34 $\pm$ 0.68)E+01	(2.26 $\pm$ 0.22)E+01	(6.49 $\pm$ 1.22)E+00
OBG-7 Outside Burial Ground	4	(1.91 $\pm$ 0.69)E+01	(2.89 $\pm$ 0.23)E+01	(1.35 $\pm$ 0.15)E+01
OBG-8 Outside Burial Ground	4	(2.41 $\pm$ 2.12)E+01	(5.24 $\pm$ 0.26)E+01	(7.77 $\pm$ 1.23)E+00
OBG-9 Outside Burial Ground	4	(1.54 $\pm$ 0.60)E+01	(2.24 $\pm$ 0.18)E+01	(1.03 $\pm$ 0.13)E+01
OBG-10 Outside Burial Ground	4	(9.52 $\pm$ 3.15)E+00	(1.27 $\pm$ 0.18)E+01	(6.16 $\pm$ 1.16)E+00
OBG-11 Outside Burial Ground	4	(1.28 $\pm$ 1.03)E+01	(2.63 $\pm$ 0.19)E+01	(5.03 $\pm$ 1.15)E+00
OBG-12 Outside Burial Ground	4	(1.67 $\pm$ 0.98)E+01	(3.14 $\pm$ 0.21)E+01	(1.03 $\pm$ 0.14)E+01
OBG-13 Outside Burial Ground	4	(1.16 $\pm$ 0.59)E+01	(1.69 $\pm$ 0.20)E+01	(5.51 $\pm$ 1.03)E+00

Table 35
Radioactivity in Food^a

Page 1 of 7

Location	H-3 ^b (pCi/g±σ)	Cs-137 ^c (pCi/g±σ)	Pu-238 ^b (pCi/g±σ)	Pu-239 ^b (pCi/g±σ)	Sr-89,90 ^b (pCi/g±σ)	U/Pu ^b (pCi/g±σ)
Collards						
FS #1 Below Barricade #5	(3.24 ± 0.63)E-02				(2.55 ± 2.51)E-02	(1.29 ± 1.16)E-02
FS #10 Gracewood School area	(2.48 ± 0.60)E-02		(-7.09 ± 9.20)E-06	(5.07 ± 1.43)E-05	(1.03 ± 0.30)E-01	(5.11 ± 1.18)E-02
FS #11 Hwy 19—7mi N of Aiken	(0.97 ± 1.40)E-02				(0.89 ± 2.74)E-02	(-2.23 ± 2.29)E-03
FS #12 Springfield area	(5.20 ± 1.85)E-02				(0.15 ± 2.81)E-02	(0.31 ± 3.45)E-03
FS #13 Hilda area	(3.08 ± 1.19)E-02				(-0.65 ± 1.97)E-02	(-2.17 ± 2.28)E-03
FS #14 Ulmers area	(2.36 ± 0.83)E-02				(2.89 ± 2.31)E-02	(-2.22 ± 2.31)E-03
FS #15 Control, Columbia, SC	(2.64 ± 0.79)E-02		(2.26 ± 0.98)E-05	(-0.83 ± 1.10)E-05	(-1.20 ± 2.57)E-02	(0.32 ± 3.45)E-03
FS #2 near Sav. R./E of Sardis	(1.38 ± 0.67)E-02				(-1.09 ± 3.28)E-02	(0.89 ± 8.00)E-03
FS #3 Jackson area	(2.34 ± 1.73)E-02				(4.71 ± 2.83)E-02	(1.26 ± 1.15)E-02
FS #4 Talatha area	(9.34 ± 2.30)E-02		(0.97 ± 1.19)E-05	(0.00 ± 1.53)E-05	(1.64 ± 2.44)E-02	(0.87 ± 8.06)E-03
FS #5 Darkhorse area	(7.84 ± 1.05)E-02	(1.55 ± 0.55)E-02			(-0.15 ± 2.34)E-02	(-4.99 ± 5.29)E-03
FS #6 Snelling area	(3.00 ± 0.75)E-02		(2.02 ± 1.01)E-05	(1.51 ± 1.33)E-05	(4.67 ± 2.65)E-02	(1.26 ± 1.16)E-02
FS #7 Wade Plantation vicinity	(1.91 ± 0.53)E-02				(3.65 ± 2.52)E-02	(1.28 ± 1.17)E-02

a All results except those for H-3 are expressed in dry weight.

b Blank space indicates that no analyses were performed.

c Blank space indicates that activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in foodstuffs was 7.00E-03 pCi/g.

Table 35
Radioactivity in Food^a

Page 2 of 7

Location	H-3 ^b (pCi/g±σ)	Cs-137 ^c (pCi/g±σ)	Pu-238 ^b (pCi/g±σ)	Pu-239 ^b (pCi/g±σ)	Sr-89,90 ^b (pCi/g±σ)	U/Pu ^b (pCi/g±σ)
FS #8 Sardis area	(3.66 ± 5.14)E-03	(5.06 ± 0.80)E-02			(4.14 ± 2.37)E-02	(0.71 ± 7.95)E-03
FS #9 Boyce Dairy area	(1.45 ± 0.48)E-02				(0.99 ± 2.27)E-02	(0.36 ± 3.45)E-03
Greens						
N.E. SC 50-mi. radius	(1.28 ± 0.39)E-01	(3.71 ± 0.80)E-02			(4.07 ± 2.35)E-02	(6.86 ± 9.99)E-03
N.W. SC 50-mi. radius	(7.80 ± 3.68)E-02				(4.63 ± 2.96)E-02	(6.73 ± 9.92)E-03
S.E. SC 50-mi. radius	(0.15 ± 2.47)E-02				(2.77 ± 2.70)E-02	(0.37 ± 3.46)E-03
Watermelon						
S.E. SC 50-mi. radius	(3.42 ± 1.84)E-02		(1.31 ± 0.76)E-05	(4.34 ± 4.34)E-06	(2.57 ± 2.82)E-02	(3.19 ± 3.57)E-03
Soybeans						
N.E. SC 50-mi. radius	(-9.93 ± 7.15)E-03		(2.02 ± 0.24)E-04	(4.40 ± 8.20)E-06	(-0.60 ± 2.18)E-02	(1.75 ± 3.89)E-03
S.E. SC 50-mi. radius	(-1.35 ± 0.72)E-02		(6.57 ± 1.69)E-05	(1.93 ± 0.86)E-05	(1.74 ± 2.16)E-02	(1.78 ± 3.89)E-03

^a All results except those for H-3 are expressed in dry weight.^b Blank space indicates that no analyses were performed.^c Blank space indicates that activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in foodstuffs was 7.00E-03 pCi/g.

Table 35
Radioactivity in Food^a

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Location	H-3 ^b (pCi/g±σ)	Cs-137 ^c (pCi/g±σ)	Pu-238 ^b (pCi/g±σ)	Pu-239 ^b (pCi/g±σ)	Sr-89,90 ^b (pCi/g±σ)	U/Pu ^b (pCi/g±σ)
Wheat						
N.E. SC 50-mi. radius					(-0.38 ± 2.04)E-02	(-1.07 ± 8.80)E-03
N.W. SC 50-mi. radius					(-1.78 ± 2.02)E-02	(-7.06 ± 6.44)E-03
S.E. SC 50-mi. radius					(-2.57 ± 9.86)E-03	(-5.52 ± 2.16)E-03
S.W. GA 50-mi. radius					(0.14 ± 2.20)E-02	(-1.07 ± 8.80)E-03
Corn						
FS #10 Gracewood School area		(1.62 ± 0.51)E-02	(8.29 ± 5.86)E-06		(-1.82 ± 2.01)E-02	(-4.19 ± 3.82)E-03
FS #6 Snelling area			(7.70 ± 7.32)E-06	(4.32 ± 6.62)E-06	(-3.72 ± 2.79)E-02	(6.46 ± 7.23)E-03
N.E. SC 50-mi. radius			(7.71 ± 9.45)E-06	(-1.54 ± 1.22)E-05	(-0.20 ± 3.11)E-02	(-4.11 ± 3.78)E-03
S.E. SC 50-mi. radius			(4.01 ± 8.95)E-06	(3.99 ± 6.91)E-06	(-0.37 ± 2.67)E-02	(-4.13 ± 3.78)E-03
FS #12 Springfield area					(-1.65 ± 2.74)E-02	(2.89 ± 6.25)E-03
FS #13 Hilda area					(-3.09 ± 2.64)E-02	(-4.11 ± 3.78)E-03
FS #2 near Sav. R./E of Sardis					(0.20 ± 2.89)E-02	(6.48 ± 7.23)E-03
FS #3 Jackson area					(-0.78 ± 1.99)E-02	(-0.62 ± 5.22)E-03
FS #7 Wade Plantation vicinity					(-0.88 ± 2.65)E-02	(2.90 ± 6.24)E-03

^a All results except those for H-3 are expressed in dry weight.

^b Blank space indicates that no analyses were performed.

^c Blank space indicates that activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in foodstuffs was 7.00E-03 pCi/g.

Table 35
Radioactivity in Food^a

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Location	H-3 ^b (pCi/g±σ)	Cs-137 ^c (pCi/g±σ)	Pu-238 ^b (pCi/g±σ)	Pu-239 ^b (pCi/g±σ)	Sr-89,90 ^b (pCi/g±σ)	U/Pu ^b (pCi/g±σ)
FS #8 Sardis area					(-4.48 ± 3.04)E-02	(-4.17 ± 3.82)E-03
S.W. GA 50mi radius					(-0.61 ± 2.91)E-02	(-4.12 ± 3.78)E-03
Peanuts						
N.E. SC 50-mi. radius	(5.29 ± 7.46)E-03					
S.E. SC 50-mi. radius	(-2.27 ± 0.77)E-02				(-3.83 ± 3.06)E-02	(3.97 ± 4.46)E-03
S.W. GA 50-mi. radius	(1.65 ± 0.83)E-02				(2.76 ± 2.96)E-02	(3.96 ± 4.46)E-03
Grain						
FS #4 Talatha area		(1.50 ± 0.43)E-02	(7.39 ± 4.27)E-05	(7.36 ± 4.25)E-05	(0.39 ± 2.02)E-02	(-7.04 ± 6.44)E-03
FS #7 Wade Plantation vicinity		(1.77 ± 0.50)E-02			(2.59 ± 2.26)E-02	(-3.97 ± 3.64)E-03
FS #14 Ulmers area			(1.28 ± 0.91)E-05		(1.93 ± 2.16)E-02	(-3.98 ± 3.64)E-03
FS #8 Sardis area			(-1.44 ± 2.50)E-05	(2.87 ± 2.03)E-05	(0.15 ± 2.30)E-02	(-3.97 ± 3.64)E-03
FS #9 Boyce Dairy area			(2.36 ± 1.18)E-04		(0.13 ± 2.14)E-02	(2.81 ± 6.01)E-03
FS #1 Below Barricade #5					(2.46 ± 2.43)E-02	(-7.03 ± 6.44)E-03
FS #10 Gracewood School area					(0.42 ± 2.08)E-02	(2.79 ± 6.01)E-03

a All results except those for H-3 are expressed in dry weight.

b Blank space indicates that no analyses were performed.

c Blank space indicates that activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in foodstuffs was 7.00E-03 pCi/g.

Table 35
Radioactivity in Food^a

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Location	H-3 ^b (pCi/g $\pm\sigma$)	Cs-137 ^c (pCi/g $\pm\sigma$)	Pu-238 ^b (pCi/g $\pm\sigma$)	Pu-239 ^b (pCi/g $\pm\sigma$)	Sr-89,90 ^b (pCi/g $\pm\sigma$)	U/Pu ^b (pCi/g $\pm\sigma$)
FS #11 Hwy 19—7mi N of Aiken					(1.10 $\pm$ 2.58)E-02	(-5.17 $\pm$ 5.32)E-03
FS #12 Springfield area					(-0.68 $\pm$ 2.10)E-02	(-3.97 $\pm$ 3.64)E-03
FS #13 Hilda area					(-1.55 $\pm$ 2.08)E-02	(-3.97 $\pm$ 3.64)E-03
FS #2 near Sav. R./E of Sardis					(0.14 $\pm$ 2.30)E-02	(-7.01 $\pm$ 6.44)E-03
FS #3 Jackson area					(-2.03 $\pm$ 1.98)E-02	(-1.05 $\pm$ 8.80)E-03
FS #5 Darkhorse area					(-0.37 $\pm$ 2.06)E-02	(-1.06 $\pm$ 8.80)E-03
FS #6 Snelling area					(-0.71 $\pm$ 2.18)E-02	(0.49 $\pm$ 1.06)E-02
Fruit						
FS #10 Gracewood School area	(8.25 $\pm$ 1.15)E-02			(0.49 $\pm$ 1.09)E-04	(1.57 $\pm$ 2.70)E-02	(-0.30 $\pm$ 2.60)E-03
FS #11 Hwy 19—7mi N of Aiken	(5.38 $\pm$ 1.01)E-02				(3.03 $\pm$ 2.93)E-02	(-0.31 $\pm$ 2.60)E-03
FS #12 Springfield area	(-2.08 $\pm$ 4.91)E-03				(2.14 $\pm$ 2.77)E-02	(-0.65 $\pm$ 5.22)E-03
FS #13 Hilda area	(5.23 $\pm$ 2.31)E-02				(-3.58 $\pm$ 1.98)E-02	(-4.14 $\pm$ 3.78)E-03
FS #14 Ulmers area	(2.44 $\pm$ 1.34)E-02		(1.81 $\pm$ 0.91)E-05		(1.24 $\pm$ 2.70)E-02	(1.46 $\pm$ 3.14)E-03
FS #3 Jackson area	(8.22 $\pm$ 0.70)E-02				(-3.22 $\pm$ 2.36)E-02	(-4.18 $\pm$ 3.82)E-03
FS #4 Talatha area	(7.84 $\pm$ 1.78)E-02				(1.00 $\pm$ 2.43)E-02	(2.92 $\pm$ 6.31)E-03
FS #6 Snelling area	(1.49 $\pm$ 0.11)E-01				(-1.79 $\pm$ 2.58)E-02	(1.45 $\pm$ 3.11)E-03

a All results except those for H-3 are expressed in dry weight.

b Blank space indicates that no analyses were performed.

c Blank space indicates that activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in foodstuffs was 7.00E-03 pCi/g.

Table 35
Radioactivity in Food^a

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Location	H-3 ^b (pCi/g±σ)	Cs-137 ^c (pCi/g±σ)	Pu-238 ^b (pCi/g±σ)	Pu-239 ^b (pCi/g±σ)	Sr-89,90 ^b (pCi/g±σ)	U/Pu ^b (pCi/g±σ)
FS #9 Boyce Dairy area	(1.19 ± 0.17)E-01		(0.00 ± 8.02)E-06	(-5.66 ± 5.66)E-06	(1.54 ± 2.77)E-02	(-0.31 ± 2.60)E-03
N.E. SC 50-mi. radius	(1.24 ± 1.10)E-02					
N.W. SC 50-mi. radius	(1.01 ± 0.21)E-01				(4.12 ± 3.01)E-02	(-0.31 ± 2.57)E-03
S.E. SC 50-mi. radius	(1.08 ± 1.18)E-02		(2.04 ± 1.52)E-05	(1.35 ± 0.96)E-05	(-0.06 ± 2.72)E-02	(-0.30 ± 2.60)E-03
Pork						
N.E. SC 50-mi. radius	(2.55 ± 1.06)E-02				(3.72 ± 1.04)E-02	(-0.58 ± 2.87)E-03
FS #10 Gracewood School area			(4.83 ± 2.08)E-05	(-5.33 ± 5.33)E-06	(2.36 ± 2.91)E-02	
FS #12 Springfield area			(2.62 ± 0.95)E-05	(-0.96 ± 1.17)E-05	(-1.74 ± 2.62)E-02	
FS #5 Darkhorse area					(2.82 ± 2.78)E-02	
FS #7 Wade Plantation vicinity					(3.89 ± 3.36)E-02	
Chicken						
FS #1 Below Barricade #5	(9.09 ± 2.38)E-02		(3.47 ± 3.48)E-05	(6.94 ± 4.91)E-05	(-4.59 ± 2.70)E-02	(-2.19 ± 2.00)E-03
FS #10 Gracewood School area	(6.85 ± 2.91)E-02		(1.17 ± 9.03)E-04	(6.46 ± 9.32)E-06	(-2.93 ± 2.66)E-02	(1.48 ± 3.20)E-03

^a All results except those for H-3 are expressed in dry weight.^b Blank space indicates that no analyses were performed.^c Blank space indicates that activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in foodstuffs was 7.00E-03 pCi/g.

Table 35
Radioactivity in Food^a

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Location	H-3 ^b (pCi/g±σ)	Cs-137 ^c (pCi/g±σ)	Pu-238 ^b (pCi/g±σ)	Pu-239 ^b (pCi/g±σ)	Sr-89,90 ^b (pCi/g±σ)	U/Pu ^b (pCi/g±σ)
FS #11 Hwy 19—7mi N of Aiken	(5.62 ± 2.55)E-02	(2.85 ± 0.71)E-02	(3.28 ± 4.62)E-04	(-2.83 ± 4.28)E-06	(0.74 ± 3.10)E-02	(1.53 ± 3.27)E-03
FS #8 Sardis area	(3.81 ± 2.59)E-02		(-1.47 ± 1.81)E-05	(2.94 ± 2.08)E-05	(-0.02 ± 2.93)E-02	(-2.18 ± 2.00)E-03
Beef						
FS #4 Talatha area		(5.10 ± 0.62)E-02			(-0.36 ± 2.36)E-02	
FS #7 Wade Plantation vicinity		(2.58 ± 0.46)E-02	(2.62 ± 2.31)E-05	(00.00 ± 1.73)E-05	(1.12 ± 2.37)E-02	
FS #13 Hilda area			(7.53 ± 6.76)E-06	(-0.40 ± 1.07)E-05	(0.29 ± 2.50)E-02	
FS #10 Gracewood School area					(2.98 ± 2.88)E-02	
N.E. SC 50-mi. radius					(2.16 ± 3.06)E-02	(1.78 ± 3.89)E-03

a All results except those for H-3 are expressed in dry weight.

b Blank space indicates that no analyses were performed.

c Blank space indicates that activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in foodstuffs was 7.00E-03 pCi/g.

Table 36
Radioactivity in Eggs

Page 1 of 1

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, pCi/g				
FS #1 Below Barricade #5	1	(2.47 $\pm$ 0.34)E-01		
FS #10 Gracewood School area	3	(4.58 $\pm$ 4.44)E-02	(9.71 $\pm$ 2.59)E-02	(1.91 $\pm$ 1.25)E-02
FS #2 near Sav. R./E of Sar- dis ^{NO TAG}	1	(3.87 $\pm$ 1.07)E-02		
FS #4 Talatha area	2	(1.41 $\pm$ 1.41)E-01	(2.41 $\pm$ 0.34)E-01	(4.15 $\pm$ 2.94)E-02
FS #5 Darkhorse area ^{NO TAG}	1	(2.31 $\pm$ 0.27)E-01		
FS #6 Snelling area	2	(1.32 $\pm$ 0.26)E-01	(1.50 $\pm$ 0.49)E-01	(1.14 $\pm$ 0.16)E-01
FS #9 Boyce Dairy area	2	(1.33 $\pm$ 3.64)E-02	(3.91 $\pm$ 2.70)E-02	(-1.24 $\pm$ 5.71)E-02
Sr-89,90, pCi/g				
FS #1 Below Barricade #5 ^{NO TAG}	1	(0.36 $\pm$ 2.73)E-02		
FS #10 Gracewood School area	3	(-2.80 $\pm$ 1.94)E-02	(-0.90 $\pm$ 2.51)E-02	(-4.78 $\pm$ 4.92)E-02
FS #2 near Sav. R./E of Sar- dis ^{NO TAG}	1	(-2.19 $\pm$ 2.35)E-02		
FS #4 Talatha area	2	(-3.33 $\pm$ 6.24)E-02	(1.08 $\pm$ 2.49)E-02	(-7.74 $\pm$ 4.60)E-02
FS #5 Darkhorse area ^{NO TAG}	1	(1.54 $\pm$ 2.57)E-02		
FS #6 Snelling area	2	(-4.39 $\pm$ 5.04)E-02	(-0.83 $\pm$ 2.00)E-02	(-7.96 $\pm$ 9.00)E-02
FS #9 Boyce Dairy area	2	(-4.91 $\pm$ 0.85)E-02	(-4.31 $\pm$ 9.24)E-02	(-5.51 $\pm$ 1.84)E-02
U/Pu, pCi/g				
FS #1 Below Barricade #5 ^{NO TAG}	1	(-2.16 $\pm$ 1.98)E-03		
FS #10 Gracewood School area	3	(-0.21 $\pm$ 1.59)E-03	(1.43 $\pm$ 3.08)E-03	(-0.17 $\pm$ 1.47)E-02
FS #2 near Sav. R./E of Sar- dis ^{NO TAG}	1	(-2.16 $\pm$ 1.99)E-03		
FS #4 Talatha area	2	(-1.04 $\pm$ 1.04)E-03	(-0.30 $\pm$ 2.57)E-03	(-0.18 $\pm$ 1.47)E-02
FS #5 Darkhorse area ^{NO TAG}	1	(-0.33 $\pm$ 2.69)E-03		
FS #6 Snelling area	2	(-1.92 $\pm$ 0.27)E-03	(-0.17 $\pm$ 1.47)E-02	(-2.11 $\pm$ 1.93)E-03
FS #9 Boyce Dairy area	2	(-1.04 $\pm$ 1.02)E-03	(-0.32 $\pm$ 2.57)E-03	(-0.18 $\pm$ 1.47)E-02

Table 37
Radioactivity in Milk

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, $\mu\text{Ci/mL}$				
Dairy (Major Distributor)	12	$(0.48 \pm 1.65)\text{E-07}$	$(3.21 \pm 1.20)\text{E-07}$	$(-1.53 \pm 1.40)\text{E-07}$
Denmark, SC	12	$(1.54 \pm 1.64)\text{E-07}$	$(3.38 \pm 1.23)\text{E-07}$	$(-1.61 \pm 1.40)\text{E-07}$
Girard, GA Dairy	12	$(3.73 \pm 3.02)\text{E-07}$	$(9.50 \pm 1.60)\text{E-07}$	$(-0.16 \pm 1.43)\text{E-07}$
Gracewood, GA Dairy	11	$(0.29 \pm 1.39)\text{E-07}$	$(2.31 \pm 1.09)\text{E-07}$	$(-1.37 \pm 1.43)\text{E-07}$
Jackson, SC Dairy	12	$(7.18 \pm 1.75)\text{E-07}$	$(1.17 \pm 0.13)\text{E-06}$	$(5.79 \pm 1.48)\text{E-07}$
Waynesboro, GA Dairy	12	$(0.77 \pm 1.67)\text{E-07}$	$(3.21 \pm 1.55)\text{E-07}$	$(-2.30 \pm 1.40)\text{E-07}$
N.E. SC 50-Mile Radius	11	$(0.89 \pm 1.32)\text{E-07}$	$(3.74 \pm 1.16)\text{E-07}$	$(-0.40 \pm 1.43)\text{E-07}$
N.W. SC 50-Mile Radius	12	$(0.19 \pm 1.90)\text{E-07}$	$(3.35 \pm 1.48)\text{E-07}$	$(-2.73 \pm 1.41)\text{E-07}$
S.E. SC 50-Mile Radius	12	$(-0.03 \pm 1.45)\text{E-07}$	$(2.72 \pm 1.19)\text{E-07}$	$(-2.21 \pm 1.41)\text{E-07}$
S.W. GA 50-Mile Radius	12	$(-0.05 \pm 1.20)\text{E-07}$	$(1.77 \pm 1.19)\text{E-07}$	$(-2.42 \pm 1.42)\text{E-07}$
Sr-90, $\mu\text{Ci/mL}$				
Dairy (Major Distributor)	2	$(9.96 \pm 4.59)\text{E-10}$	$(1.32 \pm 1.14)\text{E-09}$	$(0.67 \pm 1.06)\text{E-09}$
Denmark, SC	2	$(6.41 \pm 3.51)\text{E-10}$	$(0.89 \pm 1.13)\text{E-09}$	$(0.39 \pm 1.41)\text{E-09}$
Girard, GA Dairy	2	$(2.66 \pm 2.13)\text{E-09}$	$(4.17 \pm 1.37)\text{E-09}$	$(1.16 \pm 0.97)\text{E-09}$
Gracewood, GA Dairy	2	$(5.34 \pm 0.98)\text{E-10}$	$(0.60 \pm 1.03)\text{E-09}$	$(0.46 \pm 1.06)\text{E-09}$
Jackson, SC Dairy	2	$(-0.89 \pm 3.80)\text{E-10}$	$(1.80 \pm 9.61)\text{E-10}$	$(-3.58 \pm 9.88)\text{E-10}$
Waynesboro, GA Dairy	2	$(-0.19 \pm 1.29)\text{E-09}$	$(0.73 \pm 1.45)\text{E-09}$	$(-1.10 \pm 1.19)\text{E-09}$
Cs-137, $\mu\text{Ci/mL}$^a (The typical lower limit of detection for Cs-137 in milk was $3.00\text{E-09 } \mu\text{Ci/mL}$.)				
Dairy (Major Distributor)	2/12	$(3.14 \pm 0.30)\text{E-09}$	$(3.35 \pm 1.23)\text{E-09}$	$(2.93 \pm 0.92)\text{E-09}$
Denmark, SC	6/12	$(4.54 \pm 0.66)\text{E-09}$	$(5.41 \pm 1.30)\text{E-09}$	$(3.80 \pm 1.20)\text{E-09}$
Girard, GA Dairy	7/12	$(4.05 \pm 0.66)\text{E-09}$	$(5.35 \pm 1.49)\text{E-09}$	$(3.27 \pm 1.18)\text{E-09}$
Gracewood, GA Dairy	2/11	$(5.62 \pm 0.63)\text{E-09}$	$(6.07 \pm 1.16)\text{E-09}$	$(5.17 \pm 1.44)\text{E-09}$
Jackson, SC Dairy	2/12	$(4.05 \pm 1.27)\text{E-09}$	$(4.94 \pm 1.05)\text{E-09}$	$(3.15 \pm 1.04)\text{E-09}$
Waynesboro, GA Dairy	1/12	$(2.67 \pm 0.87)\text{E-09}$		
N.E. SC 50-Mile Radius	9/12	$(5.10 \pm 0.97)\text{E-09}$	$(6.65 \pm 1.52)\text{E-09}$	$(3.58 \pm 0.75)\text{E-09}$
N.W. SC 50-Mile Radius	0/12			
S.E. SC 50-Mile Radius	10/12	$(4.22 \pm 0.78)\text{E-09}$	$(5.37 \pm 1.55)\text{E-09}$	$(2.78 \pm 0.85)\text{E-09}$
S.W. GA 50-Mile Radius	5/12	$(3.59 \pm 1.16)\text{E-09}$	$(5.34 \pm 1.38)\text{E-09}$	$(2.53 \pm 0.80)\text{E-09}$

^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 mean, maximum, and minimum generation.

Table 38
Radioactivity in Fish

Page 1 of 14

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, pCi/g				
Off Site (Edible)				
Augusta Lock and Dam				
Bass	3	$(1.70 \pm 1.19)E-02$	$(2.60 \pm 0.77)E-02$	$(0.35 \pm 2.43)E-02$
Bream	3	$(5.27 \pm 5.87)E-02$	$(1.20 \pm 0.22)E-01$	$(1.17 \pm 2.56)E-02$
Beaver Dam Creek River Mouth				
Bream	1	$(4.32 \pm 0.72)E-02$		
Catfish	3	$(1.59 \pm 1.07)E-01$	$(2.44 \pm 0.28)E-01$	$(3.83 \pm 0.72)E-02$
Four Mile Creek River Mouth				
Bream	3	$(2.86 \pm 1.88)E-01$	$(4.14 \pm 0.13)E-01$	$(7.05 \pm 0.94)E-02$
Catfish	3	$(8.38 \pm 3.79)E-01$	$(1.12 \pm 0.02)E+00$	$(4.07 \pm 0.14)E-01$
Hwy-301 Bridge Area				
Bass	2	$(1.24 \pm 1.57)E-01$	$(2.35 \pm 0.23)E-01$	$(1.33 \pm 1.08)E-02$
Bream	3	$(1.06 \pm 0.54)E-01$	$(1.66 \pm 0.15)E-01$	$(6.47 \pm 1.18)E-02$
Catfish	3	$(1.24 \pm 0.67)E-01$	$(1.96 \pm 0.18)E-01$	$(6.36 \pm 0.61)E-02$
L3R Creek River Mouth				
Bass	1	$(9.92 \pm 1.15)E-02$		
Bream	3	$(1.55 \pm 0.54)E-01$	$(2.17 \pm 0.22)E-01$	$(1.18 \pm 0.15)E-01$
Catfish	3	$(1.01 \pm 0.25)E-01$	$(1.30 \pm 0.18)E-01$	$(8.53 \pm 1.19)E-02$
Steel Creek River Mouth				
Bass	2	$(1.45 \pm 0.04)E+00$	$(1.47 \pm 0.02)E+00$	$(1.42 \pm 0.02)E+00$
Bream	3	$(1.53 \pm 0.70)E-01$	$(2.01 \pm 0.13)E-01$	$(7.25 \pm 0.85)E-02$
Catfish	3	$(1.52 \pm 0.50)E-01$	$(2.08 \pm 0.17)E-01$	$(1.11 \pm 0.08)E-01$
U3R Creek River Mouth				
Catfish	3	$(1.24 \pm 0.37)E-01$	$(1.61 \pm 0.15)E-01$	$(8.75 \pm 0.96)E-02$
West Bank Landing				
Bass	1	$(-3.37 \pm 1.87)E-02$		
Bream	1	$(-1.62 \pm 1.38)E-02$		
Crappie	3	$(-1.57 \pm 0.33)E-02$	$(-1.25 \pm 2.96)E-02$	$(-1.92 \pm 2.00)E-02$

Table 38
Radioactivity in Fish

Page 2 of 14

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Sr-90, pCi/g				
Off Site (Edible)				
Augusta Lock and Dam				
Bass	3	$(1.02 \pm 1.88)E-02$	$(2.85 \pm 0.73)E-02$	$(-9.00 \pm 9.17)E-03$
Bream	3	$(0.76 \pm 1.15)E-02$	$(1.96 \pm 1.08)E-02$	$(-0.33 \pm 2.09)E-02$
Beaver Dam Creek River Mouth				
Bream	1	$(3.89 \pm 0.87)E-02$		
Catfish	3	$(0.93 \pm 3.14)E-03$	$(4.48 \pm 3.65)E-03$	$(-1.48 \pm 6.45)E-03$
Four Mile Creek River Mouth				
Bream	3	$(1.14 \pm 0.39)E-02$	$(1.42 \pm 0.75)E-02$	$(6.98 \pm 7.20)E-03$
Catfish	3	$(4.63 \pm 2.15)E-03$	$(7.05 \pm 4.09)E-03$	$(2.97 \pm 5.47)E-03$
Hwy-301 Bridge Area				
Bass	2	$(3.64 \pm 6.87)E-03$	$(8.50 \pm 4.41)E-03$	$(-1.22 \pm 3.21)E-03$
Bream	3	$(5.30 \pm 3.91)E-03$	$(9.29 \pm 3.75)E-03$	$(1.48 \pm 3.37)E-03$
Catfish	2	$(1.16 \pm 7.73)E-03$	$(6.63 \pm 5.28)E-03$	$(-4.30 \pm 5.19)E-03$
L3R Creek River Mouth				
Bass	1	$(4.99 \pm 4.20)E-03$		
Bream	3	$(1.85 \pm 2.26)E-02$	$(4.45 \pm 2.24)E-02$	$(3.34 \pm 5.25)E-03$
Catfish	3	$(5.74 \pm 2.09)E-03$	$(8.16 \pm 5.02)E-03$	$(4.43 \pm 5.32)E-03$
Steel Creek River Mouth				
Bass	2	$(2.41 \pm 0.44)E-02$	$(2.72 \pm 0.99)E-02$	$(2.10 \pm 0.55)E-02$
Bream	2	$(7.95 \pm 3.97)E-03$	$(1.08 \pm 1.06)E-02$	$(0.51 \pm 1.67)E-02$
Catfish	2	$(4.69 \pm 3.32)E-03$	$(7.04 \pm 5.15)E-03$	$(2.34 \pm 5.28)E-03$
U3R Creek River Mouth				
Catfish	1	$(3.55 \pm 3.74)E-03$		
West Bank Landing				
Bass	1	$(-3.84 \pm 7.17)E-03$		
Bream	1	$(6.84 \pm 9.28)E-03$		
Crappie	3	$(3.11 \pm 3.11)E-02$	$(6.69 \pm 1.55)E-02$	$(1.17 \pm 1.13)E-02$
Off Site (Nonedible)				
Augusta Lock and Dam				
Bass	3	$(2.35 \pm 1.12)E-01$	$(3.21 \pm 0.68)E-01$	$(1.09 \pm 0.28)E-01$

Table 38
Radioactivity in Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Bream	3	(3.40 $\pm$ 3.20)E-01	(6.99 $\pm$ 0.75)E-01	(8.60 $\pm$ 2.76)E-02
Beaver Dam Creek River Mouth				
Bream	1	(9.77 $\pm$ 0.98)E-01		
Catfish	3	(4.79 $\pm$ 3.04)E-01	(6.95 $\pm$ 2.29)E-01	(1.31 $\pm$ 0.49)E-01
Four Mile Creek River Mouth				
Bream	3	(1.44 $\pm$ 0.38)E+00	(1.82 $\pm$ 0.33)E+00	(1.05 $\pm$ 0.38)E+00
Catfish	3	(2.06 $\pm$ 1.37)E-01	(3.02 $\pm$ 0.65)E-01	(4.88 $\pm$ 5.81)E-02
Hwy-301 Bridge Area				
Bass	2	(8.72 $\pm$ 1.10)E-02	(9.50 $\pm$ 2.87)E-02	(7.94 $\pm$ 2.61)E-02
Bream	3	(1.43 $\pm$ 0.16)E-01	(1.56 $\pm$ 0.35)E-01	(1.25 $\pm$ 0.31)E-01
Catfish	3	(2.16 $\pm$ 1.04)E-01	(2.96 $\pm$ 0.67)E-01	(9.84 $\pm$ 2.70)E-02
L3R Creek River Mouth				
Bass	1	(2.13 $\pm$ 0.59)E-01		
Bream	3	(2.06 $\pm$ 1.10)E-01	(3.19 $\pm$ 0.58)E-01	(9.87 $\pm$ 2.76)E-02
Catfish	2	(1.95 $\pm$ 2.17)E-01	(3.48 $\pm$ 0.62)E-01	(4.18 $\pm$ 5.34)E-02
Steel Creek River Mouth				
Bass	2	(1.34 $\pm$ 0.90)E-01	(1.98 $\pm$ 0.42)E-01	(7.01 $\pm$ 2.65)E-02
Bream	3	(1.29 $\pm$ 0.55)E-01	(1.91 $\pm$ 0.34)E-01	(8.94 $\pm$ 2.70)E-02
Catfish	3	(3.81 $\pm$ 5.30)E-01	(9.92 $\pm$ 3.06)E-01	(7.49 $\pm$ 2.45)E-02
U3R Creek River Mouth				
Catfish	3	(2.04 $\pm$ 1.62)E-01	(3.18 $\pm$ 0.66)E-01	(1.80 $\pm$ 1.99)E-02
West Bank Landing				
Bass	1	(3.37 $\pm$ 0.64)E-01		
Bream	1	(1.97 $\pm$ 0.51)E-01		
Crappie	3	(2.90 $\pm$ 0.49)E-01	(3.37 $\pm$ 0.59)E-01	(2.39 $\pm$ 0.62)E-01
Cs-137, pCi/g^a (The typical lower limit of detection for Cs-137 in fish was 4.2E-02 pCi/g.)				
Off Site (Edible)				
Hwy-17A Bridge Area				
Bass	2/2	(1.04 $\pm$ 0.40)E-01	(1.33 $\pm$ 0.23)E-01	(7.59 $\pm$ 2.07)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 mean, maximum, and minimum generation.

Table 38
Radioactivity in Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Mullet	3/3	(2.54 $\pm$ 2.67)E-01	(5.61 $\pm$ 0.31)E-01	(7.73 $\pm$ 2.07)E-02
Augusta Lock and Dam				
Bass	2/2	(2.42 $\pm$ 2.53)E-01	(4.21 $\pm$ 0.32)E-01	(6.39 $\pm$ 2.09)E-02
Bream	1/2	(1.88 $\pm$ 0.40)E-01		
Beaver Dam Creek River Mouth				
Bream	1/1	(7.07 $\pm$ 0.43)E-01		
Catfish	1/3	(7.39 $\pm$ 2.21)E-02	(7.39 $\pm$ 2.21)E-02	(7.39 $\pm$ 2.21)E-02
Four Mile Creek River Mouth				
Bream	1/3	(1.52 $\pm$ 0.43)E-01		
Catfish	2/3	(7.22 $\pm$ 1.18)E-02	(8.05 $\pm$ 1.95)E-02	(6.39 $\pm$ 1.86)E-02
Hwy-301 Bridge Area				
Bass	0/2			
Bream	1/3	(8.60 $\pm$ 2.43)E-02		
Catfish	2/3	(1.11 $\pm$ 0.55)E-01	(1.49 $\pm$ 0.20)E-01	(7.18 $\pm$ 1.48)E-02
L3R Creek River Mouth				
Bass	1/1	(7.41 $\pm$ 0.38)E-01		
Bream	3/3	(4.31 $\pm$ 3.37)E-01	(7.86 $\pm$ 0.53)E-01	(1.17 $\pm$ 0.23)E-01
Catfish	3/3	(2.02 $\pm$ 0.59)E-01	(2.61 $\pm$ 0.27)E-01	(1.43 $\pm$ 0.23)E-01
Steel Creek River Mouth				
Bass	2/2	(1.26 $\pm$ 0.23)E+00	(1.42 $\pm$ 0.05)E+00	(1.10 $\pm$ 0.04)E+00
Bream	1/2	(1.36 $\pm$ 0.31)E-01		
Catfish	3/3	(1.46 $\pm$ 0.71)E-01	(1.94 $\pm$ 0.28)E-01	(6.46 $\pm$ 1.44)E-02
Stokes Bluff Landing				
Bass	3/3	(8.39 $\pm$ 0.37)E-02	(8.63 $\pm$ 1.93)E-02	(7.97 $\pm$ 2.23)E-02
Bream	1/3	(4.08 $\pm$ 1.22)E-02		
Catfish	2/3	(2.91 $\pm$ 4.01)E+00	(5.75 $\pm$ 0.02)E+00	(7.30 $\pm$ 1.93)E-02
U3R Creek River Mouth				
Catfish	2/3	(6.95 $\pm$ 1.37)E-02	(7.93 $\pm$ 2.39)E-02	(5.98 $\pm$ 1.67)E-02
West Bank Landing				
Bass	1/1	(2.54 $\pm$ 0.32)E-01		
Crappie	1/2	(4.50 $\pm$ 0.60)E-01		

Table 38
Radioactivity in Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
On Site (Edible)				
Beaver Dam Creek				
Bream	1/3	(1.21 $\pm$ 0.37)E-01		
Catfish	1/1	(7.99 $\pm$ 2.40)E-02		
FM-6 at Road A-12.2				
Bass	1/1	(5.35 $\pm$ 0.12)E+00		
L-Lake				
Bass	3/3	(1.40 $\pm$ 0.38)E+00	(1.77 $\pm$ 0.07)E+00	(1.01 $\pm$ 0.06)E+00
Bream	3/3	(4.15 $\pm$ 1.91)E-01	(6.29 $\pm$ 0.64)E-01	(2.62 $\pm$ 0.45)E-01
Catfish	1/1	(8.49 $\pm$ 0.56)E-01		
L3R-2 Patterson Mill Rd				
Bass	3/3	(6.36 $\pm$ 0.83)E+00	(7.13 $\pm$ 0.13)E+00	(5.48 $\pm$ 0.12)E+00
Bream	2/2	(3.04 $\pm$ 0.58)E+00	(3.45 $\pm$ 0.11)E+00	(2.62 $\pm$ 0.10)E+00
Crappie	1/1	(2.68 $\pm$ 0.10)E+00		
PB-3 at Road A-13.2				
Bass	3/3	(2.33 $\pm$ 0.41)E-01	(2.68 $\pm$ 0.32)E-01	(1.88 $\pm$ 0.34)E-01
Bream	1/3	(1.55 $\pm$ 0.30)E-01		
Catfish	0/1			
Par Pond				
Bass	3/3	(9.56 $\pm$ 6.47)E+00	(1.43 $\pm$ 0.02)E+01	(2.19 $\pm$ 0.07)E+00
Bream	3/3	(1.00 $\pm$ 1.05)E+01	(2.22 $\pm$ 0.04)E+01	(3.36 $\pm$ 0.13)E+00
Pond B				
Bass	3/3	(1.04 $\pm$ 0.13)E+02	(1.16 $\pm$ 0.01)E+02	(8.93 $\pm$ 0.04)E+01
Bream	3/3	(2.99 $\pm$ 0.48)E+01	(3.48 $\pm$ 0.03)E+01	(2.53 $\pm$ 0.03)E+01
Crappie	1/1	(9.71 $\pm$ 0.05)E+01		
SC-4 Steel Creek at Road A				
Bass	3/3	(3.97 $\pm$ 0.45)E+00	(4.49 $\pm$ 0.11)E+00	(3.64 $\pm$ 0.10)E+00
Bream	3/3	(3.91 $\pm$ 0.53)E-01	(4.46 $\pm$ 0.42)E-01	(3.42 $\pm$ 0.38)E-01
Off Site (Nonedible)				
Augusta Lock and Dam				
Bass	1/2	(3.31 $\pm$ 0.26)E-01		
Bream	0/2			

Table 38
Radioactivity in Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Beaver Dam Creek River Mouth				
Bream	1/1	(1.43 $\pm$ 0.40)E-01		
Catfish	2/3	(4.01 $\pm$ 1.79)E-02	(5.27 $\pm$ 1.61)E-02	(2.74 $\pm$ 0.60)E-02
Four Mile Creek River Mouth				
Bream	1/3	(1.17 $\pm$ 0.31)E-01		
Catfish	1/3	(8.63 $\pm$ 2.33)E-02		
Hwy-301 Bridge Area				
Bass	1/2	(5.67 $\pm$ 1.88)E-02		
Bream	0/3			
Catfish	2/3	(6.67 $\pm$ 3.40)E-02	(9.08 $\pm$ 2.42)E-02	(4.27 $\pm$ 1.40)E-02
L3R Creek River Mouth				
Bass	1/1	(3.50 $\pm$ 0.37)E-01		
Bream	3/3	(3.23 $\pm$ 2.26)E-01	(5.46 $\pm$ 0.42)E-01	(9.40 $\pm$ 1.75)E-02
Catfish	2/2	(1.67 $\pm$ 0.08)E-01	(1.73 $\pm$ 0.24)E-01	(1.61 $\pm$ 0.19)E-01
Steel Creek River Mouth				
Bass	2/2	(7.08 $\pm$ 1.50)E-01	(8.14 $\pm$ 0.27)E-01	(6.02 $\pm$ 0.36)E-01
Bream	2/2	(8.08 $\pm$ 0.62)E-02	(8.52 $\pm$ 2.46)E-02	(7.64 $\pm$ 2.36)E-02
Catfish	2/3	(1.10 $\pm$ 0.11)E-01	(1.18 $\pm$ 0.24)E-01	(1.02 $\pm$ 0.20)E-01
U3R Creek River Mouth				
Catfish	0/3			
West Bank Landing				
Bass	1/1	(1.51 $\pm$ 0.26)E-01		
Bream	1/1	(9.68 $\pm$ 3.30)E-02		
Crappie	3/3	(2.02 $\pm$ 1.55)E-01	(3.61 $\pm$ 0.46)E-01	(5.19 $\pm$ 1.70)E-02
Pu-238, pCi/g				
Off Site (Edible)				
Augusta Lock and Dam				
Bass	1	(3.27 $\pm$ 7.32)E-06		
Bream	1	(0.00 $\pm$ 2.61)E-05		
Beaver Dam Creek River Mouth				
Bream	1	(4.05 $\pm$ 2.14)E-05		
Catfish	3	(5.81 $\pm$ 5.10)E-06	(9.54 $\pm$ 6.75)E-06	(0.00 $\pm$ 6.87)E-06

Table 38
Radioactivity in Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Four Mile Creek River Mouth				
Bream	2	$(-5.46 \pm 7.72)E-06$	$(0.00 \pm 1.59)E-05$	$(-1.09 \pm 1.09)E-05$
Catfish	3	$(-0.78 \pm 7.45)E-06$	$(0.78 \pm 1.35)E-05$	$(-5.80 \pm 5.80)E-06$
Hwy-301 Bridge Area				
Bass	2	$(2.95 \pm 7.47)E-06$	$(8.23 \pm 4.76)E-06$	$(-2.33 \pm 5.22)E-06$
Bream	3	$(1.02 \pm 5.18)E-06$	$(4.52 \pm 4.52)E-06$	$(-4.94 \pm 3.50)E-06$
Catfish	3	$(0.14 \pm 1.49)E-05$	$(1.42 \pm 0.54)E-05$	$(-1.50 \pm 0.87)E-05$
L3R Creek River Mouth				
Bream	3	$(5.44 \pm 8.37)E-05$	$(1.51 \pm 1.07)E-04$	$(00.00 \pm 6.00)E-06$
Catfish	2	$(3.11 \pm 9.04)E-06$	$(9.50 \pm 5.49)E-06$	$(-3.28 \pm 7.33)E-06$
Steel Creek River Mouth				
Bass	2	$(5.31 \pm 8.46)E-05$	$(1.13 \pm 0.51)E-04$	$(-0.67 \pm 1.51)E-05$
Bream	2	$(0.87 \pm 1.24)E-05$	$(1.75 \pm 0.78)E-05$	$(00.00 \pm 5.45)E-06$
Catfish	3	$(3.97 \pm 7.93)E-06$	$(1.19 \pm 0.69)E-05$	$(-3.97 \pm 3.98)E-06$
U3R Creek River Mouth				
Catfish	3	$(-2.59 \pm 2.53)E-06$	$(00.00 \pm 6.04)E-06$	$(-0.51 \pm 1.13)E-05$
West Bank Landing				
Bass	1	$(0.00 \pm 2.78)E-05$		
Crappie	1	$(2.00 \pm 1.15)E-05$		
Pu-239, pCi/g				
Off Site (Edible)				
Augusta Lock and Dam				
Bass	1	$(9.78 \pm 7.30)E-06$		
Beaver Dam Creek River Mouth				
Bream	1	$(-2.42 \pm 2.67)E-05$		
Catfish	3	$(1.58 \pm 2.74)E-06$	$(4.74 \pm 4.74)E-06$	$(0.00 \pm 9.69)E-06$
Four Mile Creek River Mouth				
Bream	2	$(-1.65 \pm 0.75)E-05$	$(-1.12 \pm 2.50)E-05$	$(-2.18 \pm 2.18)E-05$
Catfish	2	$(4.31 \pm 6.10)E-06$	$(8.63 \pm 6.10)E-06$	$(0.00 \pm 8.18)E-06$
Hwy-301 Bridge Area				
Bass	2	$(-2.95 \pm 7.46)E-06$	$(2.33 \pm 4.04)E-06$	$(-8.22 \pm 6.13)E-06$
Bream	3	$(3.81 \pm 3.51)E-06$	$(6.92 \pm 3.46)E-06$	$(00.00 \pm 3.49)E-06$

Table 38
Radioactivity in Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Catfish	3	$(-3.32 \pm 5.76)E-06$	$(0.00 \pm 3.84)E-06$	$(-9.97 \pm 7.06)E-06$
L3R Creek River Mouth				
Bream	3	$(-2.51 \pm 4.36)E-05$	$(4.89 \pm 4.89)E-06$	$(-7.51 \pm 7.51)E-05$
Catfish	2	$(-8.74 \pm 5.56)E-10$	$(00.00 \pm 6.55)E-06$	$(00.00 \pm 8.94)E-06$
Steel Creek River Mouth				
Bass	2	$(2.92 \pm 2.24)E-05$	$(4.50 \pm 5.53)E-05$	$(1.34 \pm 1.64)E-05$
Bream	2	$(1.92 \pm 2.72)E-06$	$(3.85 \pm 6.66)E-06$	$(00.00 \pm 6.98)E-06$
Catfish	2	$(3.97 \pm 0.03)E-06$	$(3.99 \pm 2.82)E-06$	$(3.95 \pm 8.85)E-06$
U3R Creek River Mouth				
Catfish	3	$(-4.00 \pm 1.18)E-06$	$(-2.71 \pm 4.70)E-06$	$(-5.04 \pm 8.73)E-06$
West Bank Landing				
Bass	1	$(2.95 \pm 2.60)E-05$		
Crappie	1	$(2.66 \pm 1.63)E-05$		
Gross Alpha, pCi/g				
Off Site (Edible)				
Hwy-17A Bridge Area				
Bass	2	$(1.66 \pm 1.69)E-01$	$(-0.46 \pm 3.53)E-01$	$(-2.85 \pm 2.62)E-01$
Flounder	1	$(-1.85 \pm 1.98)E-01$		
Mullet	3	$(0.23 \pm 2.20)E-01$	$(2.41 \pm 3.67)E-01$	$(-1.99 \pm 2.00)E-01$
Augusta Lock and Dam				
Bass	2	$(-3.77 \pm 0.04)E-01$	$(-3.74 \pm 3.42)E-01$	$(-3.81 \pm 3.42)E-01$
Bream	2	$(-0.76 \pm 4.13)E-01$	$(2.16 \pm 4.71)E-01$	$(-3.68 \pm 3.36)E-01$
Beaver Dam Creek River Mouth				
Bream	1	$(-2.52 \pm 2.29)E-01$		
Catfish	3	$(-9.05 \pm 8.56)E-02$	$(-0.41 \pm 3.18)E-01$	$(-1.89 \pm 1.60)E-01$
Four Mile Creek River Mouth				
Bream	3	$(-0.09 \pm 1.79)E-01$	$(1.72 \pm 3.12)E-01$	$(-1.87 \pm 1.80)E-01$
Catfish	3	$(-0.71 \pm 2.01)E-01$	$(1.61 \pm 3.03)E-01$	$(-1.92 \pm 1.80)E-01$
Hwy-301 Bridge Area				
Bass	2	$(-0.85 \pm 1.49)E-01$	$(0.21 \pm 2.96)E-01$	$(-1.90 \pm 1.86)E-01$
Bream	3	$(-0.39 \pm 2.52)E-01$	$(2.52 \pm 3.80)E-01$	$(-1.85 \pm 1.86)E-01$
Catfish	3	$(1.88 \pm 3.59)E+00$	$(6.03 \pm 0.74)E+00$	$(-2.03 \pm 1.67)E-01$

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Radioactivity in Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
L3R Creek River Mouth				
Bass	1	(0.25 $\pm$ 3.02)E-01		
Bream	3	(-1.28 $\pm$ 1.04)E-01	(-0.08 $\pm$ 2.29)E-01	(-1.90 $\pm$ 1.86)E-01
Catfish	3	(-8.96 $\pm$ 9.85)E-02	(-0.32 $\pm$ 2.47)E-01	(-2.03 $\pm$ 1.67)E-01
Steel Creek River Mouth				
Bass	2	(-0.75 $\pm$ 1.47)E-01	(0.29 $\pm$ 2.74)E-01	(-1.79 $\pm$ 1.86)E-01
Bream	2	(1.55 $\pm$ 2.34)E-01	(3.20 $\pm$ 3.31)E-01	(-0.11 $\pm$ 2.39)E-01
Catfish	3	(-1.53 $\pm$ 0.92)E-01	(-0.47 $\pm$ 2.38)E-01	(-2.13 $\pm$ 1.79)E-01
Stokes Bluff Landing				
Bass	3	(-0.48 $\pm$ 2.54)E-01	(2.45 $\pm$ 3.64)E-01	(-1.97 $\pm$ 1.98)E-01
Bream	2	(-0.89 $\pm$ 1.62)E-01	(0.26 $\pm$ 2.93)E-01	(-2.03 $\pm$ 1.98)E-01
Catfish	3	(0.08 $\pm$ 1.71)E-01	(1.06 $\pm$ 2.65)E-01	(-1.89 $\pm$ 1.60)E-01
U3R Creek River Mouth				
Catfish	3	(0.55 $\pm$ 2.21)E-01	(2.49 $\pm$ 2.96)E-01	(-1.85 $\pm$ 1.86)E-01
West Bank Landing				
Bream	1	(-0.53 $\pm$ 4.14)E-01		
Crappie	2	(-0.69 $\pm$ 4.19)E-01	(2.27 $\pm$ 4.91)E-01	(-3.66 $\pm$ 3.35)E-01
On Site (Edible)				
Beaver Dam Creek				
Bream	3	(0.21 $\pm$ 2.10)E-01	(2.35 $\pm$ 3.54)E-01	(-1.85 $\pm$ 1.60)E-01
Catfish	1	(-3.44 $\pm$ 3.19)E-01		
FM-6 at Road A-12.2				
Bass	1	(0.15 $\pm$ 3.13)E-01		
L-Lake				
Bass	3	(-8.07 $\pm$ 9.10)E-02	(-0.17 $\pm$ 3.33)E-01	(-1.85 $\pm$ 1.86)E-01
Bream	3	(-0.47 $\pm$ 1.20)E-01	(0.24 $\pm$ 2.80)E-01	(-1.86 $\pm$ 1.87)E-01
L3R-2 Patterson Mill Rd				
Bass	2	(-2.41 $\pm$ 0.34)E-02	(-0.22 $\pm$ 3.26)E-01	(-0.27 $\pm$ 3.40)E-01
Bream	2	(0.95 $\pm$ 5.00)E-01	(4.49 $\pm$ 4.66)E-01	(-2.58 $\pm$ 2.45)E-01
Crappie	1	(4.49 $\pm$ 4.71)E-01		
PB-3 at Road A-13.2				
Bass	3	(-6.44 $\pm$ 9.33)E-02	(-0.10 $\pm$ 2.34)E-01	(-1.72 $\pm$ 1.66)E-01

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Radioactivity in Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Bream	3	$(-0.90 \pm 2.01)E-01$	$(0.27 \pm 2.80)E-01$	$(-3.22 \pm 2.93)E-01$
Catfish	1	$(2.24 \pm 3.45)E-01$		
Par Pond				
Bass	3	$(0.69 \pm 1.35)E-01$	$(2.24 \pm 3.50)E-01$	$(-0.17 \pm 2.80)E-01$
Bream	3	$(2.14 \pm 3.49)E-01$	$(6.16 \pm 4.65)E-01$	$(0.09 \pm 2.80)E-01$
Pond B				
Bass	3	$(2.19 \pm 5.52)E-01$	$(8.45 \pm 6.03)E-01$	$(-1.97 \pm 3.33)E-01$
Bream	3	$(-1.37 \pm 0.91)E-01$	$(-0.75 \pm 3.40)E-01$	$(-2.41 \pm 2.00)E-01$
Crappie	1	$(-4.46 \pm 3.19)E-01$		
SC-4 Steel Creek at Road A				
Bass	3	$(0.44 \pm 1.03)E-01$	$(1.63 \pm 3.10)E-01$	$(-0.15 \pm 2.34)E-01$
Bream	3	$(-0.95 \pm 2.71)E-01$	$(2.18 \pm 4.08)E-01$	$(-2.52 \pm 2.36)E-01$
Off Site (Nonedible)				
Augusta Lock and Dam				
Bass	2	$(1.96 \pm 3.41)E-01$	$(4.38 \pm 4.96)E-01$	$(-0.45 \pm 3.53)E-01$
Bream	2	$(1.94 \pm 0.04)E-01$	$(1.97 \pm 4.30)E-01$	$(1.90 \pm 4.11)E-01$
Beaver Dam Creek River Mouth				
Bream	1	$(4.69 \pm 5.34)E-01$		
Catfish	3	$(-9.61 \pm 8.50)E-02$	$(-0.41 \pm 3.34)E-01$	$(-1.94 \pm 1.67)E-01$
Four Mile Creek River Mouth				
Bream	3	$(-0.28 \pm 4.26)E-01$	$(2.23 \pm 4.13)E-01$	$(-5.20 \pm 4.93)E-01$
Catfish	3	$(1.09 \pm 2.07)E-01$	$(3.48 \pm 3.53)E-01$	$(-0.12 \pm 2.55)E-01$
Hwy-301 Bridge Area				
Bass	2	$(-1.03 \pm 1.88)E-01$	$(0.30 \pm 3.95)E-01$	$(-2.36 \pm 2.38)E-01$
Bream	3	$(3.00 \pm 2.70)E-01$	$(5.76 \pm 5.34)E-01$	$(0.36 \pm 3.31)E-01$
Catfish	3	$(-2.17 \pm 0.23)E-01$	$(-1.99 \pm 1.73)E-01$	$(-2.43 \pm 2.10)E-01$
L3R Creek River Mouth				
Bass	1	$(5.37 \pm 4.97)E-01$		
Bream	3	$(0.04 \pm 2.85)E-01$	$(2.77 \pm 4.07)E-01$	$(-2.93 \pm 2.43)E-01$
Catfish	2	$(4.52 \pm 6.72)E+00$	$(9.27 \pm 1.34)E+00$	$(-2.36 \pm 2.01)E-01$
Steel Creek River Mouth				
Bass	2	$(2.56 \pm 0.12)E-02$	$(0.27 \pm 3.82)E-01$	$(0.25 \pm 2.99)E-01$

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Radioactivity in Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Bream	2	$(-7.19 \pm 0.35)E-02$	$(-0.69 \pm 3.33)E-01$	$(-0.74 \pm 3.54)E-01$
Catfish	3	$(-0.62 \pm 1.80)E-01$	$(1.24 \pm 3.14)E-01$	$(-2.36 \pm 2.01)E-01$
U3R Creek River Mouth				
Catfish	3	$(0.49 \pm 1.62)E-01$	$(2.36 \pm 3.60)E-01$	$(-0.45 \pm 2.31)E-01$
West Bank Landing				
Bream	1	$(2.78 \pm 6.21)E-01$		
Crappie	3	$(-3.70 \pm 0.68)E-01$	$(-2.92 \pm 2.62)E-01$	$(-4.17 \pm 3.80)E-01$
Gross Beta, pCi/g				
Off Site (Edible)				
Hwy-17A Bridge Area				
Bass	2	$(1.78 \pm 1.26)E+00$	$(2.66 \pm 1.06)E+00$	$(8.88 \pm 9.62)E-01$
Flounder	1	$(0.00 \pm 7.80)E-01$		
Mullet	3	$(1.95 \pm 0.44)E+00$	$(2.23 \pm 0.93)E+00$	$(1.45 \pm 0.87)E+00$
Augusta Lock and Dam				
Bass	2	$(2.03 \pm 0.36)E+00$	$(2.28 \pm 1.10)E+00$	$(1.78 \pm 1.06)E+00$
Bream	2	$(9.71 \pm 7.81)E-01$	$(1.52 \pm 1.04)E+00$	$(4.19 \pm 9.62)E-01$
Beaver Dam Creek River Mouth				
Bream	1	$(6.86 \pm 8.67)E-01$		
Catfish	3	$(1.35 \pm 0.49)E+00$	$(1.80 \pm 0.81)E+00$	$(8.32 \pm 7.59)E-01$
Four Mile Creek River Mouth				
Bream	3	$(4.28 \pm 0.75)E+00$	$(5.15 \pm 1.08)E+00$	$(3.79 \pm 1.00)E+00$
Catfish	3	$(4.02 \pm 0.74)E+00$	$(4.52 \pm 1.04)E+00$	$(3.17 \pm 0.97)E+00$
Hwy-301 Bridge Area				
Bass	2	$(2.80 \pm 0.08)E+00$	$(2.86 \pm 0.90)E+00$	$(2.74 \pm 0.92)E+00$
Bream	3	$(1.83 \pm 0.63)E+00$	$(2.52 \pm 0.89)E+00$	$(1.29 \pm 0.81)E+00$
Catfish	3	$(1.65 \pm 1.37)E+00$	$(2.83 \pm 0.65)E+00$	$(1.48 \pm 7.16)E-01$
L3R Creek River Mouth				
Bass	1	$(2.17 \pm 0.93)E+00$		
Bream	3	$(2.39 \pm 0.43)E+00$	$(2.86 \pm 0.92)E+00$	$(2.02 \pm 0.87)E+00$
Catfish	3	$(2.80 \pm 0.88)E+00$	$(3.60 \pm 0.90)E+00$	$(1.85 \pm 0.86)E+00$
Steel Creek River Mouth				
Bass	2	$(8.49 \pm 4.63)E-01$	$(1.18 \pm 0.81)E+00$	$(5.21 \pm 7.52)E-01$

Table 38
Radioactivity in Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Bream	2	(4.40 $\pm$ 0.41)E+00	(4.69 $\pm$ 0.99)E+00	(4.11 $\pm$ 0.96)E+00
Catfish	3	(1.71 $\pm$ 0.86)E+00	(2.68 $\pm$ 0.91)E+00	(1.02 $\pm$ 0.77)E+00
Stokes Bluff Landing				
Bass	3	(1.40 $\pm$ 0.70)E+00	(2.15 $\pm$ 0.91)E+00	(7.77 $\pm$ 8.24)E-01
Bream	2	(3.02 $\pm$ 1.90)E+00	(4.36 $\pm$ 1.04)E+00	(1.67 $\pm$ 0.89)E+00
Catfish	3	(6.91 $\pm$ 4.13)E-01	(1.02 $\pm$ 0.77)E+00	(2.26 $\pm$ 7.16)E-01
U3R Creek River Mouth				
Catfish	3	(1.54 $\pm$ 0.86)E+00	(2.49 $\pm$ 0.85)E+00	(8.32 $\pm$ 7.59)E-01
West Bank Landing				
Bream	1	(2.12 $\pm$ 1.18)E+00		
Crappie	2	(1.79 $\pm$ 1.29)E+00	(2.71 $\pm$ 1.25)E+00	(0.88 $\pm$ 1.11)E+00
On Site (Edible)				
Beaver Dam Creek				
Bream	3	(2.45 $\pm$ 2.22)E+00	(4.82 $\pm$ 1.02)E+00	(4.07 $\pm$ 7.30)E-01
Catfish	1	(0.36 $\pm$ 1.08)E+00		
FM-6 at Road A-12.2				
Bass	1	(4.52 $\pm$ 1.06)E+00		
L-Lake				
Bass	3	(5.70 $\pm$ 2.85)E+00	(7.48 $\pm$ 1.44)E+00	(2.41 $\pm$ 0.89)E+00
Bream	3	(2.41 $\pm$ 0.57)E+00	(2.91 $\pm$ 0.92)E+00	(1.79 $\pm$ 0.85)E+00
L3R-2 Patterson Mill Rd				
Bass	2	(1.22 $\pm$ 0.19)E+01	(1.36 $\pm$ 0.17)E+01	(1.09 $\pm$ 0.16)E+01
Bream	2	(8.16 $\pm$ 0.96)E+00	(8.84 $\pm$ 1.49)E+00	(7.48 $\pm$ 1.46)E+00
Crappie	1	(8.16 $\pm$ 1.47)E+00		
PB-3 at Road A-13.2				
Bass	3	(4.16 $\pm$ 0.21)E+00	(4.40 $\pm$ 0.97)E+00	(4.02 $\pm$ 0.96)E+00
Bream	3	(1.24 $\pm$ 0.48)E+00	(1.79 $\pm$ 0.85)E+00	(0.88 $\pm$ 1.11)E+00
Catfish	1	(2.52 $\pm$ 0.89)E+00		
Par Pond				
Bass	3	(7.67 $\pm$ 3.91)E+00	(1.18 $\pm$ 0.13)E+01	(3.98 $\pm$ 0.97)E+00
Bream	3	(7.13 $\pm$ 4.57)E+00	(1.23 $\pm$ 0.13)E+01	(3.70 $\pm$ 0.95)E+00

Table 38
Radioactivity in Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Pond B				
Bass	3	(9.36 $\pm$ 3.86)E+01	(1.36 $\pm$ 0.04)E+02	(6.03 $\pm$ 0.28)E+01
Bream	3	(3.25 $\pm$ 1.73)E+01	(4.69 $\pm$ 0.27)E+01	(1.33 $\pm$ 0.14)E+01
Crappie	1	(7.31 $\pm$ 0.34)E+01		
SC-4 Steel Creek at Road A				
Bass	3	(7.49 $\pm$ 0.28)E+00	(7.65 $\pm$ 1.11)E+00	(7.18 $\pm$ 1.10)E+00
Bream	3	(6.30 $\pm$ 2.06)E+00	(8.16 $\pm$ 1.46)E+00	(4.08 $\pm$ 1.27)E+00
Off Site (Nonedible)				
Augusta Lock and Dam				
Bass	2	(2.47 $\pm$ 0.90)E+00	(3.11 $\pm$ 1.10)E+00	(1.84 $\pm$ 1.02)E+00
Bream	2	(1.65 $\pm$ 0.90)E+00	(2.28 $\pm$ 1.04)E+00	(1.02 $\pm$ 0.96)E+00
Beaver Dam Creek River Mouth				
Bream	1	(4.98 $\pm$ 1.13)E+00		
Catfish	3	(1.26 $\pm$ 0.80)E+00	(2.17 $\pm$ 0.99)E+00	(6.86 $\pm$ 8.67)E-01
Four Mile Creek River Mouth				
Bream	3	(3.60 $\pm$ 0.17)E+00	(3.79 $\pm$ 1.04)E+00	(3.48 $\pm$ 1.09)E+00
Catfish	3	(3.08 $\pm$ 1.89)E+00	(5.20 $\pm$ 1.09)E+00	(1.56 $\pm$ 0.89)E+00
Hwy-301 Bridge Area				
Bass	2	(2.54 $\pm$ 0.08)E+00	(2.59 $\pm$ 0.96)E+00	(2.48 $\pm$ 0.95)E+00
Bream	3	(1.61 $\pm$ 1.38)E+00	(2.82 $\pm$ 0.96)E+00	(1.04 $\pm$ 7.73)E-01
Catfish	3	(4.80 $\pm$ 6.31)E-01	(1.04 $\pm$ 0.84)E+00	(-2.03 $\pm$ 7.01)E-01
L3R Creek River Mouth				
Bass	1	(2.17 $\pm$ 0.95)E+00		
Bream	3	(1.80 $\pm$ 0.74)E+00	(2.63 $\pm$ 0.94)E+00	(1.21 $\pm$ 0.85)E+00
Catfish	2	(3.03 $\pm$ 5.91)E-01	(7.21 $\pm$ 8.14)E-01	(-1.16 $\pm$ 7.30)E-01
Steel Creek River Mouth				
Bass	2	(2.56 $\pm$ 0.69)E+00	(3.05 $\pm$ 0.98)E+00	(2.07 $\pm$ 0.89)E+00
Bream	2	(1.83 $\pm$ 0.00)E+00	(1.83 $\pm$ 0.90)E+00	(1.83 $\pm$ 0.90)E+00
Catfish	3	(1.57 $\pm$ 0.78)E+00	(2.43 $\pm$ 0.94)E+00	(8.93 $\pm$ 8.30)E-01
U3R Creek River Mouth				
Catfish	3	(1.18 $\pm$ 0.63)E+00	(1.84 $\pm$ 0.87)E+00	(6.01 $\pm$ 7.59)E-01

Table 38
Radioactivity in Fish**Page 14 of 14**

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
West Bank Landing				
Bream	1	(4.32 $\pm$ 1.35)E+00		
Crappie	3	(1.45 $\pm$ 1.52)E+00	(3.20 $\pm$ 1.02)E+00	(0.50 $\pm$ 1.13)E+00

Table 39
Cesium-137 In Off-Site Deer

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Date	Quadrant	Cs-137 (pCi/g)
07-OCT-93 ^a	SE	0.58 ± 0.05
07-OCT-93	SE	<LLD ^b
07-OCT-93	SE	0.46 ± 0.04
07-OCT-93	SE	0.15 ± 0.03
07-OCT-93	SE	0.13 ± 0.03
07-OCT-93	SE	0.16 ± 0.02
07-OCT-93	SE	0.20 ± 0.04
07-OCT-93	SE	<LLD
07-OCT-93	SE	0.24 ± 0.04
07-OCT-93	SE	0.44 ± 0.04
07-OCT-93	SE	0.24 ± 0.03
07-OCT-93	SE	0.18 ± 0.04
02-NOV-93	SE	0.19 ± 0.03
02-NOV-93	SE	0.11 ± 0.03
02-NOV-93	SE	<LLD
02-NOV-93	SE	0.36 ± 0.05
02-NOV-93	SE	0.36 ± 0.04
02-NOV-93	SE	0.16 ± 0.03
02-NOV-93	SE	0.09 ± 0.03
02-NOV-93	SE	0.08 ± 0.03
02-NOV-93	SE	0.91 ± 0.06
02-NOV-93	SE	0.34 ± 0.04
17-DEC-93	NW	1.76 ± 0.07
17-DEC-93	NW	0.21 ± 0.03
17-DEC-93	NW	<LLD
17-DEC-93	NW	0.06 ± 0.02
17-DEC-93	NW	1.33 ± 0.09
17-DEC-93	NW	<LLD
17-DEC-93	NW	0.54 ± 0.04

a Date that sample was collected from the hunt club, not necessarily the date that deer was killed
 b Less than lower limit of detection (0.042 pCi/g)

Table 40
Comparison of Field and Laboratory Cesium-137 Measurements
in Deer and Hogs

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Date	Animal ID	Animal Type	Field Cs-137 (pCi/g)	Lab Cs-137(pCi/g)
30-OCT-93	9	Deer	2	3.47 ± 0.09
03-NOV-93	11909	Deer	4	2.24 ± 0.09
03-NOV-93	11913	Deer	2	4.32 ± 0.11
03-NOV-93	11914	Deer	3	3.29 ± 0.09
03-NOV-93	11916	Deer	2	3.19 ± 0.09
03-NOV-93	11917	Deer	2	1.99 ± 0.07
30-OCT-93	11931	Deer	2	2.72 ± 0.09
30-OCT-93	11944	Deer	33	24.26 ± 0.18
03-NOV-93	11949	Deer	2	0.8 ± 0.05
30-OCT-93	12020	Deer	2	3.09 ± 0.09
03-NOV-93	12063	Deer	3	2.74 ± 0.09
03-NOV-93	12064	Deer	2	2.3 ± 0.09
17-NOV-93	12316	Deer	4	0.86 ± 0.06
17-NOV-93	12323	Deer	2	3.05 ± 0.10
13-NOV-93	12343	Deer	2	1.62 ± 0.08
10-NOV-93	12374	Deer	2	1.02 ± 0.06
20-NOV-93	12387	Deer	5	2.99 ± 0.09
20-NOV-93	12388	Deer	11	9.32 ± 0.15
24-NOV-93	12396	Deer	4	3.27 ± 0.09
03-NOV-93	13362	Deer	2	2.13 ± 0.09
03-NOV-93	13362(Dup) ^a	Deer	2	1.81 ± 0.08
03-NOV-93	13369	Deer	2	2.5 ± 0.09
13-NOV-93	13377	Deer	1	1.19 ± 0.08
13-NOV-93	13388	Deer	2	2.89 ± 0.09
13-NOV-93	13388(Dup) ^a	Deer	2	2.73 ± 0.10
13-NOV-93	13395	Deer	3	2.53 ± 0.08
27-NOV-93	13403	Deer	43	57.68 ± 0.37
01-DEC-93	13417	Deer	5	6 ± 0.14
20-NOV-93	13426	Deer	4	3.8 ± 0.10
20-NOV-93	13428	Deer	1	2.65 ± 0.09

^a Duplicate laboratory analysis on single field sample

Table 40
Comparison of Field and Laboratory Cesium-137 Measurements
in Deer and Hogs

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Date	Animal ID	Animal Type	Field Cs-137 (pCi/g)	Lab Cs-137(pCi/g)
24-NOV-93	13448	Deer	7	5.54 ± 0.12
10-NOV-93	13464	Deer	4	2.56 ± 0.08
10-NOV-93	13464(Dup) ^a	Deer	4	2.9 ± 0.09
17-NOV-93	13473	Deer	2	0.22 ± 0.05
10-NOV-93	13494	Deer	2	0.75 ± 0.05
03-NOV-93	13509	Hog	26	34.05 ± 0.29
03-NOV-93	13513	Deer	4	1.58 ± 0.07
03-NOV-93	13518	Deer	1	1.52 ± 0.07
06-NOV-93	13524	Deer	6	5.83 ± 0.12
30-OCT-93	13601	Deer	3	2.06 ± 0.07
30-OCT-93	13610	Deer	3	3.27 ± 0.10
30-OCT-93	13612	Deer	4	2.37 ± 0.08
06-NOV-93	13636	Deer	6	4.05 ± 0.10
06-NOV-93	13638	Deer	6	5.31 ± 0.12
10-NOV-93	13669	Deer	8	5.41 ± 0.11
24-NOV-93	13689	Deer	8	9.06 ± 0.15
24-NOV-93	13695	Deer	3	2.86 ± 0.09
30-OCT-93	13723	Deer	5	4.92 ± 0.11
30-OCT-93	13726	Deer	4	1.47 ± 0.07
03-NOV-93	13734	Deer	18	19.23 ± 0.24
13-NOV-93	13741	Deer	1	0.78 ± 0.05
13-NOV-93	13743	Deer	3	4.57 ± 0.12
06-NOV-93	13747	Deer	2	1.82 ± 0.07
06-NOV-93	13752	Deer	3	1.99 ± 0.07
10-NOV-93	13780	Deer	1	1.48 ± 0.06
10-NOV-93	13783	Deer	4	2.2 ± 0.08
10-NOV-93	13784	Deer	2	2.49 ± 0.08
10-NOV-93	13789	Deer	4	2.92 ± 0.09
06-NOV-93	13845	Deer	4	4.62 ± 0.11
13-NOV-93	13878	Deer	2	1.7 ± 0.09

^a Duplicate laboratory analysis on single field sample

Table 40
Comparison of Field and Laboratory Cesium-137 Measurements
in Deer and Hogs

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Date	Animal ID	Animal Type	Field Cs-137 (pCi/g)	Lab Cs-137(pCi/g)
17-NOV-93	13887	Hog	6	11.5 ± 0.17
17-NOV-93	13888	Hog	5	8.09 ± 0.15
17-NOV-93	13889	Hog	5	8.11 ± 0.14
17-NOV-93	13905	Hog	13	18.07 ± 0.17
17-NOV-93	13907	Deer	3	3.32 ± 0.10
17-NOV-93	13907(Dup) ^a	Deer	3	3.09 ± 0.09
17-NOV-93	13919	Deer	1	1.08 ± 0.06
17-NOV-93	13925	Deer	1	1.16 ± 0.07
03-NOV-93	13933	Deer	3	1.52 ± 0.07
03-NOV-93	13957	Deer	3	3.72 ± 0.12
27-NOV-93	13998	Deer	10	10.19 ± 0.15
11-DEC-93	14011	Deer	5	3.87 ± 0.10
11-DEC-93	14013	Deer	4	4.13 ± 0.10
11-DEC-93	14013(Dup) ^a	Deer	4	4.29 ± 0.10
01-DEC-93	14301	Deer	2	1.13 ± 0.57
04-DEC-93	14323	Deer	7	7.21 ± 0.13
04-DEC-93	14325	Deer	6	6.5 ± 0.13
04-DEC-93	14325(Dup) ^a	Deer	6	6.45 ± 0.13
04-DEC-93	14339	Deer	9	9.55 ± 0.16
04-DEC-93	14354	Deer	1	0.52 ± 0.04
04-DEC-93	14359	Deer	6	6.11 ± 0.13
08-DEC-93	14374	Deer	14	13.74 ± 0.18
08-DEC-93	14384	Deer	11	11.21 ± 0.19
08-DEC-93	14407	Deer	12	13.73 ± 0.18
08-DEC-93	14412	Deer	7	7.65 ± 0.14
08-DEC-93	14415	Deer	10	8.58 ± 0.14
08-DEC-93	14426	Deer	10	12.78 ± 0.17
08-DEC-93	14428	Deer	13	14.27 ± 0.18
08-DEC-93	14428(Dup) ^a	Deer	13	13.19 ± 0.20
08-DEC-93	14430	Deer	10	10.7 ± 0.16

^a Duplicate laboratory analysis on single field sample

Table 40
Comparison of Field and Laboratory Cesium-137 Measurements
In Deer and Hogs

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Date	Animal ID	Animal Type	Field Cs-137 (pCi/g)	Lab Cs-137(pCi/g)
08-DEC-93	14443	Deer	7	6.15 ± 0.14
08-DEC-93	14450	Deer	8	9.3 ± 0.15
08-DEC-93	14454	Deer	4	3.42 ± 0.10
08-DEC-93	14458	Deer	5	6.09 ± 0.12
08-DEC-93	14458(Dup) ^a	Deer	5	6.27 ± 0.13
08-DEC-93	14460	Deer	5	5.59 ± 0.13
08-DEC-93	14461	Deer	4	5.7 ± 0.14
11-DEC-93	14473	Deer	3	2.84 ± 0.09
11-DEC-93	14475	Hog	17	22.29 ± 0.22
11-DEC-93	14477	Deer	10	15.53 ± 0.19
11-DEC-93	14485	Deer	5	8.53 ± 0.14
15-DEC-93	14702	Deer	8	8.45 ± 0.14
15-DEC-93	14716	Deer	7	4.06 ± 0.07
15-DEC-93	14716(Dup) ^a	Deer	7	7.63 ± 0.14
15-DEC-93	14735	Deer	21	30.54 ± 0.27
15-DEC-93	14741	Deer	6	8.75 ± 0.15
15-DEC-93	14750	Deer	5	7.85 ± 0.14
01-DEC-93	14905	Deer	7	8.78 ± 0.15
01-DEC-93	14905(Dup) ^a	Deer	7	4.78 ± 0.08
04-DEC-93	14915	Deer	5	6.19 ± 0.13
04-DEC-93	14916	Deer	8	9.71 ± 0.15
04-DEC-93	14922	Deer	4	5.09 ± 0.12
11-DEC-93	14929	Deer	10	15.3 ± 0.22
11-DEC-93	14931	Deer	10	16.6 ± 0.20
08-DEC-93	14957	Deer	13	17.19 ± 0.21
08-DEC-93	14961	Deer	14	16.7 ± 0.20
15-DEC-93	14984	Deer	7	6.56 ± 0.12
13-NOV-93	15013	Deer	2	0.99 ± 0.06
13-NOV-93	15021	Deer	1	1.06 ± 0.07
13-NOV-93	15025	Deer	1	1.86 ± 0.08

^a Duplicate laboratory analysis on single field sample

Table 40
Comparison of Field and Laboratory Cesium-137 Measurements
in Deer and Hogs

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Date	Animal ID	Animal Type	Field Cs-137 (pCi/g)	Lab Cs-137(pCi/g)
10-NOV-93	15035	Deer	3	1.82 ± 0.07
10-NOV-93	15037	Deer	4	3.32 ± 0.09
10-NOV-93	15051	Deer	1	1.21 ± 0.06
10-NOV-93	15054	Deer	2	1.93 ± 0.08
10-NOV-93	15054(Dup) ^a	Deer	2	1.73 ± 0.07
10-NOV-93	15064	Deer	6	5.3 ± 0.11
13-NOV-93	15071	Deer	1	0.6 ± 0.05
13-NOV-93	15081	Deer	9	8.39 ± 0.17
17-NOV-93	15094	Deer	1	0.79 ± 0.04
04-DEC-93	15112	Deer	9	12.74 ± 0.18
01-DEC-93	15120	Deer	7	9.38 ± 0.15
17-NOV-93	15135	Deer	1	0.99 ± 0.07
17-NOV-93	15141	Deer	3	1.89 ± 0.08
27-NOV-93	15160	Deer	1	7.09 ± 0.13
04-DEC-93	15179	Deer	1	0.99 ± 0.05
04-DEC-93	15179(Dup) ^a	Deer	1	0.96 ± 0.06
08-DEC-93	15184	Deer	8	11.74 ± 0.20
08-DEC-93	15186	Deer	13	13.25 ± 0.21
08-DEC-93	15186(Dup) ^a	Deer	13	14.16 ± 0.18
17-NOV-93	15201	Deer	5	0.79 ± 0.06
17-NOV-93	15205	Deer	3	1.13 ± 0.07
17-NOV-93	15206	Deer	1	0.9 ± 0.06
17-NOV-93	15208	Deer	4	1.59 ± 0.08
20-NOV-93	15221	Deer	5	1.79 ± 0.07
13-NOV-93	15225	Hog	6	12.05 ± 0.20
20-NOV-93	15227	Hog	17	19.68 ± 0.25
20-NOV-93	15228	Hog	17	19.01 ± 0.25
20-NOV-93	15231	Deer	5	2.66 ± 0.09
20-NOV-93	15236	Deer	24	39.85 ± 0.24
20-NOV-93	15238	Deer	6	5.76 ± 0.14

^a Duplicate laboratory analysis on single field sample

Table 40
Comparison of Field and Laboratory Cesium-137 Measurements
in Deer and Hogs

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Date	Animal ID	Animal Type	Field Cs-137 (pCi/g)	Lab Cs-137(pCi/g)
20-NOV-93	15241	Deer	3	4.8 ± 0.11
20-NOV-93	15246	Deer	5	3.82 ± 0.10
24-NOV-93	15250	Deer	9	7.37 ± 0.14
20-NOV-93	15258	Deer	3	0.87 ± 0.03
20-NOV-93	15258(Dup) ^a	Deer	3	2.46 ± 0.08
20-NOV-93	15267	Hog	12	17.36 ± 0.24
20-NOV-93	15270	Deer	8	4.71 ± 0.11
20-NOV-93	15274	Hog	16	20.23 ± 0.26
20-NOV-93	15275	Hog	15	21.72 ± 0.26
27-NOV-93	15290	Deer	8	7.09 ± 0.13
01-DEC-93	15294	Deer	8	9.32 ± 0.15
27-NOV-93	15314	Deer	4	2.93 ± 0.09
01-DEC-93	15333	Deer	9	9.73 ± 0.15
01-DEC-93	15337	Deer	3	3.02 ± 0.10
01-DEC-93	15337(Dup) ^a	Deer	3	3.07 ± 0.09
04-DEC-93	15340	Deer	8	8.64 ± 0.15
01-DEC-93	15357	Deer	7	8.09 ± 0.14
01-DEC-93	15362	Deer	2	3.08 ± 0.09
01-DEC-93	15363	Deer	2	2.38 ± 0.08
01-DEC-93	15383	Hog	2	1.23 ± 0.07
01-DEC-93	15388	Deer	1	1.34 ± 0.07
01-DEC-93	15392	Hog	14	20.83 ± 0.26
24-NOV-93	15402	Deer	5	4.62 ± 0.10
24-NOV-93	15408	Deer	3	2.9 ± 0.09
24-NOV-93	15419	Deer	7	6.78 ± 0.13
24-NOV-93	15432	Deer	7	7.97 ± 0.14
24-NOV-93	15432(Dup) ^a	Deer	7	3.37 ± 0.05
24-NOV-93	15440	Deer	4	5 ± 0.11
24-NOV-93	15450	Deer	1	2.87 ± 0.09
20-NOV-93	15464	Deer	7	4.06 ± 0.11

^a Duplicate laboratory analysis on single field sample

Table 40
Comparison of Field and Laboratory Cesium-137 Measurements
in Deer and Hogs

Page 7 of 7

Date	Animal ID	Animal Type	Field Cs-137 (pCi/g)	Lab Cs-137(pCi/g)
20-NOV-93	15471	Deer	4	1.98 ± 0.07
27-NOV-93	15481	Deer	5	2.85 ± 0.09
01-DEC-93	15496	Deer	5	5.16 ± 0.12
01-DEC-93	15498	Deer	4	4.18 ± 0.10
15-DEC-93	15659	Deer	3	2.44 ± 0.08
01-DEC-93	15804	Deer	1	0.81 ± 0.05
04-DEC-93	15816	Deer	5	8.3 ± 0.15
04-DEC-93	15826	Deer	7	7.3 ± 0.13
08-DEC-93	15847	Deer	4	3.25 ± 0.09
11-DEC-93	15852	Deer	5	6.23 ± 0.12
11-DEC-93	15854	Deer	9	10.24 ± 0.16
15-DEC-93	15868	Deer	18	19.61 ± 0.21
11-DEC-93	15899	Deer	6	6.46 ± 0.13
04-DEC-93	15901	Deer	11	9.83 ± 0.16
04-DEC-93	15906	Deer	8	7.37 ± 0.14
08-DEC-93	15915	Deer	12	12.99 ± 0.18
08-DEC-93	15931	Deer	4	9.42 ± 0.15
15-DEC-93	15947	Deer	9	12.41 ± 0.17
15-DEC-93	15992	Deer	5	4.44 ± 0.11

Table 41
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	1,391	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
1993	1,553	5	43

^a Values are field measurements.

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

Table 42
Strontium in Deer and Hog Muscle

Page 1 of 2

Date	Animal ID	Animal Type	Sr-90 (pCi/g)
30-OCT-93	13610	Deer	0.008 ± 0.004
30-OCT-93	11944	Deer	0.002 ± 0.003
03-NOV-93	13509	Hog	0.009 ± 0.005
03-NOV-93	13362	Deer	0.002 ± 0.003
03-NOV-93	11914	Deer	0.014 ± 0.006
03-NOV-93	11917	Deer	0.010 ± 0.004
10-NOV-93	15054	Deer	-0.001 ± 0.004
10-NOV-93	15054 (Dup) ^a	Deer	0.011 ± 0.004
10-NOV-93	13783	Deer	0.001 ± 0.003
10-NOV-93	13464	Deer	0.039 ± 0.006
10-NOV-93	13464 (Dup) ^a	Deer	0.006 ± 0.004
13-NOV-93	13388	Deer	-0.004 ± 0.003
13-NOV-93	13388 (Dup) ^a	Deer	0.001 ± 0.004
17-NOV-93	13905	Hog	0.012 ± 0.007
17-NOV-93	13907	Deer	0.006 ± 0.006
17-NOV-93	13907 (Dup) ^a	Deer	0.001 ± 0.003
20-NOV-93	15258	Deer	b
20-NOV-93	15258 (Dup) ^a	Deer	0.005 ± 0.003
20-NOV-93	15267	Hog	0.001 ± 0.007
20-NOV-93	15228	Hog	b
20-NOV-93	15274	Hog	0.013 ± 0.007
20-NOV-93	15275	Hog	0.005 ± 0.006
20-NOV-93	15227	Hog	0.034 ± 0.011
20-NOV-93	15241	Deer	0.012 ± 0.005
24-NOV-93	15432	Deer	0.003 ± 0.002
24-NOV-93	15432 (Dup) ^a	Deer	b
27-NOV-93	13403	Deer	b
01-DEC-93	14905	Deer	0.005 ± 0.003
01-DEC-93	14905 (Dup) ^a	Deer	-0.001 ± 0.002
01-DEC-93	15363	Deer	-0.004 ± 0.005
01-DEC-93	15392	Hog	0.076 ± 0.014

a Duplicate laboratory analysis on single field sample
 b Less than LLD (0.001 pCi/g)

Table 42
Strontium in Deer and Hog Muscle

Page 2 of 2

Date	Animal ID	Animal Type	Sr-90 (pCi/g)
01-DEC-93	15337	Deer	b
01-DEC-93	15337 (Dup) ^a	Deer	0.004 ± 0.003
04-DEC-93	14325	Deer	0.013 ± 0.005
04-DEC-93	14325 (Dup) ^a	Deer	0.013 ± 0.009
04-DEC-93	14354	Deer	b
04-DEC-93	15179	Deer	0.007 ± 0.005
04-DEC-93	15179 (Dup) ^a	Deer	0.002 ± 0.005
08-DEC-93	15186	Deer	0.002 ± 0.004
08-DEC-93	15186 (Dup) ^a	Deer	0.024 ± 0.011
08-DEC-93	14407	Deer	0.001 ± 0.004
08-DEC-93	14426	Deer	0.005 ± 0.004
08-DEC-93	14428	Deer	0.006 ± 0.006
08-DEC-93	14428 (Dup) ^a	Deer	0.005 ± 0.004
08-DEC-93	14384	Deer	0.049 ± 0.011
08-DEC-93	14461	Deer	b
08-DEC-93	14458	Deer	0.023 ± 0.004
08-DEC-93	14485 (Dup) ^a	Deer	0.019 ± 0.006
08-DEC-93	14460	Deer	0.003 ± 0.004
11-DEC-93	14013	Deer	0.004 ± 0.003
11-DEC-93	14013 (Dup) ^a	Deer	0.004 ± 0.004
15-DEC-93	14716	Deer	0.003 ± 0.004
15-DEC-93	14716	Deer	0.011 ± 0.004

a Duplicate laboratory analysis on single field sample
b Less than LLD (0.001 pCi/g)

Table 43
Strontium in Deer Bone

Page 1 of 1

Date	Animal ID	Animal Type	Sr-90
30-OCT-93	13610	Deer	9.58 ± 1.36
10-NOV-93	13783	Deer	9.67 ± 1.18
10-NOV-93	13464	Deer	8.20 ± 1.30
13-NOV-93	13388	Deer	6.15 ± 1.41
17-NOV-93	13907	Deer	6.44 ± 1.29
20-NOV-93	15258	Deer	9.92 ± 1.11
24-NOV-93	15432	Deer	10.76 ± 1.93
27-NOV-93	13403	Deer	5.23 ± 1.02
01-DEC-93	14905	Deer	7.38 ± 1.42
01-DEC-93	15337	Deer	4.26 ± 1.72
04-DEC-93	14325	Deer	9.68 ± 1.09
04-DEC-93	15179	Deer	4.09 ± 0.85
08-DEC-93	15186	Deer	13.40 ± 1.27
08-DEC-93	14428	Deer	7.93 ± 1.72
11-DEC-93	14013	Deer	5.38 ± 0.94
15-DEC-93	14716	Deer	7.11 ± 0.99

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	730	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
SW	0.0	0.0	9.500E+04	1.700E+05	2.700E+05	3.200E+05	8.550E+05

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

Page 2 of 2

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

Dir (miles)	0-5	5-10	10-20	20-30	30-40	40-50	Total
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+03	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	2.422E+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

Page 1 of 1

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)	14,800
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:
Moderately Unstable Conditions **Atmospheric Stability Class B**

(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:
Moderately Unstable Conditions **Atmospheric Stability Class B**

(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
Slightly Stable 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
Slightly Stable 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 State H-Area 60 minute 62M 87-91 Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction: Atmospheric Stability Class F
 Moderately Stable 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
 Moderately Stable 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
 Extremely Stable 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
 Extremely Stable 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 Using Consumption of Cow Milk Pathway

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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	1.60E-07	0.0002	1.60E-07	0.0001
Ground	1.65E-04	0.2	1.65E-04	0.2
Inhalation	5.11E-02	61.7	5.11E-02	47.4
Vegetation	2.18E-02	26.3	3.80E-02	35.2
Cow Milk	6.86E-03	8.3	1.31E-02	12.2
Meat	2.89E-03	3.5	5.45E-03	5.1
Total	8.28E-02		1.08E-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	7.37E-02	89.0	9.60E-02	89.0
C-14	2.99E-06	0.004	5.43E-06	0.005
Ar-41				
Kr-85				
I-129	1.55E-03	1.9	2.72E-03	2.5
I-131	2.29E-06	0.003	4.45E-06	0.004
I-133	1.45E-06	0.002	2.22E-06	0.002
Particulates				
Sr-90	1.03E-04	0.1	1.68E-04	0.2
Ru-106	6.22E-08	0.0001	1.04E-07	0.0001
Cs-134,137	6.44E-05	0.1	7.08E-05	0.1
U-235,238	1.04E-03	1.3	1.11E-03	1.0
Pu-238	2.68E-03	3.2	3.31E-03	3.1
Pu-239	3.05E-03	3.7	3.75E-03	3.5
Am-241,243	4.04E-04	0.5	4.99E-04	0.5
Cm-242,244	1.75E-04	0.2	2.11E-04	0.2
Total	8.28E-02		1.08E-01	

^a Effective dose equivalent

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

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	1.60E-07	0.0002	1.60E-07	0.0001
Ground	1.65E-04	0.2	1.65E-04	0.1
Inhalation	5.11E-02	55.8	5.11E-02	40.9
Vegetation	2.18E-02	23.8	3.80E-02	30.4
Cow Milk	1.57E-02	17.1	3.01E-02	24.1
Meat	2.89E-03	3.2	5.45E-03	4.4
Total	9.16E-02		1.25E-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	8.25E-02	90.1	1.13E-01	90.4
C-14	3.09E-06	0.003	5.62E-06	0.004
Ar-41				
Kr-85				
I-129	1.59E-03	1.7	2.80E-03	2.2
I-131	2.58E-06	0.003	5.01E-06	0.004
I-133	1.51E-06	0.002	2.34E-06	0.002
Particulates				
Sr-90	1.05E-04	0.1	1.72E-04	0.1
Ru-106	6.22E-08	0.0001	1.04E-07	0.0001
Cs-134, 137	6.79E-05	0.1	7.76E-05	0.1
U-235, 238	1.04E-03	1.1	1.11E-03	0.9
Pu-238	2.68E-03	2.9	3.31E-03	2.6
Pu-239	3.05E-03	3.3	3.75E-03	3.0
Am-241, 243	4.04E-04	0.4	4.99E-04	0.4
Cm-242, 244	1.75E-04	0.2	2.11E-04	0.2
Total	9.16E-02		1.25E-01	

^a Effective dose equivalent

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

Page 1 of 1

By Pathway

Pathway	Individual Dose (mrem)^a	Percent of Total Dose^a
Plume	2.97E-08	0.0001
Ground	1.03E-04	0.2
Inhalation	3.11E-02	61.5
Vegetation	1.34E-02	26.5
Cow Milk	4.22E-03	8.3
Meat	1.78E-03	3.5
Total	5.06E-02	

By Radionuclide

Radionuclide	Individual Dose (mrem)^a	Percent of Total Dose^a
Gases and Vapors		
H-3	4.53E-02	89.4
C-14	1.82E-06	0.004
Ar-41		
Kr-85		
I-129	9.99E-04	2.0
I-131	7.48E-07	0.001
I-133	3.60E-07	0.001
Particulates		
Sr-90	5.29E-05	0.1
Ru-106	3.98E-08	0.0001
Cs-134,137	4.08E-05	0.1
U-235,238	5.97E-04	1.2
Pu-238	1.65E-03	3.3
Pu-239	1.72E-03	3.4
Am-241,243	2.32E-04	0.5
Cm-242,244	6.33E-05	0.1
Total	5.07E-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	7.37E-07	0.00001
Ground	2.65E-02	0.3
Inhalation	5.75E+00	75.4
Vegetation	1.12E+00	14.7
Cow Milk	5.84E-01	7.7
Meat	1.46E-01	1.9
Total	7.63E+00	

By Radionuclide

Radionuclide	Population Dose Person-Rem ^a	Percent of Total Dose
Gases and Vapors		
H-3	6.94E+00	91.0
C-14	1.78E-04	0.002
I-129	9.26E-02	1.2
I-131	5.03E-05	0.001
I-133	5.11E-06	0.0001
Particulates		
Sr-90	4.22E-03	0.1
Ru-106	5.37E-06	0.00005
Cs-134,137	6.93E-03	0.1
U-235,238	9.64E-02	1.3
Pu-238	2.27E-01	3.0
Pu-239	2.26E-01	3.0
Am-241,243	3.08E-02	0.4
Cm-242,244	6.27E-03	0.1
Total	7.63E+00	

^a Effective dose equivalent

Table 55
1993 NESHAP Report Data—CAP88 Compared With MAXIGASP

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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	2.00E-08	0.00001	1.60E-07	0.0001
Ground	8.71E-05	0.05	1.65E-04	0.2
Inhalation	5.34E-02	29.3	5.11E-02	47.4
Food ^b	1.29E-01	70.7	5.66E-02	52.5
Total	1.82E-01		1.08E-01	
By Radionuclide				
Gases and Vapors				
H-3 ^c	1.79E-01	98.4	9.60E-02	89.0
C-14	4.59E-06	0.003	5.43E-06	0.005
Ar-41				
Kr-85				
I-129	3.29E-04	0.18	2.72E-03	2.5
I-131	1.50E-07	0.00008	4.45E-06	0.004
I-133	2.99E-08	0.00002	2.22E-06	0.002
Particulates				
Sr-90	2.84E-05	0.02	1.68E-04	0.2
Ru-106	7.25E-08	0.00004	1.04E-07	0.0001
Cs-134,137	3.08E-05	0.02	7.08E-05	0.1
U-235,238	7.46E-04	0.41	1.11E-03	1.0
Pu-238	1.22E-03	0.67	3.31E-03	3.1
Pu-239	1.18E-03	0.65	3.75E-03	3.5
Am-241,243	2.37E-04	0.13	4.99E-04	0.5
Cm-242,244	5.04E-05	0.03	2.11E-04	0.2
Total	1.82E-01		1.08E-01	

a Effective dose equivalent

b Meat, milk, and vegetables

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

Table 56
1993 NESHAP Report Data—CAP88 Compared With POPGASP

Page 1 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	2.14E-06	0.00001	7.37E-07	0.00001
Ground	9.63E-03	0.05	2.65E-02	0.3
Inhalation	6.85E+00	34.8	5.75E+00	75.4
Food ^b	1.28E+01	65.1	1.85E+00	24.3
Total	1.97E+01		7.63E+00	
By Radionuclide				
Gases and Vapors				
H-3 ^c	1.93E+01	98.0	6.94E+00	91.0
C-14	1.12E-04	0.001	1.78E-04	0.002
Ar-41				
Kr-85				
I-129	1.48E-02	0.08	9.26E-02	1.2
I-131	7.03E-06	0.00004	5.03E-05	0.001
I-133	1.87E-06		5.11E-06	0.00007
Particulates				
Sr-90	2.67E-03	0.01	4.22E-03	0.06
Ru-106	9.80E-06	0.00005	3.57E-06	0.00005
Cs-134,137	4.25E-03	0.02	6.93E-03	0.09
U-235,238	8.24E-02	0.4	9.64E-02	1.3
Pu-238	1.32E-01	0.7	2.27E-01	3.0
Pu-239	1.28E-01	0.6	2.26E-01	3.0
Am-241,243	2.60E-02	0.01	3.08E-02	0.4
Cm-242,244	5.43E-03	0.03	6.27E-03	0.1
Total	1.97E+01		7.63E+00	

a Effective dose equivalent

b Meat, milk, and vegetables

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

Table 57
Maximum Individual Committed Dose from Liquid Releases

Page 1 of 1

By Pathway

Pathway	Individual Dose, mrem ^a	Percent of Total Dose
Fish	7.78E-02	54.1
Water	6.57E-02	45.7
Shoreline	2.45E-04	0.2
Swimming	1.61E-07	0.0001
Boating	1.90E-07	0.0001
Total	1.44E-01	

By Radionuclide

Radionuclide	Individual Dose, mrem ^a	Percent of Total Dose
H-3	5.83E-02	40.5
Sr-90	7.86E-03	5.5
I-129	6.10E-04	0.4
Cs-137	7.35E-02	51.0
Pm-147	7.84E-07	0.0005
U-235,238	2.14E-07	0.0001
Pu-239	3.20E-03	2.2
Total	1.44E-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	1.66E-02	86.7
Sr-90	1.28E-03	6.7
I-129	1.28E-04	0.7
Cs-137	2.69E-04	1.4
Pm-147	1.38E-07	0.0007
U-235,238	5.90E-08	0.0003
Pu-239	8.54E-04	4.5
Total	1.91E-02	

Maximum Consumption		
Radionuclide	Individual Dose, mrem^a	Percent of Total Dose
H-3	3.27E-02	86.7
Sr-90	2.53E-03	6.7
I-129	2.52E-04	0.7
Cs-137	5.32E-04	1.4
Pm-147	2.73E-07	0.0007
U-235,238	1.16E-07	0.0003
Pu-239	1.69E-03	4.5
Total	3.77E-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	2.25E-02	86.7
Sr-90	1.75E-03	6.7
I-129	1.74E-04	0.7
Cs-137	3.67E-04	1.4
Pm-147	1.88E-07	0.0007
U-235,238	8.03E-08	0.0003
Pu-239	1.16E-03	4.5
Total	2.60E-02	

Maximum Consumption		
Radionuclide	Individual Dose, mrem^a	Percent of Total Dose
H-3	4.44E-02	86.7
Sr-90	3.44E-03	6.7
I-129	3.42E-04	0.7
Cs-137	7.22E-04	1.4
Pm-147	3.70E-07	0.0007
U-235,238	1.58E-07	0.0003
Pu-239	2.29E-03	4.5
Total	5.12E-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	1.41E-01	9.4
Commercial Fish	1.23E-03	0.1
Beaufort-Jasper	9.56E-01	63.8
Port Wentworth	3.89E-01	26.0
Salt Water Inversion	1.41E-04	0.01
Recreation-River	1.02E-02	0.7
Total	1.50E+00	

By Radionuclide

Radionuclide	Collective Dose, Person-Rem^a	Percent of Total Dose
H-3	1.13E+00	75.5
Sr-90	6.32E-03	0.4
I-129	3.55E-04	0.02
Cs-137	1.43E-01	9.5
Pm-147	6.48E-07	0.00004
U-235,238	1.75E-07	0.00001
Pu-239	2.17E-01	14.5
Total	1.50E+00	

^a Effective dose equivalent

Table 61
Potential Doses from Irrigation Pathways

Page 1 of 1

Effective Dose Equivalent

Food Type^a	Maximum Individual (mrem)	Population (Person-rem)
Vegetation	4.49E-02	2.80E+00
Leafy vegetable	7.00E-03	1.81E-01
Milk	2.00E-02	2.72E+00
Meat	6.57E-03	3.52E-01
Total	7.85E-02	6.05E+00

^a Irrigated acreage for each food type 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, rad/d ^{a,b}		
			Fish	Invertebrate	Algae
Upper Three Runs	Tim's Branch 5 (Road C)	8	1.23E-04	1.44E-04	8.82E-05
Beaver Dam Creek	Below 400-D	71	3.45E-06	6.60E-06	2.45E-05
Four Mile Creek	Site No. 3	11	2.39E-05	2.77E-03	1.26E-03
Pen Branch	K-011	33	5.23E-05	6.16E-05	5.67E-05
Steel Creek	Steel Creek 2A above Road B	11	5.01E-05	9.70E-05	3.42E-04
Lower Three Runs	L3R1A above Road B	55	9.26E-07	2.28E-06	1.00E-05

Stream	Location	Flow, cfs	Dose to Biota, rad/d ^{a,b}	
			Raccoon	Duck
Upper Three Runs	Tim's Branch 5 (Road C)	8	5.73E-05	7.59E-04
Beaver Dam Creek	Below 400-D	71	1.19E-05	3.48E-04
Four Mile Creek	Site No. 3	11	1.15E-03	1.65E-02
Pen Branch	K-011	33	3.37E-05	6.82E-04
Steel Creek	Steel Creek 2A above Road B	11	1.75E-04	5.10E-03
Lower Three Runs	L3R1A above Road B	55	5.04E-06	1.50E-04

a Calculated with CRITR methodology incorporated in the LADTAP computer program

b The DOE limit is 1 rad/d.

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

Page 1 of 2

Number of Composites ^a						
Location	Species	H-3	Sr-90	Cs-137	Pu-238	Pu-239
BDC	Panfish	1	1	1	1	1
	Catfish	3	3	3	3	3
FMC	Panfish	3	3	3	2	2
	Catfish	3	3	3	3	2
L3R	Panfish	3	3	3	3	3
	Catfish	3	3	3	2	2
	Bass	1	1	1		
SC	Panfish	3	2	2	2	2
	Catfish	3	2	3	3	2
	Bass	2	2	2	2	2
U3R	Catfish	3	1	3	3	3
HWY 301	Panfish	3	3	3	3	3
	Catfish	3	2	3	3	3
	Bass	2	2	2	2	2
Average Concentration in Composites (pCi/g)						
Location	Species	H-3	Sr-90	Cs-137	Pu-238	Pu-239
BDC	Panfish	4.32E-02	3.89E-02	7.07E-01	4.05E-05	-2.42E-05
	Catfish	1.59E-01	9.30E-04	4.90E-02	5.81E-06	1.58E-06
FMC	Panfish	2.86E-01	1.14E-02	9.31E-02	-5.45E-06	-1.65E-05
	Catfish	8.39E-01	4.63E-03	6.64E-02	-7.87E-07	4.32E-06
L3R	Panfish	1.55E-01	1.85E-02	4.31E-01	5.45E-05	-2.51E-05
	Catfish	1.01E-01	5.74E-03	2.02E-01	3.11E-06	-8.76E-10
	Bass	9.92E-02	4.99E-03	7.41E-01	NA ^b	NA
SC	Panfish	1.53E-01	7.98E-03	1.01E-01	8.75E-06	1.92E-06
	Catfish	1.52E-01	4.69E-03	1.46E-01	3.98E-06	3.97E-06
	Bass	1.45E+00	2.41E-02	1.26E+00	5.31E-05	2.92E-05
U3R	Catfish	1.24E-01	3.55E-03	6.18E-02	-2.59E-06	-3.99E-06
HWY 301	Panfish	1.06E-01	5.30E-03	6.36E-02	1.01E-06	3.81E-06
	Catfish	1.24E-01	1.17E-03	1.03E-01	1.44E-06	-3.32E-06
	Bass	1.24E-01	3.64E-03	5.48E-02	2.95E-06	-2.95E-06

a Most composites were 5 fish, but six were 4 fish and one was 3 fish.

b Not available

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

Page 2 of 2

Dose from Consumption of 19 kg/year (42 lbs), mrem^{a,b}

Location	Species	H-3	Sr-90	Cs-137	Pu-238	Pu-239	Total
BDC	Panfish	5.17E-05	9.61E-02	6.72E-01	2.92E-03		7.71E-01
	Catfish	1.90E-04	2.30E-03	4.66E-02	4.19E-04	1.29E-04	4.96E-02
FMC	Panfish	3.42E-04	2.82E-02	8.84E-02			1.17E-01
	Catfish	1.00E-03	1.14E-02	6.31E-02		3.53E-04	7.59E-02
L3R	Panfish	1.86E-04	4.57E-02	4.09E-01	3.93E-03		4.59E-01
	Catfish	1.21E-04	1.42E-02	1.92E-01	2.25E-04		2.06E-01
	Bass	1.19E-04	1.23E-02	7.04E-01	NA ^c	NA ^c	7.16E-01
SC	Panfish	1.83E-04	1.97E-02	9.60E-02	6.32E-04	1.57E-04	1.17E-01
	Catfish	1.82E-04	1.16E-02	1.39E-01	2.87E-04	3.24E-04	1.51E-01
	Bass	1.74E-03	5.95E-02	1.20E+00	3.83E-03	2.39E-03	1.26E+00
U3R	Catfish	1.48E-04	8.77E-03	5.87E-02			6.76E-02
HWY 301	Panfish	1.27E-04	1.31E-02	6.04E-02	7.29E-05	3.11E-04	1.75E-01
	Catfish	1.48E-04	2.98E-03	9.79E-02	1.04E-04		1.01E-01
	Bass	1.84E-04	8.99E-03	5.21E-02	2.13E-04		6.14E-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 Dose based on negative concentration of individual radionuclides in fish was not calculated (shaded) and was 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 1993 Maximum and Average Individual Doses^a

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 Coordinate					
East	58000	50041	20938	51863	58000
North	62000	104828	65284	106670	62000

^a 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**1993 Total Site Releases and Maximum Individual Effective Dose Equivalent by Radionuclide (CAP88 Dose Calculations for 1993 NESHAP Report to EPA)**

Page 1 of 1

Radionuclide ^a	Releases (curies)	Maximum Individual EDE (mrem)	Percent of Dose
H-3 (oxide)	1.33E+05	1.79E-01	98.4
Pu-238	1.21E-03	1.22E-03	0.7
Pu-239 ^b	1.08E-03	1.18E-03	0.6
U-235,238	1.92E-03	7.46E-04	0.4
I-129	4.96E-03	3.29E-04	0.2
Am-241,243	1.43E-04	2.37E-04	0.1
Sr-89,90 (Y-90) ^c	2.27E-03	2.84E-05	0.02
Cm-242,244	5.64E-05	5.04E-05	0.03
Cs-137 (Ba-137m)	6.34E-04	3.08E-05	0.02
C-14	1.69E-02	4.59E-06	0.003
H-3 (elemental)	5.82E-04	3.10E-06	0.002
S-35	2.00E-06	4.42E-11	0.00000002
Ni-63	2.00E-07	7.31E-12	0.000000004
I-131	1.48E-04	1.50E-07	0.00008
Ru-106 (Rh-106)	4.00E-06	7.25E-08	0.00004
I-133	1.96E-03	2.99E-08	0.00002
Co-60	5.89E-09	2.61E-10	0.0000001
Xe-135	3.19E-02	1.84E-08	0.00001
Cs-134	1.49E-06	2.28E-08	0.00001
Eu-154	3.44E-13	1.29E-14	0.000000000007
Ce-144 (Pr-144,144m)	1.13E-13	5.91E-16	0.0000000000003
Eu-155	1.63E-13	2.45E-16	0.0000000000001
Sb-125	7.27E-15	3.69E-17	0.00000000000002
Zr-95 (Nb-95)	2.39E-14	3.43E-17	0.00000000000002
Total		1.82E-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
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
Outfall A-001						
<i>Effluent consists of the following types of wastewater: cooling water, steam condensate, and laboratory drain water.</i>						
BOD	mg/L	16	2.1	<1	6	1.5
FLO	MGD	15	0.648	0.36	15	0.482
O&G	mg/L	15	<1	<1		
PH	pH	15	8.6	6		
TMP	°C	15	27	19	15	23
TSS	mg/L	15	2	<1	5	1.4
Outfall A-003						
<i>Effluent consists of the following types of wastewater: cooling water and steam condensate.</i>						
CR	mg/L	25	0.065	<0.02	5	0.030
FLO	MGD	365	1.4865	0.0194	365	0.2706
O&G	mg/L	15	1.2	<1	2	1.1
PH	pH	15	7.5	6.7		
TMP	°C	15	26	14	15	20.6
TSS	mg/L	15	4	<1	6	2.3
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>						
BOD	mg/L	16	4.1	<1	9	2.3
FEC	#/100mL	15	53	<2	2	267
FLO	MGD	15	0.648	0.36	15	0.494
O&G	mg/L	15	1.1	<1	3	1.0
PERCL	ug/L	15	<5	<2		
PH	pH	15	7.5	6.2		
TMP	°C	15	26	17	15	20.9
TRICL	ug/L	15	9.8	<2	7	6.0
TSS	mg/L	15	4	<1	9	1.8

Table 67
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
Outfall A-011						
<i>Effluent consists of the following types of wastewater: cooling water.</i>						
BOD	mg/L	13	9.2	<1	7	3.4
FLO	MGD	365	1.228	0	365	0.091
O&G	mg/L	12	2.3	<1	4	1.5
PH	pH	12	8.1	6.8		
TMP	°C	12	31	16	12	22.4
TSS	mg/L	12	4	<1	5	2.2
Outfall A-014						
<i>Effluent consists of the following types of wastewater: air stripper wastewater and noncontact cooling water.</i>						
BOD	mg/L	13	3.4	<1	8	2.7
FLO	MGD	39	5.2531	0.2405	39	2.2159
O&G	mg/L	13	7.6	<1	3	5.4
PERCL	ug/L	13	<2	<2		
PH	pH	44	7.85	6		
TCE	ug/L	13	<2	<2		
TMP	°C	38	23.8	3.5	38	20
TRICL	ug/L	13	3.8	<2	3	2.72
TSS	mg/L	33	33	<1	16	4.5
Outfall A-015						
<i>Effluent consists of the following types of wastewater: sanitary wastewater.</i>						
BOD	mg/L	13	6.8	<1	12	3.3
FEC	#/100mL	14	14	<2	2	10
FLO	MGD	365	0.2376	0.0317	365	0.088
PH	pH	12	7.6	6.9		
TSS	mg/L	13	13	2	13	4.5

Table 67
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
Outfall C-001						
<i>Effluent consists of the following types of wastewater: cooling water.</i>						
FLO	MGD	365	0.181	0	365	0.021
O&G	mg/L	17	1.5	<1	4	1.3
PH	pH	19	7	5.7		
TMP	°C	19	28	1	19	18.2
TSS	mg/L	17	2	<1	7	1.4
Outfall C-003						
<i>Effluent consists of the following types of wastewater: cooling water.</i>						
FLO	MGD	365	2.8437	0.0582	365	0.3779
O&G	mg/L	17	1.5	<1	3	1.3
PH	pH	17	7.3	6.1		
TMP	°C	17	24	14	17	20.9
TSS	mg/L	17	1	<1	1	1
Outfall C-004						
<i>Effluent consists of the following types of wastewater: neutralization water, service wastewater, and C-Reactor cooling water.</i>						
FLO	MGD	365	102.1154	1.6158	365	11.3777
O&G	mg/L	14	1.7	<1	3	1.4
PH	pH	14	8.1	6.1		
TMP	°C	346	29.8	3.7	346	18.4
TSS	mg/L	14	7	<1	11	3.3
Outfall C-004A						
<i>Effluent consists of the following types of wastewater: sanitary wastewater.</i>						
BOD	mg/L	13	12.4	2.1	13	3.9
FEC	#/100mL	14	3	<2	3	2
FLO	MGD	365	0.0245	0	365	0.0104
PH	pH	12	7.8	7.1		
TSS	mg/L	13	7	1	13	3.4

Table 67
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
Outfall D-001						
<i>Effluent consists of the following types of wastewater: cooling water, neutralization water, and heavy water.</i>						
FLO	MGD	365	80.7875	31.6687	365	45.6606
O&G	mg/L	17	1.2	<1	2	1.1
PH	pH	23	7.4	6		
TMP	°C	17	30.5	14	17	22.1
TSS	mg/L	17	17	5	17	10.1

Outfall D-001A

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

BOD	mg/L	13	5.9	1.5	13	3.3
FEC	#/100mL	14	4	<2	1	4
FLO	MGD	365	0.023	0	365	0.008
PH	pH	13	8	7		
TSS	mg/L	13	15	2	13	4.4

Outfall D-001B

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

AL	mg/L	7	44.8	37.1	7	40.2
FE	mg/L	7	223	111	7	174.1
FLO	MGD	365	0.216	0	365	0.022
MG	mg/L	7	20.5	16	7	17.7
MN	mg/L	7	2.88	1.98	7	2.38
PH	pH	8	7.1	6.4		
SO4	mg/L	7	1250.00	726	7	1001
TSS	mg/L	7	3	<1	6	1.8
ZN	mg/L	7	1.18	0.86	7	1.04

Table 67
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
Outfall D-001C						
<i>Effluent consists of the following types of wastewater: ash basin discharge.</i>						
FLO	MGD	17	5.7298	2.6237	17	4.3003
O&G	mg/L	16	1.5	<1	4	1.3
PH	pH	15	7.1	5.6		
TSS	mg/L	17	8	1	17	3.3
Outfall D-003						
<i>Effluent consists of the following types of wastewater: powerhouse washdown water and water treatment plant wastewater.</i>						
FLO	MGD	365	1.0341	0.0388	365	0.2336
O&G	mg/L	17	1.6	<1	2	1.6
PH	pH	17	7.5	6.2		
TSS	mg/L	17	4	<1	15	2
Outfall D-005						
<i>Effluent consists of the following types of wastewater: water filter backwash overflow.</i>						
FLO	MGD	13	0	0		
Outfall D-006						
<i>Effluent consists of the following types of wastewater: cooling water, powerhouse washdown, and heavy water process water.</i>						
FEC	#/100mL	17	52	27	17	169
FLO	MGD	365	7.7556	0.9695	365	2.2672
O&G	mg/L	17	1.3	<1	1	1.3
PH	pH	17	7.5	6		
TMP	°C	277	28.2	8	277	18.9
TSS	mg/L	18	29	2	18	7.5
Outfall DW-001						
<i>Effluent consists of the following types of wastewater: washdown water from concrete transit mixer trucks.</i>						
FLO	MGD	365	0.527	0	365	0.08
PH	pH	5	7.7	6.4		
TSS	mg/L	5	6	2	5	4.6

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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
Outfall DW-002						
<i>Effluent consists of the following types of wastewater: steam cleaning wastewater, stormwater runoff, and equipment wash water.</i>						
FLO	MGD	23	0.036	23		0.0185
O&G	mg/L	23	4.6	<1	7	2.2
PH	pH	18	9.8	6		

Outfall DW-003*Effluent consists of the following types of wastewater: sanitary wastewater from DWPF (S Area).*

BOD	mg/L	16	12.2	<1	15	6.5
FEC	#/100mL	15	33	<2	1	33
FLO	MGD	365	0.0302	0	365	0.0123
PH	pH	13	8.6	6.7		
TSS	mg/L	16	53	2	16	9.5

Outfall DW-004*Effluent consists of the following types of wastewater: neutralization, cooling water, and steam condensate.*

BOD	mg/L	25	3.4	<1	19	1.7
CHL	mg/L	23	1.18	<0.1	4	0.5
FLO	MGD	55	0.1584	55		0.0414
O&G	mg/L	24	3	<1	5	1.7
PH	pH	25	8.4	6.3		
TMP	°C	24	3	15	24	21.6
TSS	mg/L	25	26	<1	23	4.5

Outfall F-001*Effluent consists of the following types of wastewater: non-process cooling water.*

FLO	MGD	15	0.288	0.108	15	0.1848
O&G	mg/L	15	2.2	<1	2	2.1
PH	pH	15	7.7	6.7		
TMP	°C	15	28	21	15	24.3
TSS	mg/L	15	13	<1	12	3.8

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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
Outfall F-002						
<i>Effluent consists of the following types of wastewater: non-process cooling water.</i>						
FLO	MGD	15	0.0864	0.0288	15	0.0523
O&G	mg/L	15	1.6	<1	3	1.3
PH	pH	15	7.5	6.2		
TMP	°C	15	28	11	15	18.1
TSS	mg/L	15	4	<1	6	1.8
Outfall F-003						
<i>Effluent consists of the following types of wastewater: cooling water and steam condensate.</i>						
BOD	mg/L	16	2.4	<1	9	1.7
FLO	MGD	15	0.144	0.0216	15	0.0638
O&G	mg/L	15	3.2	<1	5	1.8
PH	pH	15	8.9	6.7		
TMP	°C	15	32	13	15	22.8
TSS	mg/L	15	19	<1	14	5.9
Outfall F-003A						
<i>Effluent consists of the following types of wastewater: sanitary wastewater.</i>						
BOD	mg/L	14	6.5	1.6	14	3.2
FEC	#/100mL	15	<2	<2		
FLO	MGD	365	0.0187	0	365	0.0058
PH	pH	12	8.8	7.5		
TSS	mg/L	14	18	2	14	7.6
Outfall F-005						
<i>Effluent consists of the following types of wastewater: cooling water and steam condensate.</i>						
FLO	MGD	15	0.18	0.0432	15	0.1003
O&G	mg/L	15	1.9	<1	4	1.4
PH	pH	15	7.8	6.4		
TMP	°C	15	28	2	15	23.6
TSS	mg/L	16	36	<1	11	7.4

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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
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Outfall F-007

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

FLO	MGD	14	0	0		
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Outfall F-008

Effluent consists of the following types of wastewater: neutralization, cooling water, steam condensate, process wastewater, and Outfall F-012 and Outfall F-013.

AL	mg/L	8	0.545	0.108	8	0.263
AN	mg/L	8	0.12	<0.05	2	0.09
CR	mg/L	8	<0.03	<0.02		
CU	mg/L	6	0.0415	<0.01	2	0.0258
FLO	MGD	365	9.6945	0.3555	365	1.595
HG	mg/L	8	<0.0005	<0.0001		
MN	mg/L	8	0.0139	<0.03	7	0.0111
N03	mg/L	8	2.42	0.05	8	1.04
NI	mg/L	8	<0.05	<0.03		
O&G	mg/L	15	2.7	<1	3	1.8
PB	mg/L	8	0.0071	<0.003	1	0.0071
PH	pH	15	7.6	6		
TMP	°C	15	29.5	19	15	23.9
TSS	mg/L	15	9	<1	14	2.4
U ₃ O ₈	mg/L	8	<0.1	<0.02		
ZN	mg/L	8	0.0977	0.02	8	0.0396

Outfall F-008A

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

BOD	mg/L	14	7.5	1.1	14	2.9
FEC	#/100mL	15	<2	<2		
FLO	MGD	364	0.1022	0.0317	364	0.0609
PH	pH	12	7.6	6.9		
TSS	mg/L	14	13	2	14	5.3

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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
Outfall F-012						
<i>Effluent consists of the following types of wastewater: stormwater runoff retention basin effluent.</i>						
AL	mg/L	21	0.946	0.1	21	0.289
AN	mg/L	21	0.26	<0.05	4	0.15
CR	mg/L	21	<0.03	<0.007		
CU	mg/L	21	0.012	<0.004	5	0.012
FLO	MGD	23	0.72	0	23	0.62
HG	mg/L	21	0.007	<0.0001	2	0.004
MN	mg/L	21	0.155	<0.03	19	0.031
NO ₃	mg/L	21	1.4	<0.02	17	0.14
NI	mg/L	21	<0.05	<0.012		
PB	mg/L	21	0.0107	<0.003	9	0.0063
PH	pH	21	8	5.8		
TSS	mg/L	21	24	4	21	8.8
U ₃ O ₈	mg/L	21	0.0002	<0.02	1	0.0002
ZN	mg/L	21	0.396	0.0813	21	0.1404

Outfall F-013

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

AL	mg/L	23	0.791	<0.05	19	0.276
AN	mg/L	23	0.36	<0.05	2	0.26
CR	mg/L	23	<0.02	<0.02		
CU	mg/L	23	0.027	<0.01	6	0.014
FLO	MGD	24	0.9216	24		0.4837
HG	mg/L	23	<0.0001	<0.0001		
MN	mg/L	22	0.0195	0.0054	22	0.0131
NO ₃	mg/L	23	2.03	<0.02	2	0.18
NI	mg/L	23	<0.05	<0.05		
PB	mg/L	23	0.0067	<0.003	3	0.0049
PH	pH	23	7.9	6.5		
TSS	mg/L	23	16	1	23	3.7

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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
Outfall F-013, continued						
U ₃ O ₈	mg/L	23	<0.02	<0.02		
ZN	mg/L	23	0.25	0.034	23	0.098

Outfall FS-001*Effluent consists of the following types of wastewater: cooling water and greenhouse wastewater.*

FLO	MGD	14	0	0		
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Outfall FS-002*Effluent consists of the following types of wastewater: cooling water and greenhouse wastewater.*

FLO	MGD	14	0	0		
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Outfall H-002*Effluent consists of the following types of wastewater: non-process cooling water and stormwater.*

C	mg/L	6	3.77	<1	5	1.95
COD	mg/L	6	<1	<10		
FLO	MGD	16	0.216	0.0144	16	0.1427
O&G	mg/L	16	5.5	<1	3	2.6
PH	pH	16	7.8	5.9		
TMP	°C	16	27	15	16	20.3
TSS	mg/L	16	34	1	16	6.1

Outfall H-004*Effluent consists of the following types of wastewater: non-process cooling water.*

FLO	MGD	16	0.0288	0.0014	16	0.0085
O&G	mg/L	16	2.4	<1	2	2.05
PH	pH	16	7.8	5.3		
TMP	°C	16	27	7	16	16.8
TSS	mg/L	18	55	<1	1	9.5

Outfall H-006*Effluent consists of the following types of wastewater: stormwater.*

C	mg/L	1	<1	<1		
COD	mg/L	1	<1	<10		

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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
Outfall H-006, continued						
FLO	MGD	3	0.0014	0	3	0.0005
O&G	mg/L	1	<1	<1		
PH	pH	1	5.8	5.8		

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.

CHL	mg/L	17	0.11	<0.1	3	0.06
FLO	MGD	17	0.1008	0	17	0.0252
O&G	mg/L	15	3	<1	4	2.0
PH	pH	15	6.9	5.9		
TMP	°C	15	28	1	15	16.5
TSS	mg/L	15	32	<1	14	8.5

Outfall H-008

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

FLO	MGD	365	5.235	0.1163	365	1.5907
O&G	mg/L	16	1.9	<1	4	1.6
PH	pH	16	7.8	5.4		
TMP	°C	16	26	12	16	20.0
TSS	mg/L	16	16	2	16	3.9

Outfall H-008A

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

FLO	MGD	17	1.152	0.0014	17	0.4694
O&G	mg/L	16	2	<1	3	7.9
PH	pH	17	7.3	5.7		
TSS	mg/L	17	4	1	17	7

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Measurement	Units	Freq/ Year	Maximum	Minimum	# in Average	Average
Outfall H-012						
<i>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.</i>						
AL	mg/L	1	0.297	0.054	1	0.146
AN	mg/L	11	2.2	<0.05	3	0.8
CR	mg/L	11	<0.03	<0.02		
CU	mg/L	11	0.021	<0.01	6	0.016
FLO	MGD	365	2.1328	0.0323	365	0.3604
HG	mg/L	11	0.0002	<0.0001	3	0.0002
MN	mg/L	11	0.0394	<0.005	1	0.0207
NO ₃	mg/L	11	17.2	0.05	11	3.23
NI	mg/L	11	0.032	<0.03	1	0.032
O&G	mg/L	16	1	<1	1	1
PB	mg/L	11	0.0122	<0.003	3	0.0089
PH	pH	16	7.6	6.1		
SO ₄	mg/L	1	16.6	8.2	1	11.9
TMP	°C	16	31	12.8	16	21.5
TSS	mg/L	16	8	1	16	3.1
U ₃ O ₈	mg/L	11	<0.1	<0.02		
ZN	mg/L	11	0.199	<0.05	1	0.071

Outfall H-013

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

BOD	mg/L	14	9.6	2.1	14	5.0
FEC	#/100mL	15	2	<2	1	2
FLO	MGD	365	0.0922	0.0085	365	0.042
PH	pH	12	8.2	6.9		
TSS	mg/L	14	1	<1	13	5.2

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.

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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
Outfall H-016						
<i>Effluent consists of the following types of wastewater: process water, cooling water, and stormwater.</i>						
AL	mg/L	15	0.053	<0.05	1	0.053
AN	mg/L	49	0.15	<0.01	6	0.09
BOD	mg/L	48	5	<1	31	2.1
CHL	mg/L	13	0.37	<0.01	3	0.17
CR	mg/L	49	<0.03	<0.02		
CU	mg/L	49	0.013	<0.01	2	0.012
FLO	MGD	365	0.242	0	365	0.041
HG	mg/L	49	<0.0005	<0.0001		
MN	mg/L	49	0.0343	<0.005	3	0.0187
NO ₃	mg/L	49	66	1.78	49	11.16
NI	mg/L	14	<0.05	<0.03		
O&G	mg/L	49	10.1	<1	7	2.8
PB	mg/L	49	0.0094	<0.0005	9	0.0047
PH	pH	24	9	6.4		
TMP	°C	5	3	14	5	21.8
TSS	mg/L	49	2	<1	3	1.3
U ₃ O ₈	mg/L	15	<0.1	<0.02		
ZN	mg/L	49	0.414	<0.01	16	0.043

Outfall H-017*Effluent consists of the following types of wastewater: stormwater runoff retention basin effluent.*

AL	mg/L	31	0.533	0.058	31	0.220
AN	mg/L	31	0.12	<0.05	4	0.09
CR	mg/L	31	<0.03	<0.02		
CU	mg/L	31	0.013	<0.01	5	0.012
FLO	MGD	32	1.152	0	32	0.9899
HG	mg/L	31	0.0001	<0.0001	4	0.0003
MN	mg/L	31	0.0555	<0.03	3	0.02
NO ₃	mg/L	31	3.36	<0.02	25	0.472

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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
Outfall H-017, continued						
NI	mg/L	31	<0.05	<0.03		
PB	mg/L	31	0.0166	<0.003	8	0.0071
PH	pH	31	9.3	5.9		
TSS	mg/L	31	15	1	31	7
U ₃ O ₈	mg/L	31	<0.1	<0.01		
ZN	mg/L	31	0.328	0.1	31	0.189

Outfall H-018

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

AL	mg/L	4	0.101	0.064	4	0.081
AN	mg/L	4	<0.05	<0.05		
CR	mg/L	4	<0.02	<0.02		
CU	mg/L	4	0.016	<0.01	1	0.016
FLO	MGD	6	0.864	6		0.576
HG	mg/L	4	<0.0001	0.0001		
MN	mg/L	4	0.0266	0.008	4	0.0173
NO ₃	mg/L	4	0.84	0.67	4	0.72
NI	mg/L	4	<0.05	<0.05		
PB	mg/L	4	0.0056	<0.003	2	0.0047
PH	pH	4	6.8	6.6		
TSS	mg/L	4	4	2	4	2.75
U ₃ O ₈	mg/L	4	<0.02	<0.02		
ZN	mg/L	4	0.219	0.054	4	0.164

Outfall K-001

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

FLO	MGD	15	0.0576	0	15	0.0113
O&G	mg/L	7	2	<1	1	2
PH	pH	7	7.3	6.1		

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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
Outfall K-001, continued						
SO ₄	mg/L	5	10.6	9.12	5	9.99
TMP	°C	7	3	18	7	25.3
TSS	mg/L	7	5	<1	4	3.5

Outfall K-006

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

FLO	MGD	15	0.216	0.0029	15	0.0318
O&G	mg/L	15	2.8	<1	5	1.9
PH	pH	15	7.3	6.5		
TMP	°C	15	28	15.5	15	21.4
TSS	mg/L	15	4	<1	12	2.1

Outfall K-008

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

FLO	MGD	15	0	0		
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Outfall K-010

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

FLO	MGD	17	0.072	0.0014	17	0.0334
O&G	mg/L	16	6.2	<1	4	3.1
PH	pH	15	7.6	6.6		
TMP	°C	15	27	13	15	20.9
TSS	mg/L	17	84	2	17	20.1

Outfall K-012

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

BOD	mg/L	14	7.6	1.4	14	3.8
FEC	#/100mL	15	6	<2	2	4
FLO	MGD	365	0.0302	0.0029	365	0.0123
PH	pH	12	8.1	7		
TSS	mg/L	14	13	1	14	4.4

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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
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>						
FLO	MGD	365	111.8099	0.9048	365	62.4061
O&G	mg/L	15	1.4	<1	2	1.4
PH	pH	15	7.9	6.2		
TMP	°C	365	27.7	6.8	365	16.5
TSS	mg/L	16	48	2	16	8.3

Outfall L-007A*Effluent consists of the following types of wastewater: sanitary wastewater.*

BOD	mg/L	14	3.4	<1	11	2.4
FEC	#/100mL	14	6	<2	2	4
FLO	MGD	365	0.0288	0	365	0.0067
PH	pH	12	8.7	7.01		
TSS	mg/L	14	6	2	14	4

Outfall L-008*Effluent consists of the following types of wastewater: nonprocess cooling water and water reservoir sump wastewater.*

FLO	MGD	15	0.576	0.0144	15	0.2424
O&G	mg/L	15	4.5	<1	4	2.5
PH	pH	15	7.2	6.3		
TMP	°C	15	29	11	15	20.7
TSS	mg/L	15	15	<1	14	4.6

Outfall L-010*Effluent consists of the following types of wastewater: stormwater.*

FLO	MGD	3	0	0		
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Outfall M-004*Effluent consists of the following types of wastewater: Liquid Effluent Treatment Facility wastewater.*

CD	mg/L	13	<0.05	<0.01		
AG	mg/L	13	<0.0025	<0.0005		

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Measurement	Units	Freq/ Year	Maximum	Minimum	# in Average	Average
Outfall M-004, continued						
AL	mg/L	46	1.3	<0.05	18	0.273
CN	mg/L	9	<0.005	<0.005		
CR	mg/L	13	<0.1	<0.02		
CU	mg/L	46	0.03	<0.004	1	0.03
FLO	MGD	56	0.0366	0	56	0.0198
NO ₃	mg/L	22	1700	51.1	22	1089.5
NI	mg/L	46	<0.3	<0.012		
O&G	mg/L	47	11.9	<1	17	2.6
PB	mg/L	45	0.0225	<0.0012	5	0.0115
PH	pH	3	7.8	6.5		
PHOS	mg/L	22	17.3	0.238	22	4.313
TSS	mg/L	46	14	1	46	4.5
U ₃ O ₈	mg/L	46	0.128	<0.02	3	0.052
ZN	mg/L	13	0.085	<0.01	6	0.065

Outfall M-005*Effluent consists of the following types of wastewater: air stripper.*

FLO	MGD	54	0.8064	0	54	0.6993
PERCL	ug/L	53	<5	<2		
PH	pH	29	7.9	5.6		
TRICL	ug/L	53	<5	<2		

Outfall P-005*Effluent consists of the following types of wastewater: ash basin discharge.*

FLO	MGD	14	0	0		
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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
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Outfall P-007

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

AL	mg/L	5	0.405	0.075	5	0.230
FE	mg/L	5	0.622	0.237	5	0.406
FLO	MGD	33	2.3913	0	33	0.1588
O&G	mg/L	5	1.3	<1	1	1.3
PH	pH	5	7	6.4		
TMP	°C	5	28	18	5	22.4
TSS	mg/L	5	7	1	5	3.2

Outfall P-013

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

FLO	MGD	365	86.6042	0.0452	365	7.1395
O&G	mg/L	13	2.6	<1	3	2.0
PH	pH	13	7.2	6.2		
TMP	°C	266	27.7	6.4	266	17.5
TSS	mg/L	13	8	<1	6	4

Outfall P-014

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

BOD	mg/L	15	7.4	<1	12	4.2
FEC	#/100mL	15	2	<2	1	2
FLO	MGD	365	0.0288	0.0014	365	0.0088
PH	pH	12	8.6	7.9		
TSS	mg/L	15	14	2	15	5

Outfall P-019

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

FLO	MGD	365	56.8744	0	365	6.4398
O&G	mg/L	12	2.5	<1	4	1.8
PH	pH	12	7.2	6.1		

Table 67
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
Outfall P-019, continued						
TMP	°C	354	26.2	5.7	354	17.5
TSS	mg/L	12	7	<1	11	3

Outfall PP-001*Effluent consists of the following types of wastewater: stormwater.*

FLO	MGD	8	0.72	0	8	0.1971
O&G	mg/L	6	2	<1	1	2
PH	pH	6	6.9	5.9		

Outfall S-002 (CS-002)*Effluent consists of the following types of wastewater: automotive shop and cooling wastewater.*

AL	mg/L	1	19.4	19.4	1	19.4
BOD	mg/L	1	12.1	12.1	1	12.1
FLO	MGD	5	0.0043	0	5	.0001
O&G	mg/L	1	<1	<1		
PH	pH	1	6.1	6.1		
TMP	°C	1	17	17	1	17
TSS	mg/L	1	451	451	1	451

Outfall S-008*Effluent consists of the following types of wastewater: stormwater runoff and cooling wastewater.*

FLO	MGD	13	0	0		
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Outfall S-011*Effluent consists of the following types of wastewater: sanitary wastewater from Central Shops Area wastewater treatment plant.*

BOD	mg/L	14	4.9	<1	12	2.9
FEC	#/100mL	14	<2	<2		
FLO	MGD	365	0.0533	0	365	0.0215
PH	pH	12	8.4	7		
TSS	mg/L	14	4	1	14	2.6

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
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Outfall S-014

Effluent consists of the following types of wastewater: stormwater.

FLO	MGD	3	0	0		
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Outfall SC-004

Effluent consists of the following types of wastewater: Steel Creek water monitoring below the dam at Road A.

AG	mg/L	12	0.187	<0.0005	1	0.187
AS	mg/L	12	<0.005	<0.003		
BA	mg/L	12	0.0216	<0.03	1	0.0127
CD	mg/L	12	<0.01	<0.005		
CR	mg/L	12	<0.03	<0.02		
DO	mg/L	365	17.4	3.7	365	8.3
FLO	MGD	365	293.4202	4.0071	365	91.134
HG	mg/L	12	0.0004	<0.0001	1	0.0004
NO ₃	mg/L	12	0.17	0.05	12	0.1
PB	mg/L	12	0.0021	<0.003	1	0.0021
PH	pH	12	7.9	5.9		
PHOS	mg/L	12	0.059	0.015	12	0.030
SE	mg/L	12	<0.005	<0.003		
TMP	°C	364	31	9	364	18.9

Outfall T-001

Effluent consists of the following types of wastewater: artificial stream water.

FLO	MGD	13	0.0029	0	13	0.0002
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Outfall T-005

Effluent consists of the following types of wastewater: cooling water, boiler blowdown, and neutralized acid solutions.

BOD	mg/L	1	4	<1	4	2.0
FLO	MGD	14	0.216	0	14	0.0207
O&G	mg/L	9	<1	<1		
PH	pH	9	7.5	6.3		

Table 67
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
Outfall T-005, continued						
TMP	°C	9	27	13	9	21.7
TSS	mg/L	9	19	<1	8	3.5

Outfall T-007

Effluent consists of the following types of wastewater: sanitary wastewater from B-Area.

BOD	mg/L	25	7	1.5	25	3.0
CHL	mg/L	24	46	0.15	24	9.3
FEC	#/100mL	25	74	<2	2	38
FLO	MGD	365	0.0487	0	365	0.0093
PH	pH	23	8.4	6.8		
TSS	mg/L	25	11	<1	24	3.1

Outfall X-004

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

FLO	MGD	365	0.4718	0.0129	365	0.0447
O&G	mg/L	17	2.5	<1	3	1.8
PH	pH	17	7.2	6.2		
TMP	°C	17	32	21	17	25.1
TSS	mg/L	17	3	<1	13	1.5

Outfall X-008

Effluent consists of the following types of wastewater: cooling water, cooling tower blowdown, and domestic water overflow.

AL	mg/L	17	0.142	<0.05	5	0.090
FE	mg/L	17	1.4	0.153	17	0.992
FLO	MGD	17	0.432	0.144	17	0.274
O&G	mg/L	17	1.9	<1	4	1.4
PH	pH	18	6.9	5.9		
TMP	°C	17	3	21	17	24.8
TSS	mg/L	17	8	<1	15	2.9

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	# In Average	Average
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Outfall X-011

Effluent consists of the following types of wastewater: cooling water, cooling tower blowdown, and domestic water overflow.

FLO	MGD	13	0.0144	<0.0014	12	0.0032
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Outfall X-013

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

BOD	mg/L	14	4.9	1.1	14	2.4
FEC	#/100mL	14	2	<2	4	2
FLO	MGD	365	5.4144	0	365	0.0195
PH	pH	12	8.8	7		
TSS	mg/L	14	21	2	14	8.3

Outfall X-014

Effluent consists of the following types of wastewater: treated wastewater from TNX-ETP.

BEN	ug/L	5	<2	<0.08		
BOD	mg/L	48	16.1	<1	37	4.9
C	mg/L	5	9.57	1.21	5	4.29
FLO	MGD	100	0.035	0	100	0.0066
HG	ug/L	5	1.53	<0.0001	34	0.2603
PHE	mg/L	5	0.008	<0.002	19	0.004
O&G	mg/L	49	6.4	<1	14	2.2
PH	pH	44	8.35	6.4		
TSS	mg/L	5	68	1	5	7.8

Outfall Y-001

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

FLO	MGD	13	0	0		
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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	# in Average	Average
Outfall A-001A						
<i>Effluent consists of the following types of wastewater: air stripper effluent.</i>						
FLO	MGD	357	0.0835	0	357	0.071
PERCL	ug/L	48	<5	<2		
PH	pH	304	8.1	4.5		
TRICL	ug/L	48	<5	<2		

Outfall A-028 (facility not yet in service)

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

Outfall A-029 (facility not yet in service)

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

Outfall K-018 (formerly Outfall K-011)

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

AL	mg/L	24	0.801	0.074	24	0.263
BOD	mg/L	25	6.1	<1	23	2.1
CHL	mg/L	104	0.18	<0.1	8	0.11
FEC	#/100mL	24	308	8	24	55
FLO	MGD	365	78	365		22.5174
O&G	mg/L	24	2	<1	4	1.5
PH	pH	361	7.8	5.6		
TMP	°C	365	26.8	7.5	365	17.8
TSS	mg/L	24	6	1	24	3.3

Outfall X008A (Facility not yet in service)

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

Table 68
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample
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Outfall B-008

		Grab 12/14/93	Composite 10/17/93
BOD	mg/L	3.9	6.4
TSS	mg/L	12.0	4.0
COD	mg/L	11.00	44.40
TKN	mg/L	0.40	0.74
NO ₂ , NO ₃	mg/L	0.26	0.68
PO ₄ -P	mg/L	0.068	0.149
TOC	mg/L	4.40	17.00
pH		7.3	
AIR TEMP	°C	11.0	
WATER TEMP	°C	6.9	
DO	mg/L	11.8	
RAIN GAUGE	in.	Approx. 0.5	0.400
TOTAL RAIN	in.	Approx. 0.76	
LAST 0.1 RAIN		12/11/93	9/21/93

Outfall CS-006

		Background 5/10/93	Composite 5/19/93
BOD	mg/L	<1.0	8.6
TSS	mg/L	14.0	177.0
O&G	mg/L	<1.0	
PHENOL	mg/L	0.003	
COD	mg/L	<10.0	19.80
TKN	mg/L	0.27	1.23
NO ₂ , NO ₃	mg/L	0.02	0.50
PO ₄ -P	mg/L	0.053	
TOC	mg/L	3.58	8.46
AL	mg/L	0.375	8.680

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National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample		
Outfall CS-006, continued				
AG	mg/L	<0.0005	<0.0005	
CR	mg/L	0.020	<0.02	
CU	mg/L	<0.01	0.010	
FE	mg/L	2.700	10.700	
MG	mg/L	0.506	2.950	
NI	mg/L	<0.05	<0.05	
PB	mg/L	<0.003	0.016	
ZN	mg/L	0.017	0.157	
BENZENE	mg/L	<0.8		
TETRACHLOROETHYLENE	µg/L	<2.0		
TRICHLOROETHYLENE	µg/L	<2.0		
1,1,1-TRICHLOROETHYLENE	µg/L	<2.0		
pH		5.7		
AIR TEMP	°C	30.0		
WATER TEMP	°C	27.5		
DO	mg/L	6.5		
RAIN GAUGE	in.		0.200	
LAST 0.1 RAIN			5/13/93	
Outfall E-001				
		Grab	Grab	Grab
		9/20/93	10/30/93	12/14/93
BOD	mg/L	2.5	1.5	1.1
TSS	mg/L	13.0	9.0	9.0
TDS	mg/L	58.0	67.0	51.0
SO ₄	mg/L	12.6	5.2	7.5
BROMIDE	mg/L	<0.4	<0.1	<0.1
O&G	mg/L	<1.0	<1.0	<1.0
CN	mg/L	<0.02	<0.005	<0.005
PHENOL	mg/L	<0.002	<0.002	0.003

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National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample		
Outfall E-001, continued				
COD	mg/L	<10	<10	<10
NH ₃ -N	mg/L	<0.05	<0.05	<0.05
TKN	mg/L	0.33	<0.2	<0.2
NO ₂ , NO ₃	mg/L	0.18	0.13	0.14
PO ₄ -P	mg/L	0.0760	0.0940	0.044
TOC	mg/L	3.00	2.60	1.40
AL	mg/L	0.6210	3.4700	1.62
AG	mg/L	<0.0005	<0.0005	<0.0005
AS	mg/L	<0.003	<0.003	<0.003
B	mg/L	<0.03	0.0520	<0.03
BA	mg/L	0.0138	0.0187	<0.005
CD	mg/L	<0.01	<0.01	<0.01
CR	mg/L	<0.02	<0.02	<0.02
CU	mg/L	<0.01	<0.01	<0.01
FE	mg/L	0.7000	3.3600	1.22
HG	mg/L	<0.0001	<0.0001	<0.0001
MG	mg/L	1.1900	0.9820	1.29
MN	mg/L	0.0157	0.0363	0.0095
NI	mg/L	<0.05	<0.05	<0.05
PB	mg/L	<0.003	0.0040	<0.003
SB	mg/L	<0.01	<0.01	<0.01
SE	mg/L	<0.003	<0.015	<0.003
SN	mg/L	<0.005	<0.005	<0.005
U	mg/L	<0.02	<0.02	<0.02
ZN	mg/L	<0.01	0.0180	<0.01
MG (DISSOLVED)	mg/L	1.4100	0.9450	1.24
TETRACHLOROETHYLENE	µg/L	<2.0	<2.0	<2.0
TRICHLOROETHYLENE	µg/L	<2.0	<2.0	<2.0
1,1,1-TRICHLOROETHYLENE	µg/L	<2.0	<2.0	<2.0
pH		6.2	6.6	6.4

Table 68
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample		
Outfall E-001, continued				
AIR TEMP	°C	23.0	20.0	10.0
WATER TEMP	°C	21.0	17.5	7.1
DO	mg/L	6.0	8.0	11.1
RAIN GAUGE	in.	0.13	3.200	Approx. 0.5
TOTAL RAIN	in.	0.50		Approx. 0.75
LAST 0.1 RAIN		9/18/93	10/22/93	12/11/93

Outfall GS-001

		Grab
		12/14/93
BOD	mg/L	1.0
TSS	mg/L	<1.0
SO ₄	mg/L	2.9
O&G	mg/L	<1.0
COD	mg/L	<10.00
NH ₃ -N	mg/L	<0.05
TKN	mg/L	<0.2
NO ₂ , NO ₃	mg/L	0.26
PO ₄ -P	mg/L	0.047
TOC	mg/L	1.30
CR	mg/L	<0.02
CU	mg/L	<0.01
HG	mg/L	<0.0001
NI	mg/L	<0.05
PB	mg/L	0.0785
SB	mg/L	<0.01
SN	mg/L	<0.005
pH		5.4
AIR TEMP	°C	11.0
WATER TEMP	°C	5.5

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National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample		
Outfall GS-001, continued				
DO	mg/L	12.4		
RAIN GAUGE	in.	Approx. 0.2		
TOTAL RAIN	in.	Approx. 0.7		
LAST 0.1 RAIN		12/11/93		
Outfall H-007A				
		Grab	Composite	Composite
		12/14/93	8/4/93	10/17/93
BOD	mg/L	1.2	7.3	
TSS	mg/L	82.0	59.0	13.0
SO ₄	mg/L	11.1	15.8	11.4
O&G	mg/L	1.300		
COD	mg/L	<10	28.30	43.10
TKN	mg/L	0.23	0.50	0.54
NO ₂ , NO ₃	mg/L	0.35	2.25	0.69
PO ₄ -P	mg/L	0.133	0.201	0.062
TOC	mg/L	1.90	16.40	10.00
AL	mg/L	2.740	4.660	2.400
FE	mg/L	3.850	6.480	1.100
pH		6.5		
AIR TEMP	°C	10.0		
WATER TEMP	°C	7.7		
DO	mg/L	11.8		
RAIN GAUGE	in.	Approx. 0.5		
TOTAL RAIN	in.	0.580	0.530	0.42
LAST 0.1 RAIN		12/11/93	7/24/93	9/21/93

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National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample		
Outfall K-002				
		Grab	Composite	
		6/25/93	6/25/93	
BOD	mg/L	14.4	21.5	
TSS	mg/L	137.0	63.0	
O&G	mg/L	<1.0		
COD	mg/L	<10.0	29.50	
TKN	mg/L	0.90	0.62	
NO ₂ , NO ₃	mg/L	0.44	0.64	
PO ₄ -P	mg/L	0.293	0.173	
TOC	mg/L	10.30	16.30	
pH		7.3		
AIR TEMP	°C	25.0		
WATER TEMP	°C	27.0		
DO	mg/L	6.6		
RAIN GAUGE	in.	0.460		
TOTAL RAIN	in.	0.49	0.490	
LAST 0.1 RAIN		6/13/93	6/13/93	
Outfall K-004				
		Background	Grab	Composite
		5/11/93	6/25/93	6/11/93
BOD	mg/L	<1.0	15.8	13.2
TSS	mg/L	8.0	1560.0	120.0
O&G	mg/L	<1.0	<1.0	
COD	mg/L	<10.0	88.50	51.20
TKN	mg/L	0.22	1.28	0.90
NO ₂ , NO ₃	mg/L	<0.05	1.80	0.89
PO ₄ -P	mg/L	0.127	1.140	0.33
TOC	mg/L	3.62	15.80	11.60
pH		7.1	6.0	

Table 68
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample	
Outfall K-004, continued			
AIR TEMP	°C	23.6	27.0
WATER TEMP	°C	22.0	24.7
DO	mg/L	5.9	8.0
TRC		<1.0	
RAIN GAUGE	in.		0.460
TOTAL RAIN	in.		0.790
LAST 0.1 RAIN		6/12/93	6/1/93
Outfall D-001A			
		Grab	Composite
		11/8/93	11/8/93
ASBESTOS	f/sq mm	<7.81	<7.81
TOTAL RAIN	in.	0.550	0.550
LAST 0.1 RAIN		7/24/93	7/24/93
Outfall D-006A			
		Grab	Composite
		12/13/93	12/13/93
ASBESTOS	f/sq mm	812.500	437.500
TOTAL RAIN	in.	0.360	0.360
LAST 0.1 RAIN		12/4/93	12/4/93
Outfall G-020			
		Grab	Composite
		12/14/93	11/5/93
BOD	mg/L	4.9	4.4
TSS	mg/L	109.0	58.0
O&G	mg/L	<1.0	
PHENOL	mg/L	0.002	
COD	mg/L	37.40	35.80
TKN	mg/L	0.61	0.51

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National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample
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Outfall G-020, continued

NO ₂ , NO ₃	mg/L	0.16	0.11
PO ₄ -P	mg/L	0.128	0.157
TOC	mg/L	9.10	15.00
pH		6.5	
AIR TEMP	°C	10.0	
WATER TEMP	°C	7.7	
DO	mg/L	11.4	
RAIN GAUGE	in.	Approx. 0.5	Approx. 0.5
LAST 0.1 RAIN		12/11/93	10/29/93

Outfall S-005

		Background 5/10//93	Grab 12/14/93
BOD	mg/L	2.3	<1.0
TSS	mg/L	10.0	5.0
SO ₄	mg/L	7.2	15.9
O&G	mg/L	<1.0	<1.0
PHENOL	mg/L	<0.002	<0.002
COD	mg/L	14.90	11.50
NH ₃ -N	mg/L	<0.05	0.0500
TKN	mg/L	0.98	<0.2
NO ₂ , NO ₃	mg/L	0.69	5.41
PO ₄ -P	mg/L	0.3460	0.6670
TOC	mg/L	6.97	3.90
B	mg/L	<0.03	<0.03
CR	mg/L	<0.02	<0.02
CU	mg/L	<0.01	<0.01
HG	mg/L	<0.0001	<0.0001
PB	mg/L	<0.003	0.011
ZN	mg/L	0.072	0.133

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National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample	
Outfall S-005, continued			
BENZENE	mg/L	<0.8	<0.8
FECAL COLIFORM		10	10
pH		6.4	6.6
AIR TEMP	°C	28.0	11.0
WATER TEMP	°C	23.8	7.4
DO	mg/L	5.9	11.0
TRC		0.02	
RAIN GAUGE	in.		Approx. 0.5
TOTAL RAIN	in.		0.580
LAST 0.1 RAIN			12/11/93

Outfall X-001

		Composite	Composite
		8/4/93	11/5/93
BOD	mg/L	10.2	2.6
TSS	mg/L	41.0	29.0
COD	mg/L	46.60	<10.00
TKN	mg/L	0.81	0.25
NO ₂ , NO ₃	mg/L	1.27	0.68
PO ₄ -P	mg/L	0.287	0.179
TOC	mg/L	16.40	3.10
CD	mg/L	<0.01	<0.01
CR	mg/L	<0.03	<0.02
CU	mg/L	0.031	<0.01
HG	mg/L	<0.0001	<0.0001
TOTAL RAIN	in.	0.720	0.40
LAST 0.1 RAIN		7/24/93	10/29/93

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	2.31E12	1.57E12	1.76E12	1.51E12	7.99E11	6.76E11
Temperature ^b	°C	10.2	9.0	9.5	14.1	18.3	22.1
pH ^b	pH	6.2	6.3	6.8	6.4	6.3	6.2
Dissolved oxygen ^b	mg/L	9.9	11.5	11.1	10.7	8.6	8.4
Alkalinity	mg/L	13	17	13	14	19	19
Conductivity ^b	µmhos/cm	54	68	54	55	86	88
Turbidity	NTU	24	30	16	17	16	10
Suspended solids	mg/L	15	18	9	9	17	12
Volatile solids	mg/L	1	2	2	3	3	2
Total dissolved solids	mg/L	52	61	48	71	71	69
Total solids	mg/L	67	79	57	80	88	81
Fixed residue	mg/L	14	17	7	6	15	10
Chemical oxygen demand	mg/L	ND ^c	ND	ND	ND	ND	ND
Chloride	mg/L	4	5	4	4	10	8
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.18	0.22	0.19	0.22	0.24	0.21
Sulfate	mg/L	5	5	4	4	6	7
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			0.946			0.685
Ammonia nitrogen	mg/L	0.04	0.04	0.04	0.06	0.13	0.12
Calcium	mg/L			3.10			3.20
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			1.30			1.08
Manganese	mg/L			0.088			0.067
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			4.87			7.02
Iron	mg/L			1.39			0.857
Lead	mg/L			0.002			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			ND			ND

^a Metals are analyzed quarterly from a continuous flow composite.

^b Field measurement

^c None detected

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	6.00E11	5.78E11	4.73E11	4.67E11	4.78E11	5.03E11
Temperature ^b	°C	24.8	23.4	23.5	20.9	15.3	14.3
pH ^b	pH	6.5	6.3	6.1	6.0	6.3	6.4
Dissolved oxygen ^b	mg/L	8.0	8.2	6.8	8.6	8.6	8.9
Alkalinity	mg/L	17	17	19	20	19	20
Conductivity ^b	µmhos/cm	85	81	107	88	94	91
Turbidity	NTU	5.8	5.3	5.9	4.0	8.1	5.1
Suspended solids	mg/L	15	13	7	10	7	5
Volatile solids	mg/L	1	1	1	1	ND ^c	3
Total dissolved solids	mg/L	67	63	65	67	75	59
Total solids	mg/L	82	76	72	77	82	64
Fixed residue	mg/L	14	12	6	9	8	3
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Chloride	mg/L	8	6	13	10	10	9
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.31	0.23	0.22	0.19	0.17	0.27
Sulfate	mg/L	7	6	8	6	7	8
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			0.318			0.174
Ammonia nitrogen	mg/L	0.08	0.05	0.07	0.08	0.09	0.08
Calcium	mg/L			3.94			4.24
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			1.26			1.38
Manganese	mg/L			0.081			0.076
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			11.50			11.60
Iron	mg/L			0.612			0.410
Lead	mg/L			ND			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			ND			ND

a Metals are analyzed quarterly from a continuous flow composite.

b Field measurement

c None detected

Table 69
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	2.54E12	1.73E12	1.94E12	1.66E12	8.79E11	7.44E11
Temperature ^b	°C	10.3	9.1	9.5	15.2	18.6	22.6
pH ^b	pH	6.2	6.2	6.8	6.6	6.2	6.0
Dissolved oxygen ^b	mg/L	9.1	11.1	10.9	9.9	8.4	7.9
Alkalinity	mg/L	14	15	15	13	20	19
Conductivity ^b	µmhos/cm	57	58	54	55	84	89
Turbidity	NTU	27	23	16	14	17	10
Suspended solids	mg/L	11	19	8	10	12	11
Volatile solids	mg/L	2	1	2	6	2	1
Total dissolved solids	mg/L	58	53	47	53	60	68
Total solids	mg/L	69	72	55	63	72	79
Fixed residue	mg/L	9	19	6	4	10	10
Chemical oxygen demand	mg/L	ND ^c	ND	ND	ND	ND	ND
Chloride	mg/L	4	4	4	4	9	9
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.19	0.26	0.19	0.17	0.27	0.18
Sulfate	mg/L	5	5	4	4	7	8
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			0.745			0.614
Ammonia nitrogen	mg/L	0.07	0.07	0.03	0.06	0.14	0.10
Calcium	mg/L			3.10			3.49
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			1.23			1.12
Manganese	mg/L			0.069			0.064
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			5.04			7.15
Iron	mg/L			1.26			0.906
Lead	mg/L			0.003			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			ND			ND

^a Metals are analyzed quarterly from a continuous flow composite.

^b Field measurement

^c None detected

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	6.60E11	6.36E11	5.20E11	5.14E11	5.25E11	5.53E11
Temperature ^b	°C	25.5	25.0	25.0	21.1	15.5	14.2
pH ^b	pH	6.7	6.3	6.4	6.0	6.5	6.1
Dissolved oxygen ^b	mg/L	7.1	8.3	8.2	8.3	8.9	8.6
Alkalinity	mg/L	24	19	20	20	21	21
Conductivity ^b	μmhos/cm	108	93	95	82	100	93
Turbidity	NTU	6.5	5.9	5.7	3.9	8.5	5.5
Suspended solids	mg/L	12	12	3	8	13	5
Volatile solids	mg/L	ND ^c	1	ND	1	2	2
Total dissolved solids	mg/L	80	68	68	71	84	63
Total solids	mg/L	92	80	71	79	97	68
Fixed residue	mg/L	12	11	3	8	11	4
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Chloride	mg/L	11	8	11	12	12	8
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.32	0.25	0.23	0.22	0.18	0.35
Sulfate	mg/L	9	7	8	7	7	8
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			0.363			0.190
Ammonia nitrogen	mg/L	0.06	0.06	0.08	0.09	0.09	0.12
Calcium	mg/L			4.52			4.45
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			1.30			1.35
Manganese	mg/L			0.071			0.071
Mercury	μg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			12.10			11.90
Iron	mg/L			0.677			0.453
Lead	mg/L			ND			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			0.017			ND

^a Metals are analyzed quarterly from a continuous flow composite.

^b Field measurement

^c None detected

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	2.68E12	1.94E12	2.08E12	1.94E12	8.73E11	7.29E11
Temperature ^b	°C	11.3	9.8	9.1	15.6	19.1	22.9
pH ^b	pH	6.5	6.0	6.4	6.4	6.1	6.7
Dissolved oxygen ^b	mg/L	8.8	9.7	10.5	9.8	7.2	7.5
Alkalinity	mg/L	13	15	13	14	21	19
Conductivity ^b	µmhos/cm	58	63	54	61	92	89
Turbidity	NTU	28	14	15	12	16	10
Suspended solids	mg/L	6	5	5	6	16	15
Volatile solids	mg/L	2	1	3	3	4	2
Total dissolved solids	mg/L	60	51	49	68	67	69
Total solids	mg/L	66	56	54	74	83	84
Fixed residue	mg/L	4	4	2	3	13	13
Chemical oxygen demand	mg/L	ND ^c	ND	ND	ND	ND	ND
Chloride	mg/L	5	5	4	4	10	8
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.20	0.29	0.18	0.18	0.29	0.20
Sulfate	mg/L	5	6	5	4	7	8
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			0.838			0.606
Ammonia nitrogen	mg/L	0.05	0.09	0.03	0.02	0.11	0.04
Calcium	mg/L			3.25			3.73
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			1.21			1.11
Manganese	mg/L			0.04			0.059
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			5.28			7.26
Iron	mg/L			1.15			0.948
Lead	mg/L			0.003			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			ND			ND

a Metals are analyzed quarterly from a continuous flow composite.

b Field measurement

c None detected

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	6.03E11	5.23E11	4.30E11	4.00E11	4.34E11	5.22E11
Temperature ^b	°C	25.7	25.1	24.5	20.7	15.0	13.6
pH ^b	pH	6.4	6.4	6.0	6.3	6.3	6.3
Dissolved oxygen ^b	mg/L	6.9	6.4	6.2	8.4	8.8	8.4
Alkalinity	mg/L	21	20	17	21	24	22
Conductivity ^b	µmhos/cm	101	99	96	105	106	100
Turbidity	NTU	5.7	7.1	5.2	3.6	8.0	5.5
Suspended solids	mg/L	12	11	11	8	10	7
Volatile solids	mg/L	1	2	1	1	1	3
Total dissolved solids	mg/L	69	68	71	77	90	66
Total solids	mg/L	81	79	82	85	100	73
Fixed residue	mg/L	11	10	10	8	9	4
Chemical oxygen demand	mg/L	ND ^c	ND	ND	ND	ND	ND
Chloride	mg/L	10	9	11	12	11	10
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.31	0.26	0.24	0.26	0.25	0.31
Sulfate	mg/L	9	8	8	8	8	9
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			0.331			0.182
Ammonia nitrogen	mg/L	0.04	0.04	0.04	0.06	0.07	0.07
Calcium	mg/L			4.58			5.09
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			1.24			1.34
Manganese	mg/L			0.063			0.064
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			11.9			12.7
Iron	mg/L			0.701			0.516
Lead	mg/L			ND			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			0.012			ND

^a Metals are analyzed quarterly from a continuous flow composite.

^b Field measurement

^c None detected

Table 70
SRS Stream Water Quality

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Time Branch 5

Parameter ^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	1.10E09	6.35E08	9.34E08	6.37E08	4.33E08	3.96E08
Temperature ^b	°C	11.6	11.5	12.5	17.6	18.1	21.7
pH ^b	pH	7.4	6.6	6.4	6.7	6.3	6.9
Dissolved oxygen ^b	mg/L	10.6	13.0	10.5	10.0	8.9	7.8
Alkalinity	mg/L	11	10	16	15	14	19
Conductivity ^b	µmhos/cm	44	69	134	92	104	82
Total organic carbon		6.56	2.66	2.49	4.14	6.65	3.60
Turbidity	NTU	13	7.3	20	11	33	12
Suspended solids	mg/L	8	9	31	7	31	12
Volatile solids	mg/L	ND ^c	3	9	4	10	4
Total dissolved solids	mg/L	37	52	95	103	76	64
Total solids	mg/L	45	61	126	110	107	76
Fixed residue	mg/L	8	7	22	3	21	8
Chemical oxygen demand	mg/L	ND	ND	ND	ND	24	ND
Total Kjeldahl Nitrogen	mg/L	0.27	0.25	0.56	0.37	0.95	0.22
Chloride	mg/L	3	3	4	3	4	3
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.46	2.26	7.31	2.61	3.33	1.31
Sulfate	mg/L	3	6	15	10	12	5
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			0.535			0.727
Ammonia nitrogen	mg/L	0.02	0.03	0.03	0.03	0.05	0.01
Calcium	mg/L			1.25			1.25
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			0.484			0.442
Manganese	mg/L			0.068			0.075
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			12.9			14.9
Iron	mg/L			1.55			2.22
Lead	mg/L			0.004			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			ND			ND

a Metals are analyzed quarterly from a monthly grab composite.

b Field measurements

c None detected

Table 70
SRS Stream Water Quality

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Time Branch 5							
Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	3.90E08	3.39E08	6.03E08	5.02E08	5.01E08	5.48E08
Temperature ^b	°C	22.1	23.0	22.9	17.1	13.9	10.0
pH ^b	pH	6.7	6.6	7.6	6.8	6.7	5.8
Dissolved oxygen ^b	mg/L	7.7	8.1	8.1	10.1	10.1	12.4
Alkalinity	mg/L	22	19	23	15	11	12
Conductivity ^b	µmhos/cm	120	116	76	56	64	47
Total organic carbon		2.59	4.50	4.10	2.30	2.70	2.20
Turbidity	NTU	12	12	13	7.7	12	7.1
Suspended solids	mg/L	15	11	15	6	7	4
Volatile solids	mg/L	2	4	5	2	1	3
Total dissolved solids	mg/L	75	91	57	44	71	35
Total solids	mg/L	90	102	72	50	78	39
Fixed residue	mg/L	14	7	10	4	ND ^c	1
Chemical oxygen demand	mg/L	ND	37	ND	ND	ND	ND
Total Kjeldahl Nitrogen	mg/L	0.32	ND	0.37	0.23	0.54	ND
Chloride	mg/L	4	4	4	4	4	4
Nitrogen (as NO ₂ /NO ₃)	mg/L	3.16	3.32	0.31	0.68	1.54	0.54
Sulfate	mg/L	11	10	4	3	5	2
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			0.411			0.188
Ammonia nitrogen	mg/L	0.02	0.03	ND	0.03	ND	0.03
Calcium	mg/L			0.953			1.13
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			0.386			0.478
Manganese	mg/L			0.055			0.043
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			19.2			9.13
Iron	mg/L			1.64			1.06
Lead	mg/L			ND			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			ND			ND

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

^b Field measurements

^c None detected

Table 70
SRS Stream Water Quality

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Steel Creek 4 at Road A

Parameter ^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	1.10E10	1.32E10	2.51E10	1.54E10	1.05E10	9.78E09
Temperature ^b	°C	11.8	10.2	11.6	19.3	19.5	25.8
pH ^b	pH	6.9	6.5	6.3	6.8	6.4	6.7
Dissolved oxygen ^b	mg/L	9.8	10.6	11.4	9.9	7.9	6.7
Alkalinity	mg/L	11	11	12	12	11	12
Conductivity ^b	µmhos/cm	58	55	55	62	57	64
Total organic carbon		6.43	3.10	3.29	3.53	4.06	3.48
Turbidity	NTU	2.9	2.4	4.1	3.3	3.0	3.1
Suspended solids	mg/L	5	3	3	ND ^c	3	5
Volatile solids	mg/L	2	2	1	ND	3	1
Total dissolved solids	mg/L	44	40	39	67	42	45
Total solids	mg/L	49	43	42	67	45	50
Fixed residue	mg/L	3	2	2	ND	1	4
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Total Kjeldahl Nitrogen	mg/L	0.20	0.23	ND	0.25	0.28	0.18
Chloride	mg/L	6	6	5	4	4	5
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.10	0.14	0.13	0.15	0.10	0.12
Sulfate	mg/L	5	5	5	5	4	6
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			0.071			0.138
Ammonia nitrogen	mg/L	0.04	0.03	0.04	0.03	0.04	0.04
Calcium	mg/L			2.28			2.25
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			0.981			0.947
Manganese	mg/L			0.024			ND
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			5.72			5.44
Iron	mg/L			0.224			0.213
Lead	mg/L			0.004			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			0.014			ND

a Metals are analyzed quarterly from a monthly grab composite.

b Field measurements

c None detected

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	7.75E09	6.61E09	8.53E09	4.52E09	6.27E09	7.37E09
Temperature ^b	°C	29.6	28.0	27.2	22.4	16.7	14.0
pH ^b	pH	7.0	6.8	7.9	7.2	6.7	5.9
Dissolved oxygen ^b	mg/L	7.0	6.5	6.4	7.2	10.8	8.9
Alkalinity	mg/L	12	12	13	13	12	13
Conductivity ^b	µmhos/cm	70	76	66	68	70	70
Total organic carbon		3.35	3.80	3.00	2.80	3.10	2.70
Turbidity	NTU	2.8	3.0	3.0	2.3	1.9	2.1
Suspended solids	mg/L	3	3	3	3	3	2
Volatile solids	mg/L	1	1	1	1	ND ^c	1
Total dissolved solids	mg/L	39	50	46	45	63	46
Total solids	mg/L	42	53	49	48	66	48
Fixed residue	mg/L	2	2	2	3	3	1
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Total Kjeldahl Nitrogen	mg/L	0.29	ND	0.23	0.28	ND	ND
Chloride	mg/L	6	7	8	9	8	7
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.10	0.08	0.06	0.06	ND	0.17
Sulfate	mg/L	6	6	6	6	6	6
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			ND			0.060
Ammonia nitrogen	mg/L	0.04	0.05	0.02	0.04	ND	0.05
Calcium	mg/L			1.92			2.17
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			1.04			1.16
Manganese	mg/L			0.008			0.019
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			7.86			8.53
Iron	mg/L			0.053			0.093
Lead	mg/L			ND			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			0.01			ND

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

^b Field measurements

^c None detected

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	3.27E10	2.55E10	3.10E10	2.65E10	1.90E10	1.55E10
Temperature ^b	°C	10.5	9.7	11.8	20.0	18.8	23.0
pH ^b	pH	6.8	6.5	6.3	7.0	6.1	6.6
Dissolved oxygen ^b	mg/L	9.5	10.9	10.2	7.4	7.2	7.1
Alkalinity	mg/L	2	2	4	5	4	4
Conductivity ^b	µmhos/cm	22	21	26	25	34	27
Total organic carbon		9.01	4.22	3.22	5.06	5.53	2.40
Turbidity	NTU	6.7	3.9	3.2	6.5	17	8.8
Suspended solids	mg/L	6	4	1	5	20	16
Volatile solids	mg/L	ND ^c	1	1	3	8	7
Total dissolved solids	mg/L	37	32	28	43	32	25
Total solids	mg/L	43	36	29	48	52	41
Fixed residue	mg/L	5	3	1	2	12	9
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Total Kjeldahl Nitrogen	mg/L	0.22	ND	ND	0.34	0.44	ND
Chloride	mg/L	2	2	2	2	2	2
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.10	0.17	0.17	0.16	0.30	0.20
Sulfate	mg/L	2	2	2	1	2	1
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			0.158			0.261
Ammonia nitrogen	mg/L	0.02	0.02	0.02	0.04	0.02	ND
Calcium	mg/L			1.39			1.59
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			0.034			0.318
Manganese	mg/L			0.012			ND
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			1.70			1.75
Iron	mg/L			0.437			0.709
Lead	mg/L			0.002			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			ND			ND

a Metals are analyzed quarterly from a monthly grab composite.

b Field measurements

c None detected

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	1.44E10	1.34E10	1.68E10	1.55E10	1.87E10	1.89E10
Temperature ^b	°C	24.4	24.0	23.1	17.4	13.2	10.1
pH ^b	pH	6.0	6.3	8.0	7.2	6.4	5.2
Dissolved oxygen ^b	mg/L	7.6	7.2	5.0	9.1	12.5	8.5
Alkalinity	mg/L	3	4	4	4	3	3
Conductivity ^b	µmhos/cm	40	28	24	22	24	23
Total organic carbon		4.62	3.50	2.30	2.00	3.30	2.80
Turbidity	NTU	4.9	16	13	4.7	3.8	2.6
Suspended solids	mg/L	10	13	9	6	4	2
Volatile solids	mg/L	3	5	4	2	ND ^c	2
Total dissolved solids	mg/L	27	29	20	26	47	19
Total solids	mg/L	37	42	29	32	51	21
Fixed residue	mg/L	8	8	5	4	4	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Total Kjeldahl Nitrogen	mg/L	0.38	ND	ND	ND	ND	ND
Chloride	mg/L	3	2	3	2	3	3
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.16	0.19	0.12	0.13	0.12	0.10
Sulfate	mg/L	3	2	1	1	2	2
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			0.220			0.018
Ammonia nitrogen	mg/L	0.02	0.03	ND	0.02	ND	0.02
Calcium	mg/L			1.71			1.47
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			0.356			0.336
Manganese	mg/L			0.034			0.018
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			2.01			1.44
Iron	mg/L			0.624			0.363
Lead	mg/L			ND			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			ND			ND

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

^b Field measurements

^c None detected

Table 70
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	2.41E09	1.50E09	5.22E09	2.04E09	9.49E08	1.19E09
Temperature ^b	°C	10.1	11.1	11.9	19.9	19.8	24.8
pH ^b	pH	6.9	6.6	6.3	6.9	6.1	6.6
Dissolved oxygen ^b	mg/L	9.6	11.3	10.0	9.0	6.4	6.4
Alkalinity	mg/L	6	5	5	9	8	13
Conductivity ^b	µmhos/cm	57	54	63	55	61	72
Total organic carbon		4.50	2.30	2.36	3.94	4.99	2.99
Turbidity	NTU	7.3	3.9	6.3	4.4	21	4.6
Suspended solids	mg/L	6	7	7	2	9	4
Volatile solids	mg/L	1	2	ND ^c	1	3	1
Total dissolved solids	mg/L	42	40	40	67	50	62
Total solids	mg/L	48	47	47	69	59	66
Fixed residue	mg/L	5	6	7	1	6	3
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Total Kjeldahl Nitrogen	mg/L	0.21	ND	ND	0.48	0.37	ND
Chloride	mg/L	3	3	3	3	3	3
Nitrogen (as NO ₂ /NO ₃)	mg/L	1.45	1.81	2.28	1.42	1.89	1.88
Sulfate	mg/L	9	7	6	4	5	5
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			0.340			0.325
Ammonia nitrogen	mg/L	0.04	0.04	0.04	0.03	0.03	0.01
Calcium	mg/L			2.24			2.86
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			0.565			0.605
Manganese	mg/L			0.104			0.093
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			6.29			7.53
Iron	mg/L			0.727			1.14
Lead	mg/L			0.003			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			0.011			ND

a Metals are analyzed quarterly from a monthly grab composite.

b Field measurements

c None detected

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	7.12E08	7.21E08	1.26E09	1.11E09	1.06E09	1.04E09
Temperature ^b	°C	25.5	23.0	24.2	18.0	13.1	10.0
pH ^b	pH	6.7	6.6	7.7	6.8	6.4	5.7
Dissolved oxygen ^b	mg/L	6.5	8.1	6.8	8.0	11.1	9.6
Alkalinity	mg/L	18	9	16	10	6	8
Conductivity ^b	µmhos/cm	90	116	76	75	74	79
Total organic carbon		2.67	3.50	2.00	1.40	1.80	1.50
Turbidity	NTU	7.1	6.6	4.2	2.8	1.2	2.0
Suspended solids	mg/L	4	3	3	3	5	2
Volatile solids	mg/L	1	2	1	2	1	2
Total dissolved solids	mg/L	52	58	58	54	78	64
Total solids	mg/L	56	61	61	57	83	66
Fixed residue	mg/L	4	2	3	2	4	ND ^c
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Total Kjeldahl Nitrogen	mg/L	ND	ND	ND	ND	ND	ND
Chloride	mg/L	4	2	4	4	5	4
Nitrogen (as NO ₂ /NO ₃)	mg/L	1.50	2.73	1.58	2.04	2.72	2.85
Sulfate	mg/L	4	6	6	8	9	6
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			0.152			0.080
Ammonia nitrogen	mg/L	0.03	0.03	ND	0.02	ND	0.04
Calcium	mg/L			3.35			3.10
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			0.596			0.636
Manganese	mg/L			0.089			0.079
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			10.6			9.37
Iron	mg/L			0.944			0.364
Lead	mg/L			ND			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			ND			ND

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

^b Field measurements

^c None detected

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SRS Stream Water Quality

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Crouch Branch

Parameter^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	4.86E07	2.28E07	4.48E07	2.06E07	1.67E06	3.90E06
Temperature ^b	°C	11.2	10.2	11.3	17.8	19.3	21.0
pH ^b	pH	6.2	5.8	6.2	6.2	6.3	6.0
Dissolved oxygen ^b	mg/L	6.7	10.5	7.5	6.8	5.4	3.9
Conductivity ^b	µmhos/cm	69	86	56	61	108	60
Turbidity	NTU	28	103	18	16	71	26
Suspended solids	mg/L	7	26	5	5	32	12

^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	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	3.27E06	3.65E06	1.69E07	1.91E06	4.41E06	6.61E06
Temperature ^b	°C	24.0	26.6	23.7	17.8	13.0	9.5
pH ^b	pH	6.2	7.9	6.6	6.0	5.9	7.1
Dissolved oxygen ^b	mg/L	3.0	5.6	3.9	3.9	6.6	7.5
Conductivity ^b	µmhos/cm	100	133	125	73	83	93
Turbidity	NTU	16	45	19	15	54	18
Suspended solids	mg/L	12	18	10	8	34	6

^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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Lower Three Runs-2

Parameter ^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	1.19E10	6.93E09	9.27E09	9.19E09	5.16E09	4.67E09
Temperature ^b	°C	10.3	10.7	11.5	17.7	20.0	24.0
pH ^b	pH	6.2	5.9	6.6	6.3	6.5	6.3
Dissolved oxygen ^b	mg/L	9.6	10.1	10.2	7.8	7.2	6.7
Alkalinity	mg/L	10	12	17	16	17	21
Conductivity ^b	µmhos/cm	44	56	60	61	57	60
Turbidity	NTU	2.9	2.3	3.1	2.2	4.2	5.0
Suspended solids	mg/L	4	4	5	ND ^c	5	10
Volatile solids	mg/L	2	2	1	ND	4	2
Total dissolved solids	mg/L	33	40	41	69	51	46
Total solids	mg/L	37	44	46	69	56	56
Fixed residue	mg/L	2	2	4	ND	1	8
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Chloride	mg/L	3	3	3	3	3	3
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.11	0.14	0.12	0.12	0.08	0.18
Sulfate	mg/L	4	4	3	3	2	3
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			0.078			0.092
Ammonia nitrogen	mg/L	0.02	0.02	0.04	0.04	0.06	0.04
Calcium	mg/L			5.63			7.68
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			0.564			0.553
Manganese	mg/L			0.017			ND
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			2.28			1.97
Iron	mg/L			0.275			0.266
Lead	mg/L			0.002			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			ND			0.031

a Metals are analyzed quarterly from a monthly grab composite.

b Field measurements

c None detected

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SRS Stream Water Quality

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Lower Three Runs-2							
Parameter^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	4.52E09	4.15E09	4.84E09	4.40E09	5.37E09	5.34E09
Temperature ^b	°C	25.0	24.9	26.0	19.8	15.0	10.8
pH ^b	pH	6.6	6.2	7.0	7.5	6.7	6.8
Dissolved oxygen ^b	mg/L	6.7	6.8	7.1	8.6	9.0	7.9
Alkalinity	mg/L	23	23	24	22	20	21
Conductivity ^b	µmhos/cm	67	86	65	81	82	63
Turbidity	NTU	2.0	5.0	2.1	2.6	2.2	1.1
Suspended solids	mg/L	9	9	5	4	3	2
Volatile solids	mg/L	3	4	2	2	ND ^c	3
Total dissolved solids	mg/L	37	47	47	54	63	46
Total solids	mg/L	46	56	52	58	66	48
Fixed residue	mg/L	7	5	3	2	3	ND
Chemical oxygen demand	mg/L	ND	27	ND	ND	ND	ND
Chloride	mg/L	3	3	4	4	5	4
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.14	0.13	0.10	0.10	ND	0.10
Sulfate	mg/L	2	2	3	3	3	4
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			ND			ND
Ammonia nitrogen	mg/L	0.04	0.04	ND	0.02	ND	0.02
Calcium	mg/L			8.94			12.8
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			0.741			0.79
Manganese	mg/L			0.024			0.013
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			2.98			2.88
Iron	mg/L			0.156			0.138
Lead	mg/L			ND			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			ND			ND

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

^b Field measurements

^c None detected

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SRS Stream Water Quality

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McQueens Branch

Parameter^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	2.63E08	1.34E08	2.05E08	1.22E08	9.34E07	5.51E07
Temperature ^b	°C	11.4	12.1	12.0	17.7	18.3	23.0
pH ^b	pH	5.6	6.0	6.9	6.2	6.4	6.5
Dissolved oxygen ^b	mg/L	9.5	9.1	9.4	8.7	7.6	5.8
Conductivity ^b	µmhos/cm	37	5	45	47	46	40
Turbidity	NTU	9.1	43	47	5.9	21	17
Suspended solids	mg/L	7	10	22	2	11	82

^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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McQueens Branch		July	Aug	Sept	Oct	Nov	Dec
Parameter ^a	Units						
Water volume	L	7.06E07	5.09E07	7.79E07	1.08E08	1.07E08	9.72E07
Temperature ^b	°C	24.8	23.8	23.6	17.5	13.5	10.1
pH ^b	pH	6.7	6.9	6.8	6.8	6.1	7.2
Dissolved oxygen ^b	mg/L	6.4	7.7	6.8	8.1	9.4	9.8
Conductivity ^b	µmhos/cm	68	55	45	48	50	45
Turbidity	NTU	6.4	21	5.6	3.3	3.3	3.7
Suspended solids	mg/L	12	7	2	1	2	1

^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	Jan	Feb	Mar	April	May	June
Water volume	L	3.66E09	3.34E09	5.42E09	3.67E09	3.40E09	2.73E09
Temperature ^b	°C	10.3	11.9	11.1	16.9	24.6	25.4
pH ^b	pH	6.0	5.9	6.8	6.2	6.7	6.3
Dissolved oxygen ^b	mg/L	9.2	9.5	10.6	9.7	6.3	7.4
Alkalinity	mg/L	10	11	13	15	15	18
Conductivity ^b	µmhos/cm	47	52	69	69.4	63	70
Turbidity	NTU	8.3	6.4	12	10	12	7.0
Suspended solids	mg/L	9	12	9	4	8	6
Volatile solids	mg/L	1	2	2	3	2	2
Total dissolved solids	mg/L	51	47	42	79	55	59
Total solids	mg/L	60	59	51	83	63	65
Fixed residue	mg/L	8	8	7	2	6	4
Chemical oxygen demand	mg/L	ND ^c	ND	ND	ND	ND	ND
Chloride	mg/L	4	3	4	4	6	5
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.16	0.13	0.15	0.17	0.25	0.26
Sulfate	mg/L	5	4	4	4	4	5
Phosphate P	mg/L	0.04	0.04	0.03	ND	ND	ND
Aluminum	mg/L			0.298			0.231
Ammonia nitrogen	mg/L	0.03	0.09	0.02	0.03	0.04	0.02
Calcium	mg/L			0.976			4.15
Copper	mg/L			0.05			0.054
Cadmium	mg/L			ND			ND
Magnesium	mg/L			0.710			0.823
Manganese	mg/L			0.038			0.041
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			3.49			5.05
Iron	mg/L			0.705			0.704
Lead	mg/L			0.002			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			ND			ND

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

^b Field measurements

^c None detected

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	2.44E09	2.56E09	3.09E09	3.41E09	3.73E09	3.71E09
Temperature ^b	°C	25.5	26.5	26.2	19.1	14.5	12.2
pH ^b	pH	6.6	6.5	7.8	7.4	6.7	7.4
Dissolved oxygen ^b	mg/L	8.1	8.7	7.9	9.4	10.2	10.5
Alkalinity	mg/L	18	19	17	17	15	15
Conductivity ^b	µmhos/cm	81	88	85	85	89	79
Turbidity	NTU	5.4	4.3	4.1	4.0	6.4	3.7
Suspended solids	mg/L	6	2	3	4	5	4
Volatile solids	mg/L	1	1	2	1	ND ^c	3
Total dissolved solids	mg/L	45	63	59	56	72	52
Total solids	mg/L	51	65	62	60	77	56
Fixed residue	mg/L	5	2	2	3	5	1
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Chloride	mg/L	6	7	9	10	8	7
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.23	0.22	0.20	0.24	0.23	0.33
Sulfate	mg/L	5	6	6	6	7	7
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			0.398			0.096
Ammonia nitrogen	mg/L	0.02	0.03	ND	ND	0.02	0.03
Calcium	mg/L			4.79			5.03
Copper	mg/L			0.041			0.098
Cadmium	mg/L			ND			ND
Magnesium	mg/L			0.996			1.08
Manganese	mg/L			0.096			0.040
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			8.96			9.35
Iron	mg/L			0.786			0.361
Lead	mg/L			ND			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			0.012			ND

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

^b Field measurements

^c None detected

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	5.45E09	6.63E09	1.26E10	3.28E09	2.07E09	3.57E09
Temperature ^b	°C	10.4	14.0	10.8	18.6	22.5	26.0
pH ^b	pH	5.7	5.9	6.5	5.8	6.6	6.4
Dissolved oxygen ^b	mg/L	9.4	9.0	10.1	9.7	8.3	7.2
Alkalinity	mg/L	7	9	9	10	9	13
Conductivity ^b	µmhos/cm	50	60	30	50	54	60
Turbidity	NTU	7.2	5.8	10	5.0	8.9	4.9
Suspended solids	mg/L	5	7	6	1	12	4
Volatile solids	mg/L	2	2	2	ND ^c	3	1
Total dissolved solids	mg/L	46	43	39	66	40	49
Total solids	mg/L	51	50	45	67	52	53
Fixed residue	mg/L	4	5	4	1	9	3
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Chloride	mg/L	3	3	3	3	3	3
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.89	0.79	0.38	0.69	1.00	0.84
Sulfate	mg/L	6	6	4	4	4	3
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			0.253			0.143
Ammonia nitrogen	mg/L	0.04	0.04	0.02	0.04	0.04	0.04
Calcium	mg/L			2.74			2.82
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			0.752			0.617
Manganese	mg/L			0.036			ND
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			4.86			5.01
Iron	mg/L			0.696			0.566
Lead	mg/L			0.002			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			0.011			ND

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

^b Field measurements

^c None detected

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	2.64E09	2.00E09	3.09E09	2.39E09	2.47E09	2.54E09
Temperature ^b	°C	25.0	24.5	26.6	17.6	13.5	10.8
pH ^b	pH	6.5	6.8	6.9	7.0	6.4	7.3
Dissolved oxygen ^b	mg/L	7.0	7.9	7.8	10.4	9.8	10.8
Alkalinity	mg/L	16	15	13	9	11	12
Conductivity ^b	µmhos/cm	65	67	65	60	68	73
Turbidity	NTU	3.0	3.6	2.0	1.8	1.8	2.3
Suspended solids	mg/L	2	2	1	ND ^c	2	2
Volatile solids	mg/L	1	ND	2	ND	ND	2
Total dissolved solids	mg/L	37	55	48	41	65	50
Total solids	mg/L	39	57	49	41	67	52
Fixed residue	mg/L	2	1	ND	ND	2	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Chloride	mg/L	4	4	6	4	6	5
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.49	0.69	0.54	0.97	1.09	1.31
Sulfate	mg/L	4	5	5	5	6	7
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			ND			ND
Ammonia nitrogen	mg/L	0.03	0.04	ND	ND	0.02	0.02
Calcium	mg/L			3.31			3.56
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			0.634			0.724
Manganese	mg/L			0.024			0.018
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			7.52			7.62
Iron	mg/L			0.289			0.314
Lead	mg/L			ND			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			ND			ND

a Metals are analyzed quarterly from a monthly grab composite.

b Field measurements

c None detected

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	1.01E10	8.16E09	9.95E09	9.11E09	8.28E09	7.42E09
Temperature ^b	°C	12.0	13.3	13.4	18.1	18.5	20.8
pH ^b	pH	6.2	5.7	6.6	6.5	5.3	6.3
Dissolved oxygen ^b	mg/L	9.3	9.6	8.4	9.3	7.3	7.3
Alkalinity	mg/L	1	2	1	2	1	2
Conductivity ^b	µmhos/cm	17	23	17	24	21	30
Turbidity	NTU	5.6	2.7	2.6	2.6	7.4	4.8
Suspended solids	mg/L	5	6	3	1	11	8
Volatile solids	mg/L	2	3	1	1	5	2
Total dissolved solids	mg/L	23	26	20	46	26	20
Total solids	mg/L	28	32	23	47	37	28
Fixed residue	mg/L	4	3	2	ND ^c	7	6
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Chloride	mg/L	2	2	2	2	2	2
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.19	0.23	0.20	0.20	0.15	0.21
Sulfate	mg/L	1	1	1	1	1	1
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			0.137			0.121
Ammonia nitrogen	mg/L	0.04	0.03	0.02	0.02	0.02	0.01
Calcium	mg/L			0.905			0.416
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			0.349			0.278
Manganese	mg/L			0.123			ND
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			1.51			1.34
Iron	mg/L			0.328			0.336
Lead	mg/L			0.003			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			ND			ND

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

^b Field measurements

^c None detected

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	7.38E09	7.15E09	7.72E09	7.75E09	7.86E09	8.13E09
Temperature ^b	°C	24.0	21.0	21.5	17.7	16.8	11.8
pH ^b	pH	6.8	7.6	6.9	7.4	6.5	7.4
Dissolve oxygen ^b	mg/L	8.1	7.8	7.8	9.4	9.9	9.5
Alkalinity	mg/L	2	1	2	1	2	2
Conductivity ^b	µmhos/cm	17	22	17	17	20	20
Turbidity	NTU	5.3	2.5	1.8	1.8	1.9	1.8
Suspended solids	mg/L	3	5	4	2	3	2
Volatile solids	mg/L	1	3	2	1	ND ^c	2
Total dissolved solids	mg/L	13	23	16	15	33	15
Total solids	mg/L	16	28	20	17	36	17
Fixed residue	mg/L	2	2	2	1	3	ND
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Chloride	mg/L	3	2	2	2	2	2
Nitrogen (as NO ₂ /NO ₃)	mg/L	0.22	0.17	0.17	0.21	0.19	0.29
Sulfate	mg/L	1	1	1	1	1	1
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Aluminum	mg/L			0.091			0.110
Ammonia nitrogen	mg/L	0.02	0.02	ND	ND	ND	0.02
Calcium	mg/L			0.412			0.440
Copper	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Magnesium	mg/L			0.301			0.331
Manganese	mg/L			0.006			0.005
Mercury	µg/L			ND			ND
Nickel	mg/L			ND			ND
Sodium	mg/L			1.41			1.34
Iron	mg/L			0.258			0.197
Lead	mg/L			ND			ND
Chromium	mg/L			ND			ND
Zinc	mg/L			0.017			ND

a Metals are analyzed quarterly from a monthly grab composite.

b Field measurements

c None detected

Table 70
SRS Stream Water Quality**Page 21 of 21**

SRS Stream Water Quality: Herbicides and Volatile Organics

EMS samples from the following SODHEC locations were analyzed monthly for the constituents listed below. Herbicides and volatile organics were not detected in any of the analyses.

Locations	Herbicides
Tims Branch-5	Aldrin
Four Mile Creek-A7	Alpha BHC
Steel Creek-4	Beta BHC
Upper Three Runs Creek-4	Lindane
	alpha-Chlordane
	gamma-Chlordane
	tech-Chlordane
	4,4'-DDD
	4,4'-DDE
	4,4'-DDT
	Dieldrin
	Endosulfan I
	Endosulfan II
	Endosulfan Sulfate
	Endrin
	Endrin Aldehyde
	Heptachlor
	Heptachlor Epoxide
	Methoxychlor
	Toxaphene
	2, 4-D
	2, 4, 5-TP (Silvex)
	Volatile Organics
	111-Trichloroethane
	Trichloroethene
	Tetrachloroethene

Table 71
Pesticides and 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, Shealy Environmental Services, Inc., were below the detection limits.

Locations	Pesticides	Water ^a	Sediment ^a
		Lower Limit of Detection (LLD)—µg/L	Lower Limit of Detection (LLD)—µg/kg
Steel Creek-4	Aldrin	<0.05	6.00
Par Pond Pumpouse	Alpha-BHC	<0.05	6.00
Lower Three Runs-3	Beta-BHC	<0.05	4.00
Upper Three Runs at Road A	Delta-BHC	<0.05	4.00
Four Mile Creek at Road A	Lindane	<0.05	4.00
Pen Branch at Road A	Chlordane	1.0	33.0
Upper Three Runs at Road F	4,4-DDD	<0.05	8.4
River 2	4,4-DDE	<0.05	12.7
River 10	4,4-DDT	<0.05	8.4
	Dieldrin	<0.05	4.0
	Endosulfan I	<0.05	6.0
	Endosulfan II	<0.05	8.4
	Endosulfan sulfate	<0.05	6.0
	Endrin	<0.05	8.4
	Endrin aldehyde	<0.05	6.0
	Endrin ketone	<0.05	14.7
	Heptachlor	<0.05	4.0
	Heptachlor epoxide	<0.05	4.0
	Methoxychlor	<0.20	27.4
	Toxaphene	<5.0	167
	Herbicides		
	2,4-D	<0.10	21
	2,4,5-TP (Silvex)	<0.10	10

^a Samples were taken August 6, 1993.

Table 72
Fecal Colliform Bacteria in SRS Streams and Savannah River

Page 1 of 6

Location	Colonies/100mL			# of Samples	Number of Exceedances	Period of Time
	JAN MIN	JAN MAX	GEO MEAN ^a			
RIVER-2	28	127	47	4	0	1/4 - 1/26
RIVER-3B	28	78	43	4	0	1/4 - 1/26
RIVER-10	41	175	75	4	0	1/4 - 1/26
U3R-1A	<2	280	48	4	0	1/4 - 1/26
U3R-4	74	174	103	4	0	1/4 - 1/26
FMC-6	56	230	102	4	0	1/4 - 1/26
PB-3	42	148	73	4	0	1/4 - 1/26
BDC	2	125	16	4	0	1/4 - 1/26
L3R-2	108	400	179	4	0	1/4 - 1/26
L3R-TCR ^b	94	320	191	3	0	1/4 - 1/26
SC-4 ^c	10	10	10	1	0	1/11
TB-5 ^c	110	110	110	1	0	1/11
FM-A7 ^c	42	42	42	1	0	1/11
U3R-4 ^c	220	220	220	1	1	1/11

Location	Colonies/100mL			# of Samples	Number of Exceedances	Period of Time
	FEB MIN	FEB MAX	GEO MEAN ^a			
RIVER-2	26	270	87	4	0	2/1 - 2/23
RIVER-3B	26	118	53	4	0	2/1 - 2/23
RIVER-10	38	68	49	4	2	2/1 - 2/23
U3R-1A	106	691	288	4	0	2/1 - 2/23
U3R-4	118	280	186	4	0	2/1 - 2/23
FMC-6	50	94	66	4	0	2/1 - 2/23
PB-3	50	86	67	4	0	2/1 - 2/23
BDC	7	62	21	4	0	2/1 - 2/23
L3R-2	104	330	167	4	0	2/1 - 2/23
SC-4 ^c	42	42	42	1	0	2/10
TB-5 ^c	84	84	84	1	0	2/10
FM-A7 ^c	39	39	39	1	0	2/10
U3R-4 ^c	100	100	100	1	0	2/10

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 L3R-TCR sample location discontinued beginning February 1993

c SCDHEC sample location—one sample collected monthly

Table 72
Fecal Coliform Bacteria in SRS Streams and Savannah River

Page 2 of 6

Location	Colonies/100mL			# of Samples	Number of Exceedances	Period of Time
	MAR MIN	MAR MAX	GEO MEAN ^a			
RIVER-2	13	320	118	5	0	3/1 - 3/30
RIVER-3B	25	144	57	5	0	3/1 - 3/30
RIVER-10	40	290	72	5	0	3/1 - 3/30
U3R-1A	64	220	117	5	0	3/1 - 3/30
U3R-4	56	210	133	5	0	3/1 - 3/30
FMC-6	54	430	105	5	1	3/1 - 3/30
PB-3	20	320	77	5	0	3/1 - 3/30
BDC	3	121	31	5	0	3/1 - 3/30
L3R-2	123	290	225	5	1	3/1 - 3/30
SC-4 ^b	2	2	2	1	0	3/3
TB-5 ^b	200	200	200	1	0	3/3
FM-A7 ^b	13	13	13	1	0	3/3
U3R-4 ^b	119	119	119	1	0	3/3

Location	Colonies/100mL			# of Samples	Number of Exceedances	Period of Time
	APR MIN	APR MAX	GEO MEAN ^a			
RIVER-2	80	200	116	4	0	4/5 - 4/27
RIVER-3B	34	124	63	4	0	4/5 - 4/27
RIVER-10	40	210	75	4	0	4/5 - 4/27
U3R-1A	123	370	200	4	0	4/5 - 4/27
U3R-4	100	330	181	4	0	4/5 - 4/27
FMC-6	50	118	77	4	0	4/5 - 4/27
PB-3	42	310	104	4	0	4/5 - 4/27
BDC	16	62	32	4	0	4/5 - 4/27
L3R-2	152	580	239	4	2	4/5 - 4/27
SC-4 ^b	15	15	15	1	0	4/15
TB-5 ^b	260	260	260	1	0	4/15
FM-A7 ^b	42	42	42	1	0	4/15
U3R-4 ^b	112	112	112	1	0	4/15

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 SCDHEC sample location—one sample collected monthly

Table 72
Fecal Coliform Bacteria in SRS Streams and Savannah River

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Location	Colonies/100mL			# of Samples	Number of Exceedances	Period of Time
	MAY MIN	MAY MAX	GEO MEAN ^a			
RIVER-2	40	450	101	4	1	5/3 - 5/25
RIVER-3B	40	320	139	4	0	5/3 - 5/25
RIVER-10	26	124	47	4	0	5/3 - 5/25
U3R-1A	191	280	240	4	1	5/3 - 5/25
U3R-4	139	230	179	4	0	5/3 - 5/25
FMC-6	52	102	77	4	0	5/3 - 5/25
PB-3	48	260	91	4	0	5/3 - 5/25
BDC	66	510	130	4	1	5/3 - 5/25
L3R-2	104	154	134	4	0	5/3 - 5/25
SC-4 ^b	142	142	142	1	0	5/5
TB-5 ^b	3,300	3,300	3,300	1	2	5/5
FM-A7 ^b	430	430	430	1	2	5/5
U3R-4 ^b	1,681	1,681	1,681	1	2	5/5

Location	Colonies/100mL			# of Samples	Number of Exceedances	Period of Time
	JUNE MIN	JUNE MAX	GEO MEAN ^a			
RIVER-2	26	98	56	5	0	6/1 - 6/29
RIVER-3B	29	22,300	298	5	3	6/1 - 6/29
RIVER-10	5	854	54	5	2	6/1 - 6/29
U3R-1A	220	370	248	5	1	6/1 - 6/29
U3R-4	56	1,309	330	5	2	6/1 - 6/29
FMC-6	50	92	75	5	0	6/1 - 6/29
PB-3	78	280	97	5	0	6/1 - 6/29
BDC	29	98	64	5	0	6/1 - 6/29
L3R-2	112	3,263	256	5	2	6/1 - 6/29
SC-4 ^b	8	8	8	1	0	6/9
TB-5 ^b	390	390	390	1	1	6/9
FM-A7 ^b	88	88	88	1	0	6/9
U3R-4 ^b	250	250	250	1	1	6/9

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 SCDHEC sample location—one sample collected monthly

Table 72
Fecal Coliform Bacteria in SRS Streams and Savannah River

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Location	Colonies/100mL			# of Samples	Number of Exceedances	Period of Time
	JUL MIN	JUL MAX	GEO MEAN ^a			
RIVER-2	56	440	136	4	1	7/6 - 7/27
RIVER-3B	40	16,900	354	4	2	7/6 - 7/27
RIVER-10	6	40	22	4	0	7/6 - 7/27
U3R-1A	86	280	155	4	0	7/6 - 7/27
U3R-4	120	370	238	4	1	7/6 - 7/27
FMC-6	46	400	114	4	0	7/6 - 7/27
PB-3	37	250	90	4	0	7/6 - 7/27
BDC	52	250	108	4	0	7/6 - 7/27
L3R-2	100	750	223	4	2	7/6 - 7/27
SC-4 ^b	8	8	8	1	0	7/22
TB-5 ^b	390	390	390	1	1	7/22
FM-A7 ^b	88	88	88	1	0	7/22
U3R-4 ^b	250	250	250	1	2	7/22

Location	Colonies/100mL			# of Samples	Number of Exceedances	Period of Time
	AUG MIN	AUG MAX	GEO MEAN ^a			
RIVER-2	31	88	53	5	0	8/2 - 8/31
RIVER-3B	24	570	89	5	1	8/2 - 8/31
RIVER-10	18	240	47	5	0	8/2 - 8/31
U3R-1A	136	360	169	5	0	8/2 - 8/31
U3R-4	52	240	135	5	0	8/2 - 8/31
FMC-6	39	134	63	5	0	8/2 - 8/31
PB-3	56	112	77	5	0	8/2 - 8/31
BDC	21	230	76	5	0	8/2 - 8/31
L3R-2	84	112	95	5	0	8/2 - 8/31
SC-4 ^b	29	29	29	1	0	8/4
TB-5 ^b	1,263	1,263	1,263	1	1	8/4
FM-A7 ^b	460	460	460	1	2	8/4
U3R-4 ^b	311	311	311	1	1	8/4

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 SCDHEC sample location—one sample collected monthly

Table 72
Fecal Coliform Bacteria in SRS Streams and Savannah River

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Location	Colonies/100mL			# of Samples	Number of Exceedances	Period of Time
	SEP MIN	SEP MAX	GEO MEAN			
RIVER-2	40	1,960	138	4	1	9/7 - 9/28
RIVER-3B	18	94	35	4	0	9/7 - 9/28
RIVER-10	16	90	41	4	0	9/7 - 9/28
U3R-1A	250	500	331	4	2	9/7 - 9/28
U3R-4	211	1,495	440	4	2	9/7 - 9/28
FMC-6	78	200	117	4	0	9/7 - 9/28
PB-3	50	260	96	4	0	9/7 - 9/28
BDC	24	76	50	4	0	9/7 - 9/28
L3R-2	104	12,200	519	4	2	9/7 - 9/28
SC-4 ^b	46	46	46	1	0	9/10
TB-5 ^b	410	410	410	1	2	9/10
FM-A7 ^b	151	151	151	1	0	9/10
U3R-4 ^b	240	240	240	1	1	9/10

Location	Colonies/100mL			# of Samples	Number of Exceedances	Period of Time
	OCT MIN	OCT MAX	GEO MEAN			
RIVER-2	64	1,500	209	4	2	10/4 - 10/26
RIVER-3B	26	310	88	4	0	10/4 - 10/26
RIVER-10	29	106	54	4	0	10/4 - 10/26
U3R-1A	160	480	253	4	2	10/4 - 10/26
U3R-4	118	240	184	4	0	10/4 - 10/26
FMC-6	70	440	191	4	1	10/4 - 10/26
PB-3	46	173	69	4	0	10/4 - 10/26
BDC	24	147	63	4	0	10/4 - 10/26
L3R-2	150	854	239	4	2	10/4 - 10/26
SC-4 ^b	14	14	14	1	0	10/7
TB-5 ^b	460	460	460	1	2	10/7
FM-A7 ^b	250	250	250	1	1	10/7
U3R-4 ^b	220	220	220	1	1	10/7

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 SCDHEC sample location—one sample collected monthly

Table 72
Fecal Coliform Bacteria in SRS Streams and Savannah River

Page 6 of 6

Location	Colonies/100mL			# of Samples	Number of Exceedances	Period of Time
	NOV MIN	NOV MAX	GEO MEAN ^a			
RIVER-2	66	550	197	5	1	11/1 – 11/30
RIVER-3B	61	490	143	5	2	11/1 – 11/30
RIVER-10	48	836	167	5	2	11/1 – 11/30
U3R-1A	14	410	128	5	1	11/1 – 11/30
U3R-4	100	310	184	5	0	11/1 – 11/30
FMC-6	56	170	87	5	0	11/1 – 11/30
PB-3	46	94	58	5	0	11/1 – 11/30
BDC	24	1,800	103	5	1	11/1 – 11/30
L3R-2	72	410	159	5	1	11/1 – 11/30
SC-4 ^b	19	19	19	1	0	11/4
TB-5 ^b	260	260	260	1	1	11/4
FM-A7 ^b	54	54	54	1	0	11/4
U3R-4 ^b	200	200	200	1	0	11/4

Location	Colonies/100mL			# of Samples	Number of Exceedances	Period of Time
	DEC MIN	DEC MAX	GEO MEAN ^a			
RIVER-2	28	34	31	4	0	12/6 – 12/28
RIVER-3B	2	66	18	4	0	12/6 – 12/28
RIVER-10	11	52	22	4	0	12/6 – 12/28
U3R-1A	34	126	70	4	0	12/6 – 12/28
U3R-4	114	210	139	4	0	12/6 – 12/28
FMC-6	23	250	87	4	0	12/6 – 12/28
PB-3	18	144	53	4	0	12/6 – 12/28
BDC	8	66	28	4	0	12/6 – 12/28
L3R-2	40	370	63	4	0	12/6 – 12/28
SC-4 ^b	18	18	18	1	0	12/2
TB-5 ^b	198	198	198	1	0	12/2
FM-A7 ^b	31	31	31	1	0	12/2
U3R-4 ^b	112	112	112	1	0	12/2

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 SCDHEC sample location—one sample collected monthly

Table 73
Mercury in Fish Flesh

Page 1 of 3

Location/Species	Mercury (µg Hg/g – Parts Per Million)					Min	Max	Mean
	Analytical Results							
Four Mile Creek–6								
Bass	1.20					1.20	1.20	1.20
Bream	0.63	0.70	0.60	0.73		0.60	0.73	0.67
Four Mile Creek @ Creek Mouth								
Bream	0.17	0.10	0.10	0.03	0.23	0.03	0.17	0.12
Catfish	1.47	0.07	0.03	0	0.20	0	1.47	0.46
Augusta L & D								
Bass	0.47	0.27	0.60	0.20	0.23	0.20	0.60	0.37
Bream	0.23	0.13	0.20	0.33	0.13	0.13	0.33	0.21
Beaver Dam Creek								
Bass	0.77	0.73				0.73	0.77	0.75
Bream	0.33	0.37	0.53	0.27	0.13	0.13	0.53	0.33
Catfish	0.13	0.17	0.03	0.10	0.90	0.03	0.17	0.22
Beaver Dam Creek @ Creek Mouth								
Bream	0	0.10	0.10	0.50	0.10	0	0.50	0.19
Catfish	0	0.10				0	0.10	0.05
Hwy 17–A Bridge								
Bass	0.60	0.60	0.30	0.17	0.07	0.07	0.60	0.34
Bream	0.33	0.03	0	0.03	0	0	0.33	0.10
Catfish	0.23	0.20				0.20	0.23	0.22
Mullet	0	0	0	0	0	0	0	0
L–Lake								
Bass	2.07	0.43	2.87	0.83	0.43	0.43	2.87	1.42
Bream	0.33	0.23	0.27	0.50	0.43	0.23	0.50	0.36

Table 73
Mercury in Fish Flesh

Page 2 of 3

Location/Species	Mercury (µg Hg/g – Parts Per Million)						Min	Max	Mean
	Analytical Results								
Lower Three Runs @ Creek Mouth									
Bass	1.13	0.60	0.80	1.10	0.73		0.60	1.13	0.87
Bream	0.17	0.17	0.10	0.17	0.33	0.30	0.10	0.17	0.19
Catfish	0.30	0.27	0.73	0.27	0.13		0.13	0.73	0.37
Lower Three Runs @ Patterson Mill									
Bass	1.10	1.07	1.30	1.00	1.57		1.00	1.30	1.19
Bream	0.50	0.63	0.93	0.40	0.17		0.17	0.93	0.53
Catfish	0.20	0.57	0.27	0.37	0.30		0.20	0.57	0.35
Par Pond									
Bass	0.13	0.97	2.73	2.47	2.57		0.13	2.73	1.68
Bream	0.33						0.33	0.33	0.33
Pen Branch–3									
Bass	1.30	1.40	1.03	1.77	1.30		1.03	1.77	1.37
Bream	1.00	0.80	1.17	0.50	0.47		0.47	1.17	0.80
Catfish	0.57	0.70	0.67	0.63	0.70		0.57	0.70	0.65
Pond B									
Bass	1.20	1.30	0.83	0.97	1.43		0.83	1.30	1.12
Bream	0.37	0.33	0.50	0.04	0.43		0.33	0.50	0.41
Catfish	0.53	0.80					0.53	0.80	0.67
Steel Creek @ River Mouth									
Bass	1.03	0.73	1.10				0.73	1.10	0.94
Bream	0.03	0.17	0.30	0.17	0.23	0.20	0.03	0.30	0.18
Catfish	0.37	0.40	0.13	0.33	0.33		0.13	0.40	0.30

Table 73
Mercury in Fish Flesh

Page 3 of 3

Location/Species	Mercury (µg Hg/g – Parts Per Million)					Min	Max	Mean
	Analytical Results							
Steel Creek-4								
Bass	1.03	1.17	1.40	1.63	1.57	1.03	1.63	1.35
Bream	0.53	0.33	0.33	0.27		0.27	0.53	0.38
Catfish	1.03	0.80	0.50	0.97	0.43	0.43	1.03	0.74
Crapple	1.27					1.27	1.27	1.27
Savannah River @ U.S. Highway 301								
Bass	0.67	0.57	0.43	0.70	1.00	0.43	0.70	0.64
Bream	0.30	0.13	0.17	0.50	0.13	0.13	0.50	0.27
Catfish	0.30	0.17	1.33	0.13	0.17	0.13	1.33	0.51
Stokes Bluff Landing								
Bass	0.60	0.83	0.37	0.77	0.50	0.37	0.83	0.61
Bream	0.37	0.43	0.33	0.43	0.43	0.33	0.43	0.39
Catfish	0.23	0.63	0.37	0.23	0.53	0.23	0.63	0.41
Upper Three Runs @ Creek Mouth								
Bass	1.43	0.53				0.53	1.43	0.98
Bream	0.17	0	0.20	0.10	0.07	0	0.20	0.11
Catfish	0.27	0.33	0.13	0.10	0.20	0.10	0.33	0.21
West Bank Landing								
Crapple	0.13	0.13	0.30	0.13	0.10	0.10	0.30	0.17

Table 74
Chlorocarbon Monitoring Results from A-Area Wells

Page 1 of 4

Location	Date	(μg/L)					
		111 Trichloroethane		Trichloroethylene		Tetrachloroethylene	
		SRS	TMA ^a	SRS	TMA ^a	SRS	TMA ^a
3/700 Area Domestic H ₂ O, First Quarter							
905-82A	Jan-93	Not Pulled					
905-82A	Feb-93	Not Pulled					
905-82A	Mar-93	Not Pulled					
905-112G	Feb-93	ND ^b	ND	ND	ND	ND	ND
905-113G	Feb-93	Out of Service					
3/700 Area Drinking H ₂ O, First Quarter							
735-A	Jan-93	ND	ND	ND	ND	ND	ND
735-A	Feb-93	ND	ND	ND	ND	ND	ND
735-A	Mar-93	ND	ND	ND	ND	ND	ND
784-A	Feb-93	ND	ND	ND	ND	ND	ND
TSC Backup Domestic H ₂ O, First Quarter							
905-68A	Jan-93	ND	ND	ND	ND	ND	ND
905-68A	Feb-93	ND	ND	ND	ND	ND	ND
905-68A	Mar-93	ND	ND	ND	ND	ND	ND
3/700 Area Process H ₂ O Well, First Quarter							
905-20A	Jan-93	ND	6	25	56	ND	2
905-20A	Feb-93	ND	ND	58	57	ND	ND
905-20A	Mar-93	ND	ND	62	32	ND	ND
Service H ₂ O	Jan-93	ND	ND	5	12	ND	ND
Service H ₂ O	Feb-93	ND	ND	6	5	ND	ND
Service H ₂ O	Mar-93	ND	ND	3	4	ND	ND
905-53A	Jan-93	ND	ND	52	114	5	13
905-53A	Feb-93	ND	ND	139	143	12	15
905-53A	Mar-93	ND	ND	144	128	11	14
Other SRS Domestic H ₂ O Supplies, First Quarter							
400-D	Feb-93	ND	ND	ND	ND	ND	ND

^a Analyses performed by TMA/Eberline Laboratory, Inc.

^b None detected

Table 74
Chlorocarbon Monitoring Results from A-Area Wells

Page 2 of 4

Location	Date	(μg/L)					
		111 Trichloroethane		Trichloroethylene		Tetrachloroethylene	
		SRS	TMA ^a	SRS	TMA ^a	SRS	TMA ^a
3/700 Area Domestic H ₂ O, Second Quarter							
905-82A	Apr-93	ND ^b	ND	ND	ND	ND	ND
905-82A	May-93	ND	ND	ND	ND	ND	ND
905-82A	Jun-93	ND	ND	ND	ND	ND	ND
905-112G	May-93	ND	ND	ND	ND	ND	ND
905-113G	May-93	Out of Service					
3/700 Area Drinking H ₂ O, Second Quarter							
735-A	Apr-93	ND	ND	ND	ND	ND	ND
735-A	May-93	ND	ND	ND	ND	ND	ND
735-A	Jun-93	ND	ND	ND	ND	ND	ND
784-A	May-93	ND	ND	ND	ND	ND	ND
TSC Backup Domestic H ₂ O, Second Quarter							
905-68A	Apr-93	ND	ND	ND	ND	ND	ND
905-68A	May-93	ND	ND	1	ND	2	ND
905-68A	Jun-93	ND	ND	ND	ND	ND	ND
3/700 Area Process H ₂ O Wells, Second Quarter							
905-20A	Apr-93	ND	ND	66	68	ND	3
905-20A	May-93	ND	ND	107	112	4	6
905-20A	Jun-93	ND	ND	113	84	ND	4
Service H ₂ O	Apr-93	ND	ND	10	3	ND	ND
Service H ₂ O	May-93	ND	ND	12	11	ND	ND
Service H ₂ O	Jun-93	ND	ND	13	12	ND	ND
905-53A	Apr-93	ND	ND	145	100	ND	10
905-53A	May-93	ND	ND	146	190	ND	25
905-53A	Jun-93	ND	ND	127	158	10	19
Other SRS Domestic H ₂ O Supplies, Second Quarter							
400-D	May-93	ND	ND	ND	ND	ND	ND

^a Analyses performed by TMA/Eberline Laboratory, Inc.

^b None detected

Table 74
Chlorocarbon Monitoring Results from A-Area Wells

Page 3 of 4

Location	Date	(μg/L)					
		111 Trichloroethane		Trichloroethylene		Tetrachloroethylene	
		SRS	TMA ^a	SRS	TMA ^a	SRS	TMA ^a
3/700 Area Domestic H₂O, Third Quarter							
905-82A	Jul-93	ND ^b	ND	ND	ND	ND	ND
905-82A	Aug-93	ND	ND	ND	ND	ND	ND
905-82A	Sep-93	Not Pulled					
905-112G	Aug-93	ND	ND	ND	ND	ND	ND
905-113G	Aug-93	Out of Service					
3/700 Area Drinking H₂O, Third Quarter							
735-A	Jul-93	ND	ND	ND	ND	ND	ND
735-A	Aug-93	ND	ND	ND	ND	ND	ND
735-A	Sep-93	ND	ND	ND	ND	ND	ND
784-A	Aug-93	ND	ND	ND	ND	ND	ND
TSC Backup Domestic H₂O, Third Quarter							
905-68A	Jul-93	ND	ND	ND	ND	ND	ND
905-68A	Aug-93	ND	ND	ND	ND	ND	ND
905-68A	Sep-93	ND	ND	ND	ND	ND	ND
3/700 Area Process H₂O Wells, Third Quarter							
905-20A	Jul-93	ND	ND	74	54	ND	2
905-20A	Aug-93	ND	ND	134	198	6	ND
905-20A	Sep-93	ND	ND	81	100	ND	3
Service H ₂ O	Jul-93	ND	ND	27	20	ND	ND
Service H ₂ O	Aug-93	ND	ND	58	81	6	ND
Service H ₂ O	Sep-93	ND	2	5	5	ND	ND
905-53A	Jul-93	ND	ND	202	133	16	16
905-53A	Aug-93	ND	ND	129	178	114	20
905-53A	Sep-93	ND	ND	110	95	18	8
Other SRS Domestic H₂O Supplies, Third Quarter							
400-D	Aug-93	ND	ND	ND	ND	ND	ND

^a Analyses performed by TMA/Eberline Laboratory, Inc.

^b None detected

Table 74
Chlorocarbon Monitoring Results from A-Area Wells

Page 4 of 4

Location	Date	(μg/L)					
		111 Trichloroethane		Trichloroethylene		Tetrachloroethylene	
		SRS	TMA ^a	SRS	TMA ^a	SRS	TMA ^a
3/700 Area Domestic H₂O, Fourth Quarter							
905-82A	Oct-93	ND ^b	ND	ND	ND	1	ND
905-82A	Nov-93	Not Pulled					
905-82A	Dec-93	ND	ND	1	ND	2	ND
905-112G	Nov-93	ND	ND	ND	ND	ND	ND
905-113G	Nov-93	Out of Service					
3/700 Area Drinking H₂O, Fourth Quarter							
735-A	Oct-93	ND	ND	ND	ND	ND	ND
735-A	Nov-93	ND	ND	ND	ND	ND	ND
735-A	Dec-93	ND	ND	ND	ND	ND	ND
784-A	Nov-93	ND	ND	ND	ND	ND	ND
784-A	Dec-93	ND	ND	ND	ND	ND	ND
TSC Backup Domestic H₂O, Fourth Quarter							
905-68A	Oct-93	ND	ND	ND	ND	ND	ND
905-68A	Nov-93	ND	ND	ND	ND	ND	ND
905-68A	Dec-93	ND	ND	ND	ND	ND	ND
3/700 Area Process H₂O Wells, Fourth Quarter							
905-20A	Oct-93	Not Pulled					
905-20A	Nov-93	ND	ND	127	41	4	4
905-20A	Dec-93	ND	ND	66	48	5	2
Service H ₂ O	Oct-93	ND	ND	52	25	4	4
Service H ₂ O	Nov-93	ND	ND	10	13	1	ND
Service H ₂ O	Dec-93	Not Pulled					
905-53A	Oct-93	ND	ND	149	39	11	12
905-53A	Nov-93	Not Pulled					
905-53A	Dec-93	Not Pulled					
Other SRS Domestic H₂O Supplies, Fourth Quarter							
400-D	Nov-93	ND	ND	ND	ND	ND	ND

a Analyses performed by TMA/Eberline Laboratory, Inc.

b None detected

Table 75
Inorganics in Sediment

Page 1 of 2

Inorganics Constituent	Upper Three Runs Road 8-1	Tinker Creek Kennedy Pond Road	Steel Creek Road A	Lower Three Runs Patterson Mill	Pen Branch Road A	Four Mile Creek Road A
Cyanide	<0.20	<0.02	<0.02	<0.005	<0.020	<0.020
Aluminum	<0.100	0.450	1.430	0.119	0.850	1.130
Arsonic	<0.060	<0.060	<0.030	<0.5	<0.060	<0.060
Barium	2.700	0.122	0.144	0.234	0.378	0.186
Cadmium	0.116	0.010	0.010	<0.02	<0.010	<0.010
Calcium	6.500	11.650	14.100	50.5	<12.300	11.100
Chrome	0.110	<0.020	<0.020	0.02	<0.020	<0.020
Copper	0.020	<0.020	0.020	<0.01	0.020	<0.020
Iron	<0.060	0.060	0.549	0.072	0.060	0.855
Lead	0.160	0.076	<0.060	<0.5	0.708	<0.060
Magnesium	<0.200	<0.200	0.318	1.930	0.026	<0.200
Mercury	<0.001	<0.003	<0.001	<0.01	<0.001	<0.001
Sodium				1290		
Nickel	0.062	<0.020	0.044	<0.05	0.026	0.064
Selenium	<0.040	<0.040	<0.040	<0.5	<0.040	0.040
Silver	0.254	0.020	0.022	0.05	0.016	0.020
Uranium (8/6/93)	30.70	29.40	25.90		29.30	30.60
Uranium (12/16/93)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Zinc	0.167	0.385	0.129	0.018	0.171	0.213

Table 75
Inorganics in Sediment

Page 2 of 2

Inorganics Constituent	Beaver Dam Creek 400 Area	Upper Three Runs Road A	River 2 River Mile 160	River 3B Plant Vogtle	River 10 River Mile 120
Cyanide	0.020	<0.020	<0.020	<0.020	<0.020
Aluminum	0.470	1.690	1.010	1.030	0.904
Arsonic	<0.060	<0.060	<0.060	<0.050	<0.060
Barium	0.296	0.220	0.746	0.420	0.222
Cadmium	0.010	<0.010	<0.010	<0.010	<0.010
Calcium	18.600	8.780	8.540	5.740	2.460
Chrome	<0.020	<0.020	<0.020	<0.02	<0.020
Copper	<0.020	0.046	0.024	<0.020	0.168
Iron	0.547	<0.060	1.300	0.403	0.041
Lead	<0.060	<0.060	0.060	<0.060	<0.060
Magnesium	5.400	<0.200	1.040	1.382	<0.200
Mercury	<0.001	<0.001	<0.001	<0.003	<0.001
Sodium					
Nickel	0.042	0.108	0.048	0.036	0.048
Selenium	<0.040	<0.040	<0.04	<0.040	<0.040
Silver	0.024	0.032	0.050	0.014	0.038
Uranium (8/6/93)	29.80	32.10	31.00	29.50	28.00
Uranium (12/16/93)	<0.2	<0.2	<0.2	<0.2	<0.2
Zinc	0.091	1.220	0.233	0.135	0.165

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	144	148	1.37%
BC-01-2	132	137	3.65%
BC-01-3	100	109	8.26%
BC-02-1	147	150	2.00%
BC-02-2	134	138	2.89%
BC-02-4	124	131	5.34%
BC-03-1	118	125	5.60%
BC-03-2	150	155	3.22%
BC-03-3	117	137	14.60%
BC-04-1	117	123	4.88%
BC-04-2	105	117	10.26%
BC-04-3	168	172	2.33%
BC-05-1	117	120	2.50%
BC-05-2	110	112	1.79%
BC-05-3	166	171	2.92%
BC-06-1	150	131	14.50%
BC-06-2	110	107	2.80%
BC-06-3	167	170	1.76%
BC-07-1	146	152	3.95%
BC-07-2	106	112	5.36%
BC-07-3	160	174	8.04%
BC-08-1	146	149	2.01%
BC-08-2	105	110	4.55%
BC-08-3	171	175	2.29%
BC-09-1	71	72	1.39%
BC-09-2	100	107	6.54%
BC-09-3	134	133	0.75%
BC-10-1	74	73	1.37%
BC-10-2	106	107	0.93%
BC-10-3	131	131	0.00%
BC-11-1	47	50	6.00%
BC-11-2	77	79	2.53%
BC-11-3	149	150	0.67%
BC-12-1	47	48	2.08%
BC-12-2	78	81	3.70%
BC-12-3	149	147	1.36%

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	8.31	8.21	0.10 units
BpH-01-2	8.54	9.20	0.66 units
BpH-01-3	8.54	8.58	0.04 units
BpH-02-1	8.21	8.23	0.02 units
BpH-02-2	8.93	9.01	0.08 units
BpH-02-3	8.73	8.62	0.11 units
BpH-03-1	9.07	8.96	0.12 units
BpH-03-2	7.23	7.20	0.03 units
BpH-03-3	4.86	4.87	0.01 units
BpH-03-4	8.70	8.59	0.11 units
BpH-04-1	8.30	8.19	0.11 units
BpH-04-2	9.00	9.03	0.03 units
BpH-04-3	8.60	8.47	0.13 units
BpH-04-4	7.10	7.22	0.12 units
BpH-04-5	4.95	4.90	0.05 units
BpH-05-1	8.14	8.17	0.03 units
BpH-05-2	9.00	9.02	0.02 units
BpH-05-3	8.52	8.53	0.01 units
BpH-05-4	7.15	7.22	0.07 units
BpH-06-1	3.89	4.09	0.20 units
BpH-06-2	10.48	10.15	0.33 units
BpH-06-3	9.12	9.08	0.04 units
BpH-06-4	7.35	7.45	0.10 units
BpH-07-1	3.98	4.05	0.07 units
BpH-07-2	10.25	9.96	0.29 units
BpH-07-3	8.87	9.00	0.03 units
BpH-08-1	4.06	4.30	0.24 units
BpH-08-2	10.05	10.16	0.11 units
BpH-08-3	9.10	9.28	0.18 units
BpH-09-1	6.86	6.86	0.00 units
BpH-09-2	8.70	9.04	0.34 units
BpH-09-3	4.00	4.03	0.03 units
BpH-09-4	9.40	10.10	0.70 units
BpH-10-1	6.86	6.81	0.05 units
BpH-10-2	9.00	8.97	0.03 units
BpH-10-3	4.00	4.02	0.02 units
BpH-11-1	3.94	4.03	0.09 units
BpH-11-2	10.60	10.21	0.39 units
BpH-11-3	6.48	6.87	0.39 units
BpH-12-1	4.21	4.02	0.19 units
BpH-12-2	10.40	10.07	0.33 units
BpH-12-3	6.69	6.82	0.13 units

Table 78
EMS Blind Sample Results for Tritium and Strontium

Page 1 of 1

Sample Number	pCi/mL		Ratio
	Measured Value	Actual Value	
Tritium			
105	9.15 ± 0.92	10.10 ± 0.8	0.91 ± 0.12
106	9.36 ± 0.55	9.88 ± 0.8	0.95 ± 0.09
108	4.86 ± 0.82	6.26 ± 0.8	0.78 ± 0.16
110	3.38 ± 0.46	4.25 ± 0.8	0.80 ± 0.18
111	3.12 ± 0.45	2.60 ± 0.8	1.22 ± 0.41
112	4.93 ± 0.50	5.16 ± 0.8	0.96 ± 0.18
113	3.25 ± 0.80	3.71 ± 0.8	0.88 ± 0.29
116	0.84 ± 0.40	1.98 ± 0.8	0.42 ± 0.26
117	10.7 ± 0.57	11.50 ± 0.8	0.93 ± 0.08
119	1.25 ± 0.40	1.76 ± 0.8	0.71 ± 0.39
121	4.01 ± 0.46	3.85 ± 0.8	1.04 ± 0.25
Strontium			
109	8.1 ± 1.1	9.7 ± 2.2	0.84 ± 0.22

Table 79
EMS Blind Sample Results for Gross Alpha and Beta and
Gamma-Emitting Radionuclides

Page 1 of 1

Sample Number	Nuclide	pCi/L		Ratio
		Measured Value	Actual Value	
Gross Alpha and Beta				
120	Gross Alpha	24 ± 12	20 ± 5	1.20 ± 0.67
	Gross Beta	19.6 ± 8.9	15 ± 5	1.30 ± 0.74
Gamma-Emitting Radionuclides				
114	Co-60	23 ± 8	15 ± 2	1.53 ± 0.57
	Zn-65	94 ± 34	107 ± 8	0.88 ± 0.32
	Ru-106	115 ± 82	104 ± 13	1.11 ± 0.80
	Ba-133	96 ± 4	97 ± 7	0.99 ± 0.08

Table 80
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 3 σ of QAD Value ^b
Water Samples (pCi/L)							
Alpha	1-29-93	16 $\pm$ 7	34 $\pm$ 9	0.5	187	17.09 $\pm$ 7.54	34
	4-20-93	99 $\pm$ 15	95 $\pm$ 24	1.0	167	97 $\pm$ 20	90
	7-23-93	7.67 $\pm$ 4	15 $\pm$ 5	0.5	176	12.06 $\pm$ 4.28	71
	10-19-93	38 $\pm$ 7	40 $\pm$ 10	1.0	153	41 $\pm$ 8	90
	10-29-93	16 $\pm$ 8	20 $\pm$ 5	0.8	182	14 $\pm$ 4.6	74
Ba-133	6-11-93	101 $\pm$ 12	99 $\pm$ 10	1.0	174	97 $\pm$ 6.9	90
	11-12-93	77 $\pm$ 10	79 $\pm$ 8	1.0	172	76.4 $\pm$ 6.3	86
Beta	1-29-93	36 $\pm$ 9	44.0 $\pm$ 5.0	0.8	194	41.99 $\pm$ 7.41	72
	4-20-93	108 $\pm$ 18	177 $\pm$ 27	0.6	171	156 $\pm$ 18	86
	7-23-93	31 $\pm$ 7.5	43 $\pm$ 6.9	0.7	203	37.65 $\pm$ 8.49	80
	10-19-93	46 $\pm$ 3	58 $\pm$ 10	0.8	156	53 $\pm$ 6	93
	10-29-93	14 $\pm$ 8	15 $\pm$ 5	0.9	186	17 $\pm$ 5	87
Co-60	4-20-93	42 $\pm$ 8	39 $\pm$ 5	1.1	137	39.4 $\pm$ 2.9	89
	6-11-93	17 $\pm$ 3	15 $\pm$ 5	1.1	178	14.9 $\pm$ 2.1	95
	10-19-93	15 $\pm$ 5	10 $\pm$ 5	1.5	137	10.4 $\pm$ 1.6	98
	11-12-93	29 $\pm$ 7	30 $\pm$ 5	1.0	178	29.7 $\pm$ 2.3	92
Cs-134	4-20-93	26 $\pm$ 6	27 $\pm$ 5	1.0	136	25.4 $\pm$ 2.14	90
	10-19-93	12 $\pm$ 5	12 $\pm$ 5	1.0	138	9.8 $\pm$ 1.9	99
	11-12-93	52 $\pm$ 6	59 $\pm$ 5	0.9	175	54.4 $\pm$ 4.5	74
Cs-137	4-20-93	31 $\pm$ 9	32 $\pm$ 5	1.0	137	32.6 $\pm$ 2.81	92
	6-11-93	8 $\pm$ 6	5 $\pm$ 5	1.6	175	5.8 $\pm$ 1.5	93
	10-19-93	12 $\pm$ 6	10 $\pm$ 5	1.2	138	10.9 $\pm$ 1.7	99
	11-12-93	45 $\pm$ 8	40 $\pm$ 5	1.1	174	42.1 $\pm$ 3.0	87
H-3	6-04-93	8903 $\pm$ 240	9844 $\pm$ 984	0.9	169	9592 $\pm$ 689	95
	11-05-93	6553 $\pm$ 200	7398 $\pm$ 740	0.9	166	7216 $\pm$ 575	
Pu-239	1-22-93	16.8 $\pm$ 1.2	20.0 $\pm$ 2.0	0.8	62	18.53 $\pm$ 1.80	53.4
Ru-106	6-11-93	104 $\pm$ 33	119 $\pm$ 12	0.9	173	104 $\pm$ 13	65
	11-12-93	198 $\pm$ 60	201 $\pm$ 20	1.0	173	175 $\pm$ 18.3	64
Sr-89	1-15-93	10.7 $\pm$ 1.1	15 $\pm$ 5	0.7	95	14.53 $\pm$ 3.12	95
	4-20-93	40 $\pm$ 4.7	41 $\pm$ 5	1.0	94	37.6 $\pm$ 8.3	67
	7-16-93	37 $\pm$ 6.3	34 $\pm$ 5	1.1	100	34.2 $\pm$ 6.67	78
	10-19-93	16 $\pm$ 3.5	15 $\pm$ 5	1.1	91	14.0 $\pm$ 3.0	95

a Environmental Protection Agency Quality Assurance Division (QAD)

b Percentage of participating laboratories that had results falling within 3 σ of QAD value

Table 80
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 3 σ of QAD Value ^b
Sr-90	1-15-93	7.0 $\pm$ 1.2	10.0 $\pm$ 5	0.7	101	9.66 $\pm$ 2.20	98
	4-20-93	23.7 $\pm$ 4.5	29 $\pm$ 5	0.8	101	27.8 $\pm$ 3.4	88
	7-16-93	23 $\pm$ 4.1	25 $\pm$ 5	0.9	108	24.0 $\pm$ 3.1	92
	10-19-93	7 $\pm$ 3	10 $\pm$ 5	0.7	102	10.3 $\pm$ 2.0	97
U	2-12-93	6.67 $\pm$ 15	7.6 $\pm$ 3	0.9	121	7.16 $\pm$ 1.04	97.5
	4-20-93	31.6 $\pm$ 0.6	28.9 $\pm$ 3	1.1	122	27.6 $\pm$ 5.0	75.4
	8-13-93	23.6 $\pm$ 0.5	25.3 $\pm$ 3	0.9	138	24.9 $\pm$ 2.8	83
	10-19-93	24.1 $\pm$ 0.6	15.1 $\pm$ 3	1.6	118	14.4 $\pm$ 2.63	87
Zn-65	6-11-93	105 $\pm$ 20	103 $\pm$ 10	1.0	176	107.5 $\pm$ 7.8	86
	11-12-93	163 $\pm$ 25	150 $\pm$ 15	1.1	168	156 $\pm$ 9.2	88
Air Filter Samples (pCi/filter)							
Alpha	8-27-93	23.67 $\pm$ 3	19 $\pm$ 5	1.2	155	20 $\pm$ 3.27	91
Beta	8-27-93	50.33 $\pm$ 3.2	47 $\pm$ 5	1.1	151	49.32 $\pm$ 4.62	70
Cs-137	8-27-93	10.33 $\pm$ 5	9 $\pm$ 5	1.1	141	10 $\pm$ 1.62	97
Milk Samples (pCi/L)							
Cs-137	9-24-93	55 $\pm$ 6	49 $\pm$ 5	1.1	90	50 $\pm$ 3	96
I-131	9-24-93	116 $\pm$ 10	120 $\pm$ 12	1.0	84	120 $\pm$ 8	92
K-40	9-24-93	1754 $\pm$ 188	1679 $\pm$ 84	1.0	77	1674 $\pm$ 95	80
Sr-90	9-24-93	11 $\pm$ 3	25 $\pm$ 5	0.4	49	20 $\pm$ 5.2	76

a Environmental Protection Agency Quality Assurance Division (QAD)

b Percentage of participating laboratories that had results falling within 3 σ of QAD value

Table 81
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 ^b
March-June 1993						
Air						
Be-7	27. ± 3.	27.4	0.99	57	26.9	84%
Ce-144	16. ± 0.5	19.3	0.83	52	16.4	61%
Co-57	2.4 ± 0.2	2.71	0.89	54	2.39	76%
Co-60	1.7 ± 0.3	1.7	1.00	55	1.66	85%
Cs-134	2. ± 0.3	1.96	1.02	55	1.99	92%
Cs-137	3. ± 0.1	3.07	0.98	57	3.08	84%
Mn-54	11. ± 0.5	11.7	0.94	55	11.6	91%
Pu-238	0.0285 ± 0.005	0.0363	0.79	29	0.0335	69%
Pu-239	0.0186 ± 0.005	0.0234	0.79	32	0.0231	85%
U	0.95 ± 0.04	1.8	0.53	12	1.87	71%
Soil						
Cs-137	1336. ± 57.	923.	1.45	61	996.	72%
K-40	430. ± 23.	321.	1.34	55	327.	75%
Pu-239	10.58 ± 0.851	11.6	0.91	50	10.9	73%
Sr-90	17.7 ± 4.4	41.7	0.42	37	37.4	64%
Vegetation						
Cs-137	30. ± 1.2	24.6	1.22	50	26.6	58%
K-40	440. ± 60.	383.	1.15	44	399.	65%
Pu-238	1.33 ± .123	1.14	1.17	24	1.22	68%
Pu-239	.444 ± .089	.323	1.37	25	.347	45%
Sr-90	189.1 ± 18.9	237.	0.80	25	215.	51%
Water						
Ce-144	88. ± 8.	83.6	1.05	59	87.	90%
Co-60	47. ± 2.	45.3	1.04	62	47.5	90%
Cs-134	44. ± 1.	42.4	1.04	61	46.1	90%
Cs-137	55. ± 2.	50.8	1.08	63	54.9	87%
H-3	75. ± 9.7	97.	0.77	43	95.6	62%
Mn-54	109. ± 3.	105.	1.04	61	109.	93%
Pu-238	0.481 ± 0.037	0.494	0.97	48	0.502	84%
Pu-239	0.814 ± 0.074	0.828	0.98	47	0.844	86%
Sr-90	0.99 ± 0.85	1.03	0.96	34	1.17	35%
U	0.0111 ± 0.0003	0.0117	0.95	23	0.012	84%

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 81
QAP Interlaboratory Comparison of Analytical Results

Page 2 of 2

Nuclide	SRS Value ^a	QAP Value ^b	SRS/ QAP Ratio	No. of Labs	Mean Value of Labs	Labs 20% QAP Value ^b
September–December 1993						
Air						
Ce-144	34.5 ± 1.4	40.3	0.86	54	34.6	48%
Co-57	15.4 ± .6	17.3	0.89	54	15.1	52%
Co-60	20.2 ± .9	20.5	0.99	58	19.4	85%
Cs-134	12.2 ± 1.8	12.2	1.00	57	12.1	80%
Cs-137	18.5 ± .8	18.8	0.98	60	18.5	78%
Mn-54	15.2 ± 1.1	15.4	0.99	56	14.9	85%
Pu-238	.121 ± .01	.129	0.94	42	.125	90%
Pu-239	.073 ± .006	.08	0.91	39	.0814	75%
Sb-125	17.8 ± 1.1	17.4	1.02	44	17.8	78%
Sr-90	.9 ± .1	.762	1.18	33	.805	62%
U	2.05 ± .05	5.41	0.38	22	5.3	79%
Soil						
Cs-137	11. ± 1.	11.4	0.96	61	12.5	72%
K-40	28. ± 4.	28.6	0.98	40	29.9	44%
Pu-239	2.048 ± .183	1.52	1.35	34	1.63	26%
Vegetation						
Co-60	7.6 ± 2.4	6.45	1.18	45	7.13	63%
Cs-137	94. ± 4.	89.2	1.05	56	97.2	78%
K-40	955. ± 47.	842.	1.13	53	946.	75%
Pu-238	.405 ± .045	.463	0.87	28	.432	68%
Pu-239	.807 ± .087	.965	0.84	29	.912	72%
Sr-90	179. ± 16.	221.	0.81	30	207.	70%
Ce-144	185. ± 24.	173.	1.07	66	175.	89%
Water						
Co-60	105. ± 7.	99.6	1.05	71	103.	90%
Cs-134	59. ± 7.	56.1	1.05	71	58.6	84%
Cs-137	79. ± 8.	75.5	1.05	73	79.1	87%
H-3	221. ± 12.	270.	0.82	42	255.	69%
Mn-54	114. ± 11.	109.	1.05	70	115.	90%
Pu-239	.312 ± .038	.338	0.92	43	.336	71%
Sr-90	2.7 ± 1.3	2.52	1.07	39	2.61	70%
U	.068 ± .002	.0842	0.81	24	.0836	85%

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
NPDES Blind Sample Results

Page 1 of 1

First Quarter

NPDES Site	Parameter Sampled	Units	NPDES Result	Blind Sample Result	Difference
A-003	Chromium	mg/L	<0.02	<0.02	<0.02
D-003	Total suspended solids	mg/L	2	2	0
D-003	Oil and grease	mg/L	<1	<1	<1
F-003	Total suspended solids	mg/L	<1	2	<2
F-003	Oil and grease	mg/L	<1	<1	<1

Third Quarter

NPDES Site	Parameter Sampled	Units	NPDES Result	Blind Sample Result	Difference
A-001	Total suspended solids	mg/L	1	<1	<1
A-001	Oil and grease	mg/L	<1	<1	<1
A-011	Oil and grease	mg/L	<1	<1	<1
A-011	Total suspended solids	mg/L	<1	1	<1
M-004	Nitrates	mg/L	1360	1530	170
M-004	Nickel	mg/L	<0.03	<0.03	<0.03
X-008	Iron	mg/L	1.02	1.04	0.02
X-008	Aluminum	mg/L	<0.05	<0.05	<0.05

Table 83
NPDES Duplicate Sample Results

Page 1 of 6

First Quarter				
Sample	Analyte	Result 1	Result 2	Difference
A-001	Biochemical oxygen demand, mg/L	<1.3	<1	<1.3
A-001	Oil and grease, mg/L	<1	1	<1
A-003	Total suspended solids, mg/L	<1	<1	<1
A-003	Oil and grease, mg/L	<1.2	<1	<1.2
A-003	Chromium, mg/L	0.065	0.068	0.003
A-003	Chromium, mg/L	<.02	0.095	>.075
A-003	Chromium, mg/L	<.02	<.02	<.02
A-005	Oil and grease, mg/L	<1	<1	<1
A-005	Total suspended solids, mg/L	<2	<2	<1
A-011	Total suspended solids, mg/L	<1	<1	<1
A-011	Oil and grease, mg/L	1.3	1.2	1.1
A-014	Oil and grease, mg/L	<1	<1	<1
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	<1
D-001	Oil and grease, mg/L	<1	2.9	<2.9
D-001	Total suspended solids, mg/L	17	18	1
C-003	Total suspended solids, mg/L	<1	<1	<1
C-003	Oil and grease, mg/L	1.5	<1	<1.5
D-001C	Total suspended solids, mg/L	3	3	0
D-003	Total suspended solids, mg/L	2	2	0
D-003	Oil and grease, mg/L	<1	<1	<1
D-006	Total suspended solids, mg/L	27	29	2
D-006	Oil and grease, mg/L	<1	<1	<1
F-001	Total suspended solids, mg/L	7	1	6
F-001	Oil and grease, mg/L	<1	1.1	<1.1
F-002	Total suspended solids, mg/L	1	<1	<1
F-002	Oil and grease, mg/L	<1	<1	<1

Table 83
NPDES Duplicate Sample Results

Page 2 of 6

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	<1	<1	<1
H-016	Ammonia , mgN/L	<0.05	<0.05	<.05
M-004	Nitrate, mg/L	51.1	50.1	1
M-004	Uranium, mg/L	0.128	0.115	0.013
SC-004	Lead, mg/L	<.003	<.003	<.003
SC-004	Phosphate, mgP/L	0.023	0.023	.0
SC-004	Phosphate, mgP/L	0.025	0.02	0.005

Table 83
NPDES Duplicate Sample Results

Page 3 of 6

Second Quarter				
Sample	Analyte	Result 1	Result 2	Difference
DW-002	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	1	2	1
F-008	Total suspended solids, mg/L	2	3	1
F-008	Total suspended solids, mg/L	2	2	0
F-008	Oil and grease, mg/L	2.7	2.1	0.6
H-002	Oil and grease, mg/L	<1	<1	<1
H-002	Total suspended solids, mg/L	2	2	0
H004	Oil and grease, mg/L	2.4	3.1	0.7
H-008	Total suspended solids, mg/L	3	2	1
H-008	Oil and grease, mg/L	<1	<1	<1
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	0.016	<.01	<.016
K-006	Oil and grease, mg/L	<1	<1	<1
k-018	Aluminum, mg/L	<1	<1	<1
K-018	Total suspended solids, mg/L	5	4	1
K-018	Oil and grease, mg/L	<1	<1	<1
L-008	Total suspended solids, mg/L	<1	<1	<1
L-008	Oil and grease, mg/L	<1	1.3	<1.3
M-004	Mercury, mg/L	<.0001	<.0001	<.0001
M-004	Phosphate, mgP/L	4.68	6.03	1.35
M-004	Nitrate, mg/L	1090	1330	240
M-004	Total suspended solids, mg/L	4	4	0
M-004	Aluminum, mg/L	0.3	0.127	.0.173
SC-004	Cadmium, mg/L	<.01	<.01	<.01
SC-004	Phosphate, mgP/L	<.003	<.003	<.003

Table 83
NPDES Duplicate Sample Results

Page 4 of 6

Third Quarter				
Sample	Analyte	Result 1	Result 2	Difference
A-001	Total suspended solids, mg/L	<1	<1	<1
A-001	Oil and grease, mg/L	<1	<1	<1
A-001	Total suspended solids, mg/L	1	<1	<1
D-001	Total suspended solids, mg/L	10	10	0
D-001	Oil and grease, mg/L	<1	<1	<1
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	<1	<1	<1
C-004	Oil and grease, mg/L	<1	<1	<1
C-004	Total suspended solids, mg/L	2	2	0
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	<1	<1	<1
F-001	Oil and grease, mg/L	<1	<1	<1
H-012	Oil and grease, mg/L	<1	<1	<1
H-012	Sulfate, mg/L	16.6	16.2	0.4
H-016	Biochemical Oxygen demand, mg/L	4.1	3.4	<.05
H-016	Nickel, mg/L	<.05	<.05	<.05
M-004	Oil and grease, mg/L	1.5	<1	<1.5
M-004	Nickel, mg/L	<0.03	<0.0138	<.0138
M-004	Total suspended solids, mg/L	4	2	2
M-004	Aluminum, Mg/L	0.255	0.388	0.133
M-004	Nickel, mg/L	<.25	<.25	<.25
M-004	Nitrate, mgN/L	1360	1280	80
P-007	Aluminum, mg/L	0.075	0.06	0.015
P-007	Iron, mg/L	0.237	0.222	0.015
P-013	Total suspended solids, mg/L	8	7	1
P-013	Oil and grease, mg/L	<1	<1	<1
P-013	Total suspended solids, mg/L	<1	<1	<1
P-013	Oil and grease, mg/L	1.6	<1	<1.6
P-019	Oil and grease, mg/L	<1	<1	<1
P-019	Total suspended solids, mg/L	6	6	0

Table 83
NPDES Duplicate Sample Results

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Third Quarter				
Sample	Analyte	Result 1	Result 2	Difference
SC-004	Silver, mg/L	<.03	<.03	<.03
SC-004	Phosphate, mgP/L	0.037	0.034	0.003
X-004	Total suspended solids, mg/L	3	3	0
X-004	Oil and grease, mg/L	<1	1.1	<1.1
X-008	Oil and grease, mg/L	1.9	1.5	0.4
X-008	Total suspended solids, mg/L	6	7	1
X-008	Aluminum, mg/L	<.05	<.05	<.05
X-008	Aluminum, mg/L	<.05	<.05	<.05
X-008	Iron, mg/L	1.02	0.986	0.034
X-008	Iron, mg/L	1.05	1.05	0
X-014	Oil and grease, mg/L	<1	<1	<1
X-014	Total organic carbon, mg/L	3.29	2.83	1.66
X-014	Biochemical oxygen demand, mg/L	1	<1	<1
X-014	Total suspended solids, mg/L	3	3	0

Table 83
NPDES Duplicate Sample Results

Page 6 of 6

Fourth Quarter				
Sample	Analyte	Result 1	Result 2	Difference
F-001	Total suspended solids, mg/L	9	8	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	1.4	<1	<1.4
F-003	Total suspended solids, mg/L	9	9	0
F-005	Oil and grease, mg/L	<1	1.2	<1.2
F-005	Total suspended solids, mg/L	10	11	1
F-008	Oil and grease, mg/L	<1	<1	<1
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	2	1	1
SC-004	Selenium, mg/L	<.003	<.003	<.003

Table 84
Release and Historical Data from the 195-Foot F-Area Stack

Page 1 of 1

Radionuclide	Period	Release (mCi)	Concentration (pCi/m ³)	Type
Pu-238	December 27-28, 1993	166	14.5	a
	December 26-30, 1993	188	3.9	b
	1993 Weekly Average ^c	2	.03	b
Pu-239	December 27-28, 1993	18	1.5	a
	December 26-30, 1993	24	.5	b
	1993 Weekly Average ^c	14	.18	b

a Sample collected from the monitoring system on 195-foot stack

b Isokinetic sampling system on 195-foot stack

c 1993 weekly average includes samples collected through the middle of November 1993.

Table 85
Comparison of Alpha Concentrations Before and During the Period of the
Nonroutine Release in December 1993

Page 1 of 1

Environmental Surveillance Station	Period ^a	Alpha Concentration (pCi/m ³)
Darkhorse	December 22–28, 1993	.003
	1993 Maximum	.004
	1993 Average	.002
Highway 39	December 22–28, 1993	.003
	1993 Maximum	.005
	1993 Average	.002
Aiken Airport	December 22–29, 1993	.001
	1993 Maximum	.004
	1993 Average	.002
Aiken State Park	December 22–29, 1993	.001
	1993 Maximum	.004
	1993 Average	.002
Springfield	December 22–29, 1993	.001
	1993 Maximum	.004
	1993 Average	.002
Lees	December 22–29, 1993	.00038
	1993 Maximum	.004
	1993 Average	.002

^a 1993 maximums and averages were calculated using 1993 data collected through the first week in December.

Table 36
Savannah River Swamp TLD Exposure Measurements—1993

Page 1 of 2

Trail	Distance from River (Feet)	Exposure Rate (mR/Day) ^{a,b}
1	0	0.26
1	585	0.38
1	1175	0.44
1	1805	0.72
1	2150	0.75
1	2640	0.35
2	0	0.33
2	680	0.32
2	1330	0.34
2	1960	0.35
2	2620	0.37
2	3100	0.45
2	3200	0.29
3	0	0.34
3	920	0.35
3	2055	0.28
4	0	0.31
4	960	0.35
4	1245	0.42
4	1690	0.34
4	1900	0.55
4	2390	0.30
5	0	0.34
5	1750	0.36
5	1880	0.43
5	2100	0.70
5	2535	0.33

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 86
Savannah River Swamp TLD Exposure Measurements—1993

Page 2 of 2

Trail	Distance from River (Feet)	Exposure Rate (mR/Day) ^{a,b}
6	0	0.33
6	1800	0.35
6	2300	0.41
6	2530	0.54
6	2680	0.33
7	0	c
7	1900	0.33
7	2600	0.43
7	2700	0.37
7	3100	0.40
7	3200	0.32
8	0	0.30
8	550	0.33
8	915	0.32
8	1460	0.32
8	2005	0.34
8	2670	0.32
8	2900	0.50
8	3000	0.41
9	0	0.41
9	1680	0.43
9	2035	0.47
9	2200	0.59
9	2525	0.36
10	0	0.40
10	100	0.39
10	240	0.31

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 Blank space indicates missing TLD results.

Table 87
Creek Plantation Survey, Swamp Soil Results

Page 1 of 1

Trail	Distance (Feet From Savannah River)	Cs-137 (pCi/g)	Co-60 (pCi/g)	Sr 89,90 (pCi/g)
1	2150	1.05E+02 ± 4.90E-01	3.40E-01 ± 4.00E-02	1.49E-02 ± 1.79E-02
2	3100	5.79E+01 ± 4.20E-01	<LLD ^a	4.43E-03 ± 1.53E-02
3	920	1.59E+00 ± 9.00E-02	<LLD	1.25E-02 ± 1.64E-02
4	1900	4.77E+01 ± 4.40E-01	1.60E-01 ± 3.00E-02	1.10E-01 ± 2.10E-02
5	2100	3.21E+01 ± 3.30E-01	<LLD	4.85E-02 ± 2.12E-02
6	2530	7.02E+01 ± 6.00E-01	<LLD	1.60E-01 ± 2.54E-02
7	2700	3.11E+01 ± 4.20E-01	<LLD	1.33E-01 ± 2.44E-02
8	2900	3.77E+01 ± 3.80E-01	1.00E-01 ± 4.00E-02	1.29E-01 ± 2.43E-02
9	2205	3.79E-01 ± 3.60E-01	<LLD	1.52E-01 ± 2.51E-02
10	100	2.34E+01 ± 2.40E-01	<LLD	3.93E-02 ± 1.84E-02

^a Less than the lower limit of detection

Table 88
Creek Plantation Survey, Swamp Vegetation Results

Page 1 of 1

Trail	Distance (Feet From Savannah River)	Cs-137 (pCi/g)	Sr 89,90 (pCi/g)
1	2150	$2.75\text{E}+01 \pm 3.90\text{E}-01$	$3.48\text{E}-02 \pm 7.51\text{E}-02$
2	3100	$5.00\text{E}-01 \pm 8.00\text{E}-02$	$1.22\text{E}-01 \pm 8.29\text{E}-02$
3	920	<LLD ^a	$2.00\text{E}-02 \pm 7.66\text{E}-02$
4	1900	$1.34\text{E}+01 \pm 2.70\text{E}-01$	$4.81\text{E}-01 \pm 9.50\text{E}-02$
5	2100	$6.67\text{E}+00 \pm 1.90\text{E}-01$	$2.45\text{E}-01 \pm 8.62\text{E}-02$
6	2530	$3.87\text{E}+01 \pm 5.50\text{E}-01$	$9.92\text{E}-01 \pm 1.06\text{E}-01$
7	2700	$2.00\text{E}+00 \pm 1.30\text{E}-01$	$5.33\text{E}-01 \pm 1.05\text{E}-01$
8	2900	$5.60\text{E}+00 \pm 1.90\text{E}-01$	$2.57\text{E}-01 \pm 8.79\text{E}-02$
9	2205	$1.08\text{E}+00 \pm 1.10\text{E}-01$	$7.22\text{E}-01 \pm 9.17\text{E}-02$
10	100	$1.59\text{E}+00 \pm 9.00\text{E}-02$	$1.36\text{E}-01 \pm 8.76\text{E}-02$

^a Less than the lower limit of detection

Table 89
Creek Plantation Survey, Swamp Results 1990, 1991, 1993

Page 1 of 3

Trail	Distance (Feet from Savannah River)	Soil, Cs-137 (pCi/g)	Soil, Sr-89,90 (pCi/g)	Soil, Co-60 (pCi/g)	Veg, Cs-137 (pCi/g)	Veg, Sr-89,90 (pCi/g)	Veg, Co-60 (pCi/g)
1	2150						
	1990	<LLD ^a	2.10E-01	<LLD	1.51E+01	1.60E-01	1.50E-01
	1991	1.38E+01	2.00E-02	<LLD	4.00E-01	5.20E-01	<LLD
	1993	1.05E+02	1.00E-02	3.40E-01	2.75+01	3.48E-02	<LLD
2	3100						
	1990	<LLD	9.00E-02	<LLD	<LLD	6.50E-01	<LLD
	1991	1.10E+00	2.00E-02	<LLD	<LLD	2.00E-02	<LLD
	1993	5.79E+01	1.00E-02	<LLD	5.00E-01	1.22E-01	<LLD
3	920						
	1990	0.8	<LLD	4.00E-01	<LLD	2.50E-01	<LLD
	1991	2.60E+00	3.00E-02	<LLD	<LLD	2.40E-01	<LLD
	1993	1.60E+00	1.00E-02	<LLD	<LLD	2.00E-02	<LLD

^a Less than the lower limit of detection

Table 89
Creek Plantation Survey, Swamp Results 1990, 1991, 1993

Page 2 of 3

Trail	Distance (Feet from Savannah River)	Soil, Cs-137 (pCi/g)	Soil, Sr-89,90 (pCi/g)	Soil, Co-60 (pCi/g)	Veg, Cs-137 (pCi/g)	Veg, Sr-89,90 (pCi/g)	Veg, Co-60 (pCi/g)
4	1900						
	1990	92.2	1.40E-01	5.00E-01	1.11E+01	3.20E-01	<LLD ^a
	1991	7.60E+01	3.00E-02	3.00E-01	5.70E+00	3.40E-01	<LLD
	1993	4.77E+01	1.10E-01	2.00E-01	1.34E+01	4.81E-01	<LLD
5	2105						
	1990	58.2	1.90E-01	4.00E-01	1.40E+00	4.60E-01	<LLD
	1991	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
	1993	3.21E+01	5.00E-02	<LLD	6.67E+00	2.45E-01	<LLD
6	2530						
	1990	41.4	1.00E-01	2.00E-01	4.50E+00	7.00E-01	<LLD
	1991	6.88E+01	1.00E-02	1.00E-01	1.76E+01	9.70E-01	<LLD
	1993	7.02E+01	1.60E-01	<LLD	3.87E+01	9.92E-01	<LLD
7	2700						
	1990	29.9	3.00E-02	<LLD	<LLD	<LLD	<LLD
	1991	2.77E+02	3.00E-02	1.00E+00	<LLD	2.50E-01	<LLD
	1993	3.11E+01	1.30E-01	<LLD	2.00E+00	5.33E-01	<LLD

a Less than the lower limit of detection

Table 89
Creek Plantation Survey, Swamp Results 1990, 1991, 1993

Page 3 of 3

Trail	Distance (Feet from Savannah River)	Soil, Cs-137 (pCi/g)	Soil, Sr-89,90 (pCi/g)	Soil, Co-60 (pCi/g)	Veg, Cs-137 (pCi/g)	Veg, Sr-89,90 (pCi/g)	Veg, Co-60 (pCi/g)
8	2900						
	1990	66.4	8.00E-02	<LLD ^a	5.40E+00	2.80E-01	<LLD
	1991	6.80E+01	2.00E-02	1.00E-01	2.30E+00	1.80E-01	<LLD
	1993	3.77E+01	1.30E-01	1.00E-01	5.60E+00	2.57E-01	<LLD
9	2205						
	1990	61.5	1.70E-01	2.00E-01	1.34E+01	5.20E-01	<LLD
	1991	3.66E+01	6.00E-02	2.00E-01	7.20E+00	2.40E-01	<LLD
	1993	3.79E+01	1.50E-01	<LLD	1.08E+00	7.72E-01	<LLD
10	190						
	1990	19.1	6.00E-02	1.00E-01	5.00E-01	2.60E-01	<LLD
	1991	2.24E+01	2.00E-02	<LLD	1.07E+01	2.40E-01	<LLD
	1993	2.34E+01	4.00E-02	<LLD	1.59E+00	1.36E-01	<LLD

^a Less than the lower limit of detection

Table 90
Pen Branch Core Samples

Page 1 of 4

Location	Depth (Inches)	Cs-137 (pCi/g)	Co-60 (pCi/g)
1 NW ^a Bank	0-3	<LLD ^b	<LLD
1 NW Bank	3-6	<LLD	<LLD
1 NW Bank	6-9	<LLD	<LLD
1 NW High Ground	0-3	5.40E-01 ± 6.00E-02	<LLD
1 NW High Ground	3-6	3.30E-01 ± 4.00E-02	<LLD
1 NW High Ground	6-9	3.80E-01 ± 5.00E-02	<LLD
1 NW High Ground	9-12	<LLD	<LLD
1 SE ^c Bank	0-3	5.00E-02 ± 3.00E-02	<LLD
1 SE Bank	3-6	<LLD	<LLD
1 SE Bank	6-9	<LLD	<LLD
1 SE Bank	9-12	<LLD	<LLD
1 SE Flood Plain	0-3	<LLD	<LLD
1 SE Flood Plain	3-6	<LLD	<LLD
1 SE Flood Plain	6-9	3.60E-01 ± 4.00E-02	<LLD
1 SE High Ground	0-3	5.60E-01 ± 7.00E-02	<LLD
1 SE High Ground	3-6	2.20E-01 ± 4.00E-02	<LLD
2 NW Bank	0-3	1.09E+00 ± 6.00E-02	1.60E+00 ± 7.00E-02
2 NW Bank	3-6	5.60E-01 ± 6.00E-02	8.90E-01 ± 5.00E-02
2 NW Bank	6-9	<LLD	<LLD
2 NW Flood Plain	0-3	7.40E-01 ± 6.00E-02	<LLD
2 NW Flood Plain	3-6	3.40E-01 ± 4.00E-02	<LLD
2 NW Flood Plain	6-9	2.50E-01 ± 6.00E-02	1.10E-01 ± 2.00E-02
2 NW Flood Plain	9-12	<LLD	<LLD
2 NW High Ground	0-3	1.60E-01 ± 4.00E-02	<LLD
2 NW High Ground	3-6	2.50E-01 ± 4.00E-02	<LLD
2 NW High Ground	6-9	1.30E-01 ± 4.00E-02	<LLD
2 NW High Ground	9-12	<LLD	<LLD
2 SE Bank	0-3	6.80E-01 ± 6.00E-02	2.30E-01 ± 3.00E-02
2 SE Bank	3-6	<LLD	<LLD

- a North or west side of the stream
b Less than the lower limit of detection
c South or east side of the stream

Table 90
Pen Branch Core Samples

Page 2 of 4

Location	Depth (Inches)	Cs-137 (pCi/g)	Co-60 (pCi/g)
2 SE ^a Bank	6-9	<LLD ^b	<LLD
2 SE Bank	9-12	<LLD	<LLD
2 SE Flood Plain	0-3	6.50E-01 ± 6.00E-02	3.20E-01 ± 3.00E-02
2 SE Flood Plain	3-6	<LLD	<LLD
2 SE High Ground	0-3	2.20E-01 ± 4.00E-02	<LLD
2 SE High Ground	3-6	1.30E-01 ± 2.00E-02	<LLD
2 SE High Ground	6-9	<LLD	<LLD
2 SE High Ground	9-12	<LLD	<LLD
3 NW ^c Bank	0-3	8.50E-01 ± 7.00E-02	<LLD
3 NW Bank	3-6	4.40E-01 ± 4.00E-02	<LLD
3 NW Flood Plain	0-3	4.40E-01 ± 5.00E-02	9.00E-02 ± 2.00E-02
3 NW Flood Plain	3-6	1.70E-01 ± 3.00E-02	<LLD
3 NW High Ground	0-3	3.90E-01 ± 4.00E-02	<LLD
3 NW High Ground	3-6	1.70E-01 ± 5.00E-02	<LLD
3 NW High Ground	6-9	<LLD	<LLD
3 NW High Ground	9-12	<LLD	<LLD
3 SE Bank	0-3	1.82E+00 ± 9.00E-02	<LLD
3 SE Bank	3-6	3.20E-01 ± 5.00E-02	<LLD
3 SE Flood Plain	0-3	2.20E-01 ± 7.00E-02	<LLD
3 SE Flood Plain	3-6	1.30E-01 ± 3.00E-02	<LLD
3 SE Flood Plain	6-9	8.60E-01 ± 7.00E-02	<LLD
3 SE High Ground	0-3	2.40E-01 ± 5.00E-02	<LLD
3 SE High Ground	3-6	1.40E-01 ± 4.00E-02	<LLD
3 SE High Ground	6-9	<LLD	<LLD
3 SE High Ground	9-12	<LLD	<LLD
4 NW Bank	0-3	<LLD	<LLD
4 NW Bank	3-6	<LLD	<LLD
4 NW Bank	6-9	<LLD	<LLD
4 NW Flood Plain	0-3	3.40E-01 ± 5.00E-02	<LLD

- a South or east side of the stream
b Less than the lower limit of detection
c North or west side of the stream

Table 90
Pen Branch Core Samples

Page 3 of 4

Location	Depth (inches)	Cs-137 (pCi/g)	Co-60 (pCi/g)
4 NW ^a Flood Plain	3-6	1.60E-01 ± 4.00E-02	<LLD ^b
4 NW Flood Plain	6-9	<LLD	<LLD
4 NW High Ground	0-3	1.00E-01 ± 4.00E-02	<LLD
4 NW High Ground	3-6	<LLD	<LLD
4 NW High Ground	6-9	<LLD	<LLD
4 NW High Ground	9-12	<LLD	<LLD
4 SE ^c Bank	0-3	1.77E+00 ± 1.00E-01	2.23E+00 ± 7.00E-02
4 SE Bank	3-6	1.63E+00 ± 7.00E-02	1.28E+00 ± 6.00E-02
4 SE Bank	6-9	1.55E+00 ± 7.00E-02	1.66E+00 ± 6.00E-02
4 SE Flood Plain	0-3	9.93E+00 ± 1.40E-01	1.96E+00 ± 7.00E-02
4 SE Flood Plain	3-6	1.51E+00 ± 8.00E-02	2.55E+00 ± 7.00E-02
4 SE High Ground	0-3	2.04E+00 ± 8.00E-02	1.46E+00 ± 6.00E-02
4 SE High Ground	3-6	8.70E-01 ± 6.00E-02	3.39E+00 ± 8.00E-02
5 NW Bank	0-3	2.00E-01 ± 6.00E-02	8.00E-02 ± 2.00E-02
5 NW Bank	3-6	1.09E+00 ± 7.00E-02	4.80E-01 ± 4.00E-02
5 NW Bank	6-9	1.47E+00 ± 7.00E-02	1.79E+00 ± 6.00E-02
5 NW Flood Plain	0-3	2.50E-01 ± 5.00E-02	<LLD
5 NW Flood Plain	3-6	5.20E-01 ± 7.00E-02	<LLD
5 NW Flood Plain	6-9	1.00E-01 ± 4.00E-02	<LLD
5 NW Flood Plain	9-12	<LLD	<LLD
5 NW High Ground	0-3	2.60E-01 ± 5.00E-02	<LLD
5 NW High Ground	3-6	<LLD	<LLD
5 SE Bank	0-3	<LLD	1.20E-01 ± 3.00E-02
5 SE Bank	3-6	3.80E-01 ± 5.00E-02	<LLD
5 SE Bank	6-9	6.40E-01 ± 5.00E-02	8.00E-01 ± 5.00E-02
5 SE Bank	9-12	2.40E-01 ± 4.00E-02	3.30E-01 ± 3.00E-02
5 SE Flood Plain	0-3	6.60E-01 ± 6.00E-02	<LLD
5 SE Flood Plain	3-6	3.70E-01 ± 5.00E-02	<LLD
5 SE Flood Plain	6-9	<LLD	<LLD

- a North or west side of the stream
b Less than the lower limit of detection
c South or east side of the stream

Table 90
Pen Branch Core Samples

Page 4 of 4

Location	Depth (Inches)	Cs-137 (pCi/g)	Co-60 (pCi/g)
5 SE ^a High Ground	0-3	$7.30\text{E}-01 \pm 8.00\text{E}-02$	<LLD ^b
5 SE High Ground	3-6	<LLD	<LLD
5 SE High Ground	6-9	<LLD	<LLD
5 SE High Ground	9-12	<LLD	<LLD
6 NW ^c Bank	0-3	$2.03\text{E}+00 \pm 9.00\text{E}-02$	$9.50\text{E}-01 \pm 5.00\text{E}-02$
6 NW Bank	3-6	$5.20\text{E}+00 \pm 1.20\text{E}-01$	$1.76\text{E}+00 \pm 6.00\text{E}-02$
6 NW Bank	6-9	$2.21\text{E}+01 \pm 2.10\text{E}-01$	$1.77\text{E}+00 \pm 7.00\text{E}-02$
6 NW Flood Plain	0-3	$1.70\text{E}-01 \pm 3.00\text{E}-02$	<LLD
6 NW Flood Plain	3-6	<LLD	<LLD
6 NW Flood Plain	6-9	<LLD	<LLD
6 NW High Ground	0-3	<LLD	<LLD
6 NW High Ground	3-6	<LLD	<LLD
6 NW High Ground	6-9	<LLD	<LLD
6 SE Bank	0-3	$7.70\text{E}-01 \pm 6.00\text{E}-02$	$1.23\text{E}+00 \pm 6.00\text{E}-02$
6 SE Bank	3-6	$2.55\text{E}+00 \pm 1.00\text{E}-01$	$1.40\text{E}+00 \pm 5.00\text{E}-02$
6 SE Bank	6-9	$9.10\text{E}-01 \pm 6.00\text{E}-02$	$1.26\text{E}+00 \pm 6.00\text{E}-02$
6 SE Flood Plain	0-3	$7.20\text{E}-01 \pm 6.00\text{E}-02$	$4.60\text{E}-01 \pm 4.00\text{E}-02$
6 SE Flood Plain	3-6	$6.00\text{E}-01 \pm 5.00\text{E}-02$	$1.31\text{E}+00 \pm 6.00\text{E}-02$
6 SE Flood Plain	6-9	$4.60\text{E}-01 \pm 5.00\text{E}-02$	<LLD
6 SE High Ground	0-3	$2.80\text{E}-01 \pm 6.00\text{E}-02$	<LLD
6 SE High Ground	3-6	<LLD	<LLD

- a South or east side of the stream
b Less than the lower limit of detection
c North or west side of the stream

Table 91
Pen Branch Survey—Soil Results

Page 1 of 2

Location	Cs-137 (pCi/g)	Co-60 (pCi/g)	Sr-89,90 (pCi/g)	Pu-238 (pCi/g)	Pu-239 (pCi/g)
1 NW ^a Bank	1.30E-01 ± 3.00E-02	<LLD ^b	5.69E-03 ± 2.02E-02	1.42E-04 ± 1.03E-04	1.45E-03 ± 3.49E-04
1 NW High Ground	3.90E-01 ± 5.00E-02	<LLD	-5E-03 ± 1.57E-02	2.07E-03 ± 4.33E-04	1.69E-02 ± 1.47E-03
1 SE ^c Bank	<LLD	<LLD	1.86E-02 ± 2.48E-02	-5E-04 ± 1.30E-03	1.61E-03 ± 1.48E-03
1 SE Flood Plain	<LLD	<LLD	1.18E-02 ± 2.85E-02	5.77E-04 ± 2.89E-04	1.59E-03 ± 4.79E-04
1 SE High Ground	4.90E-01 ± 4.00E-02	<LLD	1.23E-02 ± 1.53E-02	2.08E-03 ± 4.46E-04	1.72E-02 ± 1.43E-03
2 NW Bank	6.00E-01 ± 6.00E-02	8.50E-01 ± 4.00E-02	-2E-03 ± 2.40E-02	8.38E-03 ± 6.99E-04	5.31E-03 ± 5.28E-04
2 NW Flood Plain	5.80E-01 ± 5.00E-02	6.00E-02 ± 1.00E-02	5.80E-02 ± 3.30E-02	1.47E-03 ± 2.66E-04	1.22E-02 ± 8.02E-04
2 NW High Ground	2.10E-01 ± 3.00E-02	<LLD	-1E-03 ± 2.00E-02	5.68E-04 ± 1.49E-04	2.71E-03 ± 3.95E-04
2 SE Bank	4.90E-01 ± 6.00E-02	4.40E-01 ± 4.00E-02	6.20E-02 ± 3.10E-02	1.16E-02 ± 9.98E-04	5.28E-03 ± 6.64E-04
2 SE Flood Plain	1.36E+00 ± 7.00E-02	6.60E-01 ± 5.00E-02	3.00E-02 ± 2.60E-02	1.44E-02 ± 8.50E-04	4.27E-02 ± 1.65E-03
2 SE High Ground	5.20E-01 ± 5.00E-02	<LLD	1.20E-02 ± 2.20E-02	3.31E-04 ± 1.21E-04	1.33E-03 ± 2.45E-04
3 NW Bank	8.20E-01 ± 6.00E-02	<LLD	1.90E-02 ± 1.60E-02	7.84E-04 ± 3.21E-04	9.11E-03 ± 1.33E-03
3 NW Flood Plain	8.00E-01 ± 6.00E-02	<LLD	2.60E-02 ± 1.70E-02	5.71E-04 ± 3.79E-04	5.89E-03 ± 6.84E-04
3 NW High Ground	3.70E-01 ± 4.00E-02	<LLD	3.15E-04 ± 1.60E-02	2.00E-03 ± 3.37E-04	2.80E-02 ± 1.37E-03
3 SE Bank	1.18E+00 ± 4.70E-02	1.70E-01 ± 3.00E-02	2.40E-02 ± 1.70E-02	1.98E-03 ± 3.24E-04	4.85E-02 ± 1.89E-03
3 SE Flood Plain	4.00E-01 ± 7.00E-02	<LLD	2.10E-02 ± 2.40E-02	4.70E-04 ± 2.40E-04	4.78E-03 ± 1.01E-03
3 SE High Ground	6.50E-01 ± 8.00E-02	<LLD	5.00E-02 ± 1.90E-02	1.76E-03 ± 6.70E-04	1.18E-02 ± 1.20E-03
4 NW Bank	1.00E-01 ± 2.00E-02	<LLD	1.40E-02 ± 1.70E-02	1.45E-03 ± 3.89E-04	2.69E-03 ± 5.30E-04
4 NW Flood Plain	3.20E-01 ± 4.00E-02	<LLD	2.10E-02 ± 1.90E-02	1.50E-03 ± 2.96E-04	1.32E-02 ± 9.14E-04

- a North or west side of the stream
b Less than the lower limit of detection
c South or east side of the stream

AIIM

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Centimeter

Inches

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4 of 4

Table 91
Pen Branch Survey—Soil Results

Page 2 of 2

Location	Cs-137 (pCi/g)	Co-60 (pCi/g)	Sr-89,90 (pCi/g)	Pu-238 (pCi/g)	Pu-239 (pCi/g)
4 NW ^a High Ground	2.20E-01 ± 3.00E-02	<LLD ^b	4.90E-02 ± 1.80E-02	2.97E-03 ± 4.29E-04	1.74E-03 ± 4.74E-04
4 SE ^c Bank	2.07E+00 ± 8.00E-02	2.50E+00 ± 7.00E-02	9.40E-02 ± 2.90E-02	7.73E-03 ± 4.65E-04	7.80E-02 ± 2.66E-03
4 SE Flood Plain	5.82E+00 ± 1.30E-01	3.70E+00 ± 9.00E-02	1.60E-02 ± 1.80E-02	5.38E-02 ± 6.07E-04	1.78E-01 ± 4.91E-03
4 SE High Ground	4.02E+00 ± 1.00E-01	3.08E+00 ± 8.00E-02	5.92E-02 ± 1.93E-02	6.56E-03 ± 9.55E-04	1.31E-01 ± 4.68E-03
5 NW Bank	9.00E-02 ± 3.00E-02	<LLD	5.67E-03 ± 1.72E-02	2.18E-04 ± 9.77E-05	-2E-04 ± 3.37E-04
5 NW Flood Plain	4.40E-01 ± 5.00E-02	<LLD	-4E-04 ± 1.84E-02	3.76E-04 ± 1.68E-04	8.93E-03 ± 8.39E-04
5 NW High Ground	4.60E-01 ± 4.00E-02	<LLD	2.80E-02 ± 2.00E-02	3.86E-04 ± 2.97E-04	1.53E-02 ± 9.77E-04
5 SE Bank	<LLD	<LLD	1.10E-02 ± 1.80E-02	7.70E-04 ± 2.57E-04	1.02E-02 ± 2.97E-04
5 SE Flood Plain	6.40E-01 ± 4.00E-02	<LLD	8.80E-02 ± 3.20E-02	1.78E-03 ± 4.10E-04	1.55E-02 ± 1.25E-03
5 SE High Ground	1.90E-01 ± 5.00E-02	<LLD	4.27E-03 ± 1.90E-02	1.08E-03 ± 2.63E-04	1.29E-02 ± 9.46E-04
6 NW Bank	9.30E-01 ± 5.00E-02	3.80E-01 ± 3.00E-02	6.39E-03 ± 1.50E-02	3.62E-03 ± 4.51E-04	9.01E-03 ± 7.89E-04
6 NW Flood Plain	6.00E-02 ± 2.00E-02	<LLD	-1E-02 ± 1.50E-02	-2E-04 ± 1.43E-04	1.31E-03 ± 4.42E-04
6 NW High Ground	1.20E-01 ± 3.00E-02	<LLD	-3E-02 ± 1.50E-02	4.68E-04 ± 3.41E-04	4.08E-03 ± 5.61E-04
6 SE Bank	6.70E-01 ± 5.00E-02	6.40E-01 ± 4.00E-02	-8E-04 ± 1.50E-02	3.23E-03 ± 4.61E-04	6.45E-03 ± 6.48E-04
6 SE Flood Plain	1.43E+00 ± 9.00E-02	8.60E-01 ± 6.00E-02	6.00E-02 ± 2.80E-02	9.11E-03 ± 8.90E-04	1.78E-02 ± 1.27E-03
6 SE High Ground	2.70E-01 ± 3.00E-02	<LLD	-3E-02 ± 2.10E-02	3.94E-04 ± 1.97E-04	6.60E-03 ± 8.17E-04

- a North or west side of the stream
b Less than the lower limit of detection
c South or east side of the stream

Table 92
Pen Branch Survey, Vegetation Results

Page 1 of 2

Location	Cs-137 (pCi/g)	Gross Alpha (pCi/g)	Nonvolatile Beta (pCi/g)	Tritium (pCi/mL of Free Water)
1 NW ^a Flood Plain	1.31E+00 ± 9.00E-02	5.40E-01 ± 4.40E-01	6.11E+00 ± 1.22E+00	1.05E+00 ± 4.00E-02
1 NW High Ground	3.60E-01 ± 7.00E-02	1.80E-01 ± 4.20E-01	1.10E+01 ± 1.46E+00	1.70E+00 ± 5.00E-02
1 SE ^b Flood Plain	<LLD ^c	5.10E-01 ± 5.90E-01	1.16E+01 ± 1.51E+00	2.47E+00 ± 7.00E-02
1 SE High Ground	<LLD	6.73E+00 ± 2.12E+00	9.78E+00 ± 1.50E+00	1.32E+00 ± 5.00E-02
2 NW Bank	<LLD	1.04E+00 ± 8.70E-01	1.22E+01 ± 1.56E+00	4.86E+00 ± 8.00E-02
2 NW Flood Plain	6.20E-01 ± 6.00E-02	3.50E-01 ± 4.00E-01	5.26E+00 ± 1.16E+00	1.93E+00 ± 4.00E-02
2 NW High Ground	<LLD	2.70E-01 ± 5.30E-01	1.22E+01 ± 1.53E+00	3.96E+00 ± 8.00E-02
2 SE Bank	1.20E+00 ± 8.00E-02	9.80E-01 ± 7.70E-01	2.38E+00 ± 1.09E+00	4.85E+00 ± 9.00E-02
2 SE Flood Plain	2.00E-01 ± 4.00E-02	3.24E+00 ± 1.41E+00	1.22E+01 ± 1.58E+00	7.26E+00 ± 1.30E-01
2 SE High Ground	<LLD	1.35E+00 ± 3.00E+00	6.73E+00 ± 1.42E+00	6.92E+00 ± 1.30E-01
3 NW Bank	9.00E-01 ± 1.00E-01	1.16E+00 ± 9.30E-01	5.14E+00 ± 1.25E+00	6.27E+00 ± 1.00E-01
3 NW Flood Plain	<LLD	2.40E-01 ± 5.40E-01	5.81E+00 ± 1.25E+00	6.72E+00 ± 1.10E-01
3 NW High Ground	<LLD	7.30E-01 ± 8.70E-01	9.17E+00 ± 1.46E+00	5.77E+00 ± 9.00E-02
3 SE Bank	6.50E-01 ± 6.00E-02	8.60E-01 ± 7.00E-01	1.35E+01 ± 1.57E+00	6.92E+00 ± 1.10E-01
3 SE Flood Plain	<LLD	-6E-02 ± 3.80E-01	8.56E+00 ± 1.37E+00	5.43E+00 ± 9.00E-02
3 SE High Ground	<LLD	2.70E-01 ± 6.10E-01	9.78E+00 ± 1.45E+00	6.63E+00 ± 1.10E-01
4 NW Bank	5.00E-01 ± 6.00E-02	1.80E-01 ± 4.10E-01	5.41E+00 ± 1.12E+00	3.47E+00 ± 7.00E-02
4 NW Flood Plain	1.43E+00 ± 9.00E-02	1.60E-01 ± 3.50E-01	5.41E+00 ± 1.09E+00	2.39E+00 ± 5.10E-01
4 NW High Ground	4.90E-01 ± 8.00E-02	6.50E-01 ± 5.20E-01	7.57E+00 ± 1.21E+00	2.06E+00 ± 4.00E-02

- a North or west side of the stream
b South or east side of the stream
c Less than the lower limit of detection

Table 92
Pen Branch Survey, Vegetation Results

Page 2 of 2

Location	Cs-137 (pCi/g)	Gross Alpha (pCi/g)	Nonvolatile Beta (pCi/g)	Tritium (pCi/mL of Free Water)
4 SE ^a Bank	2.40E-01 ± 9.00E-02	8.70E-01 ± 7.30E-01	7.03E+00 ± 1.22E+00	4.9E+00 ± 9.00E-02
4 SE Flood Plain	<LLD ^b	5.60E-01 ± 5.00E-01	3.86E+00 ± 1.11E+00	3.61E+00 ± 7.00E-02
4 SE High Ground	3.60E-01 ± 4.00E-02	-3E-01 ± 2.30E-01	3.64E+00 ± 1.09E+00	2.00E+00 ± 4.00E+02
5 NW ^c Flood Plain	4.20E-01 ± 6.00E-02	-4E-02 ± 2.70E-01	4.05E+00 ± 1.01E+00	1.43E+00 ± 5.00E-02
5 NW High Ground	2.31E+00 ± 1.20E-01	3.70E-01 ± 4.30E-01	7.57E+00 ± 1.20E+00	1.94E+00 ± 7.00E-02
5 SE Bank	4.10E-01 ± 6.50E-01	2.10E-01 ± 4.70E-01	4.38E+00 ± 1.07E+00	1.47E+00 ± 4.00E-02
5 SE Flood Plain	1.05E+00 ± 1.20E-01	1.03E+00 ± 8.40E-01	1.40E+00 ± 1.41E+00	1.22E+00 ± 5.30E-01
5 SE High Ground	1.50E-01 ± 5.00E-02	4.30E-01 ± 5.00E-01	8.11E+00 ± 1.24E+00	1.35E+00 ± 6.00E-02
6 NW Bank	<LLD	-5E-02 ± 3.90E-01	3.46E+00 ± 1.03E+00	1.06E+00 ± 4.00E-02
6 NW Flood Plain	9.70E-01 ± 8.00E-02	-3E-01 ± 2.70E-01	1.03E+01 ± 1.32E+00	5.40E-01 ± 3.00E-02
6 NW High Ground	1.27E+00 ± 9.00E-02	-5E-02 ± 3.30E-01	5.95E+00 ± 1.12E+00	1.34E+00 ± 6.00E-02
6 SE Bank	3.90E-01 ± 8.00E-02	1.80E-01 ± 4.00E-01	4.43E+00 ± 1.05E+00	7.70E-01 ± 4.00E-02
6 SE Flood Plain	2.50E-01 ± 7.00E-02	-6E-02 ± 3.70E-01	7.34E+00 ± 1.31E+00	9.00E-01 ± 4.00E-02
6 SE High Ground	1.90E-01 ± 4.00E-02	6.10E-01 ± 7.50E-01	1.96E+01 ± 1.83E+00	1.15E+00 ± 5.00E-02

- a South or east side of the stream
 b Less than the lower limit of detection
 c North or west side of the stream

DATE
FILMED

6/20/94

END