Savannah River Site Environmental Data for 1995

by

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Savannah River Site Environmental Data for 1995

Editor

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Introduction

This document presents data from Savannah River Site routine environmental monitoring and surveillance programs. An attempt also 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. Next are a list of the media sampled, along with sample sizes and representative aliquots; minimum detectable concentrations for gamma analysis of water and air samples; minimum detectable concentrations for gamma analysis of soil, food, fish and wildlife, and vegetation samples; minimum detectable concentrations for Environmental Monitoring Section radiological analyses; minimum detectable activities for radionuclides in settleable solids; and nonradiological environmental surveillance detection/report limits.

Following the first sections are tables with radiological and nonradiological effluent monitoring results, radiological and nonradiological environmental surveillance results, dose estimates, and quality assurance data. Because of space requirements of data table columns, many abbreviations are used. To assist the reader, lists of radionuclide and chemical nomenclature and sampling location abbreviations are included following this introduction.

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. Sample collection problems, such as loss of power to the sampling site or inaccessibility to the sampling site (locked gates, flooding, etc.) may have arisen. 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 generally is reported with up to three significant figures. In most cases, the last significant figure is determined by the quantification of the uncertainty term.
- The reported uncertainty reflects only the counting error—not other components of random and systematic error 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 are calculated using both positive and negative results, except for gamma-emitting radionuclides, whose less-than-detectable results are not considered in the averages.
- In tables containing arithmetic mean, maximum, and minimum columns, when only one sample was collected, sometimes only the single result is reported in the arithmetic mean column.

An errata page follows the tables.

Information in this book is summarized in the *Savannah River Site Environmental Report for 1995* (WSRC-TR-96-0075). 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 sections 1101-1111 (SRS EM Program) of the *Savannah River Site Environmental Monitoring Section Plans and Procedures*, WSRC-3Q1-2, Volume 1. Copies of environmental reports and documents may be obtained by contacting

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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
Californium-252	Cf-252	2.638 y
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: Chart of the Nuclides, 14th edition, revised to April 1988, General Electric Company

Nomenclature for Elements and Chemical Constituent Analyses

Constituent	Symbol
Aluminum	Al (or AL)
Ammonia	NH ₃
Ammonia as Nitrogen	NH ₃ -N (or AN)
Antimony	Sb (or SB)
Arsenic	As
Barium	Ba
Biochemical Oxygen Demand	BOD
Benzene	BEN
Beryllium	Be
Cadmium	Cd
Calcium	Ca
Calcium Carbonate	CaCO ₃
Carbon	C
Chemical Oxygen Demand	COD
Chlorine	Cl (or CHL)
Chromium	Cr (or CR)
Cobalt	Co
Copper	Cu (or CU)
Cyanide	CN
Dissolved Oxygen	DO
Fecal Coliform	FEC
Flow	FLO
Fluorine	F
Iron	Fe
Lead	Pb (or PB)
Lithium	Li
Magnesium	Mg
Manganese	Mn (or MN)
Mercury	Hg (or HG)
Nickel	Ni (or NI)
Nitrogen	N
Nitrate as Nitrogen	NO ₃ -N
Oil and Grease	O&G
Oxygen	O
Ozone	O ₃
Particulate Matter <10 microns	PM ₁₀
Perclene	PERCL
pH	PH
Phenol	PHE
Phosphorus	P
Phosphate	PO ₄ (or PHOS)
Phosphate as Phosphorus	Phosphate P
Polychlorinated Biphenyl	PCB
Potassium	K
Radium	Ra

Nomenclature for Elements and Chemical Constituent Analyses

Constituent	Symbol
Rhenium	Re
Selenium	Se (or SE)
Silver	Ag
Sodium	Na
Sulfate	SO ₄
Sulfur Dioxide	SO ₂
Temperature	TMP
Tetrachloroethylene (Perchloroethylene)	PERCL
Trichloroethylene	TRICL
1,1,1-Trichloroethane	TCE
Thallium	Tl
Tin	SN
Total Dissolved Solids	TDS
Total Kjeldahl Nitrogen	TKN
Total Organic Carbon	TOC
Total Organic Halogens	TOH
Total Phosphates	TPO ₄
Total Residual Chlorine	TRC
Total Solids	TS
Total Suspended Solids	TSS
Uranium	U
Uranium (tested as a heavy metal)	U ₃ O ₈
Vanadium	V
Volatile Organic Compound	VOC
Zinc	Zn

Sampling-Location and Other Abbreviations

Abbreviation	Location Name/Other Applicable Information
4M	Four Mile
4MC	Four Mile Creek
681-5G	Georgia Department of Natural Resources and Environmental Monitoring Section sampling location
BDC	Beaver Dam Creek
BG	Burial Ground
FM	Four Mile
FMC	Four Mile Creek
HP	HP
IBG	Indian Burial Ground
IGB	Indian Grave Branch
L3R	Lower Three Run
LTR	Lower Three Run
PB	Pen Branch
PMR	Patterson Mill Road
RM	River Mile
SC	Steel Creek
TB	Tims Branch
TCR	Tabernacle Church Road
TNX	Multipurpose Pilot Plant Campus
U3R	Upper Three Runs
UTR	Upper Three Runs

Sample Locations Known By More Than One Abbreviation

Beaver Dam Creek; 400-D
 Four Mile Creek-6; FM-6; 4MC-6
 Four Mile Creek at Road A7; FM-A7; 4M-A7
 River Mile 120; RM-120; River 10
 River Mile 160; RM-160; River 2
 Steel Creek-4; SC-4; Steel Creek-4 at Road A
 Upper Three Runs-4 at Road A; U3R-4; U3R-Rd A

Other Abbreviations Used in This Book

AMAD	Activity median aerodynamic diameter
cfs	cubic feet per second
DCG	Derived Concentration Guide
Dup, DUP	Duplicate
ETF	Effluent Treatment Facility
GP	Georgia Power
MDL	Minimum Detectable Limit
NF	No Flow
NRC	Nuclear Regulatory Commission
ORA	Operations Recreation Association
PAR	"P and R" Pond
RBOF	Receiving Basin for Offsite Fuel
Rep, REP	Replicate
SRTC	Savannah River Technology Center
SWDF	Solid Waste Disposal Facility
TLD	Thermoluminescent Dosimeter
h	hour
d	day
y	year

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Figure 1 Radiological Sampling Locations — Air Surveillance

96X02355.AIL

Figure 2 Radiological Sampling Locations — Offsite TLD Surveillance

Ambient gamma exposure rates are monitored in cities and towns within a 50-mile radius of SRS.

96X01970.03

Figure 3 Radiological Sampling Locations — Surface Water

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

94X06608.15.AIL

Figure 4 Radiological Sampling Locations — Offsite Drinking Water

SRS collected drinking water samples during 1995 from 16 offsite locations within a 30-mile radius and from three water treatment plants, one of which is shown on the map. The 16 offsite locations were discontinued midway through 1995.

96X01678.08.AIL

Figure 5 Radiological and Nonradiological Sampling Locations — Fish

SRS collects fish from the Savannah River above, adjacent to, and below the site, as well as at Stokes Bluff Landing and near Savannah.

94X06608.19.AIL

Figure 6 Radiological Sampling Locations — Soil

SRS collected soil samples from 22 onsite locations (four perimeter locations not shown) and two offsite locations in 1995.

M94X06608.50.AIL

Figure 7 Radiological Sampling Locations — Sediment

Sediment samples were collected in 1995 at six Savannah River locations—upriver from, adjacent to, and downriver from the site—and at nine site stream locations.

94X06608.21.AIL

Figure 8 Radiological Sampling Locations — Vegetation (Except Inside SWDF)

Samples are collected for radiological analysis from 18 onsite-quarterly and 13-outside SWDF locations.

94X01185.21.AIL

Figure 9 Radiological Sampling Locations — Vegetation (Inside SWDF)

Vegetation samples are collected inside the SWDF to determine whether uptake of radioactivity by vegetation has occurred.

M94X06608.02 (Modified)

Figure 10 Nonradiological Sampling Locations — SRS Streams and Savannah River Water
 Surface water samples are collected from four Savannah River and 15 SRS stream locations for analysis of nonradiological contaminants, including pesticides, herbicides, and/or inorganic contaminants. Steel Creek-4 (SC-4), Tims Branch-5 (TB-5), Four Mile Creek at Road A7 (FM-A7), and Upper Three Runs-4 (U3R-4) are both EMS and SCDHEC sampling locations, from which samples are also analyzed for volatile organic compounds.

96X00447.01.AIL

Figure 11 Nonradiological Sampling Locations — SRS Stream and Savannah River Sediment

Sediment is sampled at three Savannah River and 10 SRS stream locations for nonradiological contaminants, including pesticides, herbicides, and inorganic contaminants. In 1995, however, sampling of the inorganic contaminants was accidentally omitted.

Table 1
Sample Media Information

Page 1 of 2

Sample Matrix or Media	Sample Size	Representative Aliquot
Gross alpha		
Water	1 L	1 L
Vegetation	1–2 kg	0.5 g
Rain (collection pan)	0.37 m ²	0.093 m ² (1/4 total sample)
Air	whole filter	800 m ³
Nonvolatile beta		
Water	1 L	1 L
Vegetation	1–2 kg	0.5 g
Rain (collection pan)	0.37 m ²	0.093 m ² (1/4 total sample)
Air	whole filter	800 m ³
Strontium-89,90		
Vegetation	5 g	5 g
Food	20 g	20 g
River water	1 L	1 L
Rain	0.37 m ²	0.031 m ² (1/12 total sample)
Streams	1–3 L	1–3 L
Soil	20 g	20 g
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		
Milk	0.5 L	0.5 L
Plutonium-238, Plutonium-239		
River water	1 L	1 L
Vegetation	5 g	5 g
Sediment	10 g	10 g
Soil	10 g	10 g
Food	100 g	100 g

Table 1
Sample Media Information

Page 2 of 2

Sample Matrix or Media	Sample Size	Representative Aliquot
Tritium		
River water	60 mL	5 mL
Vegetation	60 g	5 mL
Sediment	5 mL	5 mL
Soil (special samples)	5 mL	5 mL
Food	25 g	5 mL

Table 2
Representative Minimum Detectable Concentrations for Gamma Analysis
of Water and Air Samples^a

Page 1 of 1

Nuclide	pCi/L		pCi/m ²	pCi/m ³
	River Water	Stream Water	Rainwater	Air Filter
Ce-141	0.8	8	36	12
Ce-144	2.9	29	125	33
Co-58	0.6	7	29	10
Co-60	1.0	9	32	11
Cr-51	5.8	56	246	93
Cs-134	0.7	6	27	8
Cs-137	0.7	7	26	8
I-131	1.2	16	72	16
Mn-54	0.7	7	32	11
Nb-95	0.8	10	36	14
Ru-103	0.6	7	28	10
Ru-106	5.5	59	278	88
Sb-125	1.8	15	63	19
Zn-65	1.4	17	64	22
Zr-95	1.4	12	55	19

- ^a The minimum detectable concentrations (MDCs) are calculated at the 95% confidence level with Canberra Industries Inc.'s VAX/VMS gamma spectroscopy software. The values are based on a background measurement using a 32% relative efficiency high purity germanium detector and typical decay times and counting intervals. Chemical recoveries are assumed to be 100%. Air filter values are for a single 47mm particulate filter with a flow rate of approximately 2.5 CFM (cubic feet per minute) for 7 days (I-131 value is obtained from a charcoal cartridge). Rainwater values are for a collection area of 0.031m². The sample size for stream water is 1 L and for river water is 10 L. The MDCs for actual samples may be different because of variations in the sample preparation, size, and content, and because of variations in the chemical recoveries, counting efficiencies, decay times, and instrument backgrounds.

Table 3
Representative Minimum Detectable Concentrations for Gamma Analysis
of Soil, Food, Fish and Wildlife, and Vegetation Samples^a

Page 1 of 1

Nuclide	fCi/g			pCi/g	pCi/L
	Soil	Foods	Fish and Wildlife	Vegetation	Milk
Ce-141	97	98	158	0.4	3
Ce-144	139	40	227	0.5	12
Co-58	42	21	74	0.2	2
Co-60	29	7	52	0.1	3
Cr-51	771	979	1,322	2.9	19
Cs-134	26	7	45	0.1	2
Cs-137	24	7	42	0.1	3
I-131	3,939	Decayed	6,790	15.0	3
Mn-54	32	8	57	0.1	2
Nb-95	84	74	147	0.3	3
Ru-103	60	49	104	0.2	2
Ru-106	279	72	486	1.1	23
Sb-125	61	18	106	0.2	6
Zn-65	66	21	117	0.3	5
Zr-95	83	39	145	0.3	4

^a The minimum detectable concentrations (MDCs) are calculated at the 95% confidence level with Canberra Industries Inc.'s VAX/VMS gamma spectroscopy software. The values are based on a background measurement using a 32% relative efficiency high purity germanium detector and typical decay times and counting intervals. Chemical recoveries are assumed to be 100%. Sample sizes are 700g for soil, 1,000g for foods, 200g for fish and wildlife, 100g for vegetation, and 1 L for milk. The MDCs for actual samples may be different because of variations in the sample preparation, size, and content, and because of variations in the chemical recoveries, counting efficiencies, decay times, and instrument backgrounds.

Table 4
Representative Minimum Detectable Concentrations for Radiological Analysis
of Plutonium and Uranium by Alpha Spectroscopy^a

Page 1 of 1

Sample Type	Units	Pu-239	Pu-238	U-238	U-234	U-235
Air filter	$\mu\text{Ci}/\text{m}^3$	2.4E-11	4.3E-11	2.4E-11	2.8E-11	2.9E-11
Rainwater	$\mu\text{Ci}/\text{m}^2$	3.3E-7	5.8E-7	3.1E-7	3.5E-7	3.6E-7
Stream water	$\mu\text{Ci}/\text{mL}$	1.0E-11	1.8E-11	9.5E-12	1.1E-11	1.1E-11
River water	$\mu\text{Ci}/\text{mL}$	1.0E-12	1.8E-12	9.5E-13	1.1E-12	1.1E-12
Soil and sediment	$\mu\text{Ci}/\text{g}$	5.9E-10	7.3E-10			
Vegetation	$\mu\text{Ci}/\text{g}$	7.3E-11	1.1E-10			

- ^a The minimum detectable concentrations (MDCs) are calculated at the 95% confidence level with Canberra Industries Inc.'s VAX/VMS alpha management spectroscopy software. The values are based on the average reagent blank activity, detector efficiency, and chemical recovery for each sample matrix. The counting time is 1,000 minutes. Air filter values are for one-half of a single 47 mm particulate filter with a flow rate of approximately 2.5 CFM (cubic feet per minute) for 7 days. The rainwater values are for a collection area of 0.031m². The other sample sizes are 1 L for stream water, 10 L for river water, 10g for soil and sediment, and 100g for vegetation. The MDCs for actual samples may be different because of variations in the sample preparation, size, and content, and because of variations in the chemical recoveries, counting efficiencies, batch reagent blanks, and instrument backgrounds.

Table 5
Representative Minimum Detectable Concentrations for Radiological Analysis
by Gas-Flow Proportional Counters^a and by Liquid Scintillation^b

Page 1 of 1

Analysis of Gross Alpha, Nonvolatile Beta, Strontium-89,90, and Strontium-90 by Gas-Flow Proportional Counters

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Nuclide	Typical Minimum Detectable Concentration ($\mu\text{Ci/sample}$)
Gross alpha	6.8E-7
Nonvolatile beta	1.52E-6
Strontium-89, 90	2.38E-6
Strontium-90	1.89E-6

Analysis for Weak Beta Emitters by Liquid Scintillation

Sample	Typical Minimum Detectable Concentration ($\mu\text{Ci/mL}$)
Tritium ^c	1.3E-6
Tritium ^d	4.7E-7
Promethium-147	8.6E-9

-
- a The instrument minimum detectable concentration (MDC) values for the gas-flow proportional counter were calculated at the 95% confidence level using the formula given in the section, "Lower Limits of Detection," in chapter 4 of the *Savannah River Site Environmental Report for 1991*. The counting efficiencies were 28% for alpha and 40% for beta, strontium-90, and strontium-89,90. The MDC for the actual sample is variable because of the effects of sample aliquot size, sample preparation, chemical recovery, counting efficiency, and radioactive decay. The sample counting time was 20 minutes.
- b Instrumental minimum detectable concentration (MDC) values for the liquid scintillation counter were calculated at the 95% confidence level using the formula given in the section, "Lower Limits of Detection," in chapter 4 of the *Savannah River Site Environmental Report for 1991*. The average counting efficiencies were 37% for tritium and 88% for promethium-147. The MDC for the actual sample is variable because of the effects of sample preparation, sample aliquot size, chemical recovery, counting efficiency, counting time, and radioactive decay.
- c Routine environmental samples (e.g. stream samples and silica gels) are analyzed for tritium using a 20-minute count.
- d Environmental samples such as drinking water, foodstuffs, and rainwater are analyzed using a 150-minute count.
-

Table 6
Minimum Detectable Activities 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 7
Nonradiological Environmental Surveillance Detection/Report Limits

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Quantitation Limit				
Parameter	Units	First and Second Quarters	Third and Fourth Quarters ^a	Report Value Round to Nearest:
Note: "NA" denotes "not applicable."				
Temperature	°C	NA		0.1
pH	pH	NA		0.1
Dissolved oxygen	mg/L	1.0		0.1
Conductivity	µmhos/cm	0.1		1
Alkalinity	mg/L	1.0		1
Chemical oxygen demand	mg/L	20.0		1
Volatile solids	mg/L	1.0		1
Fixed residue	mg/L	1.0		1
Suspended solids	mg/L	1.0		1
Total dissolved solids	mg/L	1.0		1
Total solids	mg/L	1.0		1
Turbidity	NTU	0.05		<1 = 0.01 1–10 = 0.1 10–40 = 1 40–100 = 5 100–400 = 10 400–1000 = 50
Chloride	mg/L	1.0		1
Nitrogen–Nitrate	mg/L	0.10		0.01
Phosphate–P	mg/L	0.50		0.1
Sulfate	mg/L	1.0		1
Ammonia–Nitrogen	mg/L	0.05	0.10	0.01
Aluminum	mg/L	0.05	0.05	0.01
Cadmium	mg/L	0.005	0.005	0.001
Calcium	mg/L	0.05	0.05	0.01
Chromium	mg/L	0.005	0.01	0.01
Copper	mg/L	0.005	0.01	0.01
Iron	mg/L	0.02	0.02	0.01
Lead	mg/L	0.003	0.02	0.01

^a Contract vendor changed.

Table 7
Nonradiological Environmental Surveillance Detection/Report Limits

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Quantitation Limit				
Parameters	Units	First and Second Quarters	Third and Fourth Quarters ^a	Report Value Round to Nearest:
Magnesium	mg/L	0.05	0.05	0.01
Manganese	mg/L	0.005	0.01	0.01
Mercury	mg/L	0.0001	0.0001	0.0001
Nickel	mg/L	0.005	0.01	0.01
Sodium	mg/L	0.05	0.10	0.01
Zinc	mg/L	0.005	0.005	0.001
Total organic carbon	mg/L	1.0	1.0	0.1
Total kjeldahl nitrogen	mg/L	0.20	0.10	0.01

^a Contract vendor changed.

Table 8
Radioactive Atmospheric Releases by Source

Page 1 of 2

Curies ^a								
Radio-nuclide	Half-life	Reactors	Separations ^b	Reactor Materials	Heavy Water	SRTC ^c	Diffuse and Fugitive ^d	Total
<i>Note: Blank space indicates no quantifiable activity.</i>								
GASES AND VAPORS								
H-3 (oxide)	12.3 y	1.26E+04	4.20E+04		3.28E+02		3.32E+01	5.50E+04
H-3 (elem)	12.3 y		4.17E+04					4.17E+04
H-3 Total	12.3 y	1.26E+04	8.37E+04		3.28E+02		3.32E+01	9.67E+04
C-14	5.73E3 y						9.80E-15	9.90E-15
I-129	1.57E7 y		4.70E-03					4.70E-03
I-131	8.040 d		1.29E-05			4.07E-05	2.05E-02	2.06E-02
I-133	20.8 h					1.72E-03		1.72E-03
I-135	6.57 h					7.19E-02		7.19E-02
Xe-135	9.10 h		1.87E-02			1.49E-02		3.36E-02
PARTICULATES								
Al-26	7.3E5 y						1.50E-14	1.50E-14
S-35	87.2 d						5.26E-12	5.26E-12
Cr-51	27.70 d						1.00E-16	1.00E-16
Co-57	271.8 d						2.50E-14	2.50E-14
Co-58	77.88 d						2.60E-05	2.60E-05
Co-60	5.271 y	2.78E-05	2.84E-07			2.46E-06	2.71E-05	5.76E-05
Ni-63	100 y						2.00E-13	2.00E-13
Zn-65	243.8 d						6.24E-05	6.24E-05
Rb-86	18.65 d						2.00E-15	2.00E-15
Sr-85	64.84 d						5.20E-16	5.20E-16
Sr-89,90 ^e	29.1 y	3.29E-03	1.59E-03	1.69E-04	1.57E-04	7.31E-06	3.03E-04	5.52E-03
Y-88	106.6 d						9.10E-16	9.10E-16
Zr-95	64.02 d						4.51E-05	4.51E-05
Nb-95	34.97 d						2.67E-05	2.67E-05
Ru-103	39.27 d						3.72E-05	3.72E-05

^a One curie equals 3.7 E+10 Becquerels.

^b Includes separations, waste management, and tritium facilities

^c Savannah River Technology Center

^d Estimated releases from minor unmonitored diffuse and fugitive sources

^e Includes unidentified beta-gamma emissions

Table 8
Radioactive Atmospheric Releases by Source

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Radio-nuclide	Half-life	Curies ^a					Diffuse and Fugitive ^d	Total
		Reactors	Separations ^b	Reactor Materials	Heavy Water	SRTC ^c		
Ru-106	1.020 y		6.46E-07				1.80E-04	1.81E-04
Cd-109	462.0 d						5.21E-14	5.21E-14
Sn-113	115.1 d						3.80E-16	3.80E-16
Sb-124	60.20 d		1.81E-07					1.81E-07
Sb-125	2.758 y		9.45E-07				1.19E-04	1.20E-04
Cs-134	2.065 y		3.22E-07				2.98E-05	3.01E-05
Cs-137	30.17 y	4.68E-04	5.25E-04	3.01E-06	2.58E-06	2.94E-07	1.40E-02	1.50E-02
Ce-139	137.6 d						1.00E-16	1.00E-16
Ce-141	32.50 d						5.30E-05	5.30E-05
Ce-144	284.6 d		2.22E-07				2.32E-04	2.32E-04
Pm-147	2.623 y						7.92E-07	7.92E-07
Eu-154	8.59 y		3.02E-07					3.02E-07
Eu-155	4.71 y		7.50E-07					7.50E-07
Hg-203	46.61 d						1.00E-12	1.00E-12
U-234	2.46E5 y		1.27E-04	1.73E-06				1.29E-04
U-235	7.04E8 y		8.32E-04	2.66E-05			1.44E-15	8.59E-04
U-238	4.47E9 y		5.78E-04	1.20E-06			2.87E-09	5.79E-04
Pu-238	87.7 y		5.85E-04	4.40E-09			6.61E-06	5.92E-04
Pu-239 ^e	2.410E4	2.78E-04	4.04E-04	1.62E-05	2.39E-05	1.75E-06	2.21E-06	7.26E-04
Am-241	432.7 y		3.04E-05	3.61E-08			1.81E-16	3.04E-05
Am-243	7.37E3 y						2.30E-17	2.30E-17
Cm-242	162.8 d						2.03E-16	2.03E-16
Cm-243	29.1 y						4.90E-14	4.90E-14
Cm-244	18.1 y		3.39E-06	9.02E-09				3.40E-06
Cm-248	3.48E5 y						9.20E-18	9.20E-18

^a One curie equals 3.7 E+10 Becquerels.

^b Includes separations, waste management and tritium facilities

^c Savannah River Technology Center

^d Estimated releases from minor unmonitored diffuse and fugitive sources

^e Includes unidentified alpha emissions

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

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Stack/Facility	Radionuclide	Quantity Released During 1995 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1995 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
<i>Note: Blank space indicates no quantifiable activity.</i>					
A-Area (Savannah River Technology Center)					
735-A					
773-A B	Cs-137	2.94E-01	9.84E+14	2.99E-16	4.0E-10
773-A C					
773-A Sandfilter	Co-60	2.46E+00	9.27E+14	2.65E-15	8.0E-11
	I-131	4.05E+01	9.27E+14	4.37E-14	4.0E-10
	I-133	1.71E+03	9.27E+14	1.84E-12	2.0E-09
	I-135	7.19E+04	9.27E+14	7.78E-11	1.0E-08
	Xe-135	1.49E+04	9.27E+14	1.61E-11	none listed
776-A	I-131	1.99E-01	1.30E+14	1.53E-15	4.0E-10
	I-133	7.43E+00	1.30E+14	5.72E-14	2.0E-09
C-Area (C-Reactor)					
717-C Hot Shop					
728-N					
C Decon					
C Disassembly					
C Main (148')	H-3 (oxide)	1.28E+09	1.98E+15	8.27E-08	1.0E-07
D-Area (Heavy Water Rework)					
420-D	H-3 (oxide)	2.58E+08	2.33E+14	1.11E-06	1.0E-07
421-2D	H-3 (oxide)	1.94E+07	1.59E+14	1.22E-07	1.0E-07
	Cs-137	2.58E+00	1.59E+14	1.62E-14	40E-10
772-D	H-3 (oxide)	5.08E+07	2.65E+14	1.92E-07	1.0E-07
F-Area (Separations and Waste Management)					
235-F Sandfilter	U-234	3.78E-01	5.64E+14	6.67E-16	9.0E-14
	U-235	3.33E-02	5.64E+14	5.90E-17	1.0E-13
	U-238	7.26E-01	5.64E+14	1.29E-15	1.0E-13
	Pu-238	6.20E-03	5.64E+14	1.10E-17	3.0E-14

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed 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
Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides

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Stack/Facility	Radionuclide	Quantity Released During 1995 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1995 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
241-F Misc	Pu-239	8.28E-02	5.64E+14	1.47E-16	2.0E-14
	AM-241	5.70E-02	5.64E+14	1.01E-16	2.0E-14
	CM-244	1.62E-02	5.64E+14	2.87E-17	4.0E-14
	Cs-137	1.65E+01	6.16E+14	2.68E-14	4.0E-10
241-F Purge	Cs-137	3.91E+01	9.43E+14	4.15E-14	4.0E-10
241-F Annulus	Cs-137	7.47E+01	6.74E+13	1.11E-12	4.0E-10
247-F Main	U-234	9.01E+00	1.06E+15	8.50E-15	9.0E-14
	U-235	2.16E+01	1.06E+15	2.04E-14	1.0E-13
	U-238	1.41E-01	1.06E+15	1.33E-16	1.0E-13
	Pu-238	2.83E+00	1.06E+15	2.67E-14	3.0E-14
291-F Isokinetic	Pu-239	7.06E+02	1.06E+15	6.66E-13	2.0E-14
	Am-241	1.60E-01	1.06E+15	1.51E-16	2.0E-14
	Cm-244	5.55E-02	1.06E+15	5.24E-17	4.0E-14
	Sr-89, 90	2.61E-01	3.35E+15	7.79E-14	9.0E-12
	I-129	3.00E+03	3.35E+15	8.96E-13	7.0E-11
	I-131	4.99E+00	3.35E+15	1.49E-14	4.0E-10
	Xe-135	1.87E+04	3.35E+15	5.58E-12	8.0E-08
	Cs-137	1.55E+01	3.35E+15	4.63E-14	4.0E-10
	U-234	1.17E+02	3.35E+15	3.49E-14	9.0E-14
	U-235	7.93E+02	3.35E+15	2.37E-13	1.0E-13
	U-238	5.75E+02	3.35E+15	1.72E-13	1.0E-13
	Pu-238	1.16E+02	3.35E+15	3.46E-14	3.0E-14
	Pu-239	2.47E+02	3.35E+15	7.37E-14	2.0E-14
	Am-241	2.68E+01	3.35E+15	8.00E-14	2.0E-14
	Cm-244	2.46E+00	3.35E+15	7.34E-16	4.0E-14
6.1 D Dissolver	Co-60	2.84E-01	9.59E+11	2.96E-13	8.0E-11
	Ru-106	6.46E-01	9.59E+11	6.74E-13	3.0E-11
	Sb-124	1.81E-01	9.59E+11	1.89E-13	6.0E-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 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

**Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides**

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Stack/Facility	Radionuclide	Quantity Released During 1995 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1995 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
723-F	Sb-125	8.44E-01	9.59E+11	8.80E-13	1.0E-09
	Cs-134	1.32E-01	9.59E+11	1.38E-13	2.0E-10
	Cs-137	7.85E+01	9.59E+11	8.19E-11	4.0E-10
	Ce-144	2.22E-01	9.59E+11	2.31E-13	3.0E-11
	Eu-154	3.02E-01	9.59E+11	3.15E-13	5.0E-11
	Eu-155	7.50E-01	9.59E+11	7.82E-13	3.0E-10
	Am-241	2.61E+00	9.59E+11	2.72E-12	2.0E-14
	Sb-125	1.01E-01	8.36E+11	1.21E-13	1.0E-09
	Cs-137	2.21E+00	8.36E+1.1	2.64E-12	4.0E-10
772-1F					
772-4F	Sr-89,90	2.10E+00	2.20E+15	9.55E-16	9.0E-12
	Cs-137	3.86E-01	2.20E+15	1.75E-16	4.0E-10
	U-234	1.36E-02	2.20E+15	6.18E-18	9.0E-14
	U-235	3.47E-03	2.20E+15	1.58E-18	1.0E-13
	U-238	1.98E-02	2.20E+15	9.00E-18	1.0E-13
	Pu-239	1.64E-02	2.20E+15	7.45E-18	2.0E-14
	Am-241	3.11E-02	2.20E+15	1.41E-17	2.0E-14
	Cm-244	1.19E-02	2.20E+15	5.41E-18	4.0E-14
800 Cell (211-F)	Sr-89, 90	1.35E+01	2.51E+12	5.38E-12	9.0E-12
A-Line (221-1F)	U-234	3.42E-01	3.54E+13	9.66E-15	9.0E-14
	U-235	2.68E+00	3.54E+13	7.57E-14	1.0E-13
	U-238	6.87E-01	3.54E+13	1.94E-14	1.0E-13
	Pu-238	3.22E-01	3.54E+13	9.10E-15	3.0E-14
	Pu-239	2.71E-01	3.54E+13	7.66E-15	2.0E-14
	Am-241	2.83E-02	3.54E+13	7.99E-16	2.0E-14
	Cm-244	3.07E-02	3.54E+13	8.67E-16	4.0E-14

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed 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
Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides

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Stack/Facility	Radionuclide	Quantity Released During 1995 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1995 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
F Main (195')					
H-Area (Separations and Waste Management)					
230-H Lag					
230-H Process					
241-84H (ETF Lab)	Cs-137	9.88E-02	4.51E+13	2.19E-15	4.0E-10
241-84H (ETF Process)					
241-H Misc	Cs-137	8.11E+00	5.52E+15	1.47E-15	4.0E-10
241-H Purge	Cs-134	1.90E-01	1.46E+15	1.30E-16	2.0E-10
	Cs-137	1.06E+02	1.46E+15	7.26E-14	4.0E-10
241-H Annulus	Cs-137	1.34E+02	5.94E+15	2.26E-14	4.0E-10
244-H RBOF	Cs137	2.42E+01	3.60E+14	6.72E-14	4.0E-10
244-HRBOF Vessel Vent	Cs137	5.62E-01	3.70E+12	1.52E-13	4.0E-10
253-H Waste Compactor					
291-H Isokinetic	Sr-89, 90	1.20E+01	4.05E+15	2.96E-15	9.0E-12
	1-129	1.70E+03	4.05E+15	4.20E-13	7.0E-12
	1-131	7.98E+00	4.05E+15	1.95E-15	4.0E-10
	Cs-137	2.50E+01	4.05E+15	6.17E-15	4.0E-10
	U-234	2.26E-01	4.05E+15	5.58E-17	9.02E-14
	U-235	1.43E+01	4.05E+15	3.53E-15	1.0E-13
	U-238	1.00E+00	4.05E+15	2.47E-16	1.0E-13
	Pu-238	4.66E+02	4.05E+15	1.15E-13	3.0E-14
	Pu-239	8.70E+00	4.05E+15	2.15E-15	2.0E-14
	Am-241	6.26E-01	4.05E+15	1.55E-16	2.0E-14
	Cm-244	8.21E-01	4.05E+15	2.03E-16	4.0E-14

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed 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

**Radioactive Atmospheric Releases by Stack/Facility and Comparison
of Annual Average Concentrations to DOE Derived Concentration Guides**

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Stack/Facility	Radionuclide	Quantity Released During 1995 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1995 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
299-H (Bldg + HP Hood)	Cs-137	9.95E-03	2.76E+14	3.61E-17	4.0E-10
H Main (195')					
Tritium	H-3 (oxide)	4.20E+10	1.32E+15	3.18E-05	1.0E-07
	H-3 (elem.)	4.17E+10	1.32E+15	3.16E-05	2.0E-02
K-Area (K-Reactor)					
K-Main (148')	H-3 (oxide)	2.17E+09	2.27E+15	9.56E-07	1.0E-07
K Disassembly	H-3 (oxide)	5.46E+08	3.12E+15	1.75E-07	1.0E-07
	Co-60	2.78E+01	3.12E+15	8.91E-15	8.0E-11
	Cs-137	4.20E+02	3.12E+15	1.34E-13	4.0E-10
L-Area (L-Reactor)					
L Main (148')	H-3 (oxide)	1.58E+09	1.43E+15	1.10E-06	1.0E-07
L Disassembly	H-3 (oxide)	3.14E+08	1.43E+15	2.20E-07	1.0E-07
	Cs-137	4.27E+01	1.43E+15	2.99E-14	4.0E-10
M-Area (Reactor Materials)					
313-M	U-234	3.56E-03	5.22E-13	6.82E-13	9.0E-14
	U-235	1.97E-03	5.22E+13	3.77E-15	1.0E-13
	U-238	2.81E-03	5.22E+13	5.38E-15	1.0E-13
	Pu-238	3.24E-04	5.22E+13	6.21E-16	3.0E-14
	Pu-239	9.64E-04	5.22E+13	1.85E-17	2.0E-14
	Am-241	1.07E-03	5.22E+13	2.05E-15	2.0E-14
320-M	U-235	3.48E-01	9.62E+12	3.62E-14	1.0E-13
321-M	U-234	8.41E-01	5.06E+14	1.66E-15	9.0E-14
	U-235	6.65E+00	5.06E+14	1.31E-14	1.0E-13
	U-238	1.89E-01	5.06E+14	3.74E-16	1.0E-13
	Pu-238	3.06E-03	5.06E+14	6.05E-18	3.0E-14
	Pu-239	7.01E-03	5.06E+14	1.39E-17	2.0E-14

^a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed 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
Radioactive Atmospheric Releases by Stack/Facility and Comparison
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Stack/Facility	Radionuclide	Quantity Released During 1995 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1995 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)
321-M Mach Rm Isokinetic	Am-241	2.05E-02	5.06E+14	4.05E-17	2.0E-14
	Cm-244	3.86E-03	5.06E+14	7.63E-18	4.0E-14
	U-234	8.65E-02	5.33E+14	1.62E-16	9.0E-13
	U-235	1.74E-01	5.33E+14	3.26E-16	1.0E-13
	U-238	3.84E-03	5.33E+14	7.20E-18	1.0E-13
	Pu-238	1.02E-03	5.33E+14	1.91E-18	3.0E-14
	Pu-239	3.42E-05	5.33E+14	6.42E-20	2.0E-14
321-M Mach Rm	Am-241	7.68E-04	5.33E+14	1.44E-18	2.0E-14
	Cm-244	2.26E-03	5.33E+14	4.24E-18	4.0E-14
	U-234	1.36E-01	7.43E+13	1.83E-15	9.0E-13
	U-235	1.71E+01	7.43E+13	2.30E-13	1.0E-13
	U-238	7.48E-02	7.43E+13	1.01E-15	1.0E-13
	Pu-239	1.07E-02	7.43E+13	1.44E-16	2.0E-14
	Pu-239	1.07E-02	7.43E+13	1.44E-16	2.0E-14
322-M	Cs-137	3.01E+00	5.43E+14	5.54E-15	4.0E-10
	U-234	6.66E-01	5.43E+14	1.23E-15	9.0E-13
	U-235	2.35E+00	5.43E+14	4.33E-15	1.0E-13
	U-238	9.29E-01	5.43E+14	1.71E-15	1.0E-13
	Pu-239	1.16E-02	5.43E+14	2.14E-15	2.0E-14
	Am-241	1.38E-02	5.43E+14	2.54E-15	2.0E-14
	Cm-244	2.90E-03	5.43E+14	5.34E-18	4.0E-14
P-Area (P-Reactor)					
P Main (148')	H-3 (oxide)	6.25E+09	2.67E+15	2.34E-06	1.0E-07
P Disassembly	H-3 (oxide)	4.68E+08	2.73E+14	1.71E-06	1.0E-07
	Cs-137	5.24E+00	2.73E+14	1.92E-14	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 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 10
Radioactive Liquid Releases by Source
(Including Direct and Seepage Basin Migration Releases)

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		Curies ^a					
Radio-nuclide	Half-life	Reactors	Separations ^b	Reactor Materials	Heavy Water	Savannah River Technology Center/TNX	Total
<i>Note: Blank space indicates no quantifiable activity.</i>							
H-3 (oxide)	12.3 y	2.97E+03	7.83E+03		6.28E+02	8.84E-01	1.14E+04
Co-60	5.271 y				2.28E-03		2.28E-03
Sr-89,90 ^c	29.1 y	1.97E-01	1.88E-01	1.04E-03	1.15E-02	1.28E-03	3.98E-01
I-129	1.6E7 y		9.49E-03				9.49E-03
Cs-137	30.2 y	1.76E-04	6.55E-02				6.57E-02 ^d
Pm-147	2.6 y		2.63E-03				2.63E-03
U-234	2.46E5 y		1.03E-05	1.17E-05	1.63E-06	1.24E-04	1.48E-04
U-235	7.04E8 y		3.46E-06	9.37E-07	1.19E-07	7.29E-06	1.18E-05
U-238	4.47E9 y		1.22E-05	1.98E-05	3.88E-06	1.33E-04	1.69E-04
Pu-238	87.7 y		2.48E-06	2.86E-05	1.63E-06	7.80E-06	4.05E-05
Pu-239 ^e	2.410E4 y	4.95E-03	9.57E-03	1.05E-05	4.98E-04	6.01E-04	1.56E-02
Am-241	432.7 y		8.60E-07	1.14E-06			2.00E-06
Cm-244	18.1 y		1.11E-07	3.52E-06			3.63E-06

^a One curie equals 3.7E+10 Becquerels.

^b Includes separations, waste management, and tritium facilities

^c Includes unidentified beta-gamma

^d For conservatism, the higher release number (2.01E-01 Ci), calculated from River Mile 120 fish concentrations, was used for dose calculations.

^e Includes unidentified alpha

Table 11
Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual
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Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1995 (Ci)	Average Effluent Concentration During 1995 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)	Fraction of DOE DCG
<i>Note: "MDL" denotes "minimum detectable level."</i>					
A-Area (Savannah River Technology Center)					
TB-2 A-1	H-3 (oxide)	8.84E-01	9.32E-07	2.00E-03	4.66E-04
	U-234	1.24E-04	1.65E-10	6.00E-07	2.75E-04
	U-235	7.29E-06	8.29E-12	6.00E-07	1.38E-05
	U-238	1.33E-04	1.83E-10	6.00E-07	3.05E-04
	Pu-238	7.80E-06	1.41E-11	4.00E-08	3.51E-04
	Pu-239	1.17E-06	3.28E-13	3.00E-08	1.09E-05
	U/Pu (Pu-239)	6.65E-05	4.06E-10	3.00E-08	1.35E-02
				Sum of Fractions	1.49E-02
C-Area (C-Reactor)					
C-Canal	H-3 (oxide)	2.84E+00	4.64E-07	2.00E-03	2.32E-04
	Sr-89,90	Below MDL	3.95E-10	1.00E-06	3.95E-04
				Sum of Fractions	6.27E-04
D-Area (Heavy Water Rework)					
400-D Effluent Discharge	H-3 (oxide)	6.28E+02	5.68E-05	2.00E-03	2.84E-02
	Co-60	2.28E-03	1.03E-08	5.00E-02	2.06E-07
				Sum of Fractions	2.84E-02
F-Area (Separations and Waste Management)					
F-001	H-3 (oxide)	9.26E-02	3.60E-07	2.00E-03	1.80E-04
	Sr-89,90	Below MDL	5.45E-10	1.00E-06	5.45E-04
				Sum of Fractions	7.25E-04
F-012 (281-8F Retention Basin)	H-3 (oxide)	5.76E-01	1.10E-05	2.00E-03	5.50E-03
	Sr-89,90	7.59E-04	7.98E-09	1.00E-06	7.98E-03
	Cs-137	2.01E-03	2.10E-08	3.00E-06	6.99E-03
				Sum of Fractions	2.05E-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
Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual
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Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1995 (Ci)	Average Effluent Concentration During 1995 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)	Fraction of DOE DCG
F-013 (200-F Cooling Basin)	H-3 (oxide)	5.42E-02	3.62E-06	2.00E-03	1.81E-03
	Sr-89,90	6.71E-03	1.96E-07	1.00E-06	1.96E-01
	Cs-137	1.37E-02	3.67E-07	3.00E-06	1.22E-01
	Sum of Fractions				3.20E-01
FM-3 (F-Area Effluent)	H-3 (oxide)	1.77E+00	1.00E-06	2.00E-03	5.01E-04
	Sr-89,90	2.31E-03	2.43E-09	1.00E-06	2.43E-03
	Cs-137	2.81E-03	2.10E-08	3.00E-06	7.00E-03
	Pm-147	2.25E-03	2.05E-10	1.00E-04	2.05E-06
	Sum of Fractions				9.94E-03
U3R-2 (F Storm Sewer)	H-3 (oxide)	4.88E-02	9.50E-07	2.00E-03	4.75E-04
	Sr-89,90	6.00E-06	5.04E-10	1.00E-06	5.04E-04
	Pm-147	1.85E-04	8.23E-10	1.00E-04	8.23E-06
	U-234	2.87E-06	1.15E-10	6.00E-07	1.91E-04
	U-235	2.28E-07	1.43E-11	6.00E-07	2.38E-05
	U-238	9.45E-06	4.28E-10	6.00E-07	7.13E-04
	Pu-238	2.14E-06	5.55E-11	4.00E-08	1.39E-03
	Pu-239	2.97E-07	2.79E-11	3.00E-08	9.30E-04
	Am-241	9.19E-08	1.38E-12	3.00E-08	4.61E-05
	Cm-244	1.11E-07	1.47E-11	6.00E-08	2.45E-04
	U/Pu (Pu-239)	9.06E-06	8.48E-10	3.00E-08	2.83E-02
	Sum of Fractions				3.28E-02
U3R-F3 (Naval Fuels Effluent)	H-3 (oxide)	3.81E-01	3.01E-06	2.00E-03	1.50E-03
	Sr-89,90	Below MDL	2.49E-10	1.00E-06	2.49E-04
	Pm-147	Below MDL	-1.11E-09	1.00E-04	0.00E+00
	U-234	7.44E-06	1.30E-10	6.00E-07	2.17E-04

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.

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Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1995 (Ci)	Average Effluent Concentration During 1995 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)	Fraction of DOE DCG
	U-235	4.21E-07	5.56E-12	6.00E-07	9.27E-06
	U-238	2.76E-06	4.86E-11	6.00E-07	8.10E-05
	Pu-238	3.44E-07	1.01E-11	4.00E-08	2.52E-04
	Pu-239	7.72E-07	9.02E-12	3.00E-08	3.01E-04
	Am-241	7.68E-07	-5.14E-10	3.00E-08	0.00E+00
	Cm-244	Below MDL	-1.12E-10	6.00E-08	0.00E+00
	U-235,238	2.81E-06	2.68E-10	6.00E-07	4.47E-04
				Sum of Fractions	3.06E-03
H-Area (Separations and Waste Management)					
FM-1C (H-Area Effluent)	H-3 (oxide)	5.97E+00	1.09E-05	2.00E-03	5.44E-03
	Sr-89,90	5.58E-04	1.73E-09	1.00E-06	1.73E-03
	Cs-137	2.11E-03	1.08E-08	3.00E-06	3.60E-03
	Pm-147	1.16E-04	-4.63E-10	1.00E-04	0.00E+00
				Sum of Fractions	1.08E-02
H-017 (281-8H Retention Basin)	H-3 (oxide)	1.39E+00	1.86E-05	2.00E-03	9.28E-03
	Sr-89,90	6.81E-04	9.31E-09	1.00E-06	9.31E-03
	Cs-137	1.76E-02	1.51E-07	3.00E-06	5.03E-02
				Sum of Fractions	6.89E-02
H-018 (200-H Cooling Basin)	H-3 (oxide)	1.99E-01	2.67E-05	2.00E-03	1.33E-02
	Sr-89,90	6.00E-04	8.03E-08	1.00E-06	8.03E-02
	Cs-137	1.79E-03	2.41E-07	3.00E-06	8.03E-02
				Sum of Fractions	1.74E-01
HP-15 (Tritium)	H-3 (oxide)	3.54E+00	1.45E-05	2.00E-03	7.25E-03
				Sum of Fractions	7.25E-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.

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Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1995 (Ci)	Average Effluent Concentration During 1995 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)	Fraction of DOE DCG
HP-52 (H-Area Tank Farm)	H-3 (oxide)	1.15E+00	1.66E-06	2.00E-03	8.31E-04
	Sr-89,90	1.42E-04	4.88E-10	1.00E-06	4.88E-04
	Cs-137	6.70E-04	7.90E-09	3.00E-06	2.63E-03
	Sum of Fractions				3.95E-03
McQueen's Branch at Rd F	H-3 (oxide)	1.08E+01	9.78E-06	2.00E-03	4.89E-03
	Sum of Fractions				4.89E-03
U3R-2A (ETF Outfall at Rd C)	H-3 (oxide)	1.42E+02	2.59E-03	2.00E-03	1.29E+00
	Sr-89,90	Below MDL	3.83E-09	1.00E-06	3.83E-03
	Cs-137	2.48E-02	4.37E-07	3.00E-06	1.46E-01
	Pm-147	8.22E-05	6.49E-09	1.00E-04	6.49E-05
	Sum of Fractions				1.44E+00
K-Area (K-Reactor)					
K-Canal	H-3 (oxide)	1.07E+01	3.08E-07	2.00E-03	1.54E-04
	Sr-89,90	9.41E-03	4.30E-10	1.00E-06	4.30E-04
	Sum of Fractions				5.84E-04
PB-1 (K-Area Sec. Effluent)	H-3 (oxide)	2.60E-02	1.47E-06	2.00E-03	7.36E-04
	Sum of Fractions				7.36E-04
L-Area (L-Reactor)					
L-007	H-3 (oxide)	1.05E+01	3.33E-07	2.00E-03	1.67E-04
	Sr-89,90	Below MDL	3.00E-10	1.00E-06	3.00E-04
	Sum of Fractions				4.67E-04
M-Area (Reactor Materials)					
TB-3 (M-Area Effluent at Rd D)	U-234	1.17E-05	3.39E-11	6.00E-07	5.65E-05
	U-235	9.31E-07	3.49E-13	6.00E-07	5.82E-07
	U-238	1.98E-05	5.11E-11	6.00E-07	8.52E-05

^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.

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Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual Average Radionuclide Concentrations to DOE Derived Concentration Guides

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Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1995 (Ci)	Average Effluent Concentration During 1995 ($\mu\text{Ci/mL}$)	DOE DCGs ^a ($\mu\text{Ci/mL}$)	Fraction of DOE DCG
	Pu-238	2.86E-05	3.66E-11	4.00E-08	9.15E-04
	Pu-239	1.04E-05	3.55E-11	3.00E-08	1.18E-03
	Am-241	1.14E-06	-8.57E-11	3.00E-08	0.00E+00
	Cm-244	3.52E-06	-1.23E-11	6.00E-08	0.00E+00
	U-235,238	Below MDL	1.75E-10	6.00E-07	2.92E-04
				Sum of Fractions	2.53E-03
P-Area (P-Reactor)					
105-R Sumps	H-3 (oxide)	7.24E-01	3.14E-04	2.00E-03	1.57E-01
	Sr-89,90	1.54E-04	6.50E-09	1.00E-06	6.50E-03
	Cs-137	1.76E-04	9.57E-08	3.00E-06	3.19E-02
				Sum of Fractions	1.95E-01
P-013A	H-3 (oxide)	4.13E+00	8.23E-07	2.00E-03	4.12E-04
	Sr-89,90	4.02E-03	2.58E-10	1.00E-06	2.58E-04
				Sum of Fractions	6.69E-04
P-019 (P-Area Canal PAR Pond)	H-3 (oxide)	3.89E+00	6.92E-07	2.00E-03	3.46E-04
	Sr-89,90	Below MDL	3.12E-10	1.00E-06	3.12E-04
				Sum of Fractions	6.58E-04
TNX Area					
TNX-008	H-3 (oxide)	2.21E-02	7.18E-08	2.00E-03	3.59E-05
	U-234	1.63E-06	1.04E-11	6.00E-07	1.74E-05
	U-235	1.19E-07	1.88E-12	6.00E-07	3.14E-06
	U-238	3.88E-06	2.46E-11	6.00E-07	4.10E-05
	Pu-238	1.63E-06	1.35E-11	4.00E-08	3.38E-04
	Pu-239	Below MDL	-8.18E-13	3.00E-08	0.00E+00
	U/Pu (Pu-239)	Below MDL	1.29E-10	3.00E-08	4.29E-03
				Sum of Fractions	4.73E-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
Calculated Migration of Radioactivity from Seepage Basins

Page 1 of 2

Location	Source Description	Tritium (Curies)				
		1991	1992	1993	1994	1995
FMA7-(FM3A+FM2B)	200-F seepage basins to Four Mile Creek	5,750	4,260	2,180	2880	2,370
FM2B-(FM1C+H017+H018+HP52)	200-H seepage basins to Four Mile Creek	1,810	1,470	1,020	739	528
FM3A-(FM3+F012+F013)	200-H seepage basin 4 and Solid Waste Disposal Facility to Four Mile Creek	6,420	4,090	5,330	3090	4,010
K018-K Canal	K-Area retention basin to Indian Grave Branch	2,160	1,530	1,100	878	1,650
SC2A	100-P seepage basin to Steel Creek ^a	364	232	382	386	355
Location	Source Description	Total Strontium (Millicuries)				
		1991	1992	1993	1994	1995
FMA7-(FM3A+FM2B)	200-F seepage basins to Four Mile Creek	460	194	150	78	b
FM2B-FM1C	200-H seepage basins to Four Mile Creek	72	78	65	35	b
Location	Source Description	Cesium-137 (Millicuries)				
		1991	1992	1993	1994	1995
FMA7-(direct discharges to Four Mile Creek)	200-F seepage basins to Four Mile Creek	b	b	b	3	b
	200-H seepage basins to Four Mile Creek					
	200-H seepage basin 4 and Solid Waste Disposal Facility to Four Mile Creek					
Location	Source Description	Iodine-129 (Millicuries)				
		1991	1992	1993	1994	1995
FMA7-(direct discharges to Four Mile Creek)	200-F seepage basins to Four Mile Creek	22	22	22	74	10
	200-H seepage basins to Four Mile Creek					
	200-H seepage basin 4 and Solid Waste Disposal Facility to Four Mile Creek					

a Includes some secondary effluent releases from P-Area when water is diverted from PAR Pond.

b Not detected

Table 12
Calculated Migration of Radioactivity from Seepage Basins

Page 2 of 2

Location	Source Description	Technicium-99 (Millicuries)				
		1991	1992	1993	1994	1995
FMA7—(direct discharges to Four Mile Creek)	200—F seepage basins to Four Mile Creek	a	a	a	g	b
	200—H seepage basins to Four Mile Creek					
	200—H seepage basin 4 and Solid Waste Disposal Facility to Four Mile Creek					

a Not measured
b Not detected

Table 13
Estimated Tritium Releases in SRS Streams and the Savannah River

Page 1 of 3

		Direct Releases (Curies)				
Area	Release Point	1991	1992	1993	1994	1995
Reactor						
100-P	PAR Pond overflow to Lower Three Runs Creek (L3R2)	221	100	64	59	56
	*Process sewer to PAR Pond	(43) ^a				
	*Reactor heat exchanger cooling water to PAR Pond	(67) ^a				
	*Combined in 1992 (P019)		(8) ^a	(3) ^a	(2) ^a	(5) ^a
100-L	L-Lake overflow to Steel Creek (SC4)	723	515	650	473	472
	*Process sewer to L Lake	(11) ^a				
	*Reactor heat exchanger cooling water to L Lake	(112) ^a				
	*Combined in 1992 (L007)		(58) ^a	(9) ^a	(19) ^a	(11) ^a
100-K	*Process sewer to Pen Branch	74				
	*Reactor heat exchanger cooling water to Pen Branch	6,470 ^b				
	*Combined in 1992 (K-Canal)		126	16	15	11
	(K008)		3			
	K-Area secondary effluent (PB1)	6	3			
100-C	Process Sewer to Four Mile Creek (C-Canal)	13	28	12	1	3
	Subtotal	7,510	775	742	548	542
Separations						
200-F	Effluent to Four Mile Creek (FM3)	6	5	4	13	2
	Effluent to Upper Three Runs	0	1	1	1	1
200-H	Effluent to Four Mile Creek	14	13	12	10	9
	Effluent to Upper Three Runs (HP15+MQB)	5	15	17	13	14
	Effluent Treatment Facility (U3R2A)	3,070	1,010	395	389	142
	Subtotal	3,090	1,040	426	426	168

^a Not used in totals because release was counted elsewhere

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

Table 13
Estimated Tritium Releases in SRS Streams and the Savannah River

Page 2 of 3

		Direct Releases (Curies)				
Area	Release Point	1991	1992	1993	1994	1995
400-D	Process sewer to Beaver Dam Creek	681	576	499	235	628
	Subtotal	681	576	499	235	628
	Total Direct Releases ^a	11,300	2,390	1,670	1,210	1,338
		Migration (Curies)				
Area	Release Point	1991	1992	1993	1994	1995
200-F&H	Solid Waste Disposal Facility (FM3A-FM3) and H-Area seepage basin to Four Mile Creek	6,420	4,090	5,330	3090	4,010
	200-F seepage basin to Four Mile Creek	5,750	4,260	2,180	2880	2,370
	200-H seepage basin to Four Mile Creek	1,810	1,470	1,020	739	528
100-C	Seepage basin to Four Mile Creek					
100-K	904-88G to Indian Grave Branch	2,160	1,530	1,100	878	1,650 ^b
100-P	Seepage basin to Steel Creek	(364) ^c	(232) ^c	(382) ^c	(386) ^c	(355) ^c
	Subtotal	16,100	11,400	9,630	7,500	8,558
	Total Direct Releases and Migration ^a	27,400	13,800	11,300	8,800	9,896
		Stream Transport (Curies)				
Area	Release Point	1991	1992	1993	1994	1995
400-D	Beaver Dam Creek at swamp	801	576	499	235	628
20-F&H	Four Mile Creek at Road A13 (FM6)	13,300	8,710	9,000	6,980	7,350
100-K	Pen Branch at Road A (PB3)	7,100	1,850	1,580	1,890	2,440
100-L	Steel Creek at Road A (SC4)	723	515	650	473	472
100-P	Lower Three Runs at Road B (L3R2)	221	100	64	59	56
ETF	Upper Three Runs at Road A (U3R4)	4,410	1,300	879	747	483
	Total ^a	26,600	13,100	12,700	10,400	11,429

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

^b In 1995, this value was determined from K018-K Canal.

^c Not used in totals because release was counted elsewhere

Table 13
Estimated Tritium Releases in SRS Streams and the Savannah River

Page 3 of 3

	River Transport (Curies)				
	1991	1992	1993	1994	1995
Tritium measured in the Savannah River below SRS (RM 120)	28,700	16,000	12,600	12,100	12,600
Tritium measured in the Savannah River above SRS (RM 160)	2,420	2,210	433	1,170	1,940
Tritium measured in the Savannah River below SRS (downriver minus upriver) ^a	26,300	13,800	12,200	10,900	10,660

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

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

Page 1 of 4

Location	Date	First Quarter		
		Total Suspended Solids (mg/L)	Nonsettleable Solids (mg/L)	Settleable Solids (mg/L)
BDC	2/8/95	14	8	6
BDC Rep	2/8/95	15	8	7
C Canal	2/8/95	1	<1	1
F-001	2/9/95	1	<1	1
F-012	2/21/95	10	9	1
F-012 Dup	2/21/95	10	8	2
FMC-1C	2/9/95	2	1	1
FMC-1C Rep	2/9/95	2	1	1
FMC-3	2/9/95	2	1	1
H-017	2/21/95	4	<1	4
H-017 Dup	2/21/95	9	8	1
H-017 Rep	2/21/95	10	6	4
H-018	3/18/95	4	3	1
H-018 Dup	3/18/95	4	3	1
HP-15	2/9/95	2	<1	2
HP-52	2/9/95	3	3	0
K Canal	2/8/95	3	1	2
L-007	2/8/95	1	1	0
McQueen's Branch	2/9/95	8	1	7
P-019	2/8/95	1	1	0
PB-1	2/8/95	1	<1	1
TB-2	2/8/95	<1	<1	<1
TB-3	2/8/95	1	<1	1
TNX-1	2/8/95	5	<1	5
U3R-1A	2/8/95	1	<1	1
U3R-2A	2/9/95	1	1	0
U3R-2F	2/9/95	1	<1	1
U3R-F3	2/9/95	3	1	2

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

Page 2 of 4

Location	Date	Second Quarter		
		Total Suspended Solids (mg/L)	Nonsettlable Solids (mg/L)	Settleable Solids (mg/L)
BDC	6/13/95	8	<1	8
C Canal	6/13/95	<1	<1	<1
F-001	6/13/95	2	1	1
F-001 Rep	6/13/95	2	1	1
F-012	6/13/95	12	9	3
F-013	6/28/95	22	11	11
F-013 Rep	6/28/95	23	9	14
FMC-1C	6/13/95	1	<1	1
FMC-1C Rep	6/13/95	1	<1	1
FMC-3	6/13/95	<1	<1	<1
H-017	6/26/95	12	10	2
H-017 Rep	6/26/95	11	10	1
H-018	6/10/95	<1	<1	<1
HP-15	6/13/95	<1	<1	<1
HP-52	6/13/95	1	<1	1
HP-52 Dup	6/13/95	1	<1	1
K Canal	6/13/95	4	<1	4
L-007	6/13/95	2	<1	2
L-008	6/13/95	<1	<1	<1
McQueen's Branch	6/13/95	6	1	5
P-019	6/13/95	<1	<1	<1
TB-2	6/13/95	<1	<1	<1
TB-3	6/13/95	<1	<1	<1
TB-3 Dup	6/13/95	<1	<1	<1
TNX-1	6/13/95	3	<1	3
U3R-1A	6/13/95	5	2	3
U3R-2A	6/19/95	8	<1	8
U3R-2F	6/13/95	2	<1	2
U3R-2F Rep	6/13/95	2	<1	2
U3R-F3	6/13/95	6	1	5

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

Page 3 of 4

Location	Date	Third Quarter		
		Total Suspended Solids (mg/L)	Nonsettleable Solids (mg/L)	Settleable Solids (mg/L)
BDC	8/18/95	9	<1	9
C Canal	8/18/95	<1	<1	<1
F-001	8/22/95	<1	<1	<1
F-001 Rep	8/22/95	<1	<1	<1
F-012	8/18/95	1	1	0
F-012 Rep	8/18/95	1	1	0
FMC-1C	8/17/95	<1	<1	<1
FMC-3	8/17/95	3	1	2
H-017	7/13/95	5	4	1
H-017 Rep	7/13/95	5	4	1
H-017	8/28/95	8	7	1
H-017 Rep	8/28/95	8	7	1
H-017	9/25/95	5	<1	5
H-017 Rep	9/25/95	6	<1	6
HP-15	8/17/95	1	<1	1
HP-52	8/17/95	1	1	0
HP-52 Rep	8/17/95	1	1	0
K Canal	8/18/95	5	1	4
K-008	8/18/95	2	1	1
L-007	8/22/95	1	<1	1
L-007 Rep	8/22/95	1	<1	1
McQueen's Branch	8/17/95	3	2	1
P-019	8/18/95	1	<1	1
P-019 Rep	8/18/95	1	<1	1
PB-1	8/18/95	<1	<1	<1
TB-2	8/17/95	<1	<1	<1
TB-3	8/22/95	<1	<1	<1
TB-3 Rep	8/22/95	<1	<1	<1
TNX-1	8/18/95	<1	<1	<1
U3R-1A	8/17/95	3	1	2
U3R-2A	8/17/95	6	1	5
U3R-2F	8/17/95	<1	<1	<1
U3R-F3	8/17/95	<1	<1	<1

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

Page 4 of 4

Location	Date	Fourth Quarter		
		Total Suspended Solids (mg/L)	Nonsettleable Solids (mg/L)	Settleable Solids (mg/L)
BDC	11/14/95	13	<1	13
C Canal	11/14/95	<1	<1	<1
F-001	11/14/95	<1	<1	<1
F-012	12/12/95	3	3	0
F-012 Rep	12/12/95	3	3	0
F-013	12/9/95	2	2	0
F-013 Rep	12/9/95	2	2	0
FMC-1C	11/14/95	<1	<1	<1
FMC-3	11/14/95	1	<1	1
H-017	11/10/95	11	9	2
H-017	12/4/95	4	3	1
H-017	12/8/95	8	3	5
H-017	12/20/95	10	8	2
H-017	11/1/95	8	6	2
H-017 Rep	11/10/95	10	10	0
H-017 Rep	12/4/95	5	3	2
H-017 Rep	12/8/95	8	3	5
H-017 Rep	12/20/95	10	8	2
H-017 Rep	11/1/95	7	6	1
H-018	11/29/95	3	2	1
H-018 Rep	11/29/95	3	3	0
HP-15	11/14/95	<1	<1	<1
HP-15 Rep	11/14/95	<1	<1	<1
HP-52	11/14/95	<1	<1	<1
K Canal	11/14/95	3	<1	3
K-008	11/14/95	<1	<1	<1
K-008 Rep	11/14/95	<1	<1	<1
L-007	11/14/95	4	<1	4
McQueen's Branch	11/9/95	5	<1	5
P-019	11/14/95	<1	<1	<1
PB-1	11/16/95	<1	<1	<1
TB-2	11/14/95	<1	<1	<1
TB-3	11/14/95	<1	<1	<1
TNX-1	11/14/95	1	<1	1
U3R-1A	11/9/95	1	<1	1
U3R-2A	11/21/95	<1	<1	<1

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, pCi/cu m				
On Site				
A-Area	26	(2.11 $\pm$ 1.22)E+01	(5.17 $\pm$ 0.96)E+01	(6.67 $\pm$ 2.22)E+00
Burial Ground North	26	(2.37 $\pm$ 1.84)E+02	(6.56 $\pm$ 0.25)E+02	(5.23 $\pm$ 0.30)E+01
Burial Ground South	25	(2.57 $\pm$ 1.57)E+02	(5.89 $\pm$ 0.12)E+02	(2.08 $\pm$ 0.08)E-01
F-Area	26	(6.17 $\pm$ 3.34)E+01	(1.28 $\pm$ 0.09)E+02	(7.03 $\pm$ 0.68)E-02
H-Area	25	(0.65 $\pm$ 1.05)E+03	(4.33 $\pm$ 0.06)E+03	(9.74 $\pm$ 0.56)E-02
Site Perimeter				
Allendale Gate	24	(1.20 $\pm$ 0.66)E+01	(2.52 $\pm$ 1.00)E+01	(0.04 $\pm$ 2.66)E+00
Barnwell Gate	26	(1.28 $\pm$ 0.53)E+01	(2.27 $\pm$ 0.44)E+01	(2.99 $\pm$ 5.62)E+00
D-Area	26	(3.18 $\pm$ 1.90)E+01	(9.56 $\pm$ 0.73)E+01	(8.59 $\pm$ 2.09)E+00
Darkhorse @ Williston Gate	25	(1.46 $\pm$ 0.78)E+01	(3.48 $\pm$ 0.92)E+01	(3.07 $\pm$ 1.97)E+00
East Talatha	26	(1.49 $\pm$ 0.83)E+01	(3.10 $\pm$ 0.70)E+01	(2.27 $\pm$ 4.90)E+00
Green Pond	26	(1.73 $\pm$ 1.03)E+01	(5.25 $\pm$ 1.07)E+01	(3.82 $\pm$ 1.72)E+00
Highway 125 @ Road A-14	25	(1.64 $\pm$ 0.83)E+01	(4.32 $\pm$ 0.78)E+01	(7.02 $\pm$ 2.74)E+00
Highway 21/167	26	(1.55 $\pm$ 1.73)E+01	(9.10 $\pm$ 2.13)E+01	(1.51 $\pm$ 2.44)E+00
Highway 39 @ Williston Gate	26	(1.22 $\pm$ 0.66)E+01	(2.62 $\pm$ 0.27)E+01	(-0.50 $\pm$ 4.54)E+00
Jackson	26	(1.99 $\pm$ 1.53)E+01	(6.83 $\pm$ 0.67)E+01	(5.37 $\pm$ 1.46)E+00
Patterson Mill Road	26	(1.18 $\pm$ 0.47)E+01	(2.27 $\pm$ 0.92)E+01	(3.09 $\pm$ 5.10)E+00
Talatha Gate	25	(1.61 $\pm$ 0.89)E+01	(3.79 $\pm$ 0.70)E+01	(1.88 $\pm$ 4.93)E+00
West Jackson	26	(1.59 $\pm$ 0.90)E+01	(3.82 $\pm$ 0.94)E+01	(0.39 $\pm$ 1.03)E+01
Windsor Road	26	(1.75 $\pm$ 1.10)E+01	(5.00 $\pm$ 0.43)E+01	(2.13 $\pm$ 2.33)E+00
25-Mile Radius				
Aiken Airport	9	(1.14 $\pm$ 0.60)E+01	(1.79 $\pm$ 0.27)E+01	(3.39 $\pm$ 1.87)E+00
Aiken State Park	15	(1.01 $\pm$ 0.63)E+01	(2.03 $\pm$ 0.66)E+01	(0.17 $\pm$ 6.16)E+00
Allendale, S.C.	9	(7.74 $\pm$ 4.05)E+00	(1.29 $\pm$ 0.50)E+01	(1.22 $\pm$ 2.12)E+00
Augusta Lock and Dam 614	25	(7.75 $\pm$ 8.73)E+00	(4.24 $\pm$ 0.20)E+01	(-2.24 $\pm$ 2.36)E+00
Highway 301 @ state line	23	(6.60 $\pm$ 5.55)E+00	(1.65 $\pm$ 0.49)E+01	(-2.80 $\pm$ 3.97)E+00
Langley, S.C.	15	(1.16 $\pm$ 0.70)E+01	(3.00 $\pm$ 0.84)E+01	(4.25 $\pm$ 1.97)E+00
Lees, S.C.	15	(1.07 $\pm$ 0.78)E+01	(2.83 $\pm$ 0.21)E+01	(-0.52 $\pm$ 1.67)E+00
Olar, S.C.	15	(9.15 $\pm$ 6.17)E+00	(2.24 $\pm$ 0.18)E+01	(-0.84 $\pm$ 4.39)E+00
Perkins, Ga.	15	(9.94 $\pm$ 5.60)E+00	(2.03 $\pm$ 0.96)E+01	(2.18 $\pm$ 4.98)E+00

Table 15
Radioactivity in Air

Page 2 of 6

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
South Richmond, Ga.	15	(1.16 $\pm$ 1.09)E+01	(3.63 $\pm$ 1.74)E+01	(-2.12 $\pm$ 6.50)E+00
Springfield, S.C.	15	(1.20 $\pm$ 0.75)E+01	(2.61 $\pm$ 0.74)E+01	(2.27 $\pm$ 7.30)E+00
Waynesboro, Ga.	15	(1.18 $\pm$ 0.61)E+01	(2.31 $\pm$ 0.64)E+01	(3.21 $\pm$ 2.66)E+00
100-Mile Radius				
Columbia, S.C.	3	(1.17 $\pm$ 0.70)E+01	(1.98 $\pm$ 0.76)E+01	(7.40 $\pm$ 2.22)E+00
Greenville, S.C.	1	(1.34 $\pm$ 0.75)E+01		
Macon, Ga.	2	(9.61 $\pm$ 1.42)E+00	(1.06 $\pm$ 0.66)E+01	(8.61 $\pm$ 3.18)E+00
Savannah, Ga.	9	(4.13 $\pm$ 7.19)E+00	(1.86 $\pm$ 0.43)E+01	(-3.64 $\pm$ 3.97)E+00
Cs-137, pCi/cu m				
On Site				
Burial Ground North	1	(2.72 $\pm$ 0.95)E-03		
Site Perimeter				
Barnwell Gate	1	(6.68 $\pm$ 2.13)E-03		
Site perimeter	1	(6.91 $\pm$ 2.13)E-04		
Pu-238, pCi/cu m				
On Site				
A-Area	10	(0.22 $\pm$ 1.06)E-06	(2.40 $\pm$ 1.05)E-06	(-1.64 $\pm$ 1.01)E-06
Burial Ground North	11	(3.72 $\pm$ 5.75)E-06	(2.00 $\pm$ 0.27)E-05	(-1.38 $\pm$ 1.03)E-06
Burial Ground South	11	(3.49 $\pm$ 2.70)E-06	(9.63 $\pm$ 1.84)E-06	(-5.49 $\pm$ 5.49)E-07
F-Area	11	(7.54 $\pm$ 4.55)E-06	(1.79 $\pm$ 0.14)E-05	(2.22 $\pm$ 1.33)E-06
H-Area	11	(5.95 $\pm$ 4.25)E-06	(1.43 $\pm$ 0.26)E-05	(1.26 $\pm$ 0.79)E-06
Site Perimeter				
Site perimeter	48	(0.35 $\pm$ 1.27)E-06	(7.91 $\pm$ 0.97)E-06	(-1.07 $\pm$ 0.47)E-06
25-Mile Radius				
25-mile radius	51	(0.16 $\pm$ 2.30)E-06	(1.20 $\pm$ 0.88)E-05	(-5.37 $\pm$ 3.17)E-06
100-Mile Radius				
100-mile radius	52	(0.18 $\pm$ 2.82)E-06	(6.43 $\pm$ 5.26)E-06	(-8.73 $\pm$ 4.54)E-06
Pu-239, pCi/cu m				
On Site				
A-Area	10	(2.45 $\pm$ 6.74)E-07	(1.53 $\pm$ 1.40)E-06	(-6.22 $\pm$ 5.49)E-07
Burial Ground North	11	(1.22 $\pm$ 2.12)E-06	(4.83 $\pm$ 1.34)E-06	(-1.33 $\pm$ 0.90)E-06
Burial Ground South	11	(1.74 $\pm$ 3.15)E-06	(9.92 $\pm$ 3.92)E-06	(-3.31 $\pm$ 1.18)E-06
F-Area	11	(0.66 $\pm$ 1.12)E-05	(3.98 $\pm$ 0.22)E-05	(4.20 $\pm$ 5.15)E-07
H-Area	11	(1.02 $\pm$ 2.92)E-05	(9.81 $\pm$ 0.55)E-05	(-0.27 $\pm$ 1.04)E-06

Table 15
Radioactivity in Air

Page 3 of 6

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Site Perimeter				
Site perimeter	48	$(0.88 \pm 5.05)E-07$	$(2.12 \pm 1.47)E-06$	$(-9.40 \pm 9.42)E-07$
25-Mile Radius				
25-mile radius	51	$(-0.24 \pm 1.44)E-06$	$(2.87 \pm 1.73)E-06$	$(-4.38 \pm 2.20)E-06$
100-Mile Radius				
100-mile radius	52	$(-0.96 \pm 4.08)E-06$	$(1.20 \pm 0.43)E-05$	$(-1.09 \pm 0.57)E-05$
Sr-89,90, pCi/cu m				
On Site				
A-Area	12	$(2.87 \pm 3.11)E-04$	$(1.18 \pm 0.25)E-03$	$(-0.35 \pm 1.96)E-04$
Burial Ground North	12	$(0.58 \pm 3.24)E-04$	$(9.45 \pm 2.39)E-04$	$(-3.75 \pm 2.34)E-04$
Burial Ground South	12	$(3.27 \pm 5.36)E-04$	$(1.83 \pm 0.33)E-03$	$(-2.20 \pm 3.58)E-04$
F-Area	12	$(2.09 \pm 2.89)E-04$	$(9.74 \pm 2.54)E-04$	$(-0.57 \pm 2.38)E-04$
H-Area	12	$(3.07 \pm 3.36)E-04$	$(1.07 \pm 0.24)E-03$	$(-0.09 \pm 2.06)E-04$
Site Perimeter				
Site perimeter	52	$(1.08 \pm 1.57)E-04$	$(5.78 \pm 1.06)E-04$	$(-1.03 \pm 0.91)E-04$
25-Mile Radius				
25-mile radius	53	$(0.76 \pm 3.35)E-04$	$(7.14 \pm 5.47)E-04$	$(-1.65 \pm 1.14)E-03$
100-Mile Radius				
100-mile radius	53	$(4.65 \pm 6.07)E-04$	$(1.79 \pm 0.90)E-03$	$(-1.15 \pm 0.89)E-03$
Gross Beta, pCi/cu m				
On Site				
A-Area	53	$(1.67 \pm 0.45)E-02$	$(2.87 \pm 0.14)E-02$	$(7.86 \pm 0.92)E-03$
Burial Ground North	52	$(1.89 \pm 1.39)E-02$	$(1.14 \pm 0.07)E-01$	$(9.85 \pm 0.59)E-03$
Burial Ground South	53	$(1.84 \pm 0.42)E-02$	$(2.74 \pm 0.14)E-02$	$(9.55 \pm 0.59)E-03$
F-Area	53	$(1.71 \pm 0.45)E-02$	$(2.58 \pm 0.13)E-02$	$(6.86 \pm 0.53)E-03$
H-Area	52	$(1.78 \pm 0.45)E-02$	$(2.90 \pm 0.14)E-02$	$(5.31 \pm 0.79)E-03$
Site Perimeter				
Allendale Gate	46	$(1.97 \pm 0.54)E-02$	$(3.28 \pm 0.19)E-02$	$(9.55 \pm 0.59)E-03$
Barnwell Gate	52	$(1.87 \pm 0.56)E-02$	$(2.92 \pm 0.15)E-02$	$(2.76 \pm 0.19)E-05$
D-Area	51	$(1.62 \pm 0.45)E-02$	$(2.55 \pm 0.14)E-02$	$(5.52 \pm 0.66)E-03$
Darkhorse @ Williston Gate	48	$(1.97 \pm 0.45)E-02$	$(2.79 \pm 0.14)E-02$	$(8.96 \pm 0.57)E-03$
East Talatha	52	$(1.92 \pm 0.48)E-02$	$(3.50 \pm 0.16)E-02$	$(9.98 \pm 0.60)E-03$
Green Pond	52	$(1.80 \pm 0.43)E-02$	$(2.64 \pm 0.14)E-02$	$(8.57 \pm 0.95)E-03$

Table 15
Radioactivity in Air

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Highway 125 @ Road A-14	52	$(1.80 \pm 0.48)E-02$	$(2.94 \pm 0.15)E-02$	$(9.07 \pm 0.95)E-03$
Highway 21/167	53	$(2.05 \pm 0.49)E-02$	$(3.21 \pm 0.30)E-02$	$(8.76 \pm 0.94)E-03$
Highway 39 @ Williston Gate	52	$(1.85 \pm 0.45)E-02$	$(2.88 \pm 0.14)E-02$	$(9.08 \pm 0.66)E-03$
Jackson	52	$(1.45 \pm 0.41)E-02$	$(2.52 \pm 0.14)E-02$	$(5.27 \pm 0.46)E-03$
Patterson Mill Road	52	$(1.84 \pm 0.45)E-02$	$(2.79 \pm 0.14)E-02$	$(1.02 \pm 0.10)E-02$
Talatha Gate	51	$(1.61 \pm 0.41)E-02$	$(2.42 \pm 0.14)E-02$	$(7.84 \pm 0.53)E-03$
West Jackson	52	$(1.81 \pm 0.44)E-02$	$(2.68 \pm 0.14)E-02$	$(8.18 \pm 0.55)E-03$
Windsor Road	52	$(1.90 \pm 0.49)E-02$	$(2.90 \pm 0.15)E-02$	$(8.29 \pm 0.87)E-03$
25-Mile Radius				
Aiken Airport	16	$(1.67 \pm 0.39)E-02$	$(2.25 \pm 0.17)E-02$	$(1.11 \pm 0.10)E-02$
Aiken State Park	31	$(1.94 \pm 0.46)E-02$	$(2.95 \pm 0.15)E-02$	$(9.07 \pm 0.95)E-03$
Allendale, S.C.	19	$(1.72 \pm 0.45)E-02$	$(2.77 \pm 0.10)E-02$	$(9.38 \pm 0.84)E-03$
Augusta Lock and Dam 614	52	$(1.64 \pm 0.51)E-02$	$(2.70 \pm 0.14)E-02$	$(4.46 \pm 0.23)E-05$
Highway 301 @ state line	45	$(1.73 \pm 0.49)E-02$	$(2.64 \pm 0.14)E-02$	$(4.58 \pm 0.24)E-05$
Langley, S.C.	31	$(1.89 \pm 0.46)E-02$	$(3.29 \pm 0.15)E-02$	$(9.74 \pm 0.97)E-03$
Lees, S.C.	31	$(1.89 \pm 0.49)E-02$	$(2.95 \pm 0.15)E-02$	$(9.43 \pm 0.96)E-03$
Olar, S.C.	31	$(1.81 \pm 0.41)E-02$	$(2.41 \pm 0.14)E-02$	$(1.06 \pm 0.10)E-02$
Perkins, Ga.	30	$(1.74 \pm 0.41)E-02$	$(2.82 \pm 0.23)E-02$	$(1.05 \pm 0.10)E-02$
South Richmond, Ga.	30	$(1.91 \pm 0.48)E-02$	$(3.23 \pm 0.15)E-02$	$(1.15 \pm 0.10)E-02$
Springfield, S.C.	31	$(1.88 \pm 0.46)E-02$	$(3.14 \pm 0.15)E-02$	$(1.12 \pm 0.10)E-02$
Waynesboro, Ga.	31	$(1.63 \pm 0.34)E-02$	$(2.50 \pm 0.13)E-02$	$(9.74 \pm 0.96)E-03$
100-Mile Radius				
Columbia, S.C.	31	$(1.82 \pm 0.43)E-02$	$(2.65 \pm 0.14)E-02$	$(8.47 \pm 0.94)E-03$
Greenville, S.C.	20	$(1.87 \pm 0.53)E-02$	$(3.22 \pm 0.16)E-02$	$(3.55 \pm 0.66)E-03$
Macon, Ga.	27	$(1.87 \pm 0.42)E-02$	$(2.97 \pm 0.16)E-02$	$(1.17 \pm 0.11)E-02$
Savannah, Ga.	50	$(1.75 \pm 0.55)E-02$	$(3.06 \pm 0.16)E-02$	$(8.39 \pm 0.55)E-03$
Gross Alpha, pCi/cu m				
On Site				
A-Area	53	$(1.34 \pm 0.58)E-03$	$(2.47 \pm 0.63)E-03$	$(0.43 \pm 2.36)E-04$
Burial Ground North	52	$(1.73 \pm 1.31)E-03$	$(9.95 \pm 2.87)E-03$	$(4.35 \pm 3.26)E-04$
Burial Ground South	53	$(1.43 \pm 0.59)E-03$	$(2.48 \pm 0.63)E-03$	$(0.46 \pm 2.34)E-04$

Table 15
Radioactivity in Air

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
F-Area	53	$(1.58 \pm 0.68)E-03$	$(3.11 \pm 0.84)E-03$	$(4.33 \pm 3.25)E-04$
H-Area	52	$(1.47 \pm 0.60)E-03$	$(3.41 \pm 0.72)E-03$	$(1.81 \pm 1.99)E-04$
Site Perimeter				
Allendale Gate	46	$(1.52 \pm 0.78)E-03$	$(4.32 \pm 1.26)E-03$	$(4.54 \pm 3.31)E-04$
Barnwell Gate	52	$(1.38 \pm 0.71)E-03$	$(3.17 \pm 0.75)E-03$	$(2.20 \pm 0.82)E-06$
D-Area	51	$(1.17 \pm 0.52)E-03$	$(2.32 \pm 0.61)E-03$	$(1.61 \pm 2.73)E-04$
Darkhorse @ Williston Gate	48	$(1.58 \pm 0.62)E-03$	$(2.91 \pm 1.12)E-03$	$(3.76 \pm 2.35)E-04$
East Talatha	52	$(1.53 \pm 0.72)E-03$	$(4.33 \pm 0.78)E-03$	$(0.38 \pm 2.27)E-04$
Green Pond	52	$(1.55 \pm 0.69)E-03$	$(3.01 \pm 0.68)E-03$	$(0.66 \pm 3.07)E-04$
Highway 125 @ Road A-14	52	$(1.26 \pm 0.57)E-03$	$(2.72 \pm 0.64)E-03$	$(1.72 \pm 2.68)E-04$
Highway 21/167	53	$(1.49 \pm 0.54)E-03$	$(2.55 \pm 0.86)E-03$	$(0.55 \pm 2.57)E-04$
Highway 39 @ Williston Gate	52	$(1.27 \pm 0.59)E-03$	$(3.08 \pm 0.68)E-03$	$(3.27 \pm 3.22)E-04$
Jackson	52	$(1.07 \pm 0.59)E-03$	$(3.43 \pm 0.70)E-03$	$(-0.79 \pm 2.16)E-04$
Patterson Mill Road	52	$(1.45 \pm 0.62)E-03$	$(3.06 \pm 0.69)E-03$	$(1.78 \pm 2.71)E-04$
Talatha Gate	51	$(1.19 \pm 0.49)E-03$	$(2.47 \pm 0.61)E-03$	$(0.54 \pm 2.54)E-04$
West Jackson	52	$(1.48 \pm 0.60)E-03$	$(2.90 \pm 0.63)E-03$	$(3.23 \pm 3.18)E-04$
Windsor Road	52	$(1.54 \pm 0.63)E-03$	$(2.77 \pm 0.66)E-03$	$(1.91 \pm 1.98)E-04$
25-Mile Radius				
Aiken Airport	16	$(1.29 \pm 0.57)E-03$	$(2.49 \pm 0.58)E-03$	$(3.28 \pm 3.23)E-04$
Aiken State Park	31	$(1.35 \pm 0.65)E-03$	$(2.74 \pm 0.64)E-03$	$(1.73 \pm 2.75)E-04$
Allendale, S.C.	19	$(1.18 \pm 0.62)E-03$	$(2.49 \pm 0.43)E-03$	$(1.88 \pm 2.86)E-04$
Augusta Lock and Dam 614	52	$(1.27 \pm 0.63)E-03$	$(2.70 \pm 0.63)E-03$	$(1.89 \pm 0.72)E-06$
Highway 301 @ state line	45	$(1.31 \pm 0.67)E-03$	$(2.52 \pm 0.59)E-03$	$(-0.89 \pm 1.95)E-04$
Langley, S.C.	31	$(1.39 \pm 0.57)E-03$	$(2.73 \pm 0.67)E-03$	$(4.69 \pm 3.42)E-04$
Lees, S.C.	31	$(1.39 \pm 0.53)E-03$	$(2.72 \pm 0.66)E-03$	$(2.99 \pm 2.97)E-04$
Olar, S.C.	31	$(1.30 \pm 0.46)E-03$	$(2.00 \pm 0.53)E-03$	$(3.25 \pm 3.20)E-04$
Perkins, Ga.	30	$(1.27 \pm 0.66)E-03$	$(2.97 \pm 0.66)E-03$	$(1.89 \pm 2.88)E-04$
South Richmond, Ga.	30	$(1.39 \pm 0.65)E-03$	$(2.70 \pm 0.63)E-03$	$(0.54 \pm 2.52)E-04$
Springfield, S.C.	31	$(1.50 \pm 0.80)E-03$	$(3.63 \pm 0.74)E-03$	$(0.35 \pm 2.36)E-04$
Waynesboro, Ga.	31	$(1.50 \pm 0.57)E-03$	$(2.88 \pm 0.67)E-03$	$(5.77 \pm 3.61)E-04$

Table 15
Radioactivity in Air

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
100-Mile Radius				
Columbia, S.C.	31	$(1.79 \pm 0.93)E-03$	$(4.13 \pm 0.75)E-03$	$(3.28 \pm 3.23)E-04$
Greenville, S.C.	20	$(1.52 \pm 0.69)E-03$	$(2.64 \pm 0.64)E-03$	$(3.23 \pm 2.33)E-04$
Macon, Ga.	27	$(1.55 \pm 0.56)E-03$	$(2.94 \pm 0.65)E-03$	$(4.58 \pm 3.34)E-04$
Savannah, Ga.	50	$(1.51 \pm 0.60)E-03$	$(3.37 \pm 0.74)E-03$	$(3.99 \pm 3.42)E-04$

Table 16
Tritium in Rainwater

Page 1 of 2

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, $\mu\text{Ci/mL}$				
On Site				
A-Area	25	$(3.61 \pm 5.34)\text{E-07}$	$(1.70 \pm 0.26)\text{E-06}$	$(-4.45 \pm 3.46)\text{E-07}$
Burial Ground North	25	$(4.52 \pm 4.95)\text{E-06}$	$(1.82 \pm 0.06)\text{E-05}$	$(2.14 \pm 1.29)\text{E-07}$
Burial Ground South	25	$(0.84 \pm 1.72)\text{E-05}$	$(8.70 \pm 0.07)\text{E-05}$	$(-1.20 \pm 3.86)\text{E-07}$
F-Area	24	$(2.55 \pm 2.51)\text{E-06}$	$(7.33 \pm 0.45)\text{E-06}$	$(-1.61 \pm 3.91)\text{E-07}$
H-Area	25	$(3.22 \pm 3.57)\text{E-05}$	$(1.59 \pm 0.02)\text{E-04}$	$(2.61 \pm 0.39)\text{E-06}$
Site Perimeter				
Allendale Gate	25	$(1.29 \pm 3.35)\text{E-07}$	$(8.42 \pm 3.56)\text{E-07}$	$(-5.47 \pm 3.52)\text{E-07}$
Barnwell Gate	25	$(4.34 \pm 6.91)\text{E-07}$	$(2.68 \pm 0.42)\text{E-06}$	$(-4.21 \pm 3.38)\text{E-07}$
D-Area	24	$(1.39 \pm 1.75)\text{E-06}$	$(6.12 \pm 0.39)\text{E-06}$	$(-1.17 \pm 1.83)\text{E-07}$
Darkhorse @ Williston Gate	24	$(2.07 \pm 2.63)\text{E-07}$	$(1.07 \pm 0.35)\text{E-06}$	$(-1.63 \pm 3.40)\text{E-07}$
East Talatha	25	$(4.74 \pm 6.49)\text{E-07}$	$(2.42 \pm 0.19)\text{E-06}$	$(-2.53 \pm 3.88)\text{E-07}$
Green Pond	25	$(3.54 \pm 4.15)\text{E-07}$	$(1.42 \pm 0.36)\text{E-06}$	$(-2.31 \pm 3.53)\text{E-07}$
Highway 125 @ Road A-14	25	$(5.55 \pm 6.69)\text{E-07}$	$(2.13 \pm 0.37)\text{E-06}$	$(-3.76 \pm 3.71)\text{E-07}$
Highway 21/167	25	$(2.44 \pm 3.34)\text{E-07}$	$(9.60 \pm 4.09)\text{E-07}$	$(-3.13 \pm 2.87)\text{E-07}$
Highway 39 @ Williston Gate	25	$(2.35 \pm 3.92)\text{E-07}$	$(1.07 \pm 0.39)\text{E-06}$	$(-3.86 \pm 3.60)\text{E-07}$
Jackson	25	$(4.24 \pm 5.52)\text{E-07}$	$(1.82 \pm 0.13)\text{E-06}$	$(-4.06 \pm 3.44)\text{E-07}$
Patterson Mill Road	24	$(1.87 \pm 3.55)\text{E-07}$	$(9.59 \pm 3.58)\text{E-07}$	$(-4.39 \pm 3.34)\text{E-07}$
Talatha Gate	25	$(3.37 \pm 4.75)\text{E-07}$	$(1.50 \pm 0.39)\text{E-06}$	$(-2.72 \pm 3.31)\text{E-07}$
West Jackson	25	$(3.96 \pm 4.53)\text{E-07}$	$(1.66 \pm 0.38)\text{E-06}$	$(-2.65 \pm 3.44)\text{E-07}$
Windsor Road	25	$(4.29 \pm 5.61)\text{E-07}$	$(2.28 \pm 0.40)\text{E-06}$	$(-4.56 \pm 2.84)\text{E-07}$
25-Mile Radius				
Aiken Airport	8	$(3.56 \pm 6.26)\text{E-07}$	$(1.66 \pm 0.32)\text{E-06}$	$(-4.28 \pm 2.72)\text{E-07}$
Aiken State Park	15	$(1.74 \pm 3.58)\text{E-07}$	$(9.80 \pm 3.92)\text{E-07}$	$(-3.03 \pm 3.90)\text{E-07}$
Allendale, S.C.	8	$(3.99 \pm 4.37)\text{E-07}$	$(1.03 \pm 0.39)\text{E-06}$	$(-1.43 \pm 2.81)\text{E-07}$
Augusta Lock and Dam 614	23	$(2.11 \pm 5.84)\text{E-07}$	$(2.49 \pm 0.39)\text{E-06}$	$(-4.51 \pm 3.66)\text{E-07}$
Highway 301 @ state line	21	$(0.90 \pm 2.65)\text{E-07}$	$(5.04 \pm 3.47)\text{E-07}$	$(-5.23 \pm 3.52)\text{E-07}$
Langley, S.C.	14	$(1.14 \pm 3.85)\text{E-07}$	$(7.23 \pm 3.80)\text{E-07}$	$(-8.30 \pm 3.76)\text{E-07}$
Lees, S.C.	13	$(2.59 \pm 4.54)\text{E-07}$	$(1.16 \pm 0.36)\text{E-06}$	$(-5.66 \pm 3.82)\text{E-07}$
Olar, S.C.	14	$(1.42 \pm 3.49)\text{E-07}$	$(7.14 \pm 3.82)\text{E-07}$	$(-4.14 \pm 3.53)\text{E-07}$
Perkins, Ga.	15	$(1.16 \pm 4.67)\text{E-07}$	$(1.02 \pm 0.37)\text{E-06}$	$(-6.90 \pm 3.55)\text{E-07}$

Table 16
Tritium in Rainwater

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
South Richmond, Ga.	15	$(0.54 \pm 3.99)E-07$	$(1.06 \pm 0.39)E-06$	$(-6.29 \pm 3.78)E-07$
Springfield, S.C.	13	$(2.40 \pm 3.32)E-07$	$(8.80 \pm 3.55)E-07$	$(-2.83 \pm 3.56)E-07$
Waynesboro, Ga.	15	$(4.76 \pm 6.36)E-07$	$(2.11 \pm 0.40)E-06$	$(-2.68 \pm 3.37)E-07$
100-Mile Radius				
Columbia, S.C.	2	$(1.89 \pm 7.04)E-07$	$(6.87 \pm 2.99)E-07$	$(-3.09 \pm 3.57)E-07$
Greenville, S.C.	1	$(1.20 \pm 3.75)E-07$		
Macon, Ga.	2	$(4.68 \pm 0.18)E-07$	$(4.81 \pm 3.81)E-07$	$(4.56 \pm 2.96)E-07$
Savannah, Ga.	9	$(1.29 \pm 3.43)E-07$	$(7.40 \pm 3.75)E-07$	$(-3.79 \pm 3.70)E-07$

Table 17
Radioactivity in Rain Ion Columns

Page 1 of 3

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Cs-137, pCi/sq m				
Site Perimeter				
Barnwell Gate	1	(9.83 $\pm$ 8.14)E+00		
Pu-238, pCi/sq m				
On Site				
H-Area	4	(2.64 $\pm$ 4.04)E-02	(6.78 $\pm$ 1.81)E-02	(-2.82 $\pm$ 2.22)E-02
Site Perimeter				
Barnwell Gate	4	(-0.23 $\pm$ 2.02)E-02	(2.40 $\pm$ 3.56)E-02	(-2.42 $\pm$ 0.99)E-02
Darkhorse @ Williston Gate	4	(0.25 $\pm$ 2.03)E-02	(3.28 $\pm$ 1.41)E-02	(-0.96 $\pm$ 2.71)E-02
25-Mile Radius				
Olar, S.C.	3	(1.02 $\pm$ 1.15)E-02	(2.26 $\pm$ 2.26)E-02	(00.00 $\pm$ 1.29)E-02
100-Mile Radius				
Columbia, S.C	3	(1.37 $\pm$ 0.72)E-02	(1.78 $\pm$ 5.38)E-02	(0.53 $\pm$ 1.41)E-02
Greenville, S.C.	1	(1.44 $\pm$ 1.44)E-02		
Macon, Ga.	2	(7.99 $\pm$ 5.63)E-08	(0.00 $\pm$ 1.01)E-02	(0.00 $\pm$ 8.49)E-03
Savannah, Ga.	3	(-0.78 $\pm$ 1.36)E-02	(0.00 $\pm$ 2.02)E-02	(-2.35 $\pm$ 1.41)E-02
Pu-239, pCi/sq m				
On Site				
H-Area	4	(1.53 $\pm$ 2.10)E-02	(3.80 $\pm$ 1.64)E-02	(-0.50 $\pm$ 3.92)E-02
Site Perimeter				
Barnwell Gate	4	(-0.52 $\pm$ 2.28)E-02	(1.35 $\pm$ 1.49)E-02	(-3.83 $\pm$ 1.38)E-02
Darkhorse @ Williston Gate	4	(-0.52 $\pm$ 1.47)E-02	(0.82 $\pm$ 2.18)E-02	(-2.40 $\pm$ 1.08)E-02
25-Mile Radius				
Olar, S.C.	3	(-1.57 $\pm$ 1.38)E-02	(-0.75 $\pm$ 1.68)E-02	(-3.16 $\pm$ 1.83)E-02
100-Mile Radius				
Columbia, S.C.	3	(-0.30 $\pm$ 2.56)E-02	(2.65 $\pm$ 1.40)E-02	(-1.78 $\pm$ 6.92)E-02
Greenville, S.C.	1	(1.01 $\pm$ 0.38)E-01		
Macon, Ga.	2	(-3.56 $\pm$ 5.04)E-03	(0.00 $\pm$ 4.30)E-01	(-0.71 $\pm$ 1.24)E-02
Savannah, Ga.	3	(-0.64 $\pm$ 1.36)E-02	(0.94 $\pm$ 1.33)E-02	(-1.42 $\pm$ 2.01)E-02
Sr-89,90, pCi/sq m				
On Site				
H-Area	4	(0.98 $\pm$ 1.00)E+01	(2.18 $\pm$ 0.33)E+01	(-0.58 $\pm$ 3.78)E+00

Table 17
Radioactivity in Rain Ion Columns

Page 2 of 3

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Site Perimeter				
Barnwell Gate	4	$(4.16 \pm 4.54)E+00$	$(1.06 \pm 0.32)E+01$	$(0.70 \pm 4.53)E+00$
Dakhorse @ Williston Gate	4	$(5.53 \pm 4.40)E+00$	$(1.19 \pm 0.40)E+01$	$(1.77 \pm 4.13)E+00$
25-Mile Radius				
Olar, S.C.	3	$(5.51 \pm 7.22)E+00$	$(1.21 \pm 0.41)E+01$	$(-2.22 \pm 4.35)E+00$
100-Mile Radius				
Columbia, S.C.	3	$(1.29 \pm 0.00)E+01$	$(1.29 \pm 0.79)E+01$	$(1.29 \pm 0.38)E+01$
Greenville, S.C.	1	$(1.17 \pm 0.33)E+01$		
Macon, Ga.	2	$(1.06 \pm 0.45)E+01$	$(1.38 \pm 0.39)E+01$	$(7.46 \pm 5.27)E+00$
Savannah, Ga.	3	$(1.01 \pm 1.20)E+01$	$(1.70 \pm 0.42)E+01$	$(-3.70 \pm 3.80)E+00$
Gross Beta		pCi/sq m per year^a	pCi/sq m	pCi/sq m
On Site				
H-Area	13	$(6.27 \pm 7.04)E+01$	$(2.28 \pm 0.17)E+02$	$(-2.27 \pm 7.79)E+00$
Site Perimeter				
Barnwell Gate	11	$(2.60 \pm 2.29)E+01$	$(6.43 \pm 0.74)E+01$	$(3.69 \pm 5.30)E+00$
Darkhorse @ Williston Gate	11	$(5.93 \pm 5.64)E+01$	$(1.62 \pm 0.12)E+02$	$(0.94 \pm 3.75)E+00$
25-Mile Radius				
Olar, S.C.	8	$(5.61 \pm 3.76)E+01$	$(1.26 \pm 0.10)E+02$	$(2.03 \pm 0.57)E+01$
100-Mile Radius				
Columbia, S.C.	3	$(2.56 \pm 0.56)E+02$	$(3.21 \pm 0.15)E+02$	$(2.24 \pm 0.13)E+02$
Greenville, S.C.	1	$(2.08 \pm 0.14)E+02$		
Macon, Ga.	2	$(1.43 \pm 1.11)E+02$	$(2.22 \pm 0.17)E+02$	$(6.50 \pm 1.25)E+01$
Savannah, Ga.	7	$(1.12 \pm 1.13)E+02$	$(3.29 \pm 0.14)E+02$	$(3.29 \pm 3.83)E+00$
Gross Alpha		pCi/sq m per year^a	pCi/sq m	pCi/sq m
On Site				
H-Area	13	$(1.22 \pm 2.60)E+00$	$(6.57 \pm 5.34)E+00$	$(-2.25 \pm 1.77)E+00$
Site Perimeter				
Barnwell Gate	11	$(-3.81 \pm 6.00)E-01$	$(0.81 \pm 1.85)E+00$	$(-0.96 \pm 1.66)E+00$
Darkhorse @ Williston Gate	11	$(1.17 \pm 2.74)E+00$	$(6.43 \pm 4.92)E+00$	$(-1.92 \pm 1.36)E+00$
25-Mile Radius				
Olar, S.C.	8	$(2.13 \pm 3.25)E+00$	$(7.48 \pm 3.16)E+00$	$(-2.28 \pm 1.81)E+00$

^a The mean concentrations for gross beta and gross alpha have been normalized to pCi/sq m per year to allow comparison between concentrations collected at different intervals.

Table 17
Radioactivity in Rain Ion Columns

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
100-Mile Radius				
Columbia, S.C.	3	$(1.13 \pm 0.90)E+01$	$(2.17 \pm 0.78)E+01$	$(6.17 \pm 4.59)E+00$
Greenville, S.C.	1	$(3.58 \pm 4.56)E+00$		
Macon, Ga.	2	$(3.58 \pm 3.56)E+00$	$(6.09 \pm 4.43)E+00$	$(1.06 \pm 5.02)E+00$
Savannah, Ga.	7	$(2.40 \pm 6.34)E+00$	$(1.64 \pm 0.78)E+01$	$(-2.02 \pm 1.43)E+00$

Table 18
Thermoluminescent Dosimeter (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
<i>Note: Blank spaces indicate missing TLD results.</i>					
643-26E 1	0.29	0.3	0.34	0.33	114.33
643-26E 2	0.23	0.22	0.25	0.25	86.33
643-7G 1	0.27	0.25	0.29	0.29	100.19
643-7G 2	0.28	0.25	0.29	0.29	102.06
643-7G 3	0.32	0.32	0.36	0.36	123.87
643-7G 4	0.65	0.63	0.71	0.69	243.64
643-G 1	0.24	0.22	0.25	0.25	88.17
643-G 2	0.29	0.29	0.32	0.31	110.45
643-G 3	0.88	0.59	0.68	0.5	240.88
643-G 4	0.3	0.28	0.32	0.33	112.15
B 1	0.76	0.55	0.62		233.15
B 2	0.21	0.2	0.23	0.22	78.45
B 3	0.22	0.2	0.23	0.24	81.13
B 4	0.21	0.21	0.23	0.22	79.22
C 1	0.22	0.2	0.21	0.22	78.61
C 2	0.21	0.2	0.21	0.21	76.59
C 3	0.22	0.21	0.21	0.23	80.22
C 4	0.21	0.2	0.21	0.21	76.8
CY 1	0.21	0.19	0.2	0.21	75.54
CY 2	0.22	0.21	0.21	0.23	79.76
CY 3	0.23	0.23	0.23	0.24	86.21
CY 4	0.19	0.18	0.18	0.19	69.38
D 1	0.22	0.2	0.21	0.21	77.9
D 2	0.21	0.2	0.21	0.22	77.73
D 3	0.23	0.22	0.23	0.23	85.07
D 4	0.22	0.21	0.22	0.23	82.34

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location.

b An 18% uncertainty is associated with each result.

Table 18
Thermoluminescent Dosimeter (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
D 5	0.19	0.19	0.19	0.19	71.05
D 6	0.17	0.16	0.17	0.18	62.61
F 1	0.24	0.22	0.24	0.27	88.44
F 2	0.25	0.25	0.28	0.28	95.96
F 3	0.26	0.25	0.28	0.28	96.72
F 4	0.26	0.26	0.29	0.29	99.82
F 5	0.4	0.36	0.4	0.39	140.54
F 6	0.27	0.27	0.3	0.29	103.49
H 1	0.25	0.24	0.27	0.27	93.47
H 2	0.26	0.25	0.28	0.27	97.18
H 3	0.26	0.25	0.28	0.29	99.17
H 4	0.41	0.39	0.44	0.41	149.44
H 5	0.39	0.37	0.42	0.44	147.03
H 6	0.27	0.26	0.29	0.28	99.81
H 7	0.26	0.24	0.28		93.76
H 8	0.26	0.26	0.29	0.28	99.35
K 1	0.21	0.19	0.2	0.21	75.85
K 2	0.19	0.18	0.19	0.2	69.64
K 3	0.26	0.24	0.26	0.24	93.02
K 4	0.21	0.2	0.21	0.22	77.5
L 1	0.22	0.21	0.22	0.22	79.9
L 2	0.21	0.2	0.2	0.21	76.29
L 3	0.21	0.2	0.21	0.21	77.38
L 4	0.23	0.22	0.23	0.25	86.97
M 1	0.28	0.27	0.3	0.3	104.7
M 2	0.21	0.2	0.22	0.22	76.74
M 3	0.3	0.29	0.33	0.31	112.29
M 4	0.23	0.22	0.25	0.24	85.14
M 5	0.25	0.24	0.27	0.26	92.73

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location.

b An 18% uncertainty is associated with each result.

Table 18
Thermoluminescent Dosimeter (TLD) Results:
SRS Areas

Page 3 of 4

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
M 6	0.21	0.2	0.23	0.22	78.14
M 7	0.26	0.26	0.29	0.28	100.12
M 8	0.3	0.3	0.34	0.32	116.06
N 1	0.29	0.27	0.28	0.28	103.86
N 2	0.28	0.26	0.28	0.28	101.86
N 3	0.36	0.35	0.37	0.36	133.86
N 4	0.36	0.37	0.39	0.32	133.73
N 5	0.68	0.71	0.72	0.85	275.04
P 1	0.23	0.23	0.24	0.25	88
P 2	0.2	0.19	0.2	0.2	73.63
P 3	0.22	0.2	0.21	0.21	77.63
P 4	0.22	0.22	0.22	0.23	82.11
R 1	0.21	0.19	0.21	0.21	76.38
R 2	0.23	0.22	0.22	0.24	84.48
R 3	0.2	0.18	0.19	0.19	69.64
R 4	0.22	0.22	0.23	0.24	83.86
R 5	0.23	0.22	0.22	0.22	83.02
R 6	0.2	0.2	0.2	0.2	74.31
R 7	0.21	0.2	0.21	0.22	77.78
RR 1	0.24	0.24	0.27	0.27	92.61
RR 2	0.26	0.25	0.28	0.28	97.63
S 1	0.26	0.24	0.27	0.31	98.65
S 2	0.34	0.33	0.37	0.36	127.73
S 3	0.32	0.3	0.34	0.34	119.45
S 4	0.28	0.27	0.31	0.32	107.71
A 1	0.24	0.23	0.26	0.26	89.64
A 2	0.3	0.29	0.33	0.3	110.7

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location.

b An 18% uncertainty is associated with each result.

Table 18
Thermoluminescent Dosimeter (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
A 3	0.25	0.24	0.27		93.22
A 4	0.27	0.25	0.29	0.29	100.4
A 5	0.23	0.23	0.26		88.07
A 6	0.24	0.25	0.27		92.27
A 7	0.28	0.26	0.3	0.27	101.2
A 8	0.23	0.2	0.27	0.22	83.6
T 1	0.19	0.18	0.19	0.2	71.18
T 2	0.26	0.24	0.25	0.25	93.9
T 3	0.23	0.22	0.23	0.24	85.39
T 4	0.29	0.25	0.24	0.29	99.47
Z 1	0.21	0.21	0.23	0.23	79.8
Z 2	0.21	0.2	0.22	0.22	78.01
Z 3	0.2	0.2	0.22	0.22	75.78
Z 4	0.24	0.22	0.25	0.25	87.89

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location.

b An 18% uncertainty is associated with each result.

Table 19
Thermoluminescent Dosimeter (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
<i>Note: Blank spaces indicate missing TLD results.</i>					
1A	0.18	0.16	0.17	0.19	66.64
1B	0.19	0.17	0.19	0.21	70.9
1C	0.19	0.17	0.19	0.21	72.33
1D	0.17	0.15	0.16	0.2	65.02
2A	0.26	0.22	0.25	0.27	94.58
2B	0.2		0.2	0.23	79.33
2C	0.19	0.16	0.19	0.21	70.4
2D	0.17	0.15	0.17	0.2	65.49
3A	0.18	0.16	0.18	0.21	68.2
3B	0.17	0.16	0.18	0.2	66.21
3C	0.18	0.16	0.18	0.21	67.8
3D		0.2	0.22	0.24	81.85
4A	0.21	0.19	0.21	0.23	79.16
4B	0.18	0.16	0.18	0.2	68.14
4C	0.19	0.17	0.18	0.2	69.92
4D	0.18	0.16	0.18	0.2	68.28
5A	0.22	0.2	0.22	0.24	82.45
5B	0.2	0.18	0.2	0.22	76.36
5C	0.22	0.19	0.22	0.24	82.74
5D	0.27	0.24	0.27	0.3	101.93
6A	0.26	0.24	0.27	0.29	100.04
6B	0.28	0.25	0.27	0.3	103.84
6C	0.23	0.2	0.22	0.24	84.29
6D	0.17	0.16	0.17	0.2	65.67
7A	0.22	0.19	0.22	0.24	82.69
7B	0.23	0.21	0.24	0.27	89.41

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location.

b An 18% uncertainty is associated with each result.

Table 19
Thermoluminescent Dosimeter (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
7C	0.2	0.18	0.21	0.23	77
7D	0.21	0.18	0.2	0.23	77.91
8A	0.19	0.17	0.19	0.22	73.87
8B	0.22	0.19	0.22	0.25	82.38
8C	0.21	0.19	0.22	0.24	81.36
8D	0.2	0.18	0.19	0.21	74.12
9A	0.21	0.19	0.21	0.23	79.18
9B	0.18	0.17	0.18	0.21	69.78
9C	0.18	0.16	0.18	0.2	68.31
9D	0.15	0.14	0.15	0.16	56.84
10	0.16	0.15	0.16	0.19	63.4
11	0.18			0.2	70.92
12	0.18		0.18	0.21	72.95
13	0.18	0.17	0.18	0.2	68.24
14	0.2	0.18	0.2	0.22	75.36
15	0.19	0.18	0.2	0.22	75.3
16	0.22	0.21		0.25	85.62
17	0.25	0.21	0.24	0.25	90.07
18	0.21	0.19	0.18	0.22	76.51
19	0.19	0.17	0.19	0.23	73.96
20	0.25	0.25	0.26	0.29	98.64
21	0.16	0.16	0.18	0.19	64.63
22	0.17	0.18	0.18	0.21	69.31
23	0.19	0.19	0.2	0.23	75.34
24	0.17	0.17	0.18	0.2	66.7
25	0.16	0.16	0.17	0.2	63.73
26	0.17	0.15	0.17	0.19	63.44
27	0.18	0.18	0.19	0.2	70.67

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location.

b An 18% uncertainty is associated with each result.

Table 19
Thermoluminescent Dosimeter (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
28	0.17	0.17	0.19	0.21	69.41
29	0.15	0.15	0.16	0.18	60.01
30	0.18	0.18	0.19	0.23	73.01
31	0.15	0.16	0.17	0.19	63.57
32	0.18	0.18	0.19	0.21	70.37
33	0.17	0.18	0.19	0.21	70.61
34	0.17	0.18	0.19	0.21	70.44
35	0.16	0.16	0.18	0.19	64.85
36	0.19	0.2	0.2	0.22	76.34
37	0.18	0.19	0.2	0.22	77.07
38	0.2	0.18	0.23	0.24	81.77
39	0.19	0.19	0.2	0.21	75.96
40	0.17	0.18	0.18	0.18	68.71
41	0.18	0.17	0.18	0.19	68.34
42	0.19	0.19	0.2		75.12
43	0.22	0.22	0.23	0.25	89.07
44	0.17	0.18	0.19	0.2	70.7
45	0.18	0.18	0.18	0.2	71.91
46	0.19	0.19	0.2	0.21	76.01
47	0.19	0.19	0.2	0.21	75.57
48	0.19	0.19	0.19	0.2	72.99
49	0.27	0.27	0.28	0.29	106.28
50	0.18	0.17	0.18	0.19	68.51
51	0.18	0.18	0.19	0.2	71.29
52	0.19	0.19			73.29
53	0.17	0.17	0.17	0.19	67.46
54	0.16	0.16	0.16	0.17	61.42
55	0.16	0.15	0.16	0.17	61.17

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location.

b An 18% uncertainty is associated with each result.

Table 19
Thermoluminescent Dosimeter (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
56	0.16	0.15	0.16	0.17	61.11
57A	0.16	0.16	0.16		49.72
57B	0.17	0.17	0.19	0.19	68.54
57C	0.16	0.17		0.19	66.13
57D	0.18	0.17	0.18	0.19	69.54
58A	0.22	0.21	0.22	0.23	84.57
58B	0.18	0.18	0.18	0.2	70.87
58C	0.17	0.18	0.18	0.19	68.73
58D	0.19	0.18	0.2	0.21	74.57
59A	0.17	0.17	0.18	0.18	67.22
59B	0.18	0.18	0.19	0.2	71.4
59C	0.21	0.22	0.22	0.25	86.44
59D	0.19	0.16	0.18	0.17	66.08
60A	0.21	0.2	0.22	0.21	82.36
60B	0.18	0.18	0.19	0.17	69.78
60C	0.17	0.17	0.18	0.17	68.45
60D	0.17	0.16	0.18	0.17	66.4
61A	0.18	0.17	0.19	0.18	70.6
61B	0.19	0.18	0.2	0.19	74.41
61C	0.17	0.17	0.19	0.18	68.82
61D	0.19	0.19	0.2	0.19	75.36
62A	0.17	0.17	0.2	0.19	71.47
62B	0.17	0.17	0.19	0.18	68.16
62C	0.2	0.19	0.21	0.2	77.58
62D	0.19	0.23	0.24	0.24	88.97
63A	0.17	0.18	0.19	0.19	69.61
63B	0.18	0.18	0.19	0.18	69.22
63C	0.17	0.18	0.19	0.19	71.13

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location.

b An 18% uncertainty is associated with each result.

Table 19
Thermoluminescent Dosimeter (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
63D	0.16	0.17	0.18	0.17	64.82
64A	0.16	0.18	0.18	0.17	67.64
64B	0.16	0.16	0.17	0.16	63.21
64C	0.17	0.17	0.18	0.18	67.47
64D	0.16	0.17	0.18	0.17	64.67
65A	0.18	0.19	0.2	0.2	74.6
65B	0.21	0.23	0.23	0.23	86.88
65C	0.25	0.26	0.26	0.26	98.79
65D	0.2	0.22	0.24	0.22	84.85
66A	0.24	0.25	0.26	0.26	96.92
66B	0.24	0.25	0.28	0.27	100.28
66C	0.19	0.2	0.2	0.2	76.83
66D	0.21	0.22	0.23	0.22	83.82
67A	0.18	0.19	0.21	0.19	73.65
67B	0.2	0.21	0.22	0.21	80.93
67C	0.2	0.2	0.22	0.21	79.15
67D	0.16	0.17	0.18	0.17	65.17
68A	0.16	0.17	0.18	0.17	65.72
68B	0.16	0.16	0.18	0.17	65.38
68C	0.19	0.2	0.2	0.21	76.5
68D	0.21	0.21	0.23	0.23	84.16
69A	0.22	0.23	0.24	0.25	90.55
69B	0.16	0.17	0.18	0.17	65.23
69C	0.17	0.18	0.19	0.18	68.68
69D	0.2	0.2	0.21	0.2	77.46
70A	0.19	0.19	0.21	0.2	75.37
70B	0.16	0.16	0.18	0.16	63.25
70C	0.17	0.18	0.19	0.18	70.48

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location.

b An 18% uncertainty is associated with each result.

Table 19
Thermoluminescent Dosimeter (TLD) Results:
Site Perimeter Stations

Page 6 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
70D	0.19	0.2	0.22	0.21	79.36
71A	0.18	0.18	0.21	0.18	71.98
71B	0.2	0.21	0.22	0.21	80.55
71C	0.19	0.2	0.21	0.2	75.85
71D	0.2	0.21	0.22	0.21	80.48
72A	0.19	0.19	0.21	0.2	76.88
72B	0.18	0.18	0.21	0.19	72.81
72C	0.18	0.19	0.19	0.18	72.07
72D	0.18	0.18	0.19	0.18	70.72
73A	0.16	0.16	0.18	0.17	65.49
73B	0.17	0.18	0.19	0.19	70.04
73C	0.17	0.19	0.19	0.18	70.04
73D	0.17	0.17	0.19	0.17	67.7
74A	0.16	0.18	0.18	0.17	66.15
74B	0.15	0.16	0.17	0.16	61.36
74C	0.15	0.16	0.16	0.15	61.08
74D	0.16	0.17	0.19	0.17	65.99
75A	0.16	0.16	0.17	0.16	62.28
75B	0.17	0.17	0.19	0.18	67.82
75C	0.15	0.15	0.17		59.58
75D	0.17	0.16	0.18	0.15	63.52
76A	0.17	0.18	0.18	0.17	67.82
76B	0.15	0.18	0.19	0.18	67.19
76C	0.16	0.18	0.18	0.17	66.67
76D	0.16	0.17	0.18	0.17	66.81
77	0.17	0.18	0.19	0.18	70.6
78	0.18	0.18	0.2	0.19	71.78
79A	0.18	0.2	0.21	0.2	75.5
79B	0.18	0.19	0.21	0.19	73.91

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location.

b An 18% uncertainty is associated with each result.

Table 19
Thermoluminescent Dosimeter (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
79C	0.2	0.21	0.22	0.21	81.19
79D	0.16	0.16	0.17	0.17	63.25
AG 1	0.17	0.19			70.16
AG 2	0.15	0.15	0.16	0.17	60.42
AG 3	0.16	0.17	0.17	0.17	66.54
AG 4	0.14	0.15	0.15	0.17	59.44
PH RD 1	0.2	0.22	0.24	0.23	85.54
PH RD 2	0.2	0.21	0.23	0.23	83.57
PH RD 3	0.16	0.16	0.17	0.16	62.1
PH RD 4	0.16	0.17	0.18	0.17	65.05
PH RD 5	0.24	0.24	0.27	0.26	96.98
PH RD 6	0.2	0.21	0.22	0.21	81.03

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location.

b An 18% uncertainty is associated with each result.

Table 20
Thermoluminescent Dosimeter (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
<i>Note: Blank spaces indicate missing TLD results. Program modifications implemented in mid-1995 resulted in the elimination of 65 locations. Fourth quarter and annual exposures are not presented for these locations.</i>					
Columbia 1	0.26	0.26			
Columbia 2	0.22	0.2			
Hwy 301	0.21	0.19	0.22	0.28	83.22
Augusta	0.23		0.14	0.25	77.01
Langley	0.25	0.26	0.24		
Perkins	0.19	0.19	0.16		
S. Richmond	0.26	0.27	0.24		
Waynesboro	0.24	0.21	0.17		
Greenville 1	0.31	0.3			
Greenville 2	0.24	0.27			
Macon 1	0.26	0.29			
Macon 2	0.21	0.19			
Hwy 39	0.21	0.21	0.21	0.2	76.49
A-Area	0.25	0.25	0.26	0.25	93.22
BG North	0.35	0.33	0.34	0.34	124.75
BG South	0.24	0.24	0.24	0.28	93.99
Dark Horse	0.2	0.2	0.21	0.21	76.28
East Talatha	0.19	0.2	0.19	0.19	70.19
F-Area	0.3	0.3	0.29	0.34	113.88
H-Area	0.3	0.31	0.26	0.32	110.33
Aiken Gate	0.23	0.23	0.23	0.23	84.79
Windsor Rd.	0.18	0.16	0.16	0.19	64.21
Hwy 21/167	0.25	0.27	0.27	0.26	98.81
Rd A-14	0.19	0.2	0.19	0.19	71.51
Allendale Gate	0.16	0.16	0.16	0.17	59.68
Barnwell Gate	0.21	0.21	0.21	0.22	78.41

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location.

b An 18% uncertainty is associated with each result.

Table 20
Thermoluminescent Dosimeter (TLD) Results:
Environmental Surveillance (Air Monitoring) Stations

Page 2 of 2

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

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
D-Area	0.2	0.2	0.2	0.21	75.77
Green Pond	0.19	0.19	0.2	0.18	70.76
Jackson	0.21	0.22	0.22	0.22	81.23
Patterson Mill Road	0.18	0.18	0.18	0.19	67.76
West Jackson	0.24	0.25	0.25	0.25	92.64
Savannah 1	0.17	0.16	0.16	0.16	61.56
Savannah 2	0.15	0.15	0.14	0.17	57.54
Aiken Airport	0.21	0.21			77.13
Allendale					
Aiken State Park	0.17	0.16	0.14		
Lees	0.18	0.17	0.15		
Olar	0.18	0.15	0.16		
Springfield			0.21		

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location.

b An 18% uncertainty is associated with each result.

Table 21
Thermoluminescent Dosimeter (TLD) Results:
Population Centers

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

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
<i>Note: Blank spaces indicate missing TLD results. Program modifications implemented in mid-1995 resulted in the elimination of 65 locations. Fourth quarter and annual exposures are not presented for these locations.</i>					
Barnwell	0.26	0.26	0.26	0.27	90.45
Beech Island	0.27	0.26	0.26	0.25	90.58
Graniteville		0.21	0.21		
Jackson	0.22	0.21	0.21	0.21	73.75
Martin	0.17	0.15	0.15	0.15	53.82
North Augusta	0.33	0.3	0.31		
Williston	0.29	0.27	0.27	0.24	92.92
Windsor	0.16	0.15	0.14	0.17	52.61
Aiken 1	0.24	0.22	0.22		
Aiken 2	0.26	0.23	0.25		
Allendale					
Blackville			0.24		
Couchton	0.23		0.25		
New Ellenton	0.26	0.23	0.24	0.27	83.75
Olar	0.29	0.27	0.27		
Springfield		0.23	0.25		
Wagener	0.2	0.17	0.22		
Alexander	0.18		0.18		
Augusta 1	0.27	0.26	0.27		
Augusta 2	0.28	0.29	0.29		
Augusta 3	0.3	0.29	0.31		
Augusta 4	0.22	0.22	0.22		
Augusta 5	0.3	0.3	0.3		
Augusta 7	0.23	0.22	0.24		
Augusta 8	0.27	0.26	0.27		
Girard	0.28	0.26	0.28		100.16

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location.

b An 18% uncertainty is associated with each result.

Table 21
Thermoluminescent Dosimeter (TLD) Results:
Population Centers

Page 2 of 3

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
Hephzibah	0.19	0.18	0.19		
McBean	0.28	0.26	0.28		99.45
Sardis	0.22		0.23		
Waynesboro	0.18	0.17	0.19		
Batesburg		0.34	0.31		
Edgefield	0.26	0.3	0.26		
Johnston	0.3	0.34	0.31		
Lincolnton	0.28		0.27		
McCormick	0.24	0.28	0.25		
Saluda		0.41	0.41		
Thompson	0.29	0.3	0.33		
Estill	0.28	0.31	0.26		
Hampton	0.3		0.26		
North	0.29	0.3	0.28		
Orangeburg	0.33	0.35	0.29		
Smoaks	0.23	0.26	0.2		
St. Matthews	0.32	0.32	0.3		
Swansea	0.26	0.27	0.33		
Louisville	0.33	0.35	0.32		
Millen	0.24	0.27	0.23		
Newington	0.28	0.31	0.26		
Statesboro		0.28	0.22		
Sylvania	0.28	0.26	0.23		
Wadley	0.3	0.24	0.3		
Wrens	0.21				
Columbia 1	0.34	0.29	0.27		
Columbia 2	0.34	0.31	0.29		
Columbia 3	0.37	0.34	0.3		
Columbia 4	0.32	0.27	0.26		

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location.

b An 18% uncertainty is associated with each result

Table 21
Thermoluminescent Dosimeter (TLD) Results:
Population Centers

Page 3 of 3

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
Columbia 5	0.3	0.27	0.26		
Columbia 6	0.35	0.31	0.29		
Columbia 7	0.35	0.31	0.31		
Columbia 8	0.34	0.31	0.3		
Columbia 9	0.31	0.27	0.26		
Lexington	0.27	0.23	0.21		
West Columbia	0.32	0.31	0.29		

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location.

b An 18% uncertainty is associated with each result.

Table 22
Thermoluminescent Dosimeter (TLD) Results:
Vogtle Electric Generating Plant Vicinity

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

Location	Quarter 1 ^b	Quarter 2 ^b	Quarter 3 ^b	Quarter 4 ^b	mR/Year ^b
NRC 1	0.21	0.2	0.2		74.9
NRC 2	0.16	0.16	0.13	0.19	60.2
NRC 3	0.16	0.16	0.14	0.19	60.82
NRC 4	0.17	0.18	0.15	0.21	66.58
NRC 5	0.23	0.24	0.22	0.28	89.76
NRC 6	0.19	0.19	0.16	0.22	69.82
NRC 7	0.17	0.17	0.15	0.2	64.63
NRC 8	0.18	0.15	0.13	0.19	61.05
GP 1 H	0.17	0.17	0.15	0.16	60.58
GP 1 L	0.18	0.17	0.15	0.15	60.37
GP 2 H	0.18	0.19	0.17	0.17	66.56
GP 2 L	0.19	0.2	0.18	0.16	67.16
GP 3 H	0.2	0.2	0.18	0.17	69.43
GP 3 L	0.19	0.19	0.17	0.17	66.48
GP 4 H	0.18	0.18	0.17	0.16	64.04
GP 4 L	0.18	0.18	0.17	0.16	63.83
GP 5 H	0.18	0.19	0.16	0.15	62.97
GP 5 L	0.18	0.15	0.13	0.14	55.78

a mR = milliRoentgen, exposure unit for gamma radiation. One mR is approximately equal to 1 mrem. Although the TLD is an integrating device, the derived unit mR/day is used to facilitate data comparison between locations or through time at a single location.

b An 18% uncertainty is associated with each result.

Table 23
Radioactivity in Seepage Basin Water

Page 1 of 2

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, $\mu\text{Ci/mL}$				
CSB-1 C-Area seepage basin	3	$(3.76 \pm 4.62)\text{E-06}$	$(8.51 \pm 3.02)\text{E-06}$	$(-0.72 \pm 1.71)\text{E-06}$
EAV basin north (E-004)	12	$(1.06 \pm 1.29)\text{E-05}$	$(5.01 \pm 0.05)\text{E-05}$	$(2.38 \pm 0.33)\text{E-06}$
EAV basin south (E-003)	1	$(5.63 \pm 0.48)\text{E-06}$		
LSB-1 L-Area seepage basin	4	$(-0.28 \pm 3.45)\text{E-06}$	$(3.64 \pm 3.91)\text{E-06}$	$(-4.71 \pm 2.79)\text{E-06}$
PSB-1 P-Area seepage basin	2	$(-0.25 \pm 1.63)\text{E-05}$	$(0.90 \pm 5.98)\text{E-05}$	$(-1.40 \pm 6.88)\text{E-05}$
SWDF basin south (E-001)	12	$(2.63 \pm 1.94)\text{E-05}$	$(5.65 \pm 0.11)\text{E-05}$	$(7.82 \pm 0.30)\text{E-06}$
TNX-SB seepage basin	1	$(1.81 \pm 0.39)\text{E-06}$		
Co-60, $\mu\text{Ci/mL}$				
CSB-1 C-Area seepage basin	1	$(1.42 \pm 0.16)\text{E-08}$		
Cs-137, $\mu\text{Ci/mL}$				
CSB-1 C-Area seepage basin	3	$(2.03 \pm 0.82)\text{E-08}$	$(2.93 \pm 0.30)\text{E-08}$	$(1.32 \pm 0.35)\text{E-08}$
PSB-1 P-Area seepage basin	2	$(4.13 \pm 2.39)\text{E-08}$	$(5.82 \pm 0.35)\text{E-08}$	$(2.44 \pm 0.27)\text{E-08}$
U-234, $\mu\text{Ci/mL}$				
TNX-SB seepage basin	1	$(8.21 \pm 1.85)\text{E-10}$		
U-235, $\mu\text{Ci/mL}$				
TNX-SB seepage basin	1	$(5.03 \pm 5.07)\text{E-11}$		
U-238, $\mu\text{Ci/mL}$				
TNX-SB seepage basin	1	$(8.61 \pm 1.88)\text{E-10}$		
Pu-238, $\mu\text{Ci/mL}$				
TNX-SB seepage basin	1	$(4.05 \pm 1.78)\text{E-10}$		
Sr-89,90, $\mu\text{Ci/mL}$				
LSB-1 L-Area seepage basin	4	$(2.61 \pm 1.19)\text{E-08}$	$(3.55 \pm 1.90)\text{E-08}$	$(1.05 \pm 1.86)\text{E-08}$
Gross Beta, $\mu\text{Ci/mL}$				
CSB-1 C-Area seepage basin	3	$(4.97 \pm 4.18)\text{E-08}$	$(9.80 \pm 0.85)\text{E-08}$	$(2.50 \pm 0.46)\text{E-08}$
EAV basin north (E-004)	12	$(4.91 \pm 1.94)\text{E-09}$	$(9.65 \pm 1.20)\text{E-09}$	$(2.59 \pm 0.74)\text{E-09}$
EAV basin south (E-003)	1	$(4.22 \pm 0.51)\text{E-09}$		
LSB-1 L-Area seepage basin	4	$(7.98 \pm 3.68)\text{E-09}$	$(1.10 \pm 0.48)\text{E-08}$	$(2.68 \pm 3.49)\text{E-09}$

Table 23
Radioactivity in Seepage Basin Water

Page 2 of 2

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
PSB-1 P-Area seepage basin	2	$(2.98 \pm 0.82)E-08$	$(3.56 \pm 0.60)E-08$	$(2.40 \pm 0.45)E-08$
SWDF basin south (E-001)	12	$(6.43 \pm 2.06)E-09$	$(9.01 \pm 1.17)E-09$	$(3.33 \pm 0.79)E-09$
TNX-SB seepage basin	1	$(-3.74 \pm 7.16)E-09$		
Gross Alpha, $\mu\text{Ci/mL}$				
CSB-1 C-Area seepage basin	3	$(-1.98 \pm 6.40)E-10$	$(0.52 \pm 1.16)E-09$	$(-0.71 \pm 1.65)E-09$
EAV basin north (E-004)	12	$(1.26 \pm 0.77)E-09$	$(2.76 \pm 1.14)E-09$	$(1.46 \pm 5.16)E-10$
EAV basin south (E-003)	1	$(5.98 \pm 3.24)E-10$		
LSB-1 L-Area seepage basin	4	$(-3.83 \pm 8.92)E-10$	$(0.56 \pm 1.14)E-09$	$(-1.57 \pm 1.26)E-09$
PSB-1 P-Area seepage basin	2	$(0.42 \pm 1.39)E-09$	$(1.40 \pm 1.39)E-09$	$(-0.56 \pm 1.65)E-09$
SWDF basin south (E-001)	12	$(1.73 \pm 1.17)E-09$	$(4.28 \pm 1.18)E-09$	$(1.22 \pm 4.68)E-10$
TNX-SB seepage basin	1	$(-0.99 \pm 3.53)E-09$		

Table 24
Radioactivity in Savannah River Site Stream Water

Page 1 of 7

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	$(9.66 \pm 3.41)\text{E-07}$	$(1.70 \pm 0.40)\text{E-06}$	$(3.77 \pm 4.04)\text{E-07}$
Upper Three Runs				
Crouch Branch at Road 4	26	$(1.83 \pm 0.53)\text{E-05}$	$(3.13 \pm 0.08)\text{E-05}$	$(1.11 \pm 0.03)\text{E-05}$
U3R-1A Treadway Bridge Road 8-1	52	$(5.08 \pm 3.45)\text{E-07}$	$(1.12 \pm 0.38)\text{E-06}$	$(-1.66 \pm 3.99)\text{E-07}$
U3R-3 at Road C	26	$(2.24 \pm 2.38)\text{E-06}$	$(1.34 \pm 0.06)\text{E-05}$	$(6.92 \pm 3.68)\text{E-07}$
U3R-4 at Road A	24	$(2.21 \pm 1.57)\text{E-06}$	$(8.74 \pm 0.36)\text{E-06}$	$(1.01 \pm 0.37)\text{E-06}$
Four Mile Creek				
Caster Creek - southeast of C-Area	52	$(3.82 \pm 0.43)\text{E-06}$	$(4.95 \pm 0.44)\text{E-06}$	$(2.85 \pm 0.41)\text{E-06}$
FM-2 at Road 4	25	$(2.26 \pm 1.06)\text{E-05}$	$(4.46 \pm 0.10)\text{E-05}$	$(6.97 \pm 0.49)\text{E-06}$
FM-2B above F-Area effluent	26	$(8.80 \pm 1.67)\text{E-05}$	$(1.21 \pm 0.06)\text{E-04}$	$(5.76 \pm 0.46)\text{E-05}$
FM-3A below F-Area effluent	26	$(1.85 \pm 0.37)\text{E-03}$	$(2.63 \pm 0.02)\text{E-03}$	$(1.11 \pm 0.02)\text{E-03}$
FM-6 at Road A-12.2	26	$(2.28 \pm 0.33)\text{E-04}$	$(2.98 \pm 0.03)\text{E-04}$	$(1.58 \pm 0.02)\text{E-04}$
FM-A7 at Road A-7	26	$(4.55 \pm 1.38)\text{E-04}$	$(6.95 \pm 0.12)\text{E-04}$	$(5.66 \pm 0.10)\text{E-05}$
H-008 Outfall	53	$(2.17 \pm 1.59)\text{E-06}$	$(9.12 \pm 0.44)\text{E-06}$	$(-1.21 \pm 0.21)\text{E-08}$
HP-50 Tritium Facility Outfall	26	$(1.73 \pm 2.02)\text{E-05}$	$(9.00 \pm 0.14)\text{E-05}$	$(9.10 \pm 3.60)\text{E-07}$
Twin Lakes - West of C-Area	53	$(1.40 \pm 0.24)\text{E-05}$	$(1.73 \pm 0.05)\text{E-05}$	$(0.13 \pm 1.72)\text{E-09}$
Pen Branch				
IGB-21 800 feet south of Road 6-1	53	$(8.23 \pm 1.88)\text{E-04}$	$(1.21 \pm 0.02)\text{E-03}$	$(4.23 \pm 0.08)\text{E-04}$
K-011 Outfall at Road B	54	$(5.07 \pm 0.98)\text{E-05}$	$(6.99 \pm 0.11)\text{E-05}$	$(5.50 \pm 0.25)\text{E-06}$
PB-3 at Road A-13.2	26	$(6.89 \pm 1.33)\text{E-05}$	$(8.53 \pm 0.07)\text{E-05}$	$(3.57 \pm 0.09)\text{E-05}$
Steel Creek				
SC-2A 1 mile above Road B	26	$(9.82 \pm 4.38)\text{E-05}$	$(1.97 \pm 0.02)\text{E-04}$	$(1.14 \pm 0.05)\text{E-05}$
Road A	26	$(6.97 \pm 0.93)\text{E-06}$	$(8.79 \pm 0.51)\text{E-06}$	$(5.05 \pm 0.42)\text{E-06}$
Lower Three Runs Creek				
L3R-1A at Road B	26	$(8.84 \pm 3.73)\text{E-07}$	$(1.55 \pm 0.37)\text{E-06}$	$(1.46 \pm 3.67)\text{E-07}$
L3R-2 Patterson Mill Road	25	$(9.88 \pm 3.47)\text{E-07}$	$(1.83 \pm 0.40)\text{E-06}$	$(3.10 \pm 3.57)\text{E-07}$

Table 24
Radioactivity in Savannah River Site Stream Water

Page 2 of 7

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
L3R-3 at Highway 125	12	(6.53 $\pm$ 4.11)E-07	(1.14 $\pm$ 0.36)E-06	(-2.38 $\pm$ 3.70)E-07
R-Area downstream of R-1	54	(6.29 $\pm$ 9.10)E-06	(4.37 $\pm$ 0.09)E-05	(1.17 $\pm$ 0.36)E-06
Co-60, μCi/mL				
Upper Three Runs				
U3R-4 at Road A	1	(0.78 $\pm$ 2.57)E-09		
Pen Branch				
K-011 Outfall at Road B	1	(4.57 $\pm$ 1.65)E-09		
Lower Three Runs Creek				
L3R-2 Patterson Mill Road	1	(2.00 $\pm$ 1.88)E-09		
R-Area downstream of R-1	1	(1.31 $\pm$ 1.92)E-09		
Cs-137, μCi/mL				
Four Mile Creek				
FM-2 at Road 4	5	(1.32 $\pm$ 0.83)E-08	(2.79 $\pm$ 0.28)E-08	(7.98 $\pm$ 2.85)E-09
FM-2B above F-Area effluent	12	(1.08 $\pm$ 0.29)E-08	(1.43 $\pm$ 0.23)E-08	(5.46 $\pm$ 1.35)E-09
FM-3A below F-Area effluent	6	(1.13 $\pm$ 0.50)E-08	(1.65 $\pm$ 0.21)E-08	(2.90 $\pm$ 1.07)E-09
FM-6 at Road A-12.2	2	(4.89 $\pm$ 0.90)E-09	(5.52 $\pm$ 2.02)E-09	(4.25 $\pm$ 1.30)E-09
FM-A7 at Road A-7	6	(1.03 $\pm$ 0.54)E-08	(1.87 $\pm$ 0.57)E-08	(3.33 $\pm$ 1.12)E-09
H-008 Outfall	6	(7.63 $\pm$ 1.99)E-09	(1.03 $\pm$ 0.22)E-08	(4.90 $\pm$ 1.25)E-09
Pen Branch				
K-011 Outfall at Road B	1	(0.54 $\pm$ 1.49)E-09		
Steel Creek				
Road B	7	(9.32 $\pm$ 2.29)E-09	(1.42 $\pm$ 0.42)E-08	(7.02 $\pm$ 2.45)E-09
Lower Three Runs Creek				
L3R-2 Patterson Mill Road	1	(0.81 $\pm$ 2.16)E-09		
R-Area downstream of R-1	18	(1.17 $\pm$ 0.52)E-08	(2.43 $\pm$ 0.39)E-08	(5.28 $\pm$ 1.94)E-09
U-234, μCi/mL				
Upper Three Runs				
U3R-4 at Road A	12	(5.71 $\pm$ 2.81)E-11	(1.16 $\pm$ 0.16)E-10	(2.65 $\pm$ 1.02)E-11
Four Mile Creek				
FM-6 at Road A-12.2	14	(3.75 $\pm$ 2.23)E-11	(7.39 $\pm$ 1.36)E-11	(3.53 $\pm$ 6.41)E-12
Pen Branch				
PB-3 at Road A-13.2	14	(1.73 $\pm$ 1.44)E-11	(5.16 $\pm$ 1.06)E-11	(-4.13 $\pm$ 5.45)E-12

Table 24
Radioactivity in Savannah River Site Stream Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Lower Three Runs Creek				
L3R-2(weekly grab)	26	$(1.95 \pm 1.40)E-11$	$(5.53 \pm 1.23)E-11$	$(-8.84 \pm 6.19)E-12$
L3R-2 Patterson Mill Road	13	$(1.75 \pm 1.38)E-11$	$(3.97 \pm 1.03)E-11$	$(-7.29 \pm 5.43)E-12$
U-235, $\mu\text{Ci/mL}$				
Upper Three Runs				
U3R-4 at Road A	12	$(6.62 \pm 6.39)E-12$	$(2.04 \pm 0.84)E-11$	$(-3.04 \pm 4.50)E-12$
Four Mile Creek				
FM-6 at Road A-12.2	14	$(3.47 \pm 5.55)E-12$	$(1.38 \pm 0.62)E-11$	$(-6.18 \pm 2.81)E-12$
Pen Branch				
PB-3 at Road A-13.2	14	$(2.91 \pm 7.06)E-12$	$(1.24 \pm 0.80)E-11$	$(-8.95 \pm 0.41)E-12$
Lower Three Runs Creek				
L3R-2(weekly grab)	26	$(1.39 \pm 6.38)E-12$	$(1.38 \pm 0.94)E-11$	$(-1.12 \pm 0.04)E-11$
L3R-2 Patterson Mill Road	13	$(0.97 \pm 5.14)E-12$	$(7.87 \pm 5.33)E-12$	$(-9.79 \pm 2.44)E-12$
U-238, $\mu\text{Ci/mL}$				
Upper Three Runs				
U3R-4 at Road A	12	$(6.91 \pm 3.40)E-11$	$(1.31 \pm 0.18)E-10$	$(1.74 \pm 0.94)E-11$
Four Mile Creek				
FM-6 at Road A-12.2	14	$(4.51 \pm 1.85)E-11$	$(7.87 \pm 1.64)E-11$	$(0.43 \pm 1.04)E-11$
Pen Branch				
PB-3 at Road A-13.2	14	$(1.78 \pm 1.79)E-11$	$(5.56 \pm 1.09)E-11$	$(-8.40 \pm 8.04)E-12$
Lower Three Runs Creek				
L3R-2(weekly grab)	26	$(1.90 \pm 1.34)E-11$	$(4.18 \pm 1.07)E-11$	$(-1.30 \pm 0.55)E-11$
L3R-2 Patterson Mill Road	13	$(1.76 \pm 1.35)E-11$	$(3.52 \pm 0.91)E-11$	$(-1.68 \pm 0.48)E-11$
Pu-238, $\mu\text{Ci/mL}$				
Upper Three Runs				
U3R-4 at Road A	10	$(-0.64 \pm 2.13)E-09$	$(1.47 \pm 0.20)E-10$	$(-6.70 \pm 2.99)E-09$
Four Mile Creek				
FM-6 at Road A-12.2	13	$(1.95 \pm 2.48)E-11$	$(8.52 \pm 1.33)E-11$	$(-5.90 \pm 3.97)E-12$
Pen Branch				
PB-3 at Road A-13.2	12	$(0.47 \pm 5.11)E-11$	$(6.00 \pm 1.29)E-11$	$(-1.46 \pm 0.71)E-10$
Lower Three Runs Creek				
L3R-2(weekly grab)	24	$(-0.69 \pm 3.45)E-10$	$(5.73 \pm 1.03)E-11$	$(-1.63 \pm 0.82)E-09$
L3R-2 Patterson Mill Road	11	$(2.08 \pm 2.25)E-11$	$(6.63 \pm 1.48)E-11$	$(-7.84 \pm 2.64)E-12$

Table 24
Radioactivity in Savannah River Site Stream Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Pu-239, $\mu\text{Ci/mL}$				
Upper Three Runs				
U3R-4 at Road A	10	$(1.95 \pm 7.62)\text{E-11}$	$(2.31 \pm 3.89)\text{E-10}$	$(-4.95 \pm 0.36)\text{E-11}$
Four Mile Creek				
FM-6 at Road A-12.2	13	$(-0.10 \pm 1.62)\text{E-11}$	$(3.08 \pm 0.87)\text{E-11}$	$(-4.64 \pm 0.47)\text{E-11}$
Pen Branch				
PB-3 at Road A-13.2	11	$(-0.48 \pm 1.54)\text{E-11}$	$(2.79 \pm 2.31)\text{E-12}$	$(-5.08 \pm 0.27)\text{E-11}$
Lower Three Runs Creek				
L3R-2(weekly grab)	23	$(-0.51 \pm 1.90)\text{E-10}$	$(3.02 \pm 0.82)\text{E-11}$	$(-8.14 \pm 5.76)\text{E-10}$
L3R-2 Patterson Mill Road	10	$(-0.41 \pm 1.60)\text{E-11}$	$(5.24 \pm 4.68)\text{E-12}$	$(-4.93 \pm 0.36)\text{E-11}$
Sr-89,90, $\mu\text{Ci/mL}$				
Upper Three Runs				
Crouch Branch at Road 4	12	$(6.69 \pm 9.47)\text{E-10}$	$(2.32 \pm 0.37)\text{E-09}$	$(-2.87 \pm 4.25)\text{E-10}$
U3R-3 at Road C	12	$(7.10 \pm 9.22)\text{E-10}$	$(2.72 \pm 0.50)\text{E-09}$	$(-1.82 \pm 2.89)\text{E-10}$
Four Mile Creek				
FM-2 at Road 4	12	$(2.57 \pm 1.18)\text{E-09}$	$(5.89 \pm 0.58)\text{E-09}$	$(1.61 \pm 0.34)\text{E-09}$
FM-2B above F-Area effluent	12	$(6.35 \pm 1.47)\text{E-09}$	$(9.26 \pm 0.83)\text{E-09}$	$(4.29 \pm 0.50)\text{E-09}$
FM-3A below F-Area effluent	12	$(2.34 \pm 2.77)\text{E-09}$	$(9.75 \pm 0.95)\text{E-09}$	$(3.33 \pm 8.94)\text{E-10}$
FM-6 at Road A-12.2	12	$(4.23 \pm 0.81)\text{E-09}$	$(5.52 \pm 0.63)\text{E-09}$	$(2.12 \pm 0.24)\text{E-09}$
FM-A7 at Road A-7	12	$(8.90 \pm 1.26)\text{E-09}$	$(1.15 \pm 0.10)\text{E-08}$	$(6.80 \pm 0.75)\text{E-09}$
H-008 Outfall	12	$(5.56 \pm 6.04)\text{E-10}$	$(1.98 \pm 0.42)\text{E-09}$	$(-0.59 \pm 4.11)\text{E-10}$
Pen Branch				
IGB-21 800 feet south of Road 6-1	4	$(2.30 \pm 5.33)\text{E-10}$	$(9.60 \pm 2.95)\text{E-10}$	$(-2.73 \pm 3.99)\text{E-10}$
K-011 Outfall at Road B	12	$(5.36 \pm 7.10)\text{E-10}$	$(1.90 \pm 0.40)\text{E-09}$	$(-2.45 \pm 3.72)\text{E-10}$
PB-3 at Road A-13.2	12	$(2.27 \pm 2.31)\text{E-10}$	$(6.32 \pm 1.10)\text{E-10}$	$(-0.89 \pm 1.40)\text{E-10}$
Steel Creek				
Road B	12	$(5.00 \pm 6.18)\text{E-10}$	$(1.37 \pm 0.34)\text{E-09}$	$(-1.69 \pm 1.71)\text{E-10}$
Road A	12	$(1.61 \pm 1.70)\text{E-10}$	$(4.39 \pm 1.14)\text{E-10}$	$(-1.39 \pm 3.42)\text{E-10}$
Lower Three Runs Creek				
L3R-1A at Road B	12	$(5.60 \pm 5.14)\text{E-10}$	$(1.67 \pm 0.36)\text{E-09}$	$(-0.31 \pm 1.82)\text{E-10}$
L3R-2 Patterson Mill Road	11	$(2.12 \pm 1.17)\text{E-10}$	$(3.51 \pm 3.70)\text{E-10}$	$(-0.21 \pm 1.36)\text{E-10}$
L3R-3 at Highway 125	12	$(6.58 \pm 4.47)\text{E-10}$	$(1.53 \pm 0.37)\text{E-09}$	$(1.07 \pm 4.38)\text{E-10}$

Table 24
Radioactivity in Savannah River Site Stream Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
U/Pu, $\mu\text{Ci/mL}$				
Upper Three Runs				
U3R-4 at Road A	13	$(4.51 \pm 3.98)\text{E-10}$	$(1.36 \pm 0.56)\text{E-09}$	$(-1.04 \pm 2.79)\text{E-10}$
Four Mile Creek				
FM-6 at Road A-12.2	13	$(3.09 \pm 3.59)\text{E-10}$	$(9.56 \pm 5.58)\text{E-10}$	$(-1.00 \pm 2.68)\text{E-10}$
Pen Branch				
PB-3 at Road A-13.2	13	$(1.47 \pm 2.60)\text{E-10}$	$(6.86 \pm 4.91)\text{E-10}$	$(-2.66 \pm 2.10)\text{E-10}$
Lower Three Runs Creek				
L3R-(weekly grab)	28	$(0.32 \pm 2.72)\text{E-10}$	$(7.38 \pm 4.34)\text{E-10}$	$(-3.94 \pm 3.47)\text{E-10}$
L3R-2 Patterson Mill Road	13	$(0.82 \pm 4.59)\text{E-10}$	$(1.49 \pm 0.67)\text{E-09}$	$(-2.66 \pm 2.10)\text{E-10}$
Gross Beta, $\mu\text{Ci/mL}$				
Tims Branch				
TB-5 near Road C	25	$(2.39 \pm 0.99)\text{E-09}$	$(5.23 \pm 0.39)\text{E-09}$	$(1.35 \pm 0.28)\text{E-09}$
Upper Three Runs				
Crouch Branch at Road 4	25	$(1.65 \pm 0.88)\text{E-09}$	$(3.25 \pm 0.68)\text{E-09}$	$(4.47 \pm 3.43)\text{E-10}$
U3R-1A Treadway Bridge Road 8-1	50	$(1.59 \pm 0.72)\text{E-09}$	$(3.22 \pm 0.51)\text{E-09}$	$(-0.22 \pm 3.56)\text{E-10}$
U3R-3 at Road C	25	$(1.40 \pm 0.66)\text{E-09}$	$(2.68 \pm 0.42)\text{E-09}$	$(2.55 \pm 3.30)\text{E-10}$
U3R-4 at Road A	24	$(1.27 \pm 0.59)\text{E-09}$	$(2.68 \pm 0.38)\text{E-09}$	$(0.66 \pm 7.35)\text{E-10}$
Four Mile Creek				
FM-2 at Road 4	25	$(9.83 \pm 6.24)\text{E-09}$	$(3.43 \pm 0.13)\text{E-08}$	$(2.38 \pm 0.55)\text{E-09}$
FM-2B above F-Area effluent	26	$(1.84 \pm 0.52)\text{E-08}$	$(2.83 \pm 0.13)\text{E-08}$	$(9.87 \pm 0.84)\text{E-09}$
FM-3A below F-Area effluent	26	$(9.60 \pm 8.18)\text{E-09}$	$(3.17 \pm 0.13)\text{E-08}$	$(2.74 \pm 0.59)\text{E-09}$
FM-6 at Road A-12.2	26	$(1.03 \pm 0.26)\text{E-08}$	$(1.92 \pm 0.14)\text{E-08}$	$(6.67 \pm 0.48)\text{E-09}$
FM-A7 at Road A-7	26	$(2.38 \pm 0.50)\text{E-08}$	$(3.41 \pm 0.14)\text{E-08}$	$(1.47 \pm 0.08)\text{E-08}$
H-008 Outfall	51	$(6.41 \pm 2.52)\text{E-09}$	$(1.31 \pm 0.11)\text{E-08}$	$(-3.59 \pm 0.49)\text{E-09}$
HP-50 Tritium Facility Outfall	25	$(3.53 \pm 1.62)\text{E-09}$	$(8.58 \pm 1.13)\text{E-09}$	$(1.34 \pm 0.50)\text{E-09}$
Pen Branch				
IGB-21 800 feet south of Road 6-1	3	$(1.24 \pm 0.86)\text{E-09}$	$(2.22 \pm 0.43)\text{E-09}$	$(6.17 \pm 3.56)\text{E-10}$
K-011 Outfall at Road B	54	$(2.21 \pm 0.66)\text{E-09}$	$(3.47 \pm 0.77)\text{E-09}$	$(1.02 \pm 0.49)\text{E-09}$
PB-3 at Road A-13.2	26	$(1.25 \pm 0.64)\text{E-09}$	$(2.78 \pm 0.43)\text{E-09}$	$(3.65 \pm 7.39)\text{E-10}$

Table 24
Radioactivity in Savannah River Site Stream Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Steel Creek				
SC-2A 1 mile above Road B	26	$(3.40 \pm 1.28)E-09$	$(6.53 \pm 0.74)E-09$	$(1.44 \pm 0.29)E-09$
SC-4 Steel Creek at Road A	26	$(1.62 \pm 0.78)E-09$	$(3.65 \pm 0.82)E-09$	$(5.75 \pm 3.56)E-10$
Lower Three Runs Creek				
L3R-1A at Road B	26	$(3.80 \pm 0.89)E-09$	$(5.56 \pm 0.56)E-09$	$(2.00 \pm 0.23)E-09$
L3R-2 Patterson Mill Road	24	$(2.24 \pm 0.79)E-09$	$(3.67 \pm 0.60)E-09$	$(8.78 \pm 3.80)E-10$
L3R-3 at Highway 125	12	$(1.84 \pm 0.71)E-09$	$(2.88 \pm 0.50)E-09$	$(8.20 \pm 4.04)E-10$
R-Area downstream of R-1	53	$(7.72 \pm 2.97)E-09$	$(1.72 \pm 0.11)E-08$	$(3.15 \pm 0.52)E-09$
Gross Alpha, $\mu\text{Ci/mL}$				
Tims Branch				
TB-5 near Road C	25	$(1.47 \pm 0.59)E-09$	$(3.21 \pm 0.47)E-09$	$(5.62 \pm 2.25)E-10$
Upper Three Runs				
Crouch Branch at Road 4	25	$(3.36 \pm 3.84)E-10$	$(1.59 \pm 0.48)E-09$	$(-0.92 \pm 1.56)E-10$
U3R-1A Treadway Bridge Road 8-1	50	$(2.12 \pm 0.85)E-09$	$(4.88 \pm 0.73)E-09$	$(5.91 \pm 2.70)E-10$
U3R-3 at Road C	25	$(1.36 \pm 0.46)E-09$	$(2.02 \pm 0.52)E-09$	$(6.38 \pm 3.46)E-10$
U3R-4 at Road A	24	$(1.30 \pm 0.56)E-09$	$(2.52 \pm 0.64)E-09$	$(2.62 \pm 2.60)E-10$
Four Mile Creek				
FM-2 at Road 4	25	$(1.06 \pm 0.70)E-09$	$(3.37 \pm 0.64)E-09$	$(0.31 \pm 2.50)E-10$
FM-2B above F-Area effluent	26	$(7.58 \pm 7.13)E-10$	$(3.65 \pm 0.75)E-09$	$(0.46 \pm 2.22)E-10$
FM-3A below F-Area effluent	26	$(1.61 \pm 0.76)E-09$	$(3.59 \pm 0.68)E-09$	$(5.05 \pm 5.05)E-10$
FM-6 at Road A-12.2	26	$(2.81 \pm 3.01)E-10$	$(6.90 \pm 3.15)E-10$	$(-2.22 \pm 1.51)E-10$
FM-A7 at Road A-7	26	$(8.52 \pm 4.82)E-10$	$(1.58 \pm 0.51)E-09$	$(0.47 \pm 4.17)E-10$
H-008 Outfall	51	$(3.15 \pm 1.94)E-09$	$(8.22 \pm 1.06)E-09$	$(-2.11 \pm 0.62)E-09$
HP-50 Tritium Facility Outfall	25	$(2.34 \pm 1.37)E-09$	$(6.01 \pm 1.64)E-09$	$(5.66 \pm 4.38)E-10$
Pen Branch				
IGB-21 800 feet south of Road 6-1	3	$(1.16 \pm 4.28)E-10$	$(6.06 \pm 2.77)E-10$	$(-1.87 \pm 1.31)E-10$
K-011 Outfall at Road B	54	$(4.23 \pm 5.05)E-10$	$(2.30 \pm 0.60)E-09$	$(-1.97 \pm 1.60)E-10$
PB-3 at Road A-13.2	26	$(1.07 \pm 2.38)E-10$	$(6.39 \pm 4.79)E-10$	$(-2.67 \pm 2.10)E-10$

Table 24
Radioactivity in Savannah River Site Stream Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Steel Creek				
Road B	26	$(4.67 \pm 4.23)E-10$	$(1.51 \pm 0.47)E-09$	$(-2.07 \pm 1.63)E-10$
Road A	26	$(0.84 \pm 1.95)E-10$	$(3.96 \pm 2.33)E-10$	$(-2.00 \pm 1.41)E-10$
Lower Three Runs Creek				
L3R-1A at Road B	26	$(1.03 \pm 1.79)E-10$	$(4.04 \pm 2.37)E-10$	$(-2.26 \pm 2.34)E-10$
L3R-2 Patterson Mill Road	24	$(3.25 \pm 3.08)E-10$	$(9.30 \pm 4.74)E-10$	$(-1.95 \pm 3.37)E-10$
L3R-3 at Highway 125	12	$(1.61 \pm 3.22)E-10$	$(8.85 \pm 3.13)E-10$	$(-2.77 \pm 2.23)E-10$
R-Area downstream of R-1	53	$(1.77 \pm 2.52)E-10$	$(8.92 \pm 3.52)E-10$	$(-1.73 \pm 1.37)E-10B$

Table 25
Radioactivity in Transport at Sample Points on Four Mile Creek

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Location	Tritium (Curies)			
	1992	1993	1994	1995
FM-3	5	4	13	2
FM-1C	5	6	10	6
HP-52				1
H-017		1	1	1
H-018				1
H-008	4	583	7	5
FM-2	421	322	260	200
FM-2B	1480	1040	757	537
FM-3A	4100	5320	3100	4010
FM-A7	9840	8560	6740	6920
FM-6	8710	9000	6980	7350

Location	Total Strontium (Millicuries)			
	1992	1993	1994	1995
FM-3	1	a	a	2
FM-1C	1	a	1	1
F-012				1
F-013				7
HP-52				0.1
H-017	7	1	1	1
H-018				1
FM-2	42	26	43	15
FM-2B	86	66	45	43
FM-3A	1	a	2	5
FM-A7	280	216	107	159
FM-6	219	227	113	143

Desorption of Cesium-137 from Four Mile Creek (Millicuries)

1993	1994
160 ^b	3

a No activity quantified for year

b Amount of Cs-137 estimated in transport at FM-A7 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 26
Radioactivity in Savannah River Water

Page 1 of 1

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, $\mu\text{Ci/mL}$				
Edisto River				
E-1 Edisto River, Aiken State Park	50	$(2.22 \pm 1.65)\text{E-07}$	$(5.91 \pm 1.39)\text{E-07}$	$(-0.98 \pm 1.06)\text{E-07}$
Savannah River				
River Mile 120	52	$(1.28 \pm 0.45)\text{E-06}$	$(2.39 \pm 0.14)\text{E-06}$	$(4.15 \pm 1.37)\text{E-07}$
River Mile 140	52	$(1.54 \pm 0.63)\text{E-06}$	$(3.11 \pm 0.07)\text{E-06}$	$(1.87 \pm 1.08)\text{E-07}$
River Mile 150	52	$(1.74 \pm 1.00)\text{E-06}$	$(3.27 \pm 0.11)\text{E-06}$	$(1.87 \pm 1.26)\text{E-07}$
River Mile 160	52	$(2.09 \pm 1.86)\text{E-07}$	$(1.00 \pm 0.14)\text{E-06}$	$(-0.71 \pm 1.38)\text{E-07}$
River Mile 120 (Monthly Grab)	5	$(1.05 \pm 0.58)\text{E-06}$	$(1.49 \pm 0.15)\text{E-06}$	$(4.08 \pm 1.10)\text{E-07}$
Vogtle Discharge	52	$(0.79 \pm 1.01)\text{E-06}$	$(6.88 \pm 0.17)\text{E-06}$	$(0.73 \pm 1.24)\text{E-07}$
Gross Beta, $\mu\text{Ci/mL}$				
Edisto River				
E-1 Edisto River, Aiken State Park	48	$(1.58 \pm 0.67)\text{E-09}$	$(3.82 \pm 0.49)\text{E-09}$	$(-1.00 \pm 3.73)\text{E-10}$
Savannah River				
River Mile 120	51	$(1.98 \pm 0.59)\text{E-09}$	$(3.35 \pm 0.34)\text{E-09}$	$(5.12 \pm 1.70)\text{E-10}$
River Mile 140	51	$(2.33 \pm 0.96)\text{E-09}$	$(5.17 \pm 0.70)\text{E-09}$	$(7.76 \pm 2.46)\text{E-10}$
River Mile 150	51	$(1.98 \pm 0.62)\text{E-09}$	$(3.43 \pm 0.50)\text{E-09}$	$(6.46 \pm 2.46)\text{E-10}$
River Mile 160	51	$(2.19 \pm 1.52)\text{E-09}$	$(1.18 \pm 0.15)\text{E-08}$	$(5.50 \pm 3.71)\text{E-10}$
River Mile 120 (Monthly Grab)	4	$(2.07 \pm 0.86)\text{E-09}$	$(2.94 \pm 0.46)\text{E-09}$	$(1.23 \pm 0.51)\text{E-09}$
Vogtle Discharge	51	$(1.94 \pm 0.74)\text{E-09}$	$(4.00 \pm 0.54)\text{E-09}$	$(4.96 \pm 2.85)\text{E-10}$
Gross Alpha, $\mu\text{Ci/mL}$				
Edisto River				
E-1 Edisto River, Aiken State Park	48	$(7.67 \pm 4.29)\text{E-10}$	$(2.37 \pm 0.58)\text{E-09}$	$(-0.23 \pm 1.69)\text{E-10}$
Savannah River				
River Mile 120	51	$(0.82 \pm 2.40)\text{E-10}$	$(8.76 \pm 2.47)\text{E-10}$	$(-2.23 \pm 1.81)\text{E-10}$
River Mile 140	51	$(1.96 \pm 3.44)\text{E-10}$	$(1.65 \pm 0.59)\text{E-09}$	$(-2.37 \pm 1.88)\text{E-10}$
River Mile 150	51	$(1.42 \pm 3.17)\text{E-10}$	$(1.20 \pm 0.46)\text{E-09}$	$(-3.09 \pm 2.39)\text{E-10}$
River Mile 160	51	$(0.83 \pm 2.71)\text{E-10}$	$(7.91 \pm 4.14)\text{E-10}$	$(-3.26 \pm 2.66)\text{E-10}$
River Mile 120 (Monthly Grab)	4	$(1.85 \pm 2.60)\text{E-10}$	$(5.20 \pm 3.96)\text{E-10}$	$(-0.96 \pm 1.37)\text{E-10}$
Vogtle Discharge	51	$(1.73 \pm 2.92)\text{E-10}$	$(1.13 \pm 0.47)\text{E-09}$	$(-2.66 \pm 2.10)\text{E-10}$

Table 27
Summary of SRS Tritium Transport, 1960–1995

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
1994	8,800	10,400	10,900
1995	9,900	11,400	10,700

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 28
Radioactivity in Drinking Water

Page 1 of 10

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 domestic water faucet	8	$(1.69 \pm 1.77)\text{E-07}$	$(3.92 \pm 1.38)\text{E-07}$	$(-0.51 \pm 1.36)\text{E-07}$
105-K K-Area domestic water faucet	12	$(1.44 \pm 1.43)\text{E-07}$	$(3.29 \pm 1.35)\text{E-07}$	$(-0.82 \pm 1.36)\text{E-07}$
105-L L-Area domestic water faucet	12	$(1.00 \pm 1.52)\text{E-07}$	$(3.66 \pm 1.36)\text{E-07}$	$(-1.37 \pm 1.29)\text{E-07}$
105-P P-Area domestic water faucet	12	$(1.41 \pm 2.94)\text{E-06}$	$(1.00 \pm 0.01)\text{E-05}$	$(-1.71 \pm 1.43)\text{E-07}$
221-F F-Area domestic water faucet	12	$(0.46 \pm 1.63)\text{E-07}$	$(3.62 \pm 1.35)\text{E-07}$	$(-1.75 \pm 1.35)\text{E-07}$
221-H H-Area domestic water faucet	12	$(0.60 \pm 2.01)\text{E-07}$	$(3.71 \pm 1.35)\text{E-07}$	$(-2.51 \pm 1.50)\text{E-07}$
241-24H H-Area domestic water faucet	4	$(1.93 \pm 1.36)\text{E-07}$	$(3.38 \pm 0.79)\text{E-07}$	$(0.52 \pm 1.26)\text{E-07}$
617-G Wackenhut training facility	4	$(7.13 \pm 3.50)\text{E-07}$	$(1.20 \pm 0.15)\text{E-06}$	$(3.71 \pm 1.27)\text{E-07}$
618-G class. yard lunchroom	4	$(0.23 \pm 1.10)\text{E-07}$	$(1.61 \pm 1.34)\text{E-07}$	$(-0.94 \pm 1.42)\text{E-07}$
661-G firing range (pumphouse)	4	$(1.16 \pm 0.29)\text{E-06}$	$(1.55 \pm 0.12)\text{E-06}$	$(9.03 \pm 1.30)\text{E-07}$
679-T TNX domestic water faucet	4	$(1.16 \pm 2.30)\text{E-07}$	$(3.24 \pm 1.45)\text{E-07}$	$(-1.22 \pm 1.24)\text{E-07}$
681-3G domestic water faucet	4	$(-0.29 \pm 1.16)\text{E-07}$	$(0.74 \pm 1.45)\text{E-07}$	$(-1.45 \pm 1.30)\text{E-07}$
701-12G Patrol Gate 7	4	$(7.23 \pm 3.82)\text{E-07}$	$(1.15 \pm 0.15)\text{E-06}$	$(2.34 \pm 1.27)\text{E-07}$
701-13G Patrol Gate 6	4	$(2.05 \pm 1.24)\text{E-06}$	$(2.89 \pm 0.16)\text{E-06}$	$(2.03 \pm 0.80)\text{E-07}$
701-1F F-Area domestic water faucet	4	$(0.93 \pm 1.00)\text{E-07}$	$(1.91 \pm 1.26)\text{E-07}$	$(-0.13 \pm 1.24)\text{E-07}$
701-1H H-Area domestic water faucet	4	$(1.16 \pm 1.10)\text{E-07}$	$(2.59 \pm 1.33)\text{E-07}$	$(-0.07 \pm 1.45)\text{E-07}$
701-3G Barnwell Gate	4	$(0.50 \pm 1.76)\text{E-07}$	$(3.07 \pm 1.08)\text{E-07}$	$(-0.76 \pm 1.30)\text{E-07}$
701-4G Williston Gate	4	$(1.97 \pm 1.38)\text{E-07}$	$(3.61 \pm 1.07)\text{E-07}$	$(0.26 \pm 1.30)\text{E-07}$
701-5G Talatha Gate	4	$(5.57 \pm 0.47)\text{E-07}$	$(6.13 \pm 0.97)\text{E-07}$	$(4.97 \pm 1.28)\text{E-07}$
701-6G Jackson Gate	4	$(1.08 \pm 1.63)\text{E-07}$	$(3.29 \pm 1.07)\text{E-07}$	$(-0.27 \pm 1.24)\text{E-07}$
701-8G Patrol Gate 8	4	$(1.75 \pm 0.92)\text{E-06}$	$(2.35 \pm 0.16)\text{E-06}$	$(3.84 \pm 1.09)\text{E-07}$
703-A EOC (kitchen)	4	$(1.27 \pm 2.01)\text{E-07}$	$(3.93 \pm 1.36)\text{E-07}$	$(-9.48 \pm 9.14)\text{E-08}$
704-F F-Area domestic water faucet	4	$(0.04 \pm 2.26)\text{E-07}$	$(2.97 \pm 1.34)\text{E-07}$	$(-2.33 \pm 1.36)\text{E-07}$

Table 28
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
704-H H-Area domestic water faucet	4	$(0.86 \pm 2.46)E-07$	$(4.20 \pm 1.35)E-07$	$(-1.63 \pm 1.31)E-07$
704-S S-Area domestic water faucet	4	$(-1.29 \pm 7.63)E-08$	$(0.86 \pm 1.07)E-07$	$(-0.89 \pm 1.44)E-07$
708-A A-Area cafeteria (restroom)	4	$(0.17 \pm 2.05)E-07$	$(1.89 \pm 1.46)E-07$	$(-2.67 \pm 1.28)E-07$
735-7G PAR Pond Lab	4	$(0.51 \pm 1.48)E-07$	$(2.66 \pm 1.44)E-07$	$(-0.57 \pm 1.04)E-07$
760-G Forestry Building	4	$(8.79 \pm 4.12)E-07$	$(1.19 \pm 0.11)E-06$	$(2.79 \pm 0.75)E-07$
772-F F-Area domestic water faucet	4	$(1.42 \pm 2.22)E-07$	$(4.17 \pm 1.38)E-07$	$(-0.52 \pm 1.51)E-07$
TC-1 B-Area cafeteria	4	$(-0.44 \pm 1.69)E-07$	$(1.15 \pm 1.05)E-07$	$(-2.56 \pm 1.23)E-07$
Z-Area Building 704-Z	4	$(0.90 \pm 1.09)E-07$	$(2.22 \pm 1.07)E-07$	$(-0.45 \pm 1.46)E-07$
Surrounding Towns				
Aiken, S.C., Post Office	1	$(1.67 \pm 9.91)E-08$		
Allendale, S.C., Post Office	1	$(4.47 \pm 1.36)E-07$		
Augusta, Ga., Post Office 8th St	1	$(2.88 \pm 1.35)E-07$		
Barnwell, S.C., Post Office	1	$(0.07 \pm 1.38)E-07$		
Bath, S.C., Post Office	1	$(3.12 \pm 1.39)E-07$		
Blackville, S.C., Post Office	1	$(-0.27 \pm 1.37)E-07$		
Clearwater, S.C., Post Office	1	$(4.57 \pm 1.35)E-07$		
Jackson, S.C., Post Office	1	$(8.56 \pm 1.42)E-07$		
Langley, S.C., Post Office	1	$(-0.99 \pm 1.38)E-07$		
North Augusta, S.C., Post Office	1	$(1.77 \pm 1.39)E-07$		
New Ellenton, S.C., Post Office	1	$(9.40 \pm 1.44)E-07$		
ORA Site, ORA Building	1	$(-7.63 \pm 9.77)E-08$		
Sardis, Ga., Post Office, Farm St	1	$(3.39 \pm 1.35)E-07$		
Talatha, S.C., tap near water tank	1	$(3.57 \pm 1.40)E-07$		
Waynesboro, Ga., Post Office	1	$(-0.05 \pm 1.37)E-07$		
Williston, S.C., Post Office	1	$(4.10 \pm 1.36)E-07$		

Table 28
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Treatment Plants				
Beaufort Public Water Works – raw	12	(8.64 $\pm$ 2.59)E-07	(1.34 $\pm$ 0.15)E-06	(4.31 $\pm$ 1.32)E-07
Beaufort Public Water Works – finished	11	(8.25 $\pm$ 2.26)E-07	(1.15 $\pm$ 0.13)E+03	(5.17 $\pm$ 1.31)E+02
D-Area Powerhouse Lab – raw	12	(2.44 $\pm$ 1.69)E-07	(5.82 $\pm$ 0.98)E-07	(-0.70 $\pm$ 1.43)E-07
D-Area Powerhouse Lab – finished	12	(0.06 $\pm$ 1.35)E-07	(2.31 $\pm$ 0.96)E+02	(-1.66 $\pm$ 1.27)E+02
North Augusta Public Water Works – raw	12	(1.26 $\pm$ 0.99)E-07	(2.80 $\pm$ 1.37)E-07	(-0.55 $\pm$ 1.27)E-07
North Augusta Public Water Works – finished	12	(1.57 $\pm$ 1.48)E-07	(4.42 $\pm$ 1.36)E+02	(-0.85 $\pm$ 1.41)E+02
City of Savannah Industrial and Domestic Water Supply Plant ^a – raw	12	(1.02 $\pm$ 0.19)E-06	(1.33 $\pm$ 0.15)E-06	(8.25 $\pm$ 1.39)E-07
City of Savannah Industrial and Domestic Water Supply Plant ^a – finished	12	(9.82 $\pm$ 3.43)E-07	(1.50 $\pm$ 0.13)E+03	(4.66 $\pm$ 1.31)E+02
EMS Sampler				
Beaufort Public Water Works – raw	16	(7.78 $\pm$ 2.46)E-07	(1.22 $\pm$ 0.15)E-06	(4.19 $\pm$ 0.90)E-07
Sr-90, $\mu\text{Ci/mL}$				
On Site				
617-G Wackenhut training facility	1	(2.44 $\pm$ 3.73)E-10		
618-G class. yard lunchroom	1	(0.36 $\pm$ 3.41)E-10		
661-G firing range (pumphouse)	1	(3.48 $\pm$ 4.25)E-10		
679-T TNX domestic water faucet	1	(-3.58 $\pm$ 3.83)E-10		
701-3G Barnwell Gate	1	(1.73 $\pm$ 3.34)E-10		
701-4G Williston Gate	1	(1.04 $\pm$ 3.72)E-10		
701-5G Talatha Gate	1	(1.07 $\pm$ 3.94)E-10		
760-G Forestry Building	1	(1.20 $\pm$ 4.08)E-10		

^a This water treatment plant, formerly the Cherokee Hill Water Treatment Plant, supplies water primarily to industries in Port Wentworth, Ga.

Table 28
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Surrounding Towns				
Aiken, S.C., Post Office	1	$(-9.42 \pm 7.19)E-10$		
Allendale, S.C., Post Office	1	$(-1.11 \pm 5.56)E-10$		
Augusta, Ga., Post Office, 8th St	1	$(-1.34 \pm 0.76)E-09$		
Barnwell, S.C., Post Office	1	$(-3.05 \pm 7.50)E-10$		
Bath, S.C., Post Office	1	$(-2.49 \pm 5.94)E-10$		
Clearwater, S.C., Post Office	1	$(-6.37 \pm 7.39)E-10$		
Jackson, S.C., Post Office	1	$(-4.68 \pm 5.34)E-10$		
Langley, S.C., Post Office	1	$(-2.97 \pm 6.61)E-10$		
North Augusta, S.C., Post Office	1	$(5.58 \pm 6.27)E-10$		
Talatha, S.C., tap near water tank	1	$(4.17 \pm 8.34)E-10$		
Treatment Plants				
Beaufort Public Water Works – raw	1	$(1.72 \pm 7.27)E-10$		
Beaufort Public Water Works – finished	1	$(-1.32 \pm 4.99)E-10$		
D-Area Powerhouse Lab – finished	1	$(1.28 \pm 2.95)E-10$		
U-235, $\mu\text{Ci/mL}$				
On Site				
284-H	1	$(5.59 \pm 0.24)E-09$		
Sr-89,90, $\mu\text{Ci/mL}$				
On Site				
681-3G domestic water faucet	1	$(2.62 \pm 8.59)E-10$		
701-12G Patrol Gate 7	1	$(8.87 \pm 7.56)E-10$		
701-13G Patrol Gate 6	1	$(-0.81 \pm 7.19)E-10$		
701-6G Jackson Gate	1	$(-5.36 \pm 6.49)E-10$		
701-8G Patrol Gate 8	1	$(1.21 \pm 7.01)E-10$		
TC-1 B-Area cafeteria	1	$(8.87 \pm 7.56)E-10$		

Table 28
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Surrounding Towns				
Blackville, S.C., Post Office	1	(7.06 $\pm$ 6.09)E-10		
New Ellenton, S.C., Post Office	1	(-5.24 $\pm$ 4.04)E-10		
ORA Site, ORA Building	1	(1.67 $\pm$ 5.37)E-10		
Sardis, Ga., Post Office Farm St	1	(-2.10 $\pm$ 8.72)E-10		
Waynesboro, Ga., Post Office	1	(0.18 $\pm$ 1.01)E-09		
Williston, S.C., Post Office	1	(6.42 $\pm$ 6.85)E-10		
Treatment Plants				
City of Savannah Industrial and Domestic Water Supply Plant ^a - raw	1	(-3.51 $\pm$ 5.27)E-10		
City of Savannah Industrial and Domestic Water Supply Plant ^a - finished	1	(2.12 $\pm$ 4.58)E-10		
Gross Beta, $\mu\text{Ci/mL}$				
On Site				
105-C C-Area domestic water faucet	8	(1.58 $\pm$ 0.81)E-09	(2.95 $\pm$ 0.72)E-09	(1.81 $\pm$ 3.52)E-10
105-K K-Area domestic water faucet	11	(1.83 $\pm$ 0.72)E-09	(3.08 $\pm$ 0.49)E-09	(7.10 $\pm$ 3.90)E-10
105-L L-Area domestic water faucet	11	(1.83 $\pm$ 0.62)E-09	(2.90 $\pm$ 1.15)E-09	(1.05 $\pm$ 0.56)E-09
105-P P-Area domestic water faucet	11	(2.82 $\pm$ 2.79)E-09	(1.08 $\pm$ 0.15)E-08	(9.71 $\pm$ 4.07)E-10
221-F F-Area domestic water faucet	10	(5.03 $\pm$ 1.99)E-09	(9.01 $\pm$ 1.30)E-09	(1.34 $\pm$ 0.45)E-09
221-H H-Area domestic water faucet	10	(3.28 $\pm$ 1.70)E-09	(7.42 $\pm$ 1.30)E-09	(1.72 $\pm$ 0.58)E-09
241-24H H-Area domestic water faucet	4	(5.24 $\pm$ 1.53)E-09	(7.45 $\pm$ 0.86)E-09	(3.97 $\pm$ 0.59)E-09
617-G Wackenhut training facility	3	(1.24 $\pm$ 0.25)E-09	(1.52 $\pm$ 0.53)E-09	(1.03 $\pm$ 0.38)E-09
618-G class. yard lunchroom	3	(1.59 $\pm$ 0.46)E-09	(2.02 $\pm$ 0.54)E-09	(1.10 $\pm$ 0.42)E-09

^a This water treatment plant, formerly the Cherokee Hill Water Treatment Plant, supplies water primarily to industries in Port Wentworth, Ga.

Table 28
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
661-G firing range (pumphouse)	3	(2.18 $\pm$ 0.85)E-09	(2.77 $\pm$ 0.63)E-09	(1.21 $\pm$ 0.44)E-09
679-T TNX domestic water faucet	2	(2.64 $\pm$ 0.31)E-09	(2.86 $\pm$ 0.53)E-09	(2.41 $\pm$ 0.51)E-09
681-3G domestic water faucet	3	(2.89 $\pm$ 0.39)E-09	(3.17 $\pm$ 0.58)E-09	(2.45 $\pm$ 0.52)E-09
701-12G Patrol Gate 7	3	(1.36 $\pm$ 0.62)E-09	(1.79 $\pm$ 0.59)E-09	(6.47 $\pm$ 3.98)E-10
701-13G Patrol Gate 6	3	(8.43 $\pm$ 4.40)E-10	(1.20 $\pm$ 0.54)E-09	(3.52 $\pm$ 4.29)E-10
701-1F F-Area domestic water faucet	4	(3.87 $\pm$ 1.84)E-09	(6.26 $\pm$ 1.20)E-09	(1.84 $\pm$ 0.47)E-09
701-1H H-Area domestic water faucet	4	(6.73 $\pm$ 2.80)E-09	(1.03 $\pm$ 0.06)E-08	(3.50 $\pm$ 0.59)E-09
701-3G Barnwell Gate	3	(4.59 $\pm$ 2.90)E-10	(6.92 $\pm$ 4.47)E-10	(1.34 $\pm$ 3.42)E-10
701-4G Williston Gate	4	(2.53 $\pm$ 3.57)E-10	(7.03 $\pm$ 3.98)E-10	(-1.63 $\pm$ 3.21)E-10
701-5G Talatha Gate	3	(2.38 $\pm$ 1.31)E-09	(3.15 $\pm$ 0.52)E-09	(8.72 $\pm$ 4.08)E-10
701-6G Jackson Gate	3	(1.45 $\pm$ 1.33)E-09	(2.96 $\pm$ 0.45)E-09	(4.50 $\pm$ 3.88)E-10
701-8G Patrol Gate 8	3	(7.36 $\pm$ 9.63)E-10	(1.76 $\pm$ 0.56)E-09	(-1.55 $\pm$ 3.10)E-10
703-A EOC (kitchen)	4	(7.55 $\pm$ 0.88)E-10	(8.36 $\pm$ 4.74)E-10	(6.76 $\pm$ 4.75)E-10
704-F F-Area domestic water faucet	2	(2.05 $\pm$ 2.52)E-09	(3.83 $\pm$ 0.73)E-09	(2.75 $\pm$ 7.29)E-10
704-H H-Area domestic water faucet	3	(7.05 $\pm$ 1.71)E-09	(8.96 $\pm$ 1.38)E-09	(5.67 $\pm$ 0.74)E-09
704-S S-Area domestic water faucet	4	(2.13 $\pm$ 0.46)E-09	(2.74 $\pm$ 0.58)E-09	(1.65 $\pm$ 0.45)E-09
708-A A-Area cafeteria(restroom)	4	(1.00 $\pm$ 0.38)E-09	(1.50 $\pm$ 0.45)E-09	(6.26 $\pm$ 4.68)E-10
735-7G PAR Pond Lab	2	(2.83 $\pm$ 0.48)E-09	(3.17 $\pm$ 0.61)E-09	(2.49 $\pm$ 0.51)E-09
760-G Forestry Building	2	(1.04 $\pm$ 0.05)E-09	(1.08 $\pm$ 0.42)E-09	(1.01 $\pm$ 0.54)E-09
772-F F-Area domestic water faucet	4	(5.28 $\pm$ 1.30)E-09	(7.13 $\pm$ 0.88)E-09	(4.31 $\pm$ 0.73)E-09
TC-1 B-Area cafeteria	2	(1.38 $\pm$ 0.76)E-09	(1.92 $\pm$ 0.62)E-09	(8.40 $\pm$ 4.31)E-10
Z-Area Building 704-Z	4	(1.55 $\pm$ 0.53)E-09	(2.20 $\pm$ 0.49)E-09	(9.26 $\pm$ 4.55)E-10
Surrounding Towns				
Aiken, S.C., Post Office	1	(2.31 $\pm$ 0.42)E-09		
Allendale, S.C., Post Office	1	(2.69 $\pm$ 0.46)E-09		
Augusta, Ga., Post Office 8th St	1	(2.04 $\pm$ 0.39)E-09		
Barnwell, S.C., Post Office	1	(1.17 $\pm$ 0.32)E-09		

Table 28
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Bath, S.C., Post Office	1	(1.42 $\pm$ 0.34)E-09		
Blackville, S.C., Post Office	1	(3.27 $\pm$ 0.49)E-09		
Clearwater, S.C., Post Office	1	(1.33 $\pm$ 0.35)E-09		
Jackson, S.C., Post Office	1	(3.81 $\pm$ 0.52)E-09		
Langley, S.C., Post Office	1	(2.10 $\pm$ 0.38)E-09		
North Augusta, S.C., Post Office	1	(1.28 $\pm$ 0.33)E-09		
New Ellenton, S.C., Post Office	1	(2.44 $\pm$ 0.44)E-09		
ORA Site, ORA Building	1	(2.19 $\pm$ 0.45)E-09		
Sardis, Ga., Post Office Farm St	1	(3.55 $\pm$ 0.95)E-09		
Talatha, S.C., tap near water tank	1	(1.71 $\pm$ 0.38)E-09		
Waynesboro, Ga., Post Office	1	(2.56 $\pm$ 0.48)E-09		
Williston, S.C., Post Office	1	(1.82 $\pm$ 0.39)E-09		
Treatment Plants				
Beaufort Public Water Works – raw	12	(2.04 $\pm$ 0.52)E-09	(2.75 $\pm$ 0.48)E-09	(9.45 $\pm$ 4.91)E-10
Beaufort Public Water Works – finished	12	(1.80 $\pm$ 0.66)E-09	(3.09 $\pm$ 0.52)E+00	(9.33 $\pm$ 5.24)E-01
D-Area Powerhouse Lab – raw	12	(1.77 $\pm$ 0.71)E-09	(3.09 $\pm$ 0.51)E-09	(8.08 $\pm$ 2.58)E-10
D-Area Powerhouse Lab – finished	11	(3.34 $\pm$ 1.06)E-09	(4.74 $\pm$ 0.60)E+00	(1.53 $\pm$ 0.73)E+00
North Augusta Public Water Works – raw	12	(1.54 $\pm$ 0.55)E-09	(2.64 $\pm$ 0.32)E-09	(7.71 $\pm$ 2.92)E-10
North Augusta Public Water Works – finished	12	(1.74 $\pm$ 0.61)E-09	(2.73 $\pm$ 0.41)E+00	(9.27 $\pm$ 4.59)E-01
City of Savannah Industrial and Domestic Water Supply Plant ^a – raw	12	(1.96 $\pm$ 0.73)E-09	(2.90 $\pm$ 0.47)E-09	(5.21 $\pm$ 4.15)E-10
City of Savannah Industrial and Domestic Water Supply Plant ^a – finished	12	(1.97 $\pm$ 0.76)E-09	(3.71 $\pm$ 0.57)E+00	(1.15 $\pm$ 0.52)E+00

^a This water treatment plant, formerly the Cherokee Hill Water Treatment Plant, supplies water primarily to industries in Port Wentworth, Ga.

Table 28
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
EMS Sampler				
Beaufort Public Water Works – raw	16	$(2.37 \pm 0.87)E-09$	$(4.55 \pm 0.51)E-09$	$(9.23 \pm 3.77)E-10$
Gross Alpha, $\mu\text{Ci/mL}$				
On Site				
105–C C-Area domestic water faucet	8	$(0.94 \pm 1.14)E-09$	$(3.54 \pm 0.81)E-09$	$(-0.74 \pm 1.97)E-10$
105–K K-Area domestic water faucet	11	$(0.06 \pm 1.72)E-10$	$(3.68 \pm 3.69)E-10$	$(-3.05 \pm 2.67)E-10$
105–L L-Area domestic water faucet	11	$(2.41 \pm 2.46)E-10$	$(6.16 \pm 4.35)E-10$	$(-2.30 \pm 1.82)E-10$
105–P P-Area domestic water faucet	11	$(4.13 \pm 7.13)E-10$	$(1.91 \pm 0.63)E-09$	$(-1.61 \pm 4.39)E-10$
221–F F-Area domestic water faucet	10	$(3.62 \pm 2.89)E-09$	$(1.05 \pm 0.22)E-08$	$(8.93 \pm 5.65)E-10$
221–H H-Area domestic water faucet	10	$(1.17 \pm 0.79)E-09$	$(3.22 \pm 1.02)E-09$	$(4.00 \pm 5.97)E-10$
241–24H H-Area domestic water faucet	4	$(2.64 \pm 2.22)E-09$	$(5.83 \pm 1.07)E-09$	$(7.19 \pm 3.92)E-10$
617–G Wackenhut training facility	3	$(7.76 \pm 3.34)E-10$	$(1.06 \pm 0.34)E-09$	$(4.07 \pm 4.11)E-10$
618–G class. yard lunchroom	3	$(9.74 \pm 2.62)E-10$	$(1.23 \pm 0.44)E-09$	$(7.08 \pm 3.52)E-10$
661–G firing range (pumphouse)	3	$(2.41 \pm 1.02)E-09$	$(3.58 \pm 0.70)E-09$	$(1.73 \pm 0.44)E-09$
679–T TNX domestic water faucet	2	$(1.03 \pm 0.16)E-09$	$(1.14 \pm 0.59)E-09$	$(9.18 \pm 4.77)E-10$
681–3G domestic water faucet	3	$(1.11 \pm 0.25)E-09$	$(1.35 \pm 0.45)E-09$	$(8.43 \pm 7.94)E-10$
701–12G Patrol Gate 7	3	$(4.24 \pm 4.33)E-10$	$(7.49 \pm 4.61)E-10$	$(-0.68 \pm 1.02)E-10$
701–13G Patrol Gate 6	3	$(4.60 \pm 5.46)E-10$	$(8.14 \pm 3.85)E-10$	$(-1.68 \pm 1.33)E-10$
701–1F F-Area domestic water faucet	4	$(2.49 \pm 0.26)E-09$	$(2.75 \pm 0.83)E-09$	$(2.13 \pm 0.62)E-09$
701–1H H-Area domestic water faucet	4	$(2.62 \pm 1.47)E-09$	$(4.65 \pm 0.61)E-09$	$(1.20 \pm 0.49)E-09$
701–3G Barnwell Gate	3	$(2.31 \pm 0.96)E-10$	$(3.41 \pm 2.03)E-10$	$(1.70 \pm 2.60)E-10$
701–4G Williston Gate	4	$(1.07 \pm 1.52)E-10$	$(2.89 \pm 2.03)E-10$	$(-0.72 \pm 1.91)E-10$
701–5G Talatha Gate	3	$(6.18 \pm 5.12)E-09$	$(9.36 \pm 0.97)E-09$	$(2.76 \pm 1.97)E-10$
701–6G Jackson Gate	3	$(1.46 \pm 1.61)E-09$	$(3.27 \pm 0.48)E-09$	$(1.72 \pm 1.66)E-10$
701–8G Patrol Gate 8	3	$(6.27 \pm 4.63)E-10$	$(1.07 \pm 0.42)E-09$	$(1.50 \pm 1.46)E-10$

Table 28
Radioactivity in Drinking Water

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
703-A EOC (kitchen)	4	$(4.85 \pm 3.63)E-10$	$(8.27 \pm 4.85)E-10$	$(1.03 \pm 4.88)E-10$
704-F F-Area domestic water faucet	2	$(1.87 \pm 0.14)E-09$	$(1.97 \pm 0.79)E-09$	$(1.77 \pm 0.82)E-09$
704-H H-Area domestic water faucet	3	$(3.09 \pm 1.22)E-09$	$(4.48 \pm 0.88)E-09$	$(2.17 \pm 0.63)E-09$
704-S S-Area domestic water faucet	4	$(1.78 \pm 0.51)E-09$	$(2.31 \pm 0.60)E-09$	$(1.10 \pm 0.42)E-09$
708-A A-Area cafeteria (restroom)	4	$(5.73 \pm 3.54)E-10$	$(9.76 \pm 3.56)E-10$	$(1.13 \pm 2.32)E-10$
735-7G PAR Pond Lab	2	$(-0.03 \pm 1.63)E-10$	$(1.13 \pm 2.45)E-10$	$(-1.18 \pm 3.16)E-10$
760-G Forestry Building	2	$(5.83 \pm 4.65)E-10$	$(9.12 \pm 4.83)E-10$	$(2.55 \pm 2.52)E-10$
772-F F-Area domestic water faucet	4	$(3.89 \pm 2.99)E-09$	$(7.45 \pm 1.49)E-09$	$(1.12 \pm 0.61)E-09$
TC-1 B-Area cafeteria	2	$(2.20 \pm 0.44)E-09$	$(2.51 \pm 0.82)E-09$	$(1.89 \pm 0.72)E-09$
Z-Area Building 704-Z	4	$(1.32 \pm 1.24)E-09$	$(3.15 \pm 0.70)E-09$	$(4.20 \pm 2.53)E-10$
Surrounding Towns				
Aiken, S.C., Post Office	1	$(6.53 \pm 4.63)E-10$		
Allendale, S.C., Post Office	1	$(3.81 \pm 5.24)E-10$		
Augusta, Ga., Post Office 8th St	1	$(-0.63 \pm 2.09)E-10$		
Barnwell, S.C., Post Office	1	$(-1.93 \pm 1.59)E-10$		
Bath, S.C., Post Office	1	$(4.63 \pm 3.22)E-10$		
Blackville, S.C., Post Office	1	$(9.53 \pm 6.78)E-10$		
Clearwater, S.C., Post Office	1	$(-1.20 \pm 4.22)E-10$		
Jackson, S.C., Post Office	1	$(4.08 \pm 0.81)E-09$		
Langley, S.C., Post Office	1	$(3.81 \pm 2.62)E-10$		
North Augusta, S.C., Post Office	1	$(-0.63 \pm 2.18)E-10$		
New Ellenton, S.C., Post Office	1	$(6.80 \pm 3.52)E-10$		
ORA Site, ORA Building	1	$(-0.96 \pm 3.24)E-10$		
Sardis, Ga., Post Office Farm St	1	$(1.62 \pm 1.15)E-09$		
Talatha, S.C., tap near water tank	1	$(2.61 \pm 3.55)E-10$		
Waynesboro, Ga., Post Office	1	$(-3.71 \pm 3.03)E-10$		
Williston, S.C., Post Office	1	$(1.22 \pm 0.73)E-09$		

Table 28
Radioactivity in Drinking Water

Page 10 of 10

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Treatment Plants				
Beaufort Public Water Works – raw	12	$(3.54 \pm 2.95)E-10$	$(7.41 \pm 4.72)E-10$	$(-1.19 \pm 1.65)E-10$
Beaufort Public Water Works – finished	12	$(0.36 \pm 3.26)E-10$	$(6.91 \pm 4.09)E-01$	$(-3.71 \pm 2.95)E-01$
D-Area Powerhouse Lab – raw	12	$(1.70 \pm 2.28)E-10$	$(5.50 \pm 4.14)E-10$	$(-2.21 \pm 1.77)E-10$
D-Area Powerhouse Lab – finished	11	$(0.18 \pm 2.47)E-10$	$(5.87 \pm 5.51)E-01$	$(-2.80 \pm 2.25)E-01$
North Augusta Public Water Works – raw	12	$(1.18 \pm 2.05)E-10$	$(4.50 \pm 3.25)E-10$	$(-1.92 \pm 1.51)E-10$
North Augusta Public Water Works – finished	12	$(0.40 \pm 3.81)E-10$	$(1.19 \pm 0.43)E+00$	$(-2.47 \pm 1.98)E-01$
City of Savannah Industrial and Domestic Water Supply Plant ^a – raw	12	$(1.39 \pm 2.81)E-10$	$(6.22 \pm 3.62)E-10$	$(-2.65 \pm 1.93)E-10$
City of Savannah Industrial and Domestic Water Supply Plant ^a – finished	12	$(0.20 \pm 2.34)E-10$	$(5.00 \pm 2.71)E-01$	$(-3.83 \pm 3.03)E-01$
EMS Sampler				
Beaufort Public Water Works – raw	16	$(6.13 \pm 8.67)E-10$	$(3.12 \pm 0.90)E-09$	$(-1.11 \pm 2.93)E-10$

^a This water treatment plant, formerly the Cherokee Hill Water Treatment Plant, supplies water primarily to industries in Port Wentworth, Ga.

Table 29
Radioactivity in Terrestrial Food Products^a — Greens, Grain, Fruit, and Beef

Page 1 of 3

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)
Greens						
Northeast quadrant 0–10 miles	(5.43 ± 2.36)E–02		(2.93 ± 1.64)E–05	(0.73 ± 2.00)E–05	(5.36 ± 1.31)E–02	(7.16 ± 5.83)E–03
Northwest quadrant 0–10 miles	(6.53 ± 4.02)E–02		(1.59 ± 2.03)E–05	(0.40 ± 1.73)E–05	(1.79 ± 1.27)E–02	(–0.51 ± 3.78)E–03
Southeast quadrant 0–10 miles	(1.44 ± 0.32)E–01		(6.44 ± 2.00)E–05	(1.21 ± 1.21)E–05	(2.52 ± 2.05)E–02	(2.09 ± 4.69)E–03
Southeast quadrant 25 miles	(9.77 ± 2.94)E–02		(4.17 ± 2.66)E–05	(0.38 ± 2.36)E–05	(–0.15 ± 1.69)E–02	(1.25 ± 3.06)E–03
Southwest quadrant 0–10 miles	(6.20 ± 3.21)E–02		(5.92 ± 2.49)E–05	(7.49 ± 2.36)E–05	(4.30 ± 2.55)E–02	(–0.50 ± 3.73)E–03
Grain						
FS #4 Talatha area					(0.70 ± 1.54)E–02	(2.78 ± 0.93)E–02
FS #13 Hilda area		(1.48 ± 0.44)E–02			(1.45 ± 1.77)E–02	(1.63 ± 0.77)E–02
FS #14 Ulmers area			(–1.21 ± 2.29)E–05	(–0.54 ± 2.20)E–05	(1.13 ± 1.34)E–02	(1.07 ± 0.48)E–02
FS #8 Sardis area			(–0.85 ± 1.59)E–05	(3.81 ± 1.76)E–05	(2.54 ± 1.84)E–02	(2.34 ± 5.24)E–03
FS #12 Springfield area		(1.19 ± 0.34)E–02	(0.97 ± 1.68)E–05	(0.97 ± 2.16)E–05		(8.15 ± 2.37)E–02
FS #3 Jackson area			(–3.84 ± 3.95)E–05	(2.55 ± 3.25)E–05	(–5.39 ± 5.89)E–03	(9.40 ± 6.64)E–03
FS #5 Darkhorse area					(–4.55 ± 4.34)E–02	(2.11 ± 0.84)E–02
FS #11 Hwy 19 — 7 mi. north of Aiken					(–0.52 ± 1.73)E–02	(0.00 ± 4.68)E–03

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

b Blank spaces indicate that no analyses were performed.

c Blank spaces indicate that activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in food products was 7.00E–03 pCi/g.

Table 29
Radioactivity in Terrestrial Food Products^a — Greens, Grain, Fruit, and Beef

Page 2 of 3

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)
Fruit						
FS #10 Gracewood School area	(4.72 ± 3.50)E-02		(2.57 ± 3.04)E-05	(-2.04 ± 2.40)E-05	(-1.49 ± 2.10)E-02	(-2.34 ± 4.06)E-03
FS #11 Hwy 19 — 7 mi. north of Aiken	(5.45 ± 2.40)E-02		(4.74 ± 2.43)E-05	(2.36 ± 1.95)E-05	(-1.78 ± 2.07)E-02	(0.00 ± 7.84)E-03
FS #12 Springfield area	(5.01 ± 2.71)E-02				(-1.67 ± 1.95)E-02	(-2.47 ± 4.28)E-03
FS #3 Jackson area	(1.77 ± 0.28)E-01		(2.70 ± 2.63)E-05	(-0.44 ± 2.41)E-05	(-1.63 ± 1.89)E-02	(4.99 ± 6.11)E-03
FS #4 Talatha area	(2.97 ± 0.41)E-01		(7.39 ± 2.25)E-05	(3.17 ± 1.50)E-05	(0.37 ± 1.94)E-02	(-2.44 ± 4.23)E-03
FS #1 Below Barri- cade #5	(-2.23 ± 0.13)E-01		(4.61 ± 1.09)E-04	(5.92 ± 5.93)E-05	(0.83 ± 1.80)E-02	(0.00 ± 4.94)E-03
FS #9 Boyce Dairy area	(3.00 ± 3.20)E-02		(-0.42 ± 2.44)E-05	(-0.42 ± 1.93)E-05	(-1.39 ± 1.97)E-02	(-2.34 ± 4.06)E-03
FS #5 Darkhorse area	(4.18 ± 3.39)E-02		(3.46 ± 1.35)E-05	(1.20 ± 1.09)E-05	(-0.87 ± 1.96)E-02	(2.47 ± 5.52)E-03
FS #7 Wade Plantation vicinity			(4.94 ± 1.75)E-05	(00.00 ± 1.01)E-05	(-0.32 ± 1.87)E-02	(-3.80 ± 6.59)E-02
FS #13 Hilda area	(4.07 ± 2.06)E-02		(-1.94 ± 2.28)E-05	(-0.96 ± 1.67)E-05	(1.61 ± 1.97)E-02	(-2.49 ± 4.32)E-03
FS #8 Sardis area	(-1.45 ± 0.15)E-01		(2.67 ± 2.21)E-05	(1.07 ± 1.07)E-05	(-1.38 ± 1.36)E-02	(-3.33 ± 2.88)E-03
FS #2 near Savannah River — east of Sardis	(6.47 ± 2.60)E-02		(0.86 ± 1.84)E-05	(0.43 ± 2.15)E-05	(3.68 ± 2.05)E-02	(-2.49 ± 4.32)E-03
FS#14 Ulmers area			(1.23 ± 0.88)E-05	(-8.74 ± 8.03)E-06	(-1.05 ± 1.88)E-02	(-4.94 ± 3.49)E-03

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

^b Blank spaces indicate that no analyses were performed.

^c Blank spaces indicate that activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in food products was 7.00E-03 pCi/g.

Table 29
Radioactivity in Terrestrial Food Products^a — Greens, Grain, Fruit, and Beef

Page 3 of 3

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)
Beef						
Northwest quadrant 0-10 miles	(2.19 ± 4.55)E-02		(6.52 ± 1.97)E-05	(0.19 ± 1.35)E-05	(-2.45 ± 1.35)E-02	(4.58 ± 3.69)E-03

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

^b Blank spaces indicate that no analyses were performed.

^c Blank spaces indicate that activity was below the lower limit of detection. The typical lower limit of detection for Cs-137 in food products was 7.00E-03 pCi/g.

Table 30
Radioactivity in Terrestrial Food Products — Milk

Page 1 of 1

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, $\mu\text{Ci/mL}$				
Dairy (major distributor)	12	$(1.14 \pm 0.89)\text{E-07}$	$(2.81 \pm 1.35)\text{E-07}$	$(-0.05 \pm 1.29)\text{E-07}$
Denmark, S.C.	9	$(0.96 \pm 1.30)\text{E-07}$	$(3.05 \pm 1.35)\text{E-07}$	$(-0.79 \pm 1.04)\text{E-07}$
Girard, Ga., dairy	12	$(1.97 \pm 1.55)\text{E-07}$	$(5.45 \pm 1.31)\text{E-07}$	$(0.05 \pm 1.29)\text{E-07}$
Gracewood, Ga., dairy	10	$(2.17 \pm 1.79)\text{E-07}$	$(5.91 \pm 1.36)\text{E-07}$	$(-0.14 \pm 1.04)\text{E-07}$
Jackson, S.C., dairy	11	$(6.85 \pm 1.76)\text{E-07}$	$(1.08 \pm 0.14)\text{E-06}$	$(4.29 \pm 1.06)\text{E-07}$
NE S.C. 50-mile radius	7	$(2.02 \pm 1.67)\text{E-07}$	$(5.17 \pm 1.39)\text{E-07}$	$(0.73 \pm 1.36)\text{E-07}$
NW S.C. 50-mile radius	6	$(2.20 \pm 1.34)\text{E-07}$	$(3.40 \pm 1.38)\text{E-07}$	$(0.08 \pm 1.35)\text{E-07}$
SE S.C. 50-mile radius	6	$(2.54 \pm 3.06)\text{E-07}$	$(5.68 \pm 1.36)\text{E-07}$	$(-0.72 \pm 1.36)\text{E-07}$
SW Ga. 50-mile radius	3	$(1.13 \pm 2.67)\text{E-07}$	$(3.94 \pm 1.39)\text{E-07}$	$(-1.36 \pm 1.34)\text{E-07}$
Waynesboro, Ga., dairy	10	$(5.50 \pm 8.24)\text{E-08}$	$(1.58 \pm 1.33)\text{E-07}$	$(-0.66 \pm 1.35)\text{E-07}$
Sr-90, $\mu\text{Ci/mL}$				
Girard, Ga., dairy	1	$(7.47 \pm 4.43)\text{E-09}$		
Gracewood, Ga., dairy	1	$(1.94 \pm 1.48)\text{E-09}$		
Jackson, S.C., dairy	1	$(2.35 \pm 1.58)\text{E-09}$		
Waynesboro, Ga., dairy	1	$(3.29 \pm 1.73)\text{E-09}$		
Cs-137^a, $\mu\text{Ci/mL}$ (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	$(3.32 \pm 1.23)\text{E-09}$	$(4.19 \pm 1.13)\text{E-09}$	$(2.45 \pm 0.92)\text{E-09}$
Gracewood, Ga., dairy	2	$(3.64 \pm 0.32)\text{E-09}$	$(3.87 \pm 1.16)\text{E-09}$	$(3.41 \pm 1.26)\text{E-09}$
NE S.C. 50-mile radius	5	$(5.64 \pm 1.34)\text{E-09}$	$(7.73 \pm 1.37)\text{E-09}$	$(4.19 \pm 0.95)\text{E-09}$
SE S.C. 50-mile radius	1	$(3.65 \pm 1.19)\text{E-09}$		
SW Ga. 50-mile radius	1	$(3.16 \pm 0.95)\text{E-09}$		

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 31
Radioactivity in Aquatic Food Products — Freshwater Fish

Page 1 of 10

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
H-3, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bream	2	$(-0.07 \pm 1.50)E-01$	$(9.91 \pm 4.15)E-02$	$(-1.13 \pm 0.48)E-01$
Catfish	3	$(9.71 \pm 7.13)E-03$	$(1.77 \pm 2.69)E-02$	$(0.39 \pm 3.04)E-02$
Crappie	1	$(1.86 \pm 1.52)E-02$		
Beaver Dam Creek River Mouth				
Catfish	3	$(9.36 \pm 3.05)E-02$	$(1.23 \pm 0.26)E-01$	$(6.19 \pm 3.26)E-02$
Four Mile Creek River Mouth				
Catfish	1	$(7.19 \pm 0.24)E-01$		
Hwy-301 Bridge Area				
Bream	3	$(2.79 \pm 0.10)E-01$	$(2.90 \pm 0.34)E-01$	$(2.73 \pm 0.45)E-01$
Catfish	2	$(3.06 \pm 0.87)E-01$	$(3.67 \pm 0.28)E-01$	$(2.44 \pm 0.24)E-01$
L3R Creek River Mouth				
Bream	1	$(2.66 \pm 0.43)E-01$		
Catfish	2	$(1.71 \pm 0.60)E-01$	$(2.14 \pm 0.24)E-01$	$(1.28 \pm 0.21)E-01$
Steel Creek River Mouth				
Bass	1	$(1.97 \pm 0.03)E+00$		
Bream	2	$(2.08 \pm 0.88)E+00$	$(2.70 \pm 0.05)E+00$	$(1.45 \pm 0.03)E+00$
Catfish	2	$(1.59 \pm 1.40)E+00$	$(2.58 \pm 0.05)E+00$	$(6.06 \pm 0.35)E-01$
U3R Creek River Mouth				
Catfish	2	$(1.89 \pm 0.23)E-01$	$(2.06 \pm 0.31)E-01$	$(1.73 \pm 0.29)E-01$
Cs-137, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Catfish	2	$(4.29 \pm 0.06)E-02$	$(4.33 \pm 1.39)E-02$	$(4.25 \pm 1.51)E-02$
Beaver Dam Creek River Mouth				
Catfish	2	$(9.00 \pm 2.12)E-02$	$(1.05 \pm 0.21)E-01$	$(7.51 \pm 1.95)E-02$
Hwy-301 Bridge Area				
Bream	3	$(7.50 \pm 1.62)E-02$	$(8.93 \pm 1.43)E-02$	$(5.74 \pm 1.22)E-02$
Catfish	2	$(5.69 \pm 1.08)E-02$	$(6.45 \pm 0.54)E-02$	$(4.92 \pm 0.67)E-02$
L3R Creek River Mouth				
Bream	1	$(1.55 \pm 0.27)E-01$		
Catfish	2	$(2.54 \pm 2.53)E-01$	$(4.33 \pm 0.33)E-01$	$(7.54 \pm 2.09)E-02$

Table 31
Radioactivity in Aquatic Food Products — Freshwater Fish

Page 2 of 10

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Steel Creek River Mouth				
Bass	1	(1.21 $\pm$ 0.04)E+00		
Bream	2	(1.71 $\pm$ 0.38)E-01	(1.98 $\pm$ 0.28)E-01	(1.44 $\pm$ 0.35)E-01
Catfish	2	(8.23 $\pm$ 1.13)E-02	(9.03 $\pm$ 2.61)E-02	(7.43 $\pm$ 1.24)E-02
U3R Creek River Mouth				
Catfish	2	(9.10 $\pm$ 2.62)E-02	(1.09 $\pm$ 0.24)E-01	(7.24 $\pm$ 2.41)E-02
Onsite (Edible)				
Beaver Dam Creek				
Bream	1	(1.67 $\pm$ 0.30)E-01		
L-Lake				
Bass	3	(8.33 $\pm$ 0.46)E-01	(8.73 $\pm$ 0.30)E-01	(7.83 $\pm$ 0.55)E-01
Bream	3	(3.13 $\pm$ 0.65)E-01	(3.87 $\pm$ 0.50)E-01	(2.68 $\pm$ 0.57)E-01
PAR Pond				
Bass	3	(1.42 $\pm$ 0.19)E+01	(1.58 $\pm$ 0.01)E	(1.21 $\pm$ 0.02)E+01
Bluegill	1	(6.96 $\pm$ 0.16)E+00		
Bream	1	(2.66 $\pm$ 0.11)E+00		
Crappie	1	(9.43 $\pm$ 0.19)E+00		
Pond B				
Bream	1	(3.39 $\pm$ 0.03)E+01		
SC-4 Steel Creek at Road A				
Bass	3	(1.21 $\pm$ 0.39)E+00	(1.65 $\pm$ 0.10)E+00	(9.13 $\pm$ 0.14)E-01
Bream	3	(3.40 $\pm$ 1.81)E-01	(5.45 $\pm$ 0.43)E-01	(2.03 $\pm$ 0.35)E-01
Offsite (Nonedible)				
Beaver Dam Creek River Mouth				
Catfish	2	(6.68 $\pm$ 2.54)E-02	(8.48 $\pm$ 2.78)E-02	(4.88 $\pm$ 1.80)E-02
Hwy-301 Bridge Area				
Bream	2	(5.05 $\pm$ 3.60)E-02	(7.59 $\pm$ 0.89)E-02	(2.50 $\pm$ 0.91)E-02
Catfish	2	(2.72 $\pm$ 1.08)E-02	(3.49 $\pm$ 0.57)E-02	(1.95 $\pm$ 0.57)E-02
L3R Creek River Mouth				
Catfish	2	(1.92 $\pm$ 1.60)E-01	(3.05 $\pm$ 0.31)E-01	(7.88 $\pm$ 1.68)E-02
Steel Creek River Mouth				
Bass	1	(7.30 $\pm$ 0.35)E-01		
Bream	2	(5.74 $\pm$ 5.51)E-02	(9.64 $\pm$ 2.74)E-02	(1.85 $\pm$ 0.43)E-02
Catfish	2	(4.44 $\pm$ 1.02)E-02	(5.16 $\pm$ 1.64)E-02	(3.72 $\pm$ 1.00)E-02

Table 31
Radioactivity in Aquatic Food Products — Freshwater Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
U3R Creek River Mouth				
Catfish	1	(4.73 $\pm$ 1.45)E-02		
U-235, pCi/g				
Offsite (Nonedible)				
Hwy-301 Bridge Area				
Bream	1	(6.57 $\pm$ 2.10)E-02		
Pu-238, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bream	2	(0.84 $\pm$ 1.26)E-04	(1.73 $\pm$ 0.43)E-04	(-0.44 $\pm$ 2.59)E-05
Catfish	3	(1.80 $\pm$ 2.18)E-05	(4.32 $\pm$ 1.19)E-05	(0.40 $\pm$ 1.37)E-05
Crappie	1	(5.99 $\pm$ 1.98)E-05		
Beaver Dam Creek River Mouth				
Catfish	3	(4.46 $\pm$ 7.74)E-04	(1.34 $\pm$ 0.50)E-03	(-0.85 $\pm$ 1.24)E-05
Four Mile Creek River Mouth				
Catfish	1	(1.12 $\pm$ 0.15)E-04		
Hwy-301 Bridge Area				
Bream	3	(1.08 $\pm$ 2.11)E-05	(3.28 $\pm$ 2.58)E-05	(-0.92 $\pm$ 1.96)E-05
Catfish	2	(-3.56 $\pm$ 5.46)E-05	(3.04 $\pm$ 3.92)E-06	(-7.42 $\pm$ 5.25)E-05
L3R Creek River Mouth				
Bream	1	(-1.23 $\pm$ 2.04)E-05		
Catfish	1	(4.23 $\pm$ 2.13)E-05		
Steel Creek River Mouth				
Bass	1	(7.34 $\pm$ 7.35)E-06		
Bream	2	(3.10 $\pm$ 2.18)E-06	(0.46 $\pm$ 1.39)E-05	(1.56 $\pm$ 7.74)E-06
Catfish	2	(2.42 $\pm$ 0.06)E-05	(2.46 $\pm$ 1.27)E-05	(2.38 $\pm$ 1.93)E-05
U3R Creek River Mouth				
Catfish	2	(0.73 $\pm$ 1.04)E-05	(1.47 $\pm$ 0.50)E-05	(0.00 $\pm$ 1.11)E-05
Onsite (Edible)				
L-Lake				
Bream	3	(-2.09 $\pm$ 3.15)E-05	(1.43 $\pm$ 1.85)E-05	(-4.65 $\pm$ 4.26)E-05
Pond B				
Bream	1	(6.13 $\pm$ 2.19)E-05		

Table 31
Radioactivity in Aquatic Food Products — Freshwater Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
SC-4 Steel Creek at Road A				
Bream	2	(0.79 $\pm$ 1.10)E-02	(1.56 $\pm$ 0.08)E-02	(1.32 $\pm$ 0.28)E-04
Pu-239, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bream	2	(-8.08 $\pm$ 5.26)E-06	(-0.44 $\pm$ 2.34)E-05	(-1.18 $\pm$ 2.20)E-05
Catfish	3	(1.43 $\pm$ 1.35)E-05	(2.87 $\pm$ 1.06)E-05	(2.09 $\pm$ 6.92)E-06
Crappie	1	(2.72 $\pm$ 1.22)E-05		
Beaver Dam Creek River Mouth				
Catfish	3	(-1.14 $\pm$ 9.43)E-06	(7.32 $\pm$ 9.46)E-06	(-1.13 $\pm$ 1.06)E-05
Four Mile Creek River Mouth				
Catfish	1	(6.07 $\pm$ 5.35)E-06		
Hwy-301 Bridge Area				
Bream	3	(0.36 $\pm$ 3.77)E-05	(3.52 $\pm$ 1.77)E-05	(-3.82 $\pm$ 1.97)E-05
Catfish	2	(-4.29 $\pm$ 5.64)E-05	(-3.03 $\pm$ 3.64)E-06	(-8.27 $\pm$ 4.25)E-05
L3R Creek River Mouth				
Bream	1	(1.63 $\pm$ 0.82)E-05		
Catfish	1	(-2.11 $\pm$ 1.41)E-05		
Steel Creek River Mouth				
Bass	1	(4.89 $\pm$ 6.91)E-06		
Bream	2	(2.69 $\pm$ 2.75)E-06	(0.46 $\pm$ 1.39)E-05	(0.74 $\pm$ 5.50)E-06
Catfish	2	(2.74 $\pm$ 3.87)E-06	(5.48 $\pm$ 6.73)E-06	(0.00 $\pm$ 2.75)E-04
U3R Creek River Mouth				
Catfish	2	(2.09 $\pm$ 8.84)E-06	(8.34 $\pm$ 3.92)E-06	(-4.16 $\pm$ 5.89)E-06
Onsite (Edible)				
L-Lake				
Bream	3	(-0.37 $\pm$ 1.87)E-05	(0.92 $\pm$ 4.42)E-05	(-2.52 $\pm$ 2.08)E-05
Pond B				
Bream	1	(4.07 $\pm$ 2.70)E-05		
SC-4 Steel Creek at Road A				
Bream	2	(4.33 $\pm$ 8.79)E-05	(1.05 $\pm$ 0.23)E-04	(-1.89 $\pm$ 1.79)E-05

Table 31
Radioactivity in Aquatic Food Products — Freshwater Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Sr-89,90, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bream	2	(1.07 $\pm$ 1.23)E-02	(1.93 $\pm$ 0.69)E-02	(2.01 $\pm$ 2.10)E-03
Catfish	3	(5.37 $\pm$ 3.24)E-03	(9.05 $\pm$ 3.12)E-03	(2.93 $\pm$ 2.47)E-03
Crappie	1	(7.52 $\pm$ 3.98)E-03		
Beaver Dam Creek River Mouth				
Catfish	2	(1.23 $\pm$ 0.50)E-03	(1.59 $\pm$ 1.44)E-03	(0.88 $\pm$ 1.90)E-03
Four Mile Creek River Mouth				
Catfish	1	(2.98 $\pm$ 1.79)E-03		
Hwy-301 Bridge Area				
Bream	3	(5.56 $\pm$ 3.03)E-03	(9.03 $\pm$ 3.57)E-03	(3.40 $\pm$ 3.75)E-03
Catfish	2	(3.40 $\pm$ 2.50)E-03	(5.16 $\pm$ 1.44)E-03	(1.63 $\pm$ 1.08)E-03
L3R Creek River Mouth				
Bream	1	(-0.03 $\pm$ 1.96)E-03		
Catfish	2	(1.02 $\pm$ 2.27)E-03	(2.63 $\pm$ 1.14)E-03	(-0.58 $\pm$ 3.57)E-03
Steel Creek River Mouth				
Bass	1	(5.62 $\pm$ 1.85)E-03		
Bream	2	(8.25 $\pm$ 3.82)E-03	(1.10 $\pm$ 0.38)E-02	(5.55 $\pm$ 2.18)E-03
Catfish	2	(1.40 $\pm$ 0.82)E-02	(1.98 $\pm$ 0.31)E-02	(8.24 $\pm$ 2.47)E-03
U3R Creek River Mouth				
Catfish	2	(2.24 $\pm$ 2.63)E-03	(4.09 $\pm$ 0.86)E-03	(0.38 $\pm$ 1.40)E-03
Onsite (Edible)				
L-Lake				
Bream	3	(5.58 $\pm$ 3.17)E-03	(8.68 $\pm$ 3.68)E-03	(2.33 $\pm$ 4.11)E-03
Pond B				
Bream	1	(1.13 $\pm$ 0.08)E-01		
SC-4 Steel Creek at Road A				
Bream	2	(7.48 $\pm$ 0.61)E-03	(7.91 $\pm$ 3.04)E-03	(7.05 $\pm$ 3.97)E-03
Offsite (Nonedible)				
Augusta Lock and Dam				
Bream	2	(8.95 $\pm$ 9.09)E-01	(1.54 $\pm$ 0.28)E+00	(2.53 $\pm$ 0.46)E-01
Catfish	3	(5.81 $\pm$ 3.01)E-02	(8.18 $\pm$ 2.23)E-02	(2.42 $\pm$ 2.24)E-02
Crappie	1	(1.35 $\pm$ 0.27)E-01		

Table 31
Radioactivity in Aquatic Food Products — Freshwater Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Beaver Dam Creek River Mouth				
Catfish	3	(4.16 $\pm$ 4.46)E-01	(9.31 $\pm$ 1.51)E-01	(1.38 $\pm$ 0.26)E-01
Four Mile Creek River Mouth				
Catfish	1	(1.73 $\pm$ 0.25)E-01		
Hwy-301 Bridge Area				
Bream	3	(2.50 $\pm$ 1.62)E-01	(4.36 $\pm$ 1.39)E-01	(1.56 $\pm$ 0.31)E-01
Catfish	2	(2.96 $\pm$ 3.28)E-01	(5.28 $\pm$ 1.56)E-01	(6.34 $\pm$ 2.15)E-02
L3R Creek River Mouth				
Bream	1	(1.86 $\pm$ 0.52)E-01		
Catfish	2	(1.09 $\pm$ 0.11)E-01	(1.16 $\pm$ 0.25)E-01	(1.01 $\pm$ 0.21)E-01
Steel Creek River Mouth				
Bass	1	(5.68 $\pm$ 4.57)E-02		
Bream	2	(1.83 $\pm$ 0.55)E-01	(2.22 $\pm$ 0.21)E-01	(1.44 $\pm$ 0.30)E-01
Catfish	2	(1.10 $\pm$ 0.39)E-01	(1.38 $\pm$ 0.18)E-01	(8.27 $\pm$ 1.38)E-02
U3R Creek River Mouth				
Catfish	2	(4.60 $\pm$ 5.02)E-01	(8.15 $\pm$ 2.02)E-01	(1.04 $\pm$ 0.15)E-01
Gross Beta, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bream	2	(2.40 $\pm$ 0.40)E+00	(2.69 $\pm$ 0.52)E+00	(2.12 $\pm$ 0.32)E+00
Catfish	3	(2.34 $\pm$ 0.24)E+00	(2.56 $\pm$ 0.38)E+00	(2.09 $\pm$ 0.26)E+00
Crappie	1	(2.98 $\pm$ 0.42)E+00		
Beaver Dam Creek River Mouth				
Catfish	3	(2.65 $\pm$ 0.47)E+00	(3.03 $\pm$ 0.36)E+00	(2.12 $\pm$ 0.32)E+00
Four Mile Creek River Mouth				
Catfish	1	(2.91 $\pm$ 0.31)E+00		
Hwy-301 Bridge Area				
Bream	3	(2.06 $\pm$ 0.48)E+00	(2.42 $\pm$ 0.40)E+00	(1.51 $\pm$ 0.30)E+00
Catfish	2	(2.42 $\pm$ 0.43)E+00	(2.73 $\pm$ 0.35)E+00	(2.12 $\pm$ 0.32)E+00
L3R Creek River Mouth				
Bream	1	(1.82 $\pm$ 0.31)E+00		
Catfish	2	(2.87 $\pm$ 0.67)E+00	(3.34 $\pm$ 0.44)E+00	(2.40 $\pm$ 0.23)E+00

Table 31
Radioactivity in Aquatic Food Products — Freshwater Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Steel Creek River Mouth				
Bass	1	(2.61 $\pm$ 0.40)E+00		
Bream	2	(1.94 $\pm$ 0.20)E+00	(2.08 $\pm$ 0.34)E+00	(1.79 $\pm$ 0.37)E+00
Catfish	2	(3.64 $\pm$ 2.04)E+00	(5.09 $\pm$ 0.58)E+00	(2.20 $\pm$ 0.37)E+00
U3R Creek River Mouth				
Catfish	2	(2.08 $\pm$ 0.04)E+00	(2.10 $\pm$ 0.31)E+00	(2.05 $\pm$ 0.38)E+00
Onsite (Edible)				
Beaver Dam Creek				
Bream	3	(2.60 $\pm$ 0.18)E+00	(2.78 $\pm$ 0.41)E+00	(2.42 $\pm$ 0.33)E+00
L-Lake				
Bass	3	(3.15 $\pm$ 0.60)E+00	(3.63 $\pm$ 0.34)E+00	(2.47 $\pm$ 0.28)E+00
Bream	3	(2.33 $\pm$ 0.51)E+00	(2.78 $\pm$ 0.41)E+00	(1.78 $\pm$ 0.37)E+00
PAR Pond				
Bass	3	(1.32 $\pm$ 0.37)E+01	(1.64 $\pm$ 0.06)E+01	(9.15 $\pm$ 0.52)E+00
Bluegill	1	(6.66 $\pm$ 0.47)E+00		
Bream	1	(3.79 $\pm$ 0.38)E+00		
Crappie	1	(6.51 $\pm$ 0.45)E+00		
Pond B				
Bass	1	(8.72 $\pm$ 0.18)E+01		
Bream	3	(2.97 $\pm$ 0.85)E+01	(3.90 $\pm$ 0.12)E+01	(2.23 $\pm$ 0.09)E+01
SC-4 Steel Creek at Road A				
Bass	3	(3.97 $\pm$ 0.11)E+00	(4.07 $\pm$ 0.36)E+00	(3.85 $\pm$ 0.43)E+00
Bream	3	(2.55 $\pm$ 0.39)E+00	(2.86 $\pm$ 0.44)E+00	(2.12 $\pm$ 0.32)E+00
Offsite (Nonedible)				
Augusta Lock and Dam				
Bream	2	(3.81 $\pm$ 2.90)E+00	(5.86 $\pm$ 1.28)E+00	(1.76 $\pm$ 0.63)E+00
Catfish	3	(1.61 $\pm$ 0.97)E+00	(2.27 $\pm$ 0.73)E+00	(5.04 $\pm$ 4.56)E-01
Crappie	1	(1.99 $\pm$ 0.81)E+00		
Beaver Dam Creek River Mouth				
Catfish	3	(1.89 $\pm$ 0.52)E+00	(2.49 $\pm$ 0.83)E+00	(1.59 $\pm$ 0.85)E+00
Four Mile Creek River Mouth				
Catfish	1	(2.17 $\pm$ 0.81)E+00		

Table 31
Radioactivity in Aquatic Food Products — Freshwater Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Hwy-301 Bridge Area				
Bream	2	(2.84 $\pm$ 0.04)E+00	(2.86 $\pm$ 0.96)E+00	(2.81 $\pm$ 0.96)E+00
Catfish	2	(1.75 $\pm$ 0.37)E+00	(2.01 $\pm$ 0.89)E+00	(1.48 $\pm$ 0.85)E+00
L3R Creek River Mouth				
Bream	1	(1.48 $\pm$ 0.84)E+00		
Catfish	2	(1.91 $\pm$ 1.05)E+00	(2.65 $\pm$ 0.92)E+00	(1.17 $\pm$ 0.82)E+00
Steel Creek River Mouth				
Bass	1	(2.96 $\pm$ 0.86)E+00		
Bream	2	(2.73 $\pm$ 0.39)E+00	(3.00 $\pm$ 0.62)E+00	(2.45 $\pm$ 0.78)E+00
Catfish	2	(1.61 $\pm$ 0.70)E+00	(2.10 $\pm$ 0.73)E+00	(1.12 $\pm$ 0.66)E+00
U3R Creek River Mouth				
Catfish	2	(1.83 $\pm$ 0.16)E+00	(1.94 $\pm$ 0.81)E+00	(1.71 $\pm$ 0.74)E+00
Gross Alpha, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bream	2	(-6.34 $\pm$ 5.59)E-02	(-0.24 $\pm$ 1.76)E-01	(-1.03 $\pm$ 0.82)E-01
Catfish	3	(3.35 $\pm$ 4.54)E-02	(0.66 $\pm$ 1.48)E-01	(-0.18 $\pm$ 1.43)E-01
Crappie	1	(1.10 $\pm$ 1.60)E-01		
Beaver Dam Creek River Mouth				
Catfish	3	(7.09 $\pm$ 6.99)E-02	(1.51 $\pm$ 1.51)E-01	(0.26 $\pm$ 1.23)E-01
Four Mile Creek River Mouth				
Catfish	1	(-3.34 $\pm$ 9.42)E-02		
Hwy-301 Bridge Area				
Bream	3	(-1.73 $\pm$ 8.48)E-02	(0.37 $\pm$ 1.48)E-01	(-1.15 $\pm$ 0.89)E-01
Catfish	2	(-1.02 $\pm$ 0.01)E-01	(-1.01 $\pm$ 0.80)E-01	(-1.03 $\pm$ 0.82)E-01
L3R Creek River Mouth				
Bream	1	(-0.38 $\pm$ 1.02)E-01		
Catfish	2	(-2.22 $\pm$ 7.86)E-02	(0.33 $\pm$ 1.41)E-01	(-7.77 $\pm$ 6.34)E-02
Steel Creek River Mouth				
Bass	1	(0.35 $\pm$ 1.40)E-01		
Bream	2	(1.08 $\pm$ 1.10)E-01	(1.87 $\pm$ 1.80)E-01	(0.30 $\pm$ 1.21)E-01
Catfish	2	(1.86 $\pm$ 5.92)E-02	(0.60 $\pm$ 1.37)E-01	(-0.23 $\pm$ 1.73)E-01
U3R Creek River Mouth				
Catfish	2	(-3.16 $\pm$ 9.75)E-02	(0.37 $\pm$ 1.40)E-01	(-1.01 $\pm$ 0.79)E-01

Table 31
Radioactivity in Aquatic Food Products — Freshwater Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Onsite (Edible)				
Beaver Dam Creek				
Bream	3	$(-6.57 \pm 4.44)E-02$	$(-0.39 \pm 1.06)E-01$	$(-1.17 \pm 0.89)E-01$
L-Lake				
Bass	3	$(1.08 \pm 1.90)E-01$	$(2.76 \pm 1.66)E-01$	$(-9.88 \pm 7.41)E-02$
Bream	3	$(0.61 \pm 1.72)E-01$	$(2.60 \pm 1.86)E-01$	$(-0.41 \pm 1.16)E-01$
PAR Pond				
Bass	3	$(-1.25 \pm 0.29)E-01$	$(-1.03 \pm 0.82)E-01$	$(-1.59 \pm 0.64)E-01$
Bluegill	1	$(-9.99 \pm 8.01)E-02$		
Bream	1	$(-0.39 \pm 1.06)E-01$		
Crappie	1	$(-4.54 \pm 9.58)E-02$		
Pond B				
Bass	1	$(-0.61 \pm 1.76)E-01$		
Bream	3	$(-0.44 \pm 1.09)E-01$	$(0.82 \pm 1.81)E-01$	$(-1.13 \pm 1.14)E-01$
SC-4 Steel Creek at Road A				
Bass	3	$(-2.60 \pm 8.12)E-02$	$(0.60 \pm 1.37)E-01$	$(-1.01 \pm 0.52)E-01$
Bream	3	$(-0.16 \pm 1.28)E-01$	$(1.22 \pm 1.74)E-01$	$(-1.31 \pm 1.00)E-01$
Offsite (Nonedible)				
Augusta Lock and Dam				
Bream	2	$(-5.69 \pm 5.05)E-01$	$(-2.12 \pm 2.44)E-01$	$(-9.26 \pm 7.30)E-01$
Catfish	3	$(2.85 \pm 2.19)E-01$	$(5.16 \pm 3.44)E-01$	$(0.82 \pm 3.93)E-01$
Crappie	1	$(8.32 \pm 6.02)E-01$		
Beaver Dam Creek River Mouth				
Catfish	3	$(-1.01 \pm 2.07)E-01$	$(1.06 \pm 3.75)E-01$	$(-3.07 \pm 2.49)E-01$
Four Mile Creek River Mouth				
Catfish	1	$(1.20 \pm 4.16)E-01$		
Hwy-301 Bridge Area				
Bream	2	$(-1.27 \pm 0.00)E-01$	$(-1.27 \pm 4.24)E-01$	$(-1.27 \pm 4.07)E-01$
Catfish	2	$(1.22 \pm 3.15)E-01$	$(3.44 \pm 4.68)E-01$	$(-1.01 \pm 3.43)E-01$
L3R Creek River Mouth				
Bream	1	$(-0.95 \pm 3.18)E-01$		
Catfish	2	$(-2.12 \pm 1.65)E-01$	$(-0.95 \pm 3.18)E-01$	$(-3.29 \pm 2.65)E-01$

Table 31
Radioactivity in Aquatic Food Products — Freshwater Fish

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Steel Creek River Mouth				
Bass	1	$(1.25 \pm 4.41)E-01$		
Bream	2	$(-0.17 \pm 1.16)E-01$	$(0.65 \pm 3.25)E-01$	$(-0.99 \pm 3.28)E-01$
Catfish	2	$(1.61 \pm 3.79)E-01$	$(4.29 \pm 4.50)E-01$	$(-1.07 \pm 2.91)E-01$
U3R Creek River Mouth				
Catfish	2	$(-0.10 \pm 1.49)E-01$	$(0.95 \pm 3.31)E-01$	$(-1.16 \pm 3.87)E-01$

Table 32
Radioactivity in Aquatic Food Products — Marine (Saltwater) Fish

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Location	pCi/g	
	Gross Beta	Gross Alpha
Highway-17A Bridge Area		
Offsite (Edible)		
Mullet	$(2.60 \pm 0.40)E+00$	$(0.33 \pm 1.36)E-01$

Table 33
Radioactivity in Aquatic Food Products — Marine Invertebrates (Shellfish)

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Sr-89,90, pCi/g				
RM-8 Savannah River mouth	2	$(-2.65 \pm 2.94)E-03$	$(-0.57 \pm 3.58)E-03$	$(-4.73 \pm 4.18)E-03$
Gross Beta, pCi/g				
RM-8 Savannah River mouth	2	$(1.79 \pm 0.59)E+00$	$(2.21 \pm 0.35)E+00$	$(1.37 \pm 0.22)E+00$
Gross Alpha, pCi/g				
RM-8 Savannah River mouth	2	$(7.63 \pm 3.19)E-01$	$(9.89 \pm 2.50)E-01$	$(5.37 \pm 2.60)E-01$

Table 34
Comparison of Field and Laboratory Cesium-137 Measurements
in Deer and Hog Muscle

Page 1 of 4

Date	Sample Number	Animal Type	pCi/g	
			Field Cs-137	Lab Cs-137
01-NOV-95	1	Deer	5.1	5.19 ± 0.12
01-NOV-95	2	Deer	1.8	2.05 ± 0.08
01-NOV-95	3	Deer	4.8	4.61 ± 0.06
01-NOV-95	4	Deer	2.7	3.08 ± 0.09
01-NOV-95	5 (DUP) ^a	Deer	10.9	11.5 ± 0.17
01-NOV-95	5 (DUP) ^a	Deer	10.9	11.8 ± 0.18
01-NOV-95	6	Deer	24.2	20.7 ± 0.13
01-NOV-95	7	Deer	7.4	9.15 ± 0.1
01-NOV-95	8	Deer	18.4	10.4 ± 0.1
01-NOV-95	9	Deer	14.3	11.3 ± 0.11
01-NOV-95	10	Deer	4.1	3.37 ± 0.1
01-NOV-95	11	Deer	3.5	3.25 ± 0.09
01-NOV-95	12	Deer	3.9	3.77 ± 0.1
01-NOV-95	13	Hog	2.4	3.62 ± 0.1
04-NOV-95	1	Deer	1.7	1.26 ± 0.06
04-NOV-95	2	Deer	2.7	3.1 ± 0.06
04-NOV-95	3	Deer	4.4	5.44 ± 0.14
04-NOV-95	4	Deer	2.7	2.26 ± 0.08
04-NOV-95	5 (DUP) ^a	Deer	4.6	3.74 ± 0.1
04-NOV-95	5 (DUP) ^a	Deer	4.6	3.29 ± 0.09
04-NOV-95	6	Deer	1.9	1.83 ± 0.08
04-NOV-95	7	Deer	1.3	1.64 ± 0.07
04-NOV-95	8	Deer	3.4	4.52 ± 0.11
04-NOV-95	9	Deer	3.2	2.69 ± 0.09
04-NOV-95	10	Deer	4.6	4.97 ± 0.13
08-NOV-95	1	Deer	4.9	5.01 ± 0.13
08-NOV-95	2	Deer	3.5	4.07 ± 0.1
08-NOV-95	3	Deer	6.5	6.82 ± 0.15
08-NOV-95	4	Deer	9.1	8.35 ± 0.17
08-NOV-95	5 (DUP) ^a	Deer	6.1	6.04 ± 0.09
08-NOV-95	5 (DUP) ^a	Deer	6.1	6.24 ± 0.13
08-NOV-95	6	Deer	6	8.27 ± 0.15

^a Duplicate laboratory analysis on single field sample

Table 34
Comparison of Field and Laboratory Cesium-137 Measurements
in Deer and Hog Muscle

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Date	Sample Number	Animal Type	pCi/g	
			Field Cs-137	Lab Cs-137
08-NOV-95	7	Deer	5.1	5.95 ± 0.13
08-NOV-95	8	Deer	9.5	7.78 ± 0.16
08-NOV-95	9	Deer	2.5	2.58 ± 0.08
08-NOV-95	10	Deer	2.9	2.11 ± 0.08
08-NOV-95	11	Deer	3.4	3.06 ± 0.06
11-NOV-95	1	Deer	3.2	3.49 ± 0.1
11-NOV-95	2	Deer	2.9	3.87 ± 0.1
11-NOV-95	3	Deer	2.4	4.13 ± 0.11
11-NOV-95	4	Deer	4.5	5.24 ± 0.12
11-NOV-95	5 (DUP) ^a	Deer	6.4	6.78 ± 0.14
11-NOV-95	5 (DUP) ^a	Deer	6.4	6.66 ± 0.13
11-NOV-95	6	Deer	8.1	9.39 ± 0.11
11-NOV-95	7	Deer	1	5 ± 0.11
11-NOV-95	8	Deer	3.7	4.67 ± 0.11
11-NOV-95	9	Deer	3.5	3.91 ± 0.1
15-NOV-95	1	Deer	3.9	3.72 ± 0.11
15-NOV-95	2	Deer	15.7	17.7 ± 0.13
15-NOV-95	3	Deer	2.3	2.81 ± 0.1
15-NOV-95	4	Deer	4.4	5.22 ± 0.13
15-NOV-95	5 (DUP) ^a	Deer	2.9	3.37 ± 0.11
15-NOV-95	5 (DUP) ^a	Deer	2.9	3.4 ± 0.1
15-NOV-95	6	Deer	3.9	4.45 ± 0.12
15-NOV-95	8	Deer	3.1	4.11 ± 0.12
15-NOV-95	9	Deer	2.8	3.46 ± 0.1
15-NOV-95	10	Deer	2	3.37 ± 0.11
15-NOV-95	11	Deer	3.6	4.87 ± 0.13
15-NOV-95	12	Deer	2.4	4.14 ± 0.
15-NOV-95	13	Deer	5.7	6.67 ± 0.15
15-NOV-95	14	Deer	1.8	2.42 ± 0.1
15-NOV-95	15 (DUP) ^a	Deer	6.2	6.93 ± 0.13
15-NOV-95	15 (DUP) ^a	Deer	6.2	6.89 ± 0.13
15-NOV-95	16	Deer	4.3	6.24 ± 0.14

^a Duplicate laboratory analysis on single field sample

Table 34
Comparison of Field and Laboratory Cesium-137 Measurements
in Deer and Hog Muscle

Page 3 of 4

Date	Sample Number	Animal Type	pCi/g	
			Field Cs-137	Lab Cs-137
15-NOV-95	17	Deer	2.3	2.71 ± 0.1
18-NOV-95	1	Deer	2.6	2.95 ± 0.1
18-NOV-95	2	Deer	3.2	3.99 ± 0.11
18-NOV-95	3	Deer	4.5	6.48 ± 0.14
18-NOV-95	4	Deer	5.1	5.95 ± 0.14
18-NOV-95	5 (DUP) ^a	Deer	1.7	1.99 ± 0.08
18-NOV-95	5 (DUP) ^a	Deer	1.7	
18-NOV-95	6	Deer	7.6	7.41 ± 0.16
18-NOV-95	7	Deer	5.6	9.01 ± 0.09
18-NOV-95	8	Deer	2.1	3.77 ± 0.11
18-NOV-95	9	Deer	2.4	3.26 ± 0.1
22-NOV-95	1	Deer	3.1	3.92 ± 0.1
22-NOV-95	2	Deer	2.5	3.39 ± 0.1
22-NOV-95	3	Deer	2	2.56 ± 0.09
22-NOV-95	4	Deer	1	3.87 ± 0.11
22-NOV-95	5	Deer	2.5	3.22 ± 0.09
22-NOV-95	6	Deer	2.8	5.38 ± 0.1
22-NOV-95	7	Deer	3.4	4.47 ± 0.11
22-NOV-95	8	Deer	2.4	3.37 ± 0.09
25-NOV-95	1	Deer	1	6.14 ± 0.13
25-NOV-95	2	Deer	4	4.67 ± 0.11
25-NOV-95	3	Deer	1.9	2.15 ± 0.08
25-NOV-95	4	Deer	1.8	2.41 ± 0.08
25-NOV-95	5 (DUP) ^a	Deer	2.4	2.73 ± 0.09
25-NOV-95	5 (DUP) ^a	Deer	2.4	2.61 ± 0.08
25-NOV-95	6	Deer	2.5	3.9 ± 0.1
25-NOV-95	7	Deer	2	3.56 ± 0.09
29-NOV-95	1	Deer	1.4	2.32 ± 0.08
29-NOV-95	2	Deer	3.9	5.36 ± 0.12
29-NOV-95	3	Deer	6.8	8.87 ± 0.15
02-DEC-95	1	Deer	4.3	4.45 ± 0.1
02-DEC-95	2	Deer	3.6	5.51 ± 0.12

a Duplicate laboratory analysis on single field sample

Table 34
Comparison of Field and Laboratory Cesium-137 Measurements
in Deer and Hog Muscle

Page 4 of 4

Date	Sample Number	Animal Type	pCi/g	
			Field Cs-137	Lab Cs-137
02-DEC-95	3	Deer	3.9	8.06 ± 0.14
02-DEC-95	4	Deer	5.8	6.22 ± 0.13
02-DEC-95	5 (DUP) ^a	Deer	2.3	4.18 ± 0.1
02-DEC-95	5 (DUP) ^a	Deer	2.3	4.59 ± 0.11
02-DEC-95	6	Deer	39.9	45.3 ± 0.25
02-DEC-95	7	Deer	31	36.2 ± 0.21
02-DEC-95	8	Deer	8	8.32 ± 0.14
02-DEC-95	9	Deer	8.2	9.29 ± 0.11
02-DEC-95	10	Deer	3.9	4.49 ± 0.1
06-DEC-95	1	Deer	4.9	3.97 ± 0.1
06-DEC-95	2	Deer	7.3	7.66 ± 0.14
06-DEC-95	3	Deer	5.7	7.94 ± 0.14
06-DEC-95	4	Deer	7.8	7.91 ± 0.14
06-DEC-95	5 (DUP) ^a	Deer	4.4	5.33 ± 0.12
06-DEC-95	5 (DUP) ^a	Deer	4.4	5.12 ± 0.11
06-DEC-95	6	Deer	9.7	9.11 ± 0.09
06-DEC-95	7	Deer	7	6.57 ± 0.08
06-DEC-95	8	Deer	4.5	5.9 ± 0.12
06-DEC-95	9	Deer	8.4	8.41 ± 0.14
06-DEC-95	10	Hog	1	1.64 ± 0.07
06-DEC-95	11	Deer	3.5	3.72 ± 0.09
09-DEC-95	1	Deer	4.6	5.31 ± 0.12
09-DEC-95	2	Deer	6.1	9.41 ± 0.15
09-DEC-95	3	Deer	3.9	4.95 ± 0.11
09-DEC-95	4	Deer	7.4	9.05 ± 0.15
09-DEC-95	5 (DUP) ^a	Deer	2	3.75 ± 0.1
09-DEC-95	5 (DUP) ^a	Deer	2	3.8 ± 0.1
09-DEC-95	6	Deer	20.4	16 ± 0.14
09-DEC-95	7	Deer	11.7	12.8 ± 0.12
09-DEC-95	8	Deer	3.8	4.43 ± 0.11
09-DEC-95	9	Deer	6.3	7.32 ± 0.14

^a Duplicate laboratory analysis on single field sample

Table 35
Strontium-89,90 in Deer Bone

Page 1 of 1

Date	Sample Number	Sr-89,90 (pCi/g)
01-NOV-95	1	2.97 ± 0.34
04-NOV-95	1	1.71 ± 0.22
08-NOV-95	1	1.03 ± 0.13
11-NOV-95	1	2.37 ± 0.18
15-NOV-95	1	1.88 ± 0.19
	2	1.41 ± 0.11
18-NOV-95	1	2.4 ± 0.27
25-NOV-95	1	4.66 ± 0.23
02-DEC-95	1	1.77 ± 0.29
	2	8.98 ± 1.16
	3	1.81 ± 0.25
09-DEC-95	1	1.34 ± 0.11

Table 36
Strontium-89,90 in Deer Muscle

Page 1 of 1

Date	Sample Number	Sr-89,90 (pCi/g)
<i>Note: Blank spaces indicate activity was less than the lower limit of detection (.095 pCi/g).</i>		
01-NOV-95	1	
	1 (DUP) ^a	
01-NOV-95	2	
01-NOV-95	3	
01-NOV-95	4	
04-NOV-95	1	
	1 (DUP) ^a	
08-NOV-95	1	
	1 (DUP) ^a	
11-NOV-95	1	
	1 (DUP) ^a	
15-NOV-95	1	
	1 (DUP) ^a	
15-NOV-95	2	
	2 (DUP) ^a	
18-NOV-95	1	
	1 (DUP) ^a	
25-NOV-95	1	
	1 (DUP) ^a	
02-DEC-95	1	
	1 (DUP) ^a	
02-DEC-95	2	
02-DEC-95	3	
06-DEC-95	1	0.017 ± 0.003
	1 (DUP) ^a	
09-DEC-95	1	
	1 (DUP) ^a	
09-DEC-95	2	

^a Duplicate laboratory analysis on single field sample

Table 37
Radioactivity in Soil

Page 1 of 1

Location	pCi/g $\pm \sigma$; dry weight; 0–8 cm depth			
	Sr-89,90	Cs-137	Pu-238	Pu-239
<i>Note:</i> Blank spaces indicate activity was below lower limit of detection.				
F-Area				
2000 feet east	(3.43 $\pm$ 1.78)E-02	(9.74 $\pm$ 0.48)E-01	(6.76 $\pm$ 0.26)E-02	(6.16 $\pm$ 0.16)E-01
2000 feet north	(0.26 $\pm$ 1.14)E-02	(1.14 $\pm$ 0.27)E-01	(4.23 $\pm$ 0.22)E-02	(1.04 $\pm$ 0.04)E-01
2000 feet south	(0.67 $\pm$ 1.26)E-02	(1.56 $\pm$ 0.32)E-01	(8.81 $\pm$ 0.90)E-03	(1.26 $\pm$ 0.11)E-02
2000 feet west	(0.68 $\pm$ 1.60)E-02	(6.83 $\pm$ 0.42)E-01	(6.64 $\pm$ 0.27)E-02	(8.83 $\pm$ 0.33)E-02
H-Area				
2000 feet east	(1.31 $\pm$ 1.60)E-02	(4.60 $\pm$ 0.36)E-01	(6.31 $\pm$ 0.66)E-03	(1.77 $\pm$ 0.12)E-02
2000 feet north	(0.70 $\pm$ 1.63)E-02	(1.01 $\pm$ 0.03)E+00	(2.86 $\pm$ 0.16)E-02	(9.23 $\pm$ 0.33)E-02
2000 feet south	(2.35 $\pm$ 1.69)E-02	(7.80 $\pm$ 0.51)E-01	(8.14 $\pm$ 0.68)E-03	(4.33 $\pm$ 0.18)E-02
2000 feet west	(2.90 $\pm$ 1.72)E-02	(2.96 $\pm$ 0.37)E-01	6.80 $\pm$ 0.69)E-03	(3.31 $\pm$ 0.17)E-02
S-Area				
#1	(-0.24 $\pm$ 1.20)E-02		(7.08 $\pm$ 3.22)E-04	(2.82 $\pm$ 0.48)E-03
#2	(0.68 $\pm$ 1.54)E-02		(6.73 $\pm$ 2.27)E-04	(3.60 $\pm$ 1.55)E-04
#3	(1.03 $\pm$ 1.16)E-02	(1.52 $\pm$ 0.27)E-01	(5.33 $\pm$ 0.37)E-02	(1.66 $\pm$ 0.10)E-01
#4	(3.00 $\pm$ 1.59)E-02		(6.59 $\pm$ 0.66)E-03	(1.54 $\pm$ 0.10)E-02
Z-Area				
#1	(0.21 $\pm$ 1.44)E-02		(4.83 $\pm$ 2.84)E-04	(2.35 $\pm$ 0.42)E-03
#3	(-0.42 $\pm$ 1.38)E-02	(1.10 $\pm$ 0.22)E-01	(6.36 $\pm$ 2.77)E-04	(3.51 $\pm$ 0.48)E-03
#5	(-1.18 $\pm$ 1.43)E-02		(1.78 $\pm$ 1.78)E-04	(0.44 $\pm$ 1.72)E-04
#7	(1.52 $\pm$ 1.56)E-02	(8.47 $\pm$ 1.66)E-02	(1.44 $\pm$ 0.32)E-03	(3.60 $\pm$ 0.51)E-03
Burial Ground				
643-26E-1	(0.83 $\pm$ 1.14)E-02			
643-26E-2	(0.57 $\pm$ 1.13)E-02			
Site Perimeter				
NE quadrant	(-0.26 $\pm$ 1.55)E-02	(2.52 $\pm$ 0.29)E-01	(2.78 $\pm$ 3.08)E-04	(5.92 $\pm$ 0.76)E-03
NW quadrant	(1.50 $\pm$ 1.58)E-02	(3.78 $\pm$ 0.38)E-01	(1.65 $\pm$ 0.42)E-03	(1.49 $\pm$ 0.12)E-02
SE quadrant	(1.85 $\pm$ 1.62)E-02	(4.24 $\pm$ 0.35)E-01	(1.70 $\pm$ 0.45)E-03	(8.24 $\pm$ 0.91)E-03
SW quadrant	(1.58 $\pm$ 1.64)E-02	(3.75 $\pm$ 0.34)E-01	(1.90 $\pm$ 0.72)E-03	(1.14 $\pm$ 0.19)E-02
100-Mile Radius				
Clinton, S.C.	(7.41 $\pm$ 1.12)E-02	(2.92 $\pm$ 0.40)E-01	(5.78 $\pm$ 1.60)E-04	(6.81 $\pm$ 0.44)E-03
Savannah, Ga.	(1.94 $\pm$ 1.31)E-02	(3.55 $\pm$ 0.33)E-01	(4.18 $\pm$ 1.75)E-04	(6.29 $\pm$ 0.56)E-03

Table 38
Radioactivity in River and Stream Sediment

Page 1 of 3

Cs-137, pCi/g (dry weight)				
Location	River Mile	1993	1994	1995
<i>Note:</i> Blank spaces indicate activity was below the lower limit of detection.				
Savannah River				
Below Four Mile Creek	150.2	(1.66 ± 0.35)E-01		(7.88 ± 0.53)E-01
Above Little Hell Landing	136.5	(2.89 ± 0.24)E-01		(4.33 ± 0.41)E-01
Below Little Hell Landing	134.0	(1.17 ± 0.26)E-01	(2.71 ± 0.42)E-01	(1.49 ± 0.07)E+00
Above Lower Three Runs	129.5	(3.49 ± 0.31)E-01	(5.61 ± 0.59)E-01	(1.03 ± 0.05)E+00
Highway 301	118.7	(1.51 ± 0.29)E-01	(2.40 ± 0.38)E-01	(2.03 ± 0.36)E-01
Demiere's Landing (control)	160.5	(1.44 ± 0.34)E-01	(1.01 ± 0.29)E-01	(2.62 ± 0.36)E-01
SRS Streams				
Four Mile at Road A-7		(6.46 ± 0.06)E+00	(1.66 ± 0.01)E+01	(9.54 ± 0.75)E-01
Four Mile A-7A (in a beaver pond)		(3.15 ± 0.07)E+00	(8.88 ± 0.05)E+01	(7.73 ± 0.57)E-01
Four Mile discharge at swamp		(6.61 ± 0.32)E-01	(8.98 ± 0.39)E+01	(4.23 ± 0.17)E-01
Pen Branch discharge at swamp		(3.04 ± 0.10)E+00	(2.82 ± 0.22)E+00	(1.39 ± 0.09)E+00
Steel Creek at Road B		(1.07 ± 0.01)E+01	(2.91 ± 0.31)E-01	(3.56 ± 0.20)E-01
Steel Creek discharge at swamp		(1.37 ± 0.04)E+00	(1.03 ± 0.02)E+01	(4.71 ± 0.06)E+00
Steel Creek-Pen Branch mouth		(3.68 ± 0.03)E+01	(2.37 ± 0.43)E-01	(5.36 ± 0.11)E+00
Lower Three Runs mouth		(1.17 ± 0.06)E+00	(3.80 ± 0.10)E-00	(1.43 ± 0.07)E+00
Upper Three Runs mouth		(6.45 ± 0.44)E-01	(1.55 ± 0.35)E-01	(2.87 ± 0.53)E-01
Co-60, pCi/g (dry weight)				
Location	River Mile	1993	1994	1995
Savannah River				
Below Four Mile Creek	150.2			
Above Little Hell Landing	136.5			
Below Little Hell Landing	134.0			
Above Lower Three Runs	129.5			
Highway 301	118.7			
Demiere's Landing (control)	160.5			
SRS Streams				
Four Mile at Road A-7		(8.74 ± 1.32)E-02	(2.49 ± 0.15)E-01	
Four Mile A-7A (in a beaver pond)			(1.17 ± 0.06)E+00	
Four Mile discharge at swamp			(6.27 ± 1.13)E-02	
Pen Branch discharge at swamp		(2.61 ± 0.47)E-01		
Steel Creek at Road B		(1.45 ± 0.19)E-01		
Steel Creek discharge at swamp			(3.17 ± 0.26)E-01	(2.10 ± 0.12)E-01
Steel Creek-Pen Branch mouth		(1.02 ± 0.05)E+00		
Lower Three Runs mouth				
Upper Three Runs mouth				

Table 38
Radioactivity in River and Stream Sediment

Page 2 of 3

Sr-89,90, pCi/g (dry weight)				
Location	River Mile	1993	1994	1995
Savannah River				
Below Four Mile Creek	150.2	$(5.40 \pm 3.17)E-02$	$(1.51 \pm 1.40)E-02$	$(6.70 \pm 1.56)E-02$
Above Little Hell Landing	136.5	$(-2.49 \pm 1.41)E-02$	$(1.23 \pm 1.11)E-02$	$(-0.39 \pm 1.30)E-02$
Below Little Hell Landing	134.0	$(-0.18 \pm 1.91)E-02$	$(0.74 \pm 1.47)E-02$	$(0.94 \pm 1.39)E-02$
Above Lower Three Runs	129.5	$(-2.43 \pm 1.38)E-02$	$(0.15 \pm 1.51)E-02$	$(0.90 \pm 1.24)E-02$
Highway 301	118.7	$(-1.45 \pm 1.47)E-02$	$(0.62 \pm 1.62)E-02$	$(-0.23 \pm 1.27)E-02$
Demiere's Landing (control)	160.5	$(6.68 \pm 3.23)E-02$	$(1.28 \pm 1.46)E-02$	$(0.83 \pm 1.14)E-02$
SRS Streams				
Four Mile at Road A-7		$(2.47 \pm 0.26)E-01$	$(3.42 \pm 0.20)E-01$	$(4.17 \pm 0.27)E-01$
Four Mile A-7A (in a beaver pond)		$(4.35 \pm 1.71)E-02$	$(1.56 \pm 0.04)E+00$	$(8.77 \pm 0.31)E-01$
Four Mile discharge at swamp		$(1.15 \pm 1.56)E-02$	$(3.03 \pm 1.82)E-02$	$(4.36 \pm 1.69)E-02$
Pen Branch discharge at swamp		$(3.48 \pm 2.38)E-02$	$(1.25 \pm 0.23)E-01$	$(0.63 \pm 1.01)E-02$
Steel Creek at Road B		$(-0.16 \pm 2.23)E-02$	$(0.00 \pm 1.62)E-02$	$(0.77 \pm 1.48)E-02$
Steel Creek discharge at swamp		$(2.71 \pm 1.62)E-02$	$(-0.82 \pm 1.45)E-02$	$(1.55 \pm 1.64)E-02$
Steel Creek-Pen Branch mouth		$(8.22 \pm 2.57)E-02$	$(1.89 \pm 1.48)E-02$	$(-0.09 \pm 1.53)E-02$
Lower Three Runs mouth		$(-0.96 \pm 2.20)E-02$	$(2.91 \pm 1.46)E-02$	$(0.68 \pm 1.28)E-02$
Upper Three Runs mouth		$(3.49 \pm 3.10)E-02$	$(0.21 \pm 1.31)E-02$	$(-1.17 \pm 1.45)E-02$
Pu-238, pCi/g (dry weight)				
Location	River Mile	1993	1994	1995
Savannah River				
Below Four Mile Creek	150.2	$(-2.15 \pm 2.15)E-04$	$(3.06 \pm 1.31)E-04$	$(6.12 \pm 4.33)E-04$
Above Little Hell Landing	136.5	$(2.02 \pm 1.78)E-04$	$(1.59 \pm 0.92)E-04$	$(2.93 \pm 2.32)E-04$
Below Little Hell Landing	134.0	$(3.78 \pm 1.89)E-04$	$(2.15 \pm 1.14)E-04$	$(1.09 \pm 0.27)E-03$
Above Lower Three Runs	129.5	$(-4.97 \pm 4.97)E-04$	$(1.96 \pm 2.36)E-04$	$(3.44 \pm 2.69)E-04$
Highway 301	118.7	$(00.00 \pm 5.65)E-04$	$(1.11 \pm 0.26)E-03$	$(1.30 \pm 0.52)E-03$
Demiere's Landing (control)	160.5	$(2.00 \pm 2.00)E-04$	$(1.51 \pm 1.52)E-04$	$(1.21 \pm 0.85)E-04$
SRS Streams				
Four Mile at Road A-7		$(7.50 \pm 0.41)E-02$	$(2.06 \pm 0.006)E-01$	$(5.58 \pm 7.65)E-04$
Four Mile A-7A (in a beaver pond)		$(3.08 \pm 0.26)E-02$	$(1.23 \pm 0.03)E+00$	$(3.08 \pm 0.83)E-03$
Four Mile discharge at swamp		$(4.85 \pm 0.86)E-03$	$(4.44 \pm 0.51)E-03$	$(2.40 \pm 0.43)E-03$
Pen Branch discharge at swamp		$(4.76 \pm 1.12)E-03$	$(5.94 \pm 0.55)E-03$	$(1.45 \pm 0.45)E-03$
Steel Creek at Road B		$(5.09 \pm 1.05)E-03$	$(6.61 \pm 3.09)E-04$	$(1.36 \pm 0.49)E-03$
Steel Creek discharge at swamp		$2.63 \pm 0.44)E-03$	$(3.79 \pm 0.18)E-02$	$(1.37 \pm 0.14)E-02$
Steel Creek-Pen Branch mouth		$(6.08 \pm 0.30)E-02$	$(3.09 \pm 1.89)E-04$	$(2.63 \pm 0.54)E-03$
Lower Three Runs mouth		$(00.00 \pm 4.13)E-04$	$(8.86 \pm 3.80)E-04$	$(-0.58 \pm 1.75)E-04$
Upper Three Runs mouth		$(3.24 \pm 0.65)E-03$	$(1.97 \pm 0.29)E-03$	$(2.82 \pm 0.47)E-03$

Table 38
Radioactivity in River and Stream Sediment

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Pu-239, pCi/g (dry weight)				
Location	River Mile	1993	1994	1995
Savannah River				
Below Four Mile Creek	150.2	$(4.29 \pm 3.03)E-04$	$(1.25 \pm 0.36)E-03$	$(2.89 \pm 0.77)E-03$
Above Little Hell Landing	136.5	$(1.21 \pm 0.32)E-03$	$(5.28 \pm 1.84)E-04$	$(2.34 \pm 0.44)E-03$
Below Little Hell Landing	134.0	$(7.54 \pm 2.98)E-04$	$(1.00 \pm 0.20)E-03$	$(5.86 \pm 0.55)E-03$
Above Lower Three Runs	129.5	$(2.48 \pm 5.55)E-04$	$(2.48 \pm 0.43)E-03$	$(2.17 \pm 0.41)E-03$
Highway 301	118.7	$(00.00 \pm 5.64)E-04$	$(3.88 \pm 1.67)E-04$	$(8.23 \pm 1.09)E-03$
Demiere's Landing	160.5	$(9.97 \pm 3.46)E-04$	$(2.03 \pm 0.44)E-03$	$(1.26 \pm 0.29)E-03$
SRS Streams				
Four Mile at Road A-7		$(3.06 \pm 0.25)E-02$	$(8.72 \pm 0.31)E-02$	$(-7.78 \pm 6.19)E-04$
Four Mile A-7A (in a beaver pond)		$(1.55 \pm 0.18)E-02$	$(5.25 \pm 0.12)E-01$	$(1.30 \pm 0.59)E-03$
Four Mile discharge at swamp		$(3.76 \pm 0.76)E-03$	$(4.11 \pm 0.46)E-03$	$(1.81 \pm 0.37)E-03$
Pen Branch discharge at swamp		$(2.15 \pm 0.22)E-02$	$(1.43 \pm 0.09)E-02$	$(1.41 \pm 0.11)E-02$
Steel Creek at Road B		$(1.24 \pm 0.16)E-02$	$(6.63 \pm 0.75)E-03$	$(9.49 \pm 0.99)E-03$
Steel Creek discharge at swamp		$(2.62 \pm 0.45)E-03$	$(2.90 \pm 0.15)E-02$	$(1.21 \pm 0.12)E-02$
Steel Creek-Pen Branch mouth		$(8.15 \pm 0.36)E-02$	$(4.10 \pm 1.79)E-04$	$(5.24 \pm 0.76)E-03$
Lower Three Runs mouth		$(1.75 \pm 0.82)E-03$	$(4.04 \pm 0.78)E-03$	$(1.92 \pm 0.34)E-03$
Upper Three Runs mouth		$(1.52 \pm 0.14)E-02$	$(2.69 \pm 0.31)E-03$	$(5.05 \pm 0.62)E-03$

Table 39
Radioactivity in Terrestrial 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				
On Site				
200-F #13	4	(9.67 $\pm$ 7.58)E+00	(1.59 $\pm$ 0.01)E+01	(3.77 $\pm$ 0.21)E-01
200-F #21	4	(3.09 $\pm$ 5.25)E+00	(1.09 $\pm$ 0.01)E+01	(2.03 $\pm$ 0.82)E-02
200-H #10	4	(4.27 $\pm$ 2.85)E+00	(7.30 $\pm$ 0.06)E+00	(4.37 $\pm$ 0.21)E-01
200-H #22	4	(5.91 $\pm$ 3.67)E-01	(9.40 $\pm$ 0.21)E-01	(1.97 $\pm$ 0.06)E-01
643-26E-1	4	(7.10 $\pm$ 8.31)E+00	(1.87 $\pm$ 0.02)E+01	(9.28 $\pm$ 0.24)E-01
643-26E-2	4	(2.54 $\pm$ 2.61)E+00	(6.41 $\pm$ 0.04)E+00	(6.92 $\pm$ 0.23)E-01
S-Area #1	4	(9.98 $\pm$ 3.15)E-01	(1.39 $\pm$ 0.03)E+00	(6.22 $\pm$ 0.36)E-01
S-Area #2	4	(1.43 $\pm$ 0.50)E+00	(2.04 $\pm$ 0.02)E+00	(8.33 $\pm$ 0.55)E-01
S-Area #3	4	(3.12 $\pm$ 2.67)E+00	(5.98 $\pm$ 0.05)E+00	(5.80 $\pm$ 0.19)E-01
S-Area #4	4	(1.02 $\pm$ 0.67)E+00	(1.66 $\pm$ 0.03)E+00	(3.47 $\pm$ 0.23)E-01
Z-Area #1	4	(1.20 $\pm$ 0.76)E+00	(1.88 $\pm$ 0.07)E+00	(4.79 $\pm$ 0.24)E-01
Z-Area #2	4	(7.53 $\pm$ 6.28)E-01	(1.65 $\pm$ 0.06)E+00	(1.81 $\pm$ 0.21)E-01
Z-Area #3	4	(1.05 $\pm$ 0.82)E+00	(1.93 $\pm$ 0.07)E+00	(2.32 $\pm$ 0.23)E-01
Z-Area #4	4	(1.08 $\pm$ 0.70)E+00	(1.64 $\pm$ 0.05)E+00	(1.03 $\pm$ 0.19)E-01
Z-Area #5	4	(8.76 $\pm$ 5.94)E-01	(1.54 $\pm$ 0.03)E+00	(2.44 $\pm$ 0.24)E-01
Z-Area #6	4	(0.93 $\pm$ 1.20)E+00	(2.70 $\pm$ 0.07)E+00	(8.88 $\pm$ 2.02)E-02
Z-Area #7	4	(1.14 $\pm$ 0.97)E+00	(2.49 $\pm$ 0.07)E+00	(4.16 $\pm$ 0.45)E-01
Z-Area #8	4	(7.91 $\pm$ 3.21)E-01	(1.06 $\pm$ 0.02)E+00	(4.03 $\pm$ 0.46)E-01
Site Perimeter				
Allendale Gate	2	(0.87 $\pm$ 1.27)E-01	(1.77 $\pm$ 0.44)E-01	(-2.94 $\pm$ 8.53)E-03
Barnwell Gate	2	(4.05 $\pm$ 0.69)E-02	(4.54 $\pm$ 3.52)E-02	(3.56 $\pm$ 1.35)E-02
D-Area	3	(7.64 $\pm$ 5.35)E-01	(1.13 $\pm$ 0.03)E+00	(1.51 $\pm$ 0.27)E-01
Darkhorse @ Williston Gate	2	(1.39 $\pm$ 1.87)E-01	(2.72 $\pm$ 0.26)E-01	(6.94 $\pm$ 8.85)E-03
East Talatha	2	(1.32 $\pm$ 0.39)E-01	(1.60 $\pm$ 0.49)E-01	(1.05 $\pm$ 0.38)E-01
Green Pond	3	(1.36 $\pm$ 1.13)E-01	(2.36 $\pm$ 0.39)E-01	(1.40 $\pm$ 0.81)E-02
Highway 125 @ Road A-14	2	(2.42 $\pm$ 2.42)E-01	(4.13 $\pm$ 0.29)E-01	(7.09 $\pm$ 4.35)E-02
Highway 21/167	2	(4.10 $\pm$ 1.57)E-02	(5.21 $\pm$ 3.43)E-02	(2.98 $\pm$ 1.53)E-02
Highway 39 @ Williston Gate	2	(1.89 $\pm$ 2.52)E-01	(3.67 $\pm$ 0.29)E-01	(1.08 $\pm$ 0.75)E-02
Jackson	3	(9.44 $\pm$ 9.07)E-02	(1.93 $\pm$ 0.35)E-01	(1.38 $\pm$ 2.97)E-02
Patterson Mill Road	2	(8.09 $\pm$ 4.63)E-02	(1.14 $\pm$ 0.35)E-01	(4.81 $\pm$ 3.48)E-02

Table 39
Radioactivity in Terrestrial Vegetation (Quarterly Samples)

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Talatha Gate	3	(2.22 $\pm$ 0.78)E-01	(3.00 $\pm$ 0.48)E-01	(1.45 $\pm$ 0.26)E-01
West Jackson	3	(8.11 $\pm$ 4.46)E-02	(1.32 $\pm$ 0.18)E-01	(5.02 $\pm$ 2.09)E-02
Windsor Road	2	(3.19 $\pm$ 3.06)E-02	(5.36 $\pm$ 2.14)E-02	(1.03 $\pm$ 1.64)E-02
25-Mile Radius				
Allendale, S.C.	1	(8.58 $\pm$ 3.96)E-02	(8.58 $\pm$ 3.96)E-02	(8.58 $\pm$ 3.96)E-02
Langley, S.C.	2	(2.47 $\pm$ 0.04)E-02	(2.50 $\pm$ 1.72)E-02	(2.44 $\pm$ 1.66)E-02
Springfield, S.C.	2	(4.98 $\pm$ 5.49)E-02	(8.86 $\pm$ 3.74)E-02	(1.10 $\pm$ 3.22)E-02
Waynesboro, Ga.	2	(7.68 $\pm$ 5.18)E-02	(1.13 $\pm$ 0.45)E-01	(4.02 $\pm$ 2.96)E-02
100-Mile Radius				
Columbia, S.C.	3	(3.61 $\pm$ 1.97)E-02	(5.43 $\pm$ 3.70)E-02	(1.51 $\pm$ 0.91)E-02
Greenville, S.C.	2	(2.37 $\pm$ 3.12)E-02	(4.58 $\pm$ 1.74)E-02	(0.16 $\pm$ 1.02)E-02
Macon, Ga.	2	(-1.13 $\pm$ 4.29)E-02	(1.90 $\pm$ 0.70)E-02	(-4.16 $\pm$ 3.21)E-02
Savannah, Ga.	4	(4.55 $\pm$ 3.83)E-02	(8.63 $\pm$ 2.51)E-02	(-0.58 $\pm$ 2.72)E-02
Cs-137, pCi/g				
On Site				
643-26E-1	2	(1.29 $\pm$ 0.11)E-01	(1.37 $\pm$ 0.33)E-01	(1.21 $\pm$ 0.23)E-01
F-Area	4	(3.60 $\pm$ 0.74)E-01	(4.23 $\pm$ 0.38)E-01	(2.56 $\pm$ 0.25)E-01
H-Area	4	(2.47 $\pm$ 0.91)E-01	(3.55 $\pm$ 0.45)E-01	(1.47 $\pm$ 0.34)E-01
S-Area #1	1	(1.20 $\pm$ 0.44)E-01	(1.20 $\pm$ 0.44)E-01	(1.20 $\pm$ 0.44)E-01
Z-Area #1	2	(6.70 $\pm$ 3.57)E-02	(9.22 $\pm$ 3.27)E-02	(4.18 $\pm$ 1.56)E-02
Z-Area #3	2	(1.26 $\pm$ 0.02)E-01	(1.27 $\pm$ 0.42)E-01	(1.24 $\pm$ 0.27)E-01
Z-Area #6	1	(8.48 $\pm$ 2.68)E-02	(8.48 $\pm$ 2.68)E-02	(8.48 $\pm$ 2.68)E-02
Z-Area #8	3	(2.30 $\pm$ 0.77)E-01	(3.18 $\pm$ 0.44)E-01	(1.77 $\pm$ 0.48)E-01
Site Perimeter				
Allendale Gate	2	(3.49 $\pm$ 1.23)E-01	(4.37 $\pm$ 0.57)E-01	(2.62 $\pm$ 0.48)E-01
Barnwell Gate	2	(6.16 $\pm$ 4.49)E-01	(9.33 $\pm$ 0.73)E-01	(2.99 $\pm$ 0.52)E-01
D-Area	1	(2.87 $\pm$ 0.85)E-01	(2.87 $\pm$ 0.85)E-01	(2.87 $\pm$ 0.85)E-01
Darkhorse @ Williston Gate	2	(2.76 $\pm$ 0.79)E-01	(3.32 $\pm$ 0.60)E-01	(2.20 $\pm$ 0.51)E-01
East Talatha	2	(5.39 $\pm$ 2.55)E-01	(7.19 $\pm$ 0.76)E-01	(3.59 $\pm$ 0.56)E-01
Green Pond	1	(1.97 $\pm$ 0.55)E-01	(1.97 $\pm$ 0.55)E-01	(1.97 $\pm$ 0.55)E-01
Highway 125 @ Road A-14	1	(1.94 $\pm$ 0.39)E-01	(1.94 $\pm$ 0.39)E-01	(1.94 $\pm$ 0.39)E-01
Highway 21/167	1	(1.57 $\pm$ 0.38)E-01	(1.57 $\pm$ 0.38)E-01	(1.57 $\pm$ 0.38)E-01

Table 39
Radioactivity in Terrestrial Vegetation (Quarterly Samples)

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Highway 39 @ Williston Gate	1	$(2.98 \pm 0.47)E-01$	$(2.98 \pm 0.47)E-01$	$(2.98 \pm 0.47)E-01$
Patterson Mill Road	1	$(2.31 \pm 0.33)E-01$	$(2.31 \pm 0.33)E-01$	$(2.31 \pm 0.33)E-01$
Site perimeter	3	$(1.54 \pm 0.41)E-01$	$(1.93 \pm 0.33)E-01$	$(1.12 \pm 0.30)E-01$
Talatha Gate	2	$(2.13 \pm 0.83)E-01$	$(2.71 \pm 0.46)E-01$	$(1.54 \pm 0.44)E-01$
West Jackson	1	$(2.21 \pm 0.53)E-01$	$(2.21 \pm 0.53)E-01$	$(2.21 \pm 0.53)E-01$
Windsor Road	1	$(1.76 \pm 0.45)E-01$	$(1.76 \pm 0.45)E-01$	$(1.76 \pm 0.45)E-01$
25-Mile Radius				
25-mile radius	1	$(1.53 \pm 0.17)E-01$	$(1.53 \pm 0.17)E-01$	$(1.53 \pm 0.17)E-01$
Langley, S.C.	1	$(9.18 \pm 0.63)E-01$	$(9.18 \pm 0.63)E-01$	$(9.18 \pm 0.63)E-01$
100-Mile Radius				
100-mile radius	2	$(9.99 \pm 0.63)E-02$	$(1.04 \pm 0.13)E-01$	$(9.55 \pm 2.40)E-02$
Sr-89,90, pCi/g				
On Site				
643-26E-1	4	$(2.90 \pm 1.96)E-01$	$(5.19 \pm 0.78)E-01$	$(5.53 \pm 6.21)E-02$
643-26E-2	4	$(0.96 \pm 1.23)E-01$	$(2.48 \pm 0.47)E-01$	$(-2.16 \pm 6.55)E-02$
F-Area	3	$(5.33 \pm 2.23)E-01$	$(7.91 \pm 0.87)E-01$	$(3.98 \pm 0.63)E-01$
H-Area	4	$(4.80 \pm 2.07)E-01$	$(7.19 \pm 0.76)E-01$	$(2.43 \pm 0.68)E-01$
S-Area #1	4	$(2.54 \pm 1.13)E-01$	$(3.95 \pm 0.44)E-01$	$(1.22 \pm 0.59)E-01$
Z-Area #1	4	$(2.88 \pm 1.48)E-01$	$(4.75 \pm 0.50)E-01$	$(1.15 \pm 0.62)E-01$
Site Perimeter				
Site perimeter	3	$(6.15 \pm 2.00)E-01$	$(8.39 \pm 0.49)E-01$	$(4.52 \pm 1.02)E-01$
25-Mile Radius				
25-mile radius	2	$(2.79 \pm 1.18)E-01$	$(3.63 \pm 0.79)E-01$	$(1.95 \pm 0.69)E-01$
100-Mile Radius				
100-mile radius	3	$(1.64 \pm 0.39)E-01$	$(1.97 \pm 0.44)E-01$	$(1.20 \pm 0.64)E-01$
Gross Beta, pCi/g				
On Site				
200-F #13	4	$(9.65 \pm 2.83)E+00$	$(1.19 \pm 0.13)E+01$	$(5.51 \pm 1.07)E+00$
200-F #21	4	$(1.14 \pm 0.67)E+01$	$(2.13 \pm 0.17)E+01$	$(7.18 \pm 0.61)E+00$
200-H #10	4	$(1.14 \pm 0.52)E+01$	$(1.73 \pm 0.11)E+01$	$(6.89 \pm 1.09)E+00$
200-H #22	4	$(8.09 \pm 3.87)E+00$	$(1.32 \pm 0.14)E+01$	$(4.62 \pm 0.73)E+00$
643-26E-1	4	$(9.25 \pm 4.82)E+00$	$(1.61 \pm 0.16)E+01$	$(4.98 \pm 0.75)E+00$
643-26E-2	4	$(1.61 \pm 1.08)E+01$	$(2.83 \pm 0.20)E+01$	$(4.98 \pm 0.75)E+00$

Table 39
Radioactivity in Terrestrial Vegetation (Quarterly Samples)

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
S-Area #1	4	(1.26 $\pm$ 0.68)E+01	(2.20 $\pm$ 0.17)E+01	(6.58 $\pm$ 0.58)E+00
S-Area #2	4	(1.70 $\pm$ 0.78)E+01	(2.65 $\pm$ 0.18)E+01	(9.96 $\pm$ 0.95)E+00
S-Area #3	4	(1.34 $\pm$ 0.81)E+01	(2.25 $\pm$ 0.17)E+01	(3.91 $\pm$ 0.68)E+00
S-Area #4	4	(9.29 $\pm$ 2.59)E+00	(1.18 $\pm$ 0.12)E+01	(5.69 $\pm$ 0.77)E+00
Z-Area #1	4	(1.03 $\pm$ 0.54)E+01	(1.80 $\pm$ 0.16)E+01	(6.05 $\pm$ 0.80)E+00
Z-Area #2	4	(1.22 $\pm$ 0.33)E+01	(1.63 $\pm$ 0.14)E+01	(8.53 $\pm$ 0.91)E+00
Z-Area #3	4	(5.28 $\pm$ 1.08)E+00	(6.74 $\pm$ 0.96)E+00	(4.15 $\pm$ 0.96)E+00
Z-Area #4	4	(1.47 $\pm$ 0.87)E+01	(2.65 $\pm$ 0.18)E+01	(6.05 $\pm$ 0.80)E+00
Z-Area #5	4	(9.86 $\pm$ 4.48)E+00	(1.60 $\pm$ 0.15)E+01	(5.56 $\pm$ 0.87)E+00
Z-Area #6	4	(8.91 $\pm$ 4.10)E+00	(1.35 $\pm$ 0.13)E+01	(3.56 $\pm$ 0.67)E+00
Z-Area #7	4	(1.31 $\pm$ 0.75)E+01	(2.42 $\pm$ 0.17)E+01	(8.43 $\pm$ 1.04)E+00
Z-Area #8	4	(1.22 $\pm$ 0.40)E+01	(1.52 $\pm$ 0.14)E+01	(6.40 $\pm$ 0.81)E+00
Site Perimeter				
Allendale Gate	3	(1.20 $\pm$ 0.76)E+01	(2.07 $\pm$ 0.20)E+01	(7.14 $\pm$ 1.13)E+00
Barnwell Gate	3	(1.30 $\pm$ 0.91)E+01	(2.33 $\pm$ 0.17)E+01	(6.06 $\pm$ 1.31)E+00
D-Area	3	(8.80 $\pm$ 3.77)E+00	(1.30 $\pm$ 0.14)E+01	(5.74 $\pm$ 1.05)E+00
Darkhorse @ Williston Gate	3	(9.05 $\pm$ 3.16)E+00	(1.19 $\pm$ 0.08)E+01	(5.62 $\pm$ 1.30)E+00
East Talatha	3	(1.68 $\pm$ 0.68)E+01	(2.24 $\pm$ 0.16)E+01	(9.18 $\pm$ 1.24)E+00
Green Pond	3	(1.63 $\pm$ 0.63)E+01	(2.10 $\pm$ 0.16)E+01	(9.18 $\pm$ 1.27)E+00
Highway 125 @ Road A-14	3	(2.51 $\pm$ 2.42)E+01	(5.31 $\pm$ 0.38)E+01	(1.00 $\pm$ 0.14)E+01
Highway 21/167	3	(1.67 $\pm$ 0.55)E+01	(2.29 $\pm$ 0.16)E+01	(1.33 $\pm$ 0.14)E+01
Highway 39 @ Williston Gate	3	(1.57 $\pm$ 0.60)E+01	(2.25 $\pm$ 0.16)E+01	(1.12 $\pm$ 0.15)E+01
Jackson	3	(1.55 $\pm$ 1.02)E+01	(2.70 $\pm$ 0.16)E+01	(7.67 $\pm$ 0.98)E+00
Patterson Mill Road	3	(1.14 $\pm$ 0.58)E+01	(1.79 $\pm$ 0.20)E+01	(7.07 $\pm$ 1.24)E+00
Talatha Gate	3	(7.73 $\pm$ 3.71)E+00	(1.20 $\pm$ 0.14)E+01	(5.10 $\pm$ 1.07)E+00
West Jackson	3	(1.86 $\pm$ 1.50)E+01	(3.52 $\pm$ 0.25)E+01	(6.12 $\pm$ 1.11)E+00
Windsor Road	2	(2.63 $\pm$ 0.98)E+01	(3.32 $\pm$ 0.19)E+01	(1.94 $\pm$ 0.19)E+01
25-Mile Radius				
Allendale, S.C.	1	(1.06 $\pm$ 0.15)E+01	(1.06 $\pm$ 0.15)E+01	(1.06 $\pm$ 0.15)E+01
Langley, S.C.	2	(1.43 $\pm$ 0.46)E+01	(1.75 $\pm$ 0.18)E+01	(1.10 $\pm$ 0.13)E+01
Springfield, S.C.	2	(1.52 $\pm$ 0.06)E+01	(1.56 $\pm$ 0.17)E+01	(1.48 $\pm$ 0.14)E+01
Waynesboro, Ga.	2	(1.55 $\pm$ 0.25)E+01	(1.73 $\pm$ 0.15)E+01	(1.37 $\pm$ 0.17)E+01

Table 39
Radioactivity in Terrestrial Vegetation (Quarterly Samples)

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
100-Mile Radius				
Columbia, S.C.	3	(1.73 $\pm$ 0.94)E+01	(2.30 $\pm$ 0.20)E+01	(6.45 $\pm$ 1.09)E+00
Greenville, S.C.	2	(0.77 $\pm$ 1.02)E+01	(1.49 $\pm$ 0.15)E+01	(5.60 $\pm$ 9.69)E-01
Macon, Ga.	2	(1.39 $\pm$ 0.30)E+01	(1.61 $\pm$ 0.15)E+01	(1.18 $\pm$ 0.15)E+01
Savannah, Ga.	4	(1.40 $\pm$ 0.25)E+01	(1.66 $\pm$ 0.16)E+01	(1.12 $\pm$ 0.15)E+01
Gross Alpha, pCi/g				
On Site				
200-F #13	4	(3.64 $\pm$ 4.38)E-01	(9.01 $\pm$ 5.30)E-01	(-1.65 $\pm$ 4.53)E-01
200-F #21	4	(5.92 $\pm$ 5.27)E-01	(1.33 $\pm$ 0.34)E+00	(0.92 $\pm$ 2.16)E-01
200-H #10	4	(2.19 $\pm$ 3.99)E-01	(6.89 $\pm$ 4.80)E-01	(-1.55 $\pm$ 1.90)E-01
200-H #22	4	(2.14 $\pm$ 2.37)E-01	(4.07 $\pm$ 4.22)E-01	(-1.30 $\pm$ 3.91)E-01
643-26E-1	4	(0.52 $\pm$ 1.27)E+00	(2.41 $\pm$ 1.24)E+00	(-3.41 $\pm$ 3.24)E-01
643-26E-2	4	(8.60 $\pm$ 9.47)E-01	(2.24 $\pm$ 1.18)E+00	(1.09 $\pm$ 4.63)E-01
S-Area #1	4	(2.78 $\pm$ 5.09)E-01	(8.45 $\pm$ 8.17)E-01	(-3.90 $\pm$ 2.88)E-01
S-Area #2	4	(6.71 $\pm$ 8.86)E-01	(1.85 $\pm$ 0.81)E+00	(-0.96 $\pm$ 1.18)E-01
S-Area #3	4	(2.99 $\pm$ 8.41)E-01	(1.45 $\pm$ 0.78)E+00	(-5.52 $\pm$ 3.91)E-01
S-Area #4	4	(0.57 $\pm$ 1.12)E+00	(2.25 $\pm$ 0.89)E+00	(-1.47 $\pm$ 4.06)E-01
Z-Area #1	4	(1.60 $\pm$ 2.15)E+00	(4.66 $\pm$ 1.86)E+00	(1.00 $\pm$ 2.25)E-01
Z-Area #2	4	(4.98 $\pm$ 5.84)E-01	(1.24 $\pm$ 0.75)E+00	(-1.63 $\pm$ 4.18)E-01
Z-Area #3	4	(1.06 $\pm$ 3.11)E-01	(5.51 $\pm$ 5.01)E-01	(-1.18 $\pm$ 3.64)E-01
Z-Area #4	4	(3.46 $\pm$ 7.75)E-01	(1.29 $\pm$ 0.79)E+00	(-5.47 $\pm$ 3.74)E-01
Z-Area #5	4	(1.58 $\pm$ 2.44)E-01	(3.66 $\pm$ 5.17)E-01	(-1.60 $\pm$ 3.78)E-01
Z-Area #6	4	(4.07 $\pm$ 4.60)E-01	(1.07 $\pm$ 0.64)E+00	(0.85 $\pm$ 1.85)E-01
Z-Area #7	4	(1.10 $\pm$ 3.98)E-01	(6.18 $\pm$ 5.62)E-01	(-3.55 $\pm$ 2.65)E-01
Z-Area #8	4	(6.77 $\pm$ 8.43)E-01	(1.74 $\pm$ 0.92)E+00	(-0.85 $\pm$ 1.12)E-01
Site Perimeter				
Allendale Gate	3	(-3.69 $\pm$ 4.62)E-01	(0.00 $\pm$ 4.42)E-01	(-8.87 $\pm$ 7.71)E-01
Barnwell Gate	3	(1.41 $\pm$ 7.10)E-01	(8.58 $\pm$ 9.64)E-01	(-5.61 $\pm$ 3.88)E-01
D-Area	3	(0.78 $\pm$ 5.48)E-01	(5.74 $\pm$ 5.86)E-01	(-5.10 $\pm$ 3.64)E-01
Darkhorse @ Williston Gate	3	(0.72 $\pm$ 7.59)E-01	(9.31 $\pm$ 3.84)E-01	(-5.10 $\pm$ 3.61)E-01
East Talatha	3	(5.66 $\pm$ 7.18)E-01	(1.08 $\pm$ 1.00)E+00	(-2.55 $\pm$ 4.45)E-01
Green Pond	3	(4.42 $\pm$ 2.27)E-01	(6.12 $\pm$ 7.56)E-01	(1.84 $\pm$ 5.29)E-01
Highway 125 @ Road A-14	3	(5.50 $\pm$ 6.42)E-01	(1.26 $\pm$ 2.14)E+00	(0.00 $\pm$ 5.10)E-01

Table 39
Radioactivity in Terrestrial Vegetation (Quarterly Samples)

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Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Highway 21/167	3	$(-0.67 \pm 1.05)E-01$	$(0.00 \pm 4.94)E-01$	$(-1.87 \pm 5.04)E-01$
Highway 39 @ Williston Gate	3	$(0.66 \pm 1.11)E+00$	$(1.44 \pm 0.91)E+00$	$(-6.12 \pm 4.17)E-01$
Jackson	3	$(9.03 \pm 6.94)E-01$	$(1.50 \pm 1.05)E+00$	$(1.43 \pm 4.56)E-01$
Patterson Mill Road	3	$(5.46 \pm 8.46)E-01$	$(1.52 \pm 1.44)E+00$	$(0.00 \pm 4.84)E-01$
Talatha Gate	3	$(7.41 \pm 4.59)E-01$	$(1.19 \pm 0.88)E+00$	$(2.70 \pm 6.03)E-01$
West Jackson	3	$(1.79 \pm 3.67)E-01$	$(5.06 \pm 7.65)E-01$	$(-0.22 \pm 1.02)E+00$
Windsor Road	2	$(7.22 \pm 4.82)E-01$	$(1.06 \pm 1.03)E+00$	$(3.81 \pm 8.33)E-01$
25-Mile-Radius				
Allendale, S.C.	1	$(8.12 \pm 7.65)E-01$	$(8.12 \pm 7.65)E-01$	$(8.12 \pm 7.65)E-01$
Langley, S.C.	2	$(-3.56 \pm 2.39)E-01$	$(-1.87 \pm 4.00)E-01$	$(-5.25 \pm 4.15)E-01$
Springfield, S.C.	2	$(-1.94 \pm 4.77)E-01$	$(1.44 \pm 6.85)E-01$	$(-5.31 \pm 3.88)E-01$
Waynesboro, Ga.	2	$(-2.13 \pm 4.96)E-01$	$(1.37 \pm 6.55)E-01$	$(-5.64 \pm 4.06)E-01$
100-Mile-Radius				
Columbia, S.C.	3	$(4.41 \pm 5.36)E-01$	$(9.43 \pm 9.86)E-01$	$(-1.24 \pm 3.71)E-01$
Greenville, S.C.	2	$(0.49 \pm 9.86)E-01$	$(7.46 \pm 5.53)E-01$	$(-6.48 \pm 5.40)E-01$
Macon, Ga.	2	$(1.06 \pm 0.86)E+00$	$(1.66 \pm 0.77)E+00$	$(4.54 \pm 6.72)E-01$
Savannah, Ga.	4	$(-2.04 \pm 2.85)E-01$	$(1.66 \pm 5.30)E-01$	$(-5.19 \pm 3.91)E-01$

Table 40
Radioactivity in Terrestrial Vegetation
(Outside Solid Waste Disposal Facility Fences)

Page 1 of 1

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Cs-137, pCi/g				
OBG-10 outside Burial Ground	3	$(8.06 \pm 6.04)E-01$	$(1.32 \pm 0.09)E+00$	$(1.39 \pm 0.47)E-01$
OBG-11 outside Burial Ground	1	$(3.36 \pm 0.49)E-01$	$(3.36 \pm 0.49)E-01$	$(3.36 \pm 0.49)E-01$
OBG-7 outside Burial Ground	1	$(2.14 \pm 0.35)E-01$	$(2.14 \pm 0.35)E-01$	$(2.14 \pm 0.35)E-01$
OBG-8 outside Burial Ground	2	$(1.61 \pm 0.17)E-01$	$(1.73 \pm 0.45)E-01$	$(1.50 \pm 0.47)E-01$
OBG-9 outside Burial Ground	2	$(1.27 \pm 0.37)E-01$	$(1.53 \pm 0.44)E-01$	$(1.01 \pm 0.37)E-01$
Gross Beta, pCi/g				
OBG-1 outside Burial Ground	4	$(1.72 \pm 0.97)E+01$	$(3.15 \pm 0.20)E+01$	$(9.71 \pm 1.06)E+00$
OBG-10 outside Burial Ground	4	$(1.47 \pm 0.90)E+01$	$(2.80 \pm 0.19)E+01$	$(8.48 \pm 1.16)E+00$
OBG-11 outside Burial Ground	4	$(2.28 \pm 2.38)E+01$	$(5.82 \pm 0.28)E+01$	$(7.47 \pm 0.86)E+00$
OBG-2 outside Burial Ground	4	$(1.61 \pm 0.47)E+01$	$(2.10 \pm 0.16)E+01$	$(1.06 \pm 0.13)E+01$
OBG-3 outside Burial Ground	4	$(1.71 \pm 0.94)E+01$	$(2.97 \pm 0.19)E+01$	$(7.42 \pm 1.14)E+00$
OBG-5 outside Burial Ground	3	$(1.42 \pm 0.62)E+01$	$(2.04 \pm 0.16)E+01$	$(7.95 \pm 1.14)E+00$
OBG-6 outside Burial Ground	4	$(1.54 \pm 1.02)E+01$	$(3.02 \pm 0.14)E+01$	$(6.89 \pm 1.09)E+00$
OBG-7 outside Burial Ground	3	$(1.57 \pm 0.66)E+01$	$(2.33 \pm 0.17)E+01$	$(1.16 \pm 0.11)E+01$
OBG-8 outside Burial Ground	3	$(1.31 \pm 0.31)E+01$	$(1.62 \pm 0.13)E+01$	$(9.90 \pm 1.18)E+00$
OBG-9 outside Burial Ground	3	$(1.22 \pm 0.45)E+01$	$(1.75 \pm 0.15)E+01$	$(9.54 \pm 1.21)E+00$
Gross Alpha, pCi/g				
OBG-1 outside Burial Ground	4	$(3.57 \pm 3.59)E-01$	$(8.74 \pm 8.83)E-01$	$(0.94 \pm 4.70)E-01$
OBG-10 outside Burial Ground	4	$(2.70 \pm 2.07)E-01$	$(5.59 \pm 9.21)E-01$	$(1.02 \pm 4.41)E-01$
OBG-11 outside Burial Ground	4	$(1.92 \pm 6.46)E-01$	$(0.95 \pm 1.08)E+00$	$(-5.08 \pm 3.67)E-01$
OBG-2 outside Burial Ground	4	$(2.00 \pm 6.33)E-01$	$(1.06 \pm 0.65)E+00$	$(-4.66 \pm 3.40)E-01$
OBG-3 outside Burial Ground	4	$(5.71 \pm 1.91)E-01$	$(7.95 \pm 5.81)E-01$	$(3.51 \pm 5.47)E-01$
OBG-5 outside Burial Ground	3	$(7.73 \pm 5.90)E-01$	$(1.16 \pm 0.86)E+00$	$(0.94 \pm 4.78)E-01$
OBG-6 outside Burial Ground	4	$(5.50 \pm 5.32)E-01$	$(1.32 \pm 0.73)E+00$	$(1.04 \pm 4.86)E-01$
OBG-7 outside Burial Ground	3	$(2.96 \pm 6.09)E-01$	$(9.70 \pm 6.02)E-01$	$(-2.16 \pm 4.87)E-01$
OBG-8 outside Burial Ground	3	$(0.43 \pm 1.01)E+00$	$(1.59 \pm 0.80)E+00$	$(-1.62 \pm 3.89)E-01$
OBG-9 outside Burial Ground	3	$(-1.41 \pm 0.27)E-01$	$(-1.16 \pm 3.27)E-01$	$(-1.69 \pm 4.28)E-01$

Table 41
Radioactivity in Terrestrial Vegetation
(Inside Solid Waste Disposal Facility Fences)

Page 1 of 2

Location ^a	pCi/g (Dry Weight)		
	Cs-137	Gross Beta	Gross Alpha
<i>Note: Blank spaces indicate activity was less than the lower limit of detection. The typical lower limit of detection for Cs-137 in vegetation was 1.00E-01 pCi/g.</i>			
IBG-1 inside Burial Ground	(4.96 ± 0.83)E-01	(4.27 ± 0.71)E+00	(2.60 ± 2.61)E-01
IBG-1A inside Burial Ground		(5.33 ± 0.75)E+00	(2.67 ± 2.68)E-01
IBG-2 inside Burial Ground	(2.20 ± 0.49)E-01	(5.69 ± 0.79)E+00	(0.92 ± 2.07)E-01
IBG-3 inside Burial Ground		(4.88 ± 0.77)E+00	(0.80 ± 3.12)E-01
IBG-3A inside Burial Ground		(9.07 ± 0.95)E+00	(-1.08 ± 2.75)E-01
IBG-4 inside Burial Ground	(2.62 ± 0.29)E-01	(7.84 ± 0.65)E+00	(-1.13 ± 2.09)E-01
IBG-4A inside Burial Ground	(1.94 ± 0.09)E+00	(5.23 ± 0.20)E+01	(-2.89 ± 3.14)E-01
IBG-5 inside Burial Ground		(8.02 ± 0.90)E+00	(-2.55 ± 1.88)E-01
IBG-6 inside Burial Ground		(7.67 ± 0.91)E+00	(2.72 ± 3.98)E-01
IBG-7 inside Burial Ground	(1.52 ± 0.44)E-01	(5.93 ± 0.83)E+00	(-2.86 ± 2.18)E-01
IBG-8 inside Burial Ground	(4.04 ± 0.64)E-01	(9.07 ± 0.96)E+00	(-1.15 ± 2.90)E-01
IBG-8A inside Burial Ground	(1.38 ± 0.05)E+00	(9.07 ± 0.96)E+00	(-2.93 ± 2.15)E-01
IBG-9 inside Burial Ground	(2.38 ± 0.54)E-01	(1.60 ± 0.12)E+01	(0.42 ± 3.16)E-01
IBG-9A inside Burial Ground	(5.75 ± 0.48)E-01	(1.85 ± 0.13)E+01	(-1.53 ± 3.00)E-01
IBG-10 inside Burial Ground	(2.53 ± 0.50)E-01	(3.84 ± 0.18)E+01	(-4.88 ± 2.61)E-01
IBG-11 inside Burial Ground	(4.38 ± 0.53)E-01	(1.50 ± 0.12)E+01	(5.93 ± 4.55)E-01
IBG-12 inside Burial Ground	(5.34 ± 0.51)E-01	(2.96 ± 0.15)E+01	(3.49 ± 4.13)E-01
IBG-13 inside Burial Ground	(1.37 ± 0.32)E-01	(1.08 ± 0.12)E+01	(6.11 ± 5.76)E-01
IBG-14 inside Burial Ground		(4.70 ± 0.96)E+00	(-3.48 ± 2.74)E-01
IBG-14A inside Burial Ground	(2.30 ± 0.31)E-01	(9.87 ± 1.21)E+00	(1.03 ± 4.56)E-01
IBG-15 inside Burial Ground	(1.84 ± 0.39)E-01	(1.03 ± 0.12)E+01	(-1.41 ± 3.67)E-01
IBG-16 inside Burial Ground	(2.65 ± 0.51)E-01	(1.83 ± 0.15)E+01	(0.71 ± 4.33)E-01
IBG-17 inside Burial Ground		(6.34 ± 0.18)E+01	(0.96 ± 3.35)E-01
IBG-18 inside Burial Ground		(6.58 ± 1.06)E+00	(-1.36 ± 3.93)E-01
IBG-19 inside Burial Ground		(8.46 ± 1.14)E+00	(-1.46 ± 4.04)E-01
IBG-19A inside Burial Ground		(7.05 ± 1.09)E+00	(-1.36 ± 3.85)E-01
IBG-20 inside Burial Ground			
IBG-20A inside Burial Ground			

^a Samples were not obtained from locations IBG-20, IBG-20A, IBG-27, IBG-28, IBG-36, IBG-37, IBG-38, IBG-39, IBG-40, IBG-41, and IBG-42 because of lack of vegetation.

Table 41
Radioactivity in Terrestrial Vegetation
(Inside Solid Waste Disposal Facility Fences)

Page 2 of 2

Location ^a	pCi/g (Dry Weight)		
	Cs-137	Gross Beta	Gross Alpha
IBG-21 inside Burial Ground	(2.91 ± 0.35)E-01	(3.48 ± 0.19)E+01	(0.13 ± 4.58)E-01
IBG-22 inside Burial Ground		(1.32 ± 0.13)E+01	(1.46 ± 0.77)E+00
IBG-23 inside Burial Ground		(7.05 ± 1.07)E+00	(3.38 ± 4.93)E-01
IBG-23A inside Burial Ground	(1.34 ± 0.37)E-01	(7.52 ± 1.10)E+00	(-3.90 ± 2.97)E-01
IBG-24 inside Burial Ground		(7.05 ± 1.08)E+00	(-3.81 ± 2.90)E-01
IBG-25 inside Burial Ground			
IBG-26 inside Burial Ground		(7.05 ± 1.09)E+00	(1.18 ± 4.70)E-01
IBG-27 inside Burial Ground			
IBG-28 inside Burial Ground			
IBG-29 inside Burial Ground		(7.52 ± 1.09)E+00	(-1.32 ± 3.70)E-01
IBG-30 inside Burial Ground		(8.93 ± 1.17)E+00	(3.81 ± 5.56)E-01
IBG-31 inside Burial Ground		(5.17 ± 0.99)E+00	(1.13 ± 4.33)E-01
IBG-32 inside Burial Ground		(1.13 ± 0.12)E+01	(0.94 ± 4.33)E-01
IBG-33 inside Burial Ground		(7.95 ± 1.14)E+00	(1.43 ± 3.18)E-01
IBG-34 inside Burial Ground	(1.81 ± 0.66)E-01	(9.54 ± 1.22)E+00	(4.19 ± 4.31)E-01
IBG-35 inside Burial Ground		(9.24 ± 0.85)E+00	(4.32 ± 3.11)E-01
IBG-36 inside Burial Ground			
IBG-37 inside Burial Ground			
IBG-38 inside Burial Ground			
IBG-39 inside Burial Ground			
IBG-40 inside Burial Ground			
IBG-41 inside Burial Ground			
IBG-42 inside Burial Ground			

^a Samples were not obtained from locations IBG-20, IBG-20A, IBG-27, IBG-28, IBG-36, IBG-37, IBG-38, IBG-39, IBG-40, IBG-41, and IBG-42 because of lack of vegetation.

Table 42
Radioactivity in Terrestrial Vegetation
(Composites from Seepage and Retention Basins)

Page 1 of 1

Location	pCi/g (Dry Weight)			
	Cs-137	Sr-89,90	Gross Beta	Gross Alpha
<i>Note: 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.</i>				
A-Area seepage basin ^a	(2.67 ± 0.93)E-01	(3.79 ± 0.15)E+00	(1.91 ± 0.11)E+01	(4.67 ± 4.12)E-01
C-Area seepage basin ^b	(3.68 ± 0.31)E-01	(5.81 ± 0.19)E+00	(3.78 ± 0.24)E+01	(-2.91 ± 5.22)E-01
F-Area retention basin ^c	(3.82 ± 0.72)E-01	(3.52 ± 0.70)E-01	(1.49 ± 0.17)E+01	(-2.05 ± 5.26)E-01
F-Area seepage basin ^b		(3.29 ± 0.70)E-01	(1.05 ± 0.15)E+01	(1.43 ± 5.98)E-01
H-Area retention basin ^b	(5.02 ± 0.16)E+00	(8.46 ± 0.22)E+00	(4.40 ± 0.26)E+01	(3.66 ± 7.07)E-01
H-Area seepage basin ^b	(1.10 ± 0.25)E-01	(2.02 ± 0.12)E+00	(1.74 ± 0.17)E+01	(4.34 ± 6.50)E-01
K-Area retention basin ^a		(1.62 ± 0.58)E-01	(9.30 ± 1.41)E+00	(4.46 ± 6.50)E-01
K-Area seepage basin ^a	(9.33 ± 1.96)E-02	(1.47 ± 0.50)E-01	(1.30 ± 0.16)E+01	(-2.23 ± 6.01)E-01
L-Area chemical basin ^a	(2.08 ± 0.71)E-01	(1.15 ± 0.52)E-01	(1.67 ± 0.18)E+01	(5.58 ± 8.32)E-01
L-Area seepage basin ^a	(4.59 ± 0.37)E-01	(3.45 ± 0.59)E-01	(1.92 ± 0.18)E+01	(-2.36 ± 5.65)E-01
P-Area seepage basin ^a	(1.65 ± 0.09)E+00	(3.81 ± 0.65)E-01	(2.11 ± 0.19)E+01	(8.68 ± 8.98)E-01
R-Area seepage basin ^b	(1.10 ± 0.08)E+00	(4.54 ± 0.71)E-01	(1.61 ± 0.17)E+01	(-2.17 ± 5.47)E-01

- a Four locations
b Eight locations
c Six locations

Table 43
Meteorological Data

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USNRC Computer Code-XOQDOQ,
43824 Wind Stats H-Area 60 minute

Version 2.0
62M 87-91

Run Date: 93.071 (SRL 6/29/83 VERSION)
Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction:
Extremely Unstable Conditions

Atmospheric Stability Class A

(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:
Extremely Unstable Conditions

Atmospheric Stability Class A

(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 43
Meteorological Data

Page 2 of 7

USNRC Computer Code-XOQDOQ,
43824 Wind Stats H-Area 60 minute

Version 2.0
62M 87-91

Run Date: 93.071 (SRL 6/29/83 VERSION)
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 43
Meteorological Data

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USNRC Computer Code-XOQDOQ,
43824 Wind Stats H-Area 60 minute

Version 2.0
62M 87-91

Run Date: 93.071 (SRL 6/29/83 VERSION)
Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction:
Slightly Unstable Conditions

Atmospheric Stability Class C

(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:
Slightly Unstable Conditions

Atmospheric Stability Class C

(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 43
Meteorological Data

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USNRC Computer Code-XOQDOQ,
43824 Wind Stats H-Area 60 minute

Version 2.0
62M 87-91

Run Date: 93.071 (SRL 6/29/83 VERSION)
Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction:
Neutral Conditions

Atmospheric Stability Class D

(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:
Neutral Conditions

Atmospheric Stability Class D

(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 43
Meteorological Data

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USNRC Computer Code-XOQDOQ,
43824 Wind Stats H-Area 60 minute

Version 2.0
62M 87-91

Run Date: 93.071 (SRL 6/29/83 VERSION)
Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction:
Slightly Stable Conditions

Atmospheric Stability Class E

(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:
Slightly Stable Conditions

Atmospheric Stability Class E

(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 43
Meteorological Data

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USNRC Computer Code-XOQDOQ,
43824 Wind Stats H-Area 60 minute

Version 2.0
62M 87-91

Run Date: 93.071 (SRL 6/29/83 VERSION)
Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction:
Moderately Stable Conditions

Atmospheric Stability Class F

(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:
Moderately Stable Conditions

Atmospheric Stability Class F

(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 43
Meteorological Data

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USNRC Computer Code-XOQDOQ,
43824 Wind Stats H-Area 60 minute

Version 2.0
62M 87-91

Run Date: 93.071 (SRL 6/29/83 VERSION)
Stability from Sigma A

Joint Frequency Distribution of Wind Speed and Direction:
Extremely Stable Conditions

Atmospheric Stability Class G

(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:
Extremely Stable Conditions

Atmospheric Stability Class G

(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 44
80-km-Radius (50-Mile) 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 45
80-km-Radius (50-Mile) Milk, Meat, and Vegetation Production Around SRS,
as of 1991

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	6.000E+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 45
80-km-Radius (50-Mile) Milk, Meat, and Vegetation Production Around SRS,
as of 1991

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	5.800E+04	8.000E+04	2.800E+05	2.700E+05	6.830E+05
NNW	0.0	0.0	5.300E+04	8.800E+04	3.300E+05	6.200E+05	1.091E+06
Total	0.0	0.0	1.247E+06	2.316E+06	4.280E+06	6.730E+06	1.457E+07

Site Annual Vegetation Production (kg)

Dir (miles)	0-5	5-10	10-20	20-30	30-40	40-50	Total
N	0.0	0.0	3.600E+05	6.000E+05	8.400E+05	8.700E+05	2.670E+06
NNE	0.0	0.0	3.600E+05	6.000E+05	5.100E+05	6.300E+05	1.476E+06
NE	0.0	0.0	3.600E+05	6.900E+05	1.000E+06	5.000E+05	2.550E+06
ENE	0.0	0.0	3.600E+05	6.600E+05	1.200E+06	1.500E+06	3.270E+06
E	0.0	0.0	3.600E+05	5.900E+05	8.500E+05	1.400E+06	3.200E+06
ESE	0.0	0.0	3.600E+05	2.200E+06	1.900E+06	1.100E+06	5.560E+06
SE	0.0	0.0	2.500E+06	4.500E+06	3.000E+06	1.100E+06	1.110E+07
SSE	0.0	0.0	1.700E+06	2.900E+06	3.600E+06	1.100E+06	9.300E+06
S	0.0	0.0	7.200E+04	5.400E+05	8.400E+05	9.700E+05	2.422E+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	7.900E+03	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	6.200E+04	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 46
Release Locations for Maximally Exposed Individual Dose

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	Release Source Area				
	F,H,P,K,C	M	D	Savannah River Technology Center	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

Table 47
Parameters Used for Adult Consumption Rates
and for Atmospheric Dose Calculations^a

Page 1 of 1

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

^a Values developed by SRTC for SRS

Table 48
Site-Specific Parameters Used with CAP88 Code Used for NESHAPS
Calculations

Page 1 of 1

Particle size, AMAD ^a	
H-3, C-14, Kr-85	0
All other	1
Environmental dose commitment integrating period, yrs	
Maximum individual	40
Population	100
Meteorological data	1987–91; H-Area
Plume rise	None
Number of stacks	2
Stack heights, m	0 and 61
Height of lid, m	1000
Rainfall, cm/yr	122.4
Average air temperature, C	17.8
Surface roughness length, m	0.4
Height of wind measurements, m	61
Average wind speed, m/s	3.82
Population size	620,100
Food supply fractions (fraction from local sources)	
Vegetable	0.700
Meat	0.442
Milk	0.399

^a Activity Median Aerodynamic Diameter

Table 49
Parameters Used for Adult Consumption Rates
and for Liquid Dose Calculations^a

Page 1 of 1

Pathway	Maximally Exposed Individual	Population
Water consumption (L/yr)	730	370
Fish consumption (kg/yr)	19	9
Marine invertebrates (kg/yr)	8	2
Boating ^b	21	1,100,000
Swimming ^b	8.9	160,000
Shoreline recreation ^b	23	960,000
Water treatment plants ^c		
Water consumption (L/yr)	730	370

^a Values developed by SRTC for SRS

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

^c Dose is calculated for the maximally exposed individual and population through the drinking water pathway from the downriver Beaufort-Jasper Water Treatment Plant near Beaufort, S.C., and the City of Savannah Industrial and Domestic Water Supply Plant at Port Wentworth, Ga.

Table 50
Site-Specific Parameters Used in Liquid Dose Calculations

Page 1 of 1

River flow rate at Highway 301 for 1995 (cu ft /sec) ^a	9,973
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 ^b
Fish – commercial	2,700 ^b
Invertebrates – salt water	390,000 ^b
Irrigation	None ^{b, c}
Shore width factor	0.2
Fish bioaccumulation factor for cesium	3,000

^a The effective river flow rate was based on tritium measurements. The measured river flow rate was 12,781 cfs.

^b Values developed by SRTC for SRS

^c Irrigation is considered a "special case" scenario.

Table 51

Committed Dose to the Maximally Exposed Individual from Atmospheric Releases (MAXIGASP Code — Using Consumption of Cow Milk Pathway))

Page 1 of 1

By Pathway

Pathway	Maximally Exposed Individual Dose (mrem)^a	Percent of Total Dose
Plume	7.06E-09	0.00001
Ground	2.01E-03	3.6
Inhalation	2.45E-02	44.1
Vegetation	2.04E-02	36.7
Cow milk	6.24E-03	11.2
Meat	2.50E-03	4.5
Total	5.56E-02	

By Radionuclide

Radionuclide	Maximally Exposed Individual Dose (mrem)^a	Percent of Total Dose^b
<i>Gases and Vapors</i>		
H-3	4.31E-02	77.5
I-129	2.65E-03	4.8
I-131	2.05E-04	0.4
<i>Particulates</i>		
Sr-90	5.20E-04	0.9
Cs-137	2.42E-03	4.4
U-234	5.93E-05	0.1
U-235	3.99E-04	0.7
U-238	2.46E-04	0.4
Pu-238	1.53E-03	2.8
Pu-239	4.41E-03	7.9
Am-241	9.07E-05	0.2
Total	5.56E-02	

^a Committed effective dose equivalent

^b Radionuclides contributing 0.1% or more of the total dose

Table 52**Committed Dose to the Maximally Exposed Individual from Atmospheric Releases (MAXIGASP Code — Using Consumption of Goat Milk Pathway)**

Page 1 of 1

By Pathway

Pathway	Maximally Exposed Individual Dose (mrem)^a	Percent of Total Dose
Plume	7.06E-09	0.00001
Ground	2.01E-03	3.2
Inhalation	2.45E-02	38.6
Vegetation	2.04E-02	32.1
Goat Milk	1.41E-02	22.2
Meat	2.50E-03	3.9
Total	6.35E-02	

By Radionuclide

Radionuclide	Maximally Exposed Individual Dose (mrem)^a	Percent of Total Dose^b
<i>Gases and Vapors</i>		
H-3	5.06E-02	79.7
I-129	2.72E-03	4.3
I-131	2.31E-04	0.4
<i>Particulates</i>		
Sr-90	5.31E-04	0.8
Cs-137	2.65E-03	4.2
U-234	5.92E-05	0.1
U-235	3.99E-04	0.6
U-238	2.46E-04	0.4
Pu-238	1.53E-03	2.4
Pu-239	4.41E-03	6.9
Am-241	9.06E-05	0.1
Total	6.35E-02	

^a Committed effective dose equivalent^b Radionuclides contributing 0.1% or more of the total dose

Table 53
80-km (50-Mile) Collective Dose from Atmospheric Releases (POPGASP Code)

Page 1 of 1

By Pathway

Pathway	Population Dose (person-rem) ^a	Percent of Total Dose
Plume	7.76E-07	0.00002
Ground	1.65E-01	4.7
Inhalation	2.47E+00	71.0
Vegetation	5.35E-01	15.4
Cow Milk	2.55E-01	7.3
Meat	6.14E-02	1.8
Total	3.48E+00	

By Radionuclide

Radionuclide	Population Dose (person-rem) ^a	Percent of Total Dose ^b
<i>Gases and Vapors</i>		
H-3	2.87E+00	82.5
I-129	8.78E-02	2.5
I-131	7.00E-03	0.2
<i>Particulates</i>		
Sr-90	1.03E-02	0.3
Cs-137	1.64E-01	4.7
U-234	5.93E-03	0.2
U-235	4.31E-02	1.2
U-238	2.45E-02	0.7
Pu-238	1.11E-01	3.2
Pu-239	1.52E-01	4.4
Am-241	6.55E-03	0.2
Total	3.48E+00	

^a Committed effective dose equivalent

^b Radionuclides contributing 0.1% or more of the total dose

Table 54
Total Site Releases and Maximally Exposed Individual
Effective Dose Equivalent by Radionuclide
(CAP88 Dose Calculations for 1995 NESHAP Report to EPA)

Page 1 of 2

Radionuclide	Releases (curies)	Maximally Exposed Individual EDE (mrem)	Percent of Dose
H-3 (oxide)	5.50E+04	7.42E-02	95.9
Pu-239 ^a	7.26E-04	7.99E-04	1.0
Cs-137	1.50E-02	7.67E-04	1.0
Pu-238	5.92E-04	5.96E-04	0.8
U-235	8.59E-04	3.33E-04	0.4
I-129	4.70E-03	3.11E-04	0.4
U-238	5.79E-04	2.07E-04	0.3
Sr-89,90 ^b	5.52E-03	6.90E-05	0.1
U-234	1.29E-04	5.18E-05	0.1
Am-241	3.04E-05	5.02E-05	0.1
I-135	7.19E-02	2.48E-05	0.03
H-3 (elemental)	4.17E+04	2.25E-05	0.03
I-131	2.06E-02	1.23E-05	0.02
Xe-135	3.36E-02	1.13E-05	0.01
Ru-106	1.81E-04	3.50E-06	0.005
Cm-244	3.40E-06	2.96E-06	0.004
Co-60	5.76E-05	2.63E-06	0.003
Ce-144	2.32E-04	1.21E-06	0.002
Sb-125	1.20E-04	6.08E-07	0.001
Cs-134	3.01E-05	4.88E-07	0.001
Zn-65	6.24E-05	1.58E-07	0.0002
Zr-95	4.51E-05	6.48E-08	0.0001
I-133	1.72E-03	2.63E-08	0.00003
Co-58	2.60E-05	2.52E-08	0.00003
Ru-103	3.72E-05	1.23E-08	0.00002
Nb-95	2.67E-05	1.21E-08	0.00002
Eu-154	3.02E-07	1.07E-08	0.00001
Ce-141	5.30E-05	6.45E-09	0.00001
Eu-155	7.50E-07	1.05E-09	0.000001
Sb-124	1.81E-07	2.72E-10	0.0000004
Pm-147	7.92E-07	1.35E-10	0.0000002

a Includes unidentified alpha (assigned to Pu-239)

b Includes unidentified beta (assigned to Sr-90)

Table 54
Total Site Releases and Maximally Exposed Individual
Effective Dose Equivalent by Radionuclide
(CAP88 Dose Calculations for 1995 NESHAP Report to EPA)

Page 2 of 2

Radionuclide	Releases (curies)	Maximally Exposed Individual EDE (mrem)	Percent of Dose
Cm-243	4.90E-14	6.63E-14	0.0000000001
Hg-203	1.00E-12	2.62E-16	0.00000000000003
Cm-242	2.03E-16	2.61E-16	0.00000000000003
S-35	5.26E-12	1.16E-16	0.00000000000001
Cm-248	9.20E-18	6.97E-17	0.00000000000001
Am-243	2.30E-17	4.64E-17	0.00000000000001
Co-57	2.50E-14	1.28E-17	0.00000000000002
Ni-63	2.00E-13	7.31E-18	0.00000000000001
C-14	9.80E-15	8.55E-19	0.000000000000001
Rb-86	2.00E-15	4.52E-19	0.000000000000001
Sn-113	3.80E-16	6.81E-20	0.0000000000000001
Cr-51	1.00E-16	1.50E-21	0.00000000000000002
Total		7.74E-02	

Table 55
NESHAP Report Data: CAP88 Compared With MAXIGASP

Page 1 of 1

Maximally Exposed 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	1.25E-07	0.0002	7.06E-09	0.00001
Ground	7.83E-04	1.0	2.01E-03	3.6
Inhalation	2.27E-02	29.3	2.45E-02	44.1
Food ^b	5.39E-02	69.6	2.91E-02	52.3
Total	7.74E-02		5.56E-02	
By Radionuclide				
<i>Gases and Vapors</i>				
H-3 ^c	7.42E-02	95.9	4.31E-02	77.5
I-129	3.11E-04	0.4	2.65E-03	4.8
I-131	1.23E-05	0.02	2.05E-04	0.4
<i>Particulates</i>				
Sr-90	6.90E-05	0.09	5.20E-04	0.9
Cs-137	7.67E-04	1.0	2.42E-03	4.4
U-234	5.18E-05	0.1	5.93E-05	0.1
U-235	3.33E-04	0.4	3.99E-04	0.7
U-238	2.07E-04	0.3	2.46E-04	0.4
Pu-238	5.96E-04	0.8	1.53E-03	2.8
Pu-239	7.99E-04	1.0	4.41E-03	7.9
Am-241	5.02E-05	0.06	9.07E-05	0.2
Total	7.74E-02		5.56E-02	

a Effective dose equivalent

b Meat, milk, and vegetables

c Dose from tritium in foods calculated with absolute humidity of 11.4 g water/cubic meter of air

Table 56
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	1.06E-05	0.0001	7.76E-07	0.00002
Ground	1.03E-01	1.2	1.65E-01	4.7
Inhalation	2.91E+00	34.8	2.47E+00	71.0
Food ^b	5.35E+00	64.0	8.52E-01	24.5
Total	8.36E+00		3.48E+00	
By Radionuclide				
<i>Gases and Vapors</i>				
H-3 ^c	8.01E+00	95.9	2.87E+00	82.5
I-129	1.41E-02	0.2	8.78E-02	2.5
I-131	6.29E-04	0.01	7.00E-03	0.2
<i>Particulates</i>				
Sr-90	6.49E-03	0.08	1.03E-02	0.3
Cs-137	1.02E-01	1.2	1.64E-01	4.7
U-234	5.68E-03	0.1	5.93E-03	0.2
U-235	3.68E-02	0.4	4.31E-02	1.2
U-238	2.27E-02	0.3	2.45E-02	0.7
Pu-238	6.48E-02	0.8	1.11E-01	3.2
Pu-239	8.65E-02	1.0	1.52E-01	4.4
Am-241	5.51E-03	0.07	6.55E-03	0.2
Total	8.36E+00		3.48E+00	

a Committed effective dose equivalent

b Meat, milk, and vegetables

c Dose from tritium in foods calculated with absolute humidity of 11.4 g water/cubic meter of air

Table 57
Committed Dose to Maximally Exposed Individual from Liquid Releases

Page 1 of 1

By Pathway

Pathway	Individual Dose (mrem) ^a	Percent of Total Dose
Fish	6.95E-02	49.9
Water	6.96E-02	50.0
Shoreline	2.21E-04	0.2
Swimming	1.50E-07	0.0001
Boating	1.77E-07	0.0001
Total	1.39E-01	

By Radionuclide

Radionuclide	Individual Dose (mrem) ^a	Percent of Total Dose
H-3 (oxide)	6.02E-02	43.2
Co-60	1.61E-05	0.0
Sr-90 ^b	7.55E-03	5.4
I-129	3.03E-04	0.2
Cs-137	6.53E-02	46.8
Pm-147	3.37E-07	0.0002
U-234	3.32E-06	0.002
U-235	2.59E-07	0.0
U-238	3.35E-06	0.0
Pu-238	1.37E-05	0.0
Pu-239 ^c	5.99E-03	4.3
Am-241	1.22E-06	0.0
Cm-244	1.13E-06	0.0
Total	1.39E-01	

^a Committed effective dose equivalent

^b Includes unidentified beta (assigned to Sr-90)

^c Includes unidentified alpha (assigned to Pu-239)

Table 58
Committed Dose to Maximally Exposed Individual from Public Water Supplies
at Beaufort-Jasper Water Treatment Plant

Page 1 of 1

Radionuclide	Individual Dose, mrem ^a	Percent of Total Dose
H-3 (oxide)	3.79E-02	84.5
Co-60	3.12E-06	0.01
Sr-90 ^b	2.73E-03	6.1
I-129	1.40E-04	0.3
Cs-137	5.29E-04	1.2
Pm-147	1.31E-07	0.0003
U-234	2.03E-06	0.005
U-235	1.55E-07	0.0003
U-238	2.05E-06	0.005
Pu-238	8.11E-06	0.02
Pu-239 ^c	3.54E-03	7.9
Am-241	4.75E-07	0.001
Cm-244	4.40E-07	0.001
Total	4.48E-02	

a Committed effective dose equivalent

b Includes unidentified beta (assigned to Sr-90)

c Includes unidentified alpha (assigned to Pu-239)

Table 59
Committed Dose to Maximally Exposed Individual from Public Water Supplies
at Port Wentworth Water Treatment Plant

Page 1 of 1

Radionuclide	Individual Dose, mrem ^a	Percent of Total Dose
H-3 (oxide)	4.51E-02	84.5
Co-60	3.72E-06	0.01
Sr-90 ^b	3.25E-03	6.1
I-129	1.67E-04	0.3
Cs-137	6.30E-04	1.2
Pm-147	1.56E-07	0.0003
U-234	2.42E-06	0.005
U-235	1.85E-07	0.0003
U-238	2.45E-06	0.005
Pu-238	9.67E-06	0.02
Pu-239 ^c	4.22E-03	7.9
Am-241	5.66E-07	0.001
Cm-244	5.24E-07	0.001
Total	5.34E-02	

a Committed effective dose equivalent

b Includes unidentified beta (assigned to Sr-90)

c Includes unidentified alpha (assigned to Pu-239)

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	1.26E-01	7.5
Commercial fish	1.23E-03	0.1
Beaufort-Jasper	1.14E+00	67.7
Port Wentworth	4.06E-01	24.1
Salt water invertebrates	3.69E-04	0.02
Recreation—river	9.24E-03	0.5
Total	1.68E+00	

By Radionuclide

Radionuclide	Collective Dose (person-rem) ^a	Percent of Total Dose
H-3	1.31E+00	77.8
Co-60	3.27E-04	0.02
Sr-90 ^b	1.00E-01	6.0
I-129	5.02E-03	0.3
Cs-137	1.45E-01	8.6
Pm-147	4.83E-06	0.0003
U-234	7.04E-05	0.004
U-235	5.57E-06	0.0003
U-238	7.11E-05	0.004
Pu-238	2.83E-04	0.02
Pu-239 ^c	1.23E-01	7.3
Am-241	1.75E-05	0.001
Cm-244	1.62E-05	0.001
Total	1.68E+00	

^a Committed effective dose equivalent

^b Includes unidentified beta (assigned to Sr-90)

^c Includes unidentified alpha (assigned to Pu-239)

Table 61
Potential Doses from Irrigation Pathways

Page 1 of 1

Effective Dose Equivalent

Food Type^a	Maximally Exposed Individual (mrem)^a	Population (person-rem)^a
Vegetation	5.05E-02	3.15E+00
Leafy vegetable	7.87E-03	2.03E-01
Milk	2.02E-02	2.75E+00
Meat	6.72E-03	3.60E-01
Total	8.53E-02	6.46E+00

^a Irrigated acreage for each food type assumed to be 1,000 acres

Table 62
Dose from Consumption of Fish from SRS Creek Mouths and River Mile

Page 1 of 2

Number of Composites with Quantifiable Activity^a

Location	Species	H-3	Sr-90	Cs-137	Pu-238	Pu-239
BDC	Catfish	3	2	2	3	3
FMC	Catfish	1	1	0	1	1
L3R	Catfish	2	2	2	1	1
	Bream	1	1	1	1	1
SC	Bass	1	1	1	1	1
	Catfish	2	2	2	2	2
	Bream	2	2	2	2	2
U3R	Catfish	2	2	2	2	2
RM 120	Catfish	2	2	2	2	2
	Bream	3	3	3	3	3

Average Concentration in Composites, pCi/g

Location	Species	H-3	Sr-90	Cs-137	Pu-238	Pu-239
BDC	Catfish	9.36E-02	1.23E-03	9.00E-02	4.46E-04	-1.14E-06
FMC	Catfish	7.19E-01	2.98E-03	NA ^b	1.12E-04	6.07E-06
L3R	Catfish	1.71E-01	1.02E-03	2.54E-01	4.23E-05	-2.11E-05
	Bream	2.66E-01	-3.00E-05	1.55E-01	-1.23E-05	1.63E-05
SC	Bass	1.97E+00	5.62E-03	1.21E+00	7.34E-06	4.89E-06
	Catfish	1.59E+00	1.40E-02	8.23E-02	2.42E-05	2.74E-06
	Bream	2.08E+00	8.25E-03	1.71E-01	3.10E-06	2.69E-06
U3R	Catfish	1.89E-01	2.24E-03	9.10E-02	7.30E-06	2.09E-06
RM 120	Catfish	3.06E-01	3.40E-03	5.69E-02	-3.56E-05	-4.29E-05
	Bream	2.79E-01	5.56E-03	7.50E-02	1.08E-05	3.60E-06

^a All composites were 5 fish.

^b Not available (no quantifiable activity)

Table 62
Dose from Consumption of Fish from SRS Creek Mouths and River Mile

Page 2 of 2

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

Location	Species	H-3	Sr-90	Cs-137	Pu-238	Pu-239	Total
BDC	Catfish	1.12E-04	3.04E-03	8.55E-02	3.22E-02	b	1.21E-01
FMC	Catfish	8.61E-04	7.36E-03	NA ^c	8.09E-03	4.96E-04	1.68E-02
L3R	Catfish	2.05E-04	2.52E-03	2.41E-01	3.05E-03		2.47E-01
	Bream	3.18E-04		1.47E-01		1.33E-03	1.49E-01
SC	Bass	2.36E-03	1.39E-02	1.15E+00	5.30E-04	4.00E-04	1.17E+00
	Catfish	1.90E-03	3.46E-02	7.82E-02	1.75E-03	2.24E-04	1.17E-01
	Bream	2.49E-03	2.04E-02	1.62E-01	2.24E-04	2.20E-04	1.86E-01
U3R	Catfish	2.26E-04	5.53E-03	8.65E-02	5.27E-04	1.71E-04	9.29E-02
RM 120	Catfish	3.66E-04	8.40E-03	5.41E-02			6.28E-02
	Bream	3.34E-04	1.37E-02	7.13E-02	7.80E-04	2.94E-04	8.64E-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 areas) and was not used in the total dose column.

c Not available (no quantifiable activity)

Table 63
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
U3R	Tim's Branch 5 (Road C)	7	3.78E-04	4.32E-04	1.19E-04
BDC	Below 400-D	72	6.43E-06	1.08E-05	7.86E-06
FMC	FM3 above Road E	10	6.67E-04	8.26E-04	9.53E-04
PB	K-018	37	2.36E-05	3.46E-05	9.21E-05
SC	Steel Creek 2A above Road B	5	6.43E-05	1.62E-04	6.75E-04
L3R	L3R1A above Road B	19	3.83E-06	8.94E-06	3.56E-05

Stream	Location	Flow, cfs	Dose to Biota, rad/d ^{a,b}	
			Raccoon	Duck
U3R	Tim's Branch 5 (Road C)	7	1.53E-04	1.54E-03
BDC	Below 400-D	72	4.94E-06	8.45E-05
FMC	FM3 above Road E	10	5.29E-04	1.14E-02
PB	K-018	37	4.05E-05	1.12E-03
SC	Steel Creek 2A above Road B	5	3.40E-04	9.86E-03
L3R	L3R1A above Road B	19	1.84E-05	5.35E-04

^a Calculated with CRITR methodology incorporated in the LADTAPII computer program

^b The DOE limit is 1 rad/d.

Table 64
Toxic/Hazardous Air Pollutant Emissions (1994)

Page 1 of 4

Pollutant	Actual Tons/Year
<i>Note: Emissions are calculated each year as part of an annual emissions inventory. In 1995, operating data were compiled and emissions calculated for 1994 operations for all site air emission sources. Because this process, which begins in January, requires up to 6 months to complete, this report provides 1994 emissions only. Actual emissions for 1995 will be compiled and reported in depth in the SRS Environmental Report for 1996 and SRS</i>	
1,1,1-TRICHLOROETHANE	1.92E-01
1,1,2,2-TETRACHLOROETHANE	1.15E-04
1,1,2-TRICHLOROETHANE	2.01E-06
1,1-DICHLORETHYLENE	1.78E-04
1,1-DICHLOROETHANE	4.56E-07
1,2,4-TRICHLOROBENZENE	1.17E-04
1,3-BUTADIENE	9.06E-02
2,2,4-TRIMETHYLPENTANE	1.28E-02
2,4-DINITROPHENOL	4.43E-07
2-BIPHENYLOL	5.00E-06
ACETALDEHYDE	3.27E-01
ACETONITRILE	4.66E-01
ACROLEIN	1.41E-02
ALIPHATIC POLYISOCYANATE	00E+00
AMMONIUM CHLORIDE	4.89E-03
ANILINE	1.92E-04
ANTIMONY	1.02E-01
ARSENIC	4.46E-01
BENZENE	2.72E+00
BERYLLIUM	2.42E-03
BIS-(2-ETHYLHEXYL)PHTHALATE	7.00E-03
BROMOFORM	3.00E+00
CADMIUM	2.09E-02
CARBON DISULFIDE	1.39E-02
CARBON TETRACHLORIDE	4.78E-03
CHLORDANE	6.77E-03
CHLORINE	1.01E-02
CHLOROBENZENE	8.35E-05
CHLOROFORM	3.94E+00
CHROMIC OXIDE	8.46E-09
CHROMIUM	6.60E-02

Table 64
Toxic/Hazardous Air Pollutant Emissions (1994)

Page 2 of 4

Pollutant	Actual Tons/Year
CHROMIUM (+6) COMPOUNDS	8.34E-05
CHROMIUM (PM10)	1.62E-07
COBALT	1.78E-03
CRESOL	1.12E-04
CUMENE	1.56E-02
CYANIDE	1.95E-03
DIBUTYL PHTHALATE	2.00E-03
DIOXANE	1.50E-05
DIPHENYL	2.71E-03
DIPHENYLMERCURY	5.44E-05
ETHYL BENZENE	7.32E-01
ETHYLENE DIBROMIDE	7.81E-06
ETHYLENE DICHLORIDE	3.61E-05
ETHYLENE GLYCOL	2.61E-01
FORMALDEHYDE	2.61E+00
FORMIC ACID	9.08E-01
FURFURYL ALCOHOL	8.20E-03
GLYCOL ETHERS	5.70E-03
HEPTACHLOR	3.90E-05
HEXACHLOROBENZENE	1.16E-04
HEXACHLOROCYCLOPENTADIENE	9.76E-04
HEXANE	2.46E+00
HYDRAZINE	1.76E-06
HYDROCHLORIC ACID (HYDROGEN CHLORIDE)	1.85E+00
HYDROGEN FLUORIDE	6.74E-02
HYDROGEN SULFIDE	1.44E+01
HYDROQUINONE	5.45E-03
ISOPHORONE	6.95E-03
LEAD	1.46E-01
LEAD OXIDE	9.56E-02
LEAD SULFATE	4.00E-13
M-XYLENE	9.68E-02
MANGANESE	5.28E-02
MANGANESE (PM10)	7.30E-09
MANGANESE DIOXIDE	9.81E-08

Table 64
Toxic/Hazardous Air Pollutant Emissions (1994)

Page 3 of 4

Pollutant	Actual Tons/Year
MANGANESE FORMATE	1.14E-07
MANGANESE TETROXIDE	1.00E-11
MERCURIC NITRATE	5.77E-04
MERCURY	1.39E-01
MERCURY OXIDE	00E+00
METHOXYCHLOR	1.24E-01
METHYL ALCOHOL	9.39E-01
METHYL CYANOACRYLATE	5.94E-04
METHYL ETHYL KETONE (2-BUTONE)	3.01E-01
METHYL ISOBUTYL KETONE	7.57E-01
METHYL METHACRYLATE	2.10E-06
METHYL TERT-BUTYL ETHER	7.48E-02
METHYL-2-CYANOACETATE	5.00E-06
METHYLENE CHLORIDE	2.30E-01
MINERAL OIL	8.79E-03
NAPHTHALENE	1.07E-02
NICKEL	5.00E-02
NICKEL (PM10)	8.40E-08
NICKEL FORMATE	2.02E-09
NICKEL MONOXIDE	5.00E-08
NITRIC ACID	3.68E+00
NITRIC ACID (64%)	3.84E-03
NITROBENZENE	3.35E-06
O-TERPHENYL	4.97E-06
O-XYLENE	4.85E-01
OXALIC ACID	2.31E-02
P-NITROSOPHENOL	2.17E-04
P-XYLENE	1.27E-01
PHENOL	8.44E-03
PHOSPHORIC ACID	1.07E-01
PHOSPHORUS (YELLOW OR WHITE)	2.64E-06
POLYCHLORINATED BIPHENYLS (PCB)	6.28E-03
POLYCYCLIC ORGANIC MATTER	2.50E-02
POTASSIUM PERMANGANATE4	67E-10
RADIONUCLIDES	4.91E-01

Table 64
Toxic/Hazardous Air Pollutant Emissions (1994)

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Pollutant	Actual Tons/Year
SELENIUM	2.55E-03
SODIUM HYDROXIDE	43E-01
STYRENE	6.51E-02
SULFURIC ACID	7.41E+00
TETRACHLOROETHYLENE (CL ₂ C=CCL)	3.55E+00
TOLUENE	1.59E+00
TOXAPHENE	3.73E-01
TRICHLOROETHYLENE (TCE)	5.68E+00
VINYL ACETATE	7.50E-06
VINYL CHLORIDE	1.97E-04
XYLENE (MIXED ISOMERS)	5.30E+00
ZINC POTASSIUM CHROMATE	2.09E-03
ZINC POTASSIUM CHROMATE (PM10)	9.66E-04

Table 65
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average

Permit SC0000175

Note: Permit levels can be found in WSRC NPDES Environmental Monitoring Program (ESH-EMS-910110) or in the permit itself. The permit is available from the South Carolina Department of Health and Environmental Control.

Outfall A-001

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

BOD	mg/L	15	1.81E+02	<1.00E+00	9	2.22E+01
FLO	MGD	15	2.88E-01	8.64E-02	15	2.11E-01
O&G	mg/L	14	3.10E+00	<1.00E+00	2	2.05E+00
PH	pH	15	7.40	6.20		
TMP	Deg C	15	25.00	17.00	15	22.47
TSS	mg/L	14	8.00E+00	<1.00E+00	6	3.48E+00

Outfall A-003

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

CR	mg/L	28	2.10E-02	<5.00E-03	5	1.19E-02
FLO	MGD	65	2.59E-01	5.76E-02	65	8.30E-02
O&G	mg/L	17	4.40E+00	<1.00E+00	2	2.80E+00
PH	pH	17	7.70	6.30		
TMP	Deg C	17	27.00	10.00	17	20.65
TSS	mg/L	17	2.00E+00	<1.00E+00	4	1.60E+00

Outfall A-005

Effluent consists of the following types of wastewater: wastewater from animal holding area, steam condensate, steam cleaning wastewater, and cooling water.

BOD	mg/L	14	5.60E+00	<1.00E+00	8	2.97E+00
FEC	#/100mL	17	16000.	<2.	44475.	
FLO	MGD	14	4.32E-01	1.44E-01	14	2.67E-01
O&G	mg/L	14	3.20E+00	<1.00E+00	1	3.20E+00
PERCL	ug/L	14	<2.00E+00	<2.00E+00		
PH	pH	14	7.40	6.50		
TMP	Deg C	14	25.00	12.00	14	19.86
TRICL	ug/L	14	3.40E+00	<2.00E+00	2	3.30E+00
TSS	mg/L	14	2.60E+01	<1.00E+00	10	5.07E+00

Table 65
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall A-011						
<i>Effluent consists of the following types of wastewater: cooling water.</i>						
BOD	mg/L	15	4.20E+00	<1.00E+00	3	2.50E+00
FLO	MGD	67	1.44E-01	1.44E-03	67	1.75E-02
O&G	mg/L	15	<1.00E+00	<1.00E+00		
PH	pH	16	7.50	6.00		
TMP	Deg C	16	31.00	10.00	16	20.88
TSS	mg/L	16	1.78E+01	<1.00E+00	7	6.71E+00
Outfall A-014						
<i>Effluent consists of the following types of wastewater: air stripper wastewater and noncontact cooling water.</i>						
BOD	mg/L	14	2.38E+01	<1.00E+00	12	4.39E+00
FLO	MGD	17	1.12E+01	3.53E-01	17	2.53E+00
O&G	mg/L	14	3.40E+00	<1.00E+00	2	2.90E+00
PERCL	ug/L	15	4.80E+00	<2.00E+00	2	4.50E+00
PH	pH	24	7.20	6.20		
TCE	ug/L	14	<5.00E+00	<2.00E+00		
TMP	Deg C	23	27.00	10.00	23	20.
TRICL	ug/L	15	<5.00E+00	<2.00E+00		
TSS	mg/L	14	5.69E+01	<1.00E+00	13	1.91E+01
Outfall A-015						
<i>Effluent consists of the following types of wastewater: sanitary wastewater.</i>						
BOD	mg/L	5	5.30E+00	2.00E+00	5	3.36E+00
FEC	#/100mL	4	26.	<2.	1	26.
FLO	MGD	151	2.15E-01	0.00E+00	151	9.16E-02
PH	pH	5	7.20	7.01		
TSS	mg/L	5	7.60E+00	<1.00E+00	3	4.57E+00
Outfall C-001						
<i>Effluent consists of the following types of wastewater: cooling water.</i>						
FLO	MGD	365	1.55E-01	1.29E-02	365	2.68E-02
O&G	mg/L	15	1.10E+00	<1.00E+00	1	1.10E+00
PH	pH	15	7.20	5.60		

Table 65
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
TMP	Deg C	15	27.00	10.50	15	19.03
TSS	mg/L	16	2.23E+01	<1.00E+00	12	4.80E+00
Outfall C-003						
<i>Effluent consists of the following types of wastewater: cooling water.</i>						
FLO	MGD	365	1.29E+00	6.46E-02	365	2.81E-01
O&G	mg/L	15	<1.00E+00	<1.00E+00		
PH	pH	15	7.20	6.30		
TMP	Deg C	15	24.00	12.00	15	20.83
TSS	mg/L	15	1.20E+01	<1.00E+00	8	4.78E+00
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	4.91E+01	2.91E-01	365	4.05E+00
O&G	mg/L	13	<1.00E+00	<1.00E+00		
PH	pH	13	7.00	6.10		
TMP	Deg C	365	27.80	5.90	365	18.79
TSS	mg/L	17	1.05E+02	<1.00E+00	14	1.98E+01
Outfall C-004A						
<i>Effluent consists of the following types of wastewater: sanitary wastewater.</i>						
BOD	mg/L	5	3.70E+00	<1.00E+00	3	2.77E+00
FEC	#/100mL	4	6.	<2.	1	6.
FLO	MGD	151	3.04E-02	0.00E+00	151	1.17E-02
PH	pH	5	8.01	7.01		
TSS	mg/L	5	3.50E+00	1.20E+00	5	2.28E+00
Outfall D-001						
<i>Effluent consists of the following types of wastewater: cooling water, neutralization water, and heavy water.</i>						
FLO	MGD	272	6.27E+01	4.07E+01	272	4.95E+01
O&G	mg/L	11	1.10E+00	<1.00E+00	1	1.10E+00
PH	pH	18	6.90	5.30		
TMP	Deg C	43	27.40	0.00	43	20.95
TSS	mg/L	11	2.20E+01	7.40E+00	11	1.36E+01

Table 65
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall D-001A						
<i>Effluent consists of the following types of wastewater: sanitary wastewater.</i>						
BOD	mg/L	13	1.40E+01	<1.00E+00	9	4.33E+00
FEC	#/100mL	16	68.	<2.	6	16.
FLO	MGD	365	6.54E-02	8.52E-04	365	1.19E-02
PH	pH	13	8.01	7.02		
TSS	mg/L	13	2.00E+01	1.50E+00	13	6.29E+00
Outfall D-001B						
<i>Effluent consists of the following types of wastewater: coal pile runoff.</i>						
AL	mg/L	20	8.27E+01	5.48E+01	20	6.83E+01
FE	mg/L	20	4.72E+02	2.94E+02	20	4.10E+02
FLO	MGD	191	1.73E-01	0.00E+00	191	6.42E-02
MG	mg/L	19	3.74E+01	2.61E+01	19	3.15E+01
MN	mg/L	20	4.23E+00	2.98E+00	20	3.56E+00
PH	pH	8	6.90	6.30		
SO4	mg/L	21	5.09E+03	1.32E+03	21	1.90E+03
TSS	mg/L	18	1.76E+01	<1.00E+00	17	5.04E+00
ZN	mg/L	20	9.76E+00	1.40E+00	20	2.10E+00
Outfall D-001C						
<i>Effluent consists of the following types of wastewater: ash basin discharge.</i>						
FLO	MGD	10	6.24E+00	3.99E+00	10	4.78E+00
O&G	mg/L	10	<1.00E+00	<1.00E+00		
PH	pH	9	6.80	6.20		
TSS	mg/L	10	2.10E+01	2.80E+00	10	7.71E+00
Outfall D-003						
<i>Effluent consists of the following types of wastewater: powerhouse washdown water and water treatment plant wastewater.</i>						
FLO	MGD	273	8.40E-01	1.23E-01	273	2.16E-01
O&G	mg/L	11	1.20E+00	<1.00E+00	1	1.20E+00
PH	pH	11	7.10	6.10		
TSS	mg/L	15	1.04E+02	<1.00E+00	14	1.08E+01

Table 65
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average

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Permit SC0000175

Outfall D-005 (facility in service but did not discharge)

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

FLO	MGD	8		0.00E+00	8	0.00E+00

Outfall D-006

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

FEC	#/100mL	11	3000.	17.	11	344.
FLO	MGD	273	7.76E+00	7.76E-01	273	1.88E+00
O&G	mg/L	11	2.00E+00	<1.00E+00	1	2.00E+00
PH	pH	11	7.00	6.00		
TMP	Deg C	263	27.30	9.20	263	20.91
TSS	mg/L	15	1.55E+02	2.90E+00	15	1.69E+01

Outfall DW-001 (facility not in service)

Effluent consists of the following types of wastewater: washdown water from concrete transit mixer trucks.

FLO	MGD	60		0.00E+00	60	0.00E+00

Outfall DW-002

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

FLO	MGD	31	7.20E-03	0.00E+00	31	1.70E-03
O&G	mg/L	18	<1.00E+00	<1.00E+00		
PH	pH	13	7.60	6.40		

Outfall DW-003

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

BOD	mg/L	5	1.61E+01	<1.00E+00	2	9.00E+00
FEC	#/100mL	4	<2.	<2.		
FLO	MGD	151	2.88E-02	0.00E+00	151	1.29E-02
PH	pH	5	8.60	7.02		
TSS	mg/L	5	2.40E+00	1.00E+00	5	1.72E+00

Table 65
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall DW-004						
<i>Effluent consists of the following types of wastewater: neutralization, cooling water, and steam condensate.</i>						
BOD	mg/L	29	6.65E+01	<1.00E+00	23	8.88E+00
CHL	mg/L	25	2.00E+00	<1.00E-01	17	4.49E-01
FLO	MGD	53	1.73E-01	0.00E+00	53	6.23E-02
O&G	mg/L	31	5.70E+00	<1.00E+00	5	3.88E+00
PH	pH	29	7.90	6.70		
TMP	Deg C	29	28.00	15.00	29	21.31
TSS	mg/L	31	1.20E+01	<1.00E+00	26	4.80E+00
Outfall F-001						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water.</i>						
FLO	MGD	14	1.44E-01	2.88E-02	14	6.02E-02
O&G	mg/L	14	1.00E+00	<1.00E+00	1	1.00E+00
PH	pH	14	8.00	6.80		
TMP	Deg C	14	29.00	15.00	14	23.29
TSS	mg/L	14	8.00E+00	<1.00E+00	5	3.16E+00
Outfall F-002						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water.</i>						
FLO	MGD	14	1.01E-01	1.44E-02	14	4.73E-02
O&G	mg/L	14	1.30E+00	<1.00E+00	1	1.30E+00
PH	pH	14	7.40	6.50		
TMP	Deg C	14	28.00	10.00	14	19.21
TSS	mg/L	14	1.00E+01	<1.00E+00	5	2.90E+00
Outfall F-003						
<i>Effluent consists of the following types of wastewater: cooling water and steam condensate.</i>						
BOD	mg/L	14	2.80E+00	<1.00E+00	8	2.00E+00
FLO	MGD	14	1.15E-01	4.32E-03	14	3.39E-02
O&G	mg/L	14	3.50E+00	<1.00E+00	2	2.45E+00
PH	pH	14	7.60	5.80		
TMP	Deg C	14	29.00	10.00	14	20.25
TSS	mg/L	16	2.46E+01	<1.00E+00	13	6.91E+00

Table 65
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall F-003A						
<i>Effluent consists of the following types of wastewater: sanitary wastewater.</i>						
BOD	mg/L	5	3.20E+00	1.40E+00	5	2.26E+00
FEC	#/100mL	4	<2.	<2.		
FLO	MGD	151	9.58E-02	0.00E+00	151	3.03E-02
PH	pH	5	8.70	7.00		
TSS	mg/L	5	9.80E+00	3.20E+00	5	5.26E+00
Outfall F-005						
<i>Effluent consists of the following types of wastewater: cooling water and steam condensate.</i>						
FLO	MGD	14	2.16E-01	1.44E-02	14	6.02E-02
O&G	mg/L	14	4.80E+00	<1.00E+00	2	3.35E+00
PH	pH	14	7.60	4.90		
TMP	Deg C	14	28.00	16.00	14	23.07
TSS	mg/L	16	2.24E+01	<1.00E+00	9	4.88E+00
Outfall F-007 (facility in service but did not discharge)						
<i>Effluent consists of the following types of wastewater: ash basin discharge.</i>						
FLO	MGD	13		0.00E+00	13	0.00E+00
Outfall F-008						
<i>Effluent consists of the following types of wastewater: neutralization, cooling water, steam condensate, process wastewater, and Outfall F-012 and Outfall F-013.</i>						
AL	mg/L	7	2.89E-01	<5.00E-02	5	2.48E-01
AN	mg/L	7	5.76E-01	<5.00E-02	2	4.68E-01
CR	mg/L	7	<1.00E-02	<5.00E-03		
CU	mg/L	7	1.24E-02	<5.00E-03	3	8.80E-03
FLO	MGD	365	9.69E+00	7.76E-01	365	1.70E+00
HG	mg/L	7	<1.00E-04	<1.00E-04		
MN	mg/L	7	5.50E-02	9.00E-03	5	1.91E-02
NI	mg/L	7	5.40E-03	<5.00E-03	1	5.40E-03
NO3	mg/L	7	1.71E+00	<2.00E-02	4	7.28E-01
O&G	mg/L	14	2.40E+00	<1.00E+00	1	2.40E+00
PB	mg/L	7	<2.00E-02	<3.00E-03		
PH	pH	14	7.40	4.70		

Table 65
National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
TMP	Deg C	14	27.00	13.00	14	22.00
TSS	mg/L	14	1.00E+01	<1.00E+00	12	3.35E+00
U308	mg/L	7	<5.00E-01	<2.00E-02		
ZN	mg/L	7	6.40E-02	1.20E-02	7	3.05E-02
Outfall F-008A						
<i>Effluent consists of the following types of wastewater: sanitary wastewater.</i>						
BOD	mg/L	5	2.44E+01	1.30E+00	5	6.40E+00
FEC	#/100mL	4	<2.	<2.		
FLO	MGD	151	9.35E-02	0.00E+00	151	3.72E-02
PH	pH	5	7.90	7.01		
TSS	mg/L	5	9.50E+00	<1.00E+00	4	4.95E+00
Outfall F-012						
<i>Effluent consists of the following types of wastewater: stormwater runoff retention basin effluent.</i>						
AL	mg/L	19	7.35E-01	<5.00E-02	15	2.49E-01
AN	mg/L	19	1.46E+00	<5.00E-02	10	3.01E-01
CR	mg/L	19	<1.00E-02	<5.00E-03		
CU	mg/L	19	2.66E-02	<5.00E-03	11	1.26E-02
FLO	MGD	19	1.62E+00	4.23E-01	19	9.67E-01
HG	mg/L	19	4.00E-04	<1.00E-04	2	2.00E-04
MN	mg/L	19	7.40E-02	8.00E-03	15	2.54E-02
NI	mg/L	19	5.90E-03	<5.00E-03	1	5.90E-03
NO3	mg/L	18	3.88E+00	<2.00E-02	10	1.02E+00
PB	mg/L	19	3.60E-03	<3.00E-03	2	3.50E-03
PH	pH	19	9.10	6.20		
TSS	mg/L	19	2.20E+01	1.00E+00	19	9.68E+00
U308	mg/L	19	5.00E-01	<2.00E-02	1	5.00E-01
ZN	mg/L	19	1.74E-01	1.60E-02	19	9.39E-02
Outfall F-013						
<i>Effluent consists of the following types of wastewater: cooling water retention basin effluent.</i>						
AL	mg/L	6	9.22E-01	<5.00E-02	4	3.54E-01
AN	mg/L	6	1.86E-01	<5.00E-02	3	1.05E-01
CR	mg/L	6	<1.00E-02	<5.00E-03		

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
CU	mg/L	6	1.83E-02	<5.00E-03	3	1.36E-02
FLO	MGD	6	1.62E+00	3.73E-01	6	1.32E+00
HG	mg/L	6	<1.00E-04	<1.00E-04		
MN	mg/L	6	9.75E-02	5.50E-03	5	3.31E-02
NI	mg/L	6	<1.00E-02	<5.00E-03		
NO3	mg/L	6	2.70E-01	<2.00E-02	3	1.03E-01
PB	mg/L	6	6.20E-03	<3.00E-03	2	4.70E-03
PH	pH	6	8.10	6.50		
TSS	mg/L	6	2.09E+01	3.80E+00	6	8.85E+00
U308	mg/L	6	<5.00E-01	<2.00E-02		
ZN	mg/L	6	7.90E-01	2.40E-02	6	1.83E-01

Outfall FS-001

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

FEC	#/100mL	9	230.	8.	9	123.
FLO	MGD	14	4.32E-02	0.00E+00	14	1.44E-02

Outfall FS-002 (facility in service but did not discharge)

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

FLO	MGD	13		0.00E+00	13	0.00E+00

Outfall H-002

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

C	mg/L	5	2.14E+00	<1.00E+00	2	1.63E+00
COD	mg/L	6	1.54E+01	<1.00E+01	1	1.54E+01
FLO	MGD	15	7.20E-02	2.88E-02	15	4.17E-02
O&G	mg/L	15	2.00E+00	<1.00E+00	2	1.60E+00
PH	pH	15	7.00	5.80		
TMP	Deg C	15	26.00	14.00	15	19.20
TSS	mg/L	15	8.60E+00	<1.00E+00	9	4.27E+00

Outfall H-004

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

FLO	MGD	15	2.88E-02	0.00E+00	15	9.00E-03
O&G	mg/L	13	<1.00E+00	<1.00E+00		

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
PH	pH	13	7.10	6.30		
TMP	Deg C	13	25.00	12.00	13	18.77
TSS	mg/L	13	9.00E+00	<1.00E+00	8	3.85E+00
Outfall H-006						
<i>Effluent consists of the following types of wastewater: stormwater.</i>						
C	mg/L	1	<1.00E+00	<1.00E+00		
COD	mg/L	1	<1.00E+01	<1.00E+01		
FLO	MGD	2	1.44E-03	0.00E+00	2	7.00E-04
O&G	mg/L	1	<1.00E+00	<1.00E+00		
PH	pH	1	7.30	7.30		
Outfall H-007						
<i>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.</i>						
CHL	mg/L	10	1.10E-01	<1.00E-01	1	1.10E-01
FLO	MGD	13	3.60E-01	0.00E+00	13	8.14E-02
O&G	mg/L	11	3.90E+00	<1.00E+00	1	3.90E+00
PH	pH	13	6.70	3.80		
TMP	Deg C	11	26.00	14.00	11	18.18
TSS	mg/L	11	1.80E+01	<1.00E+00	10	7.29E+00
Outfall H-008						
<i>Effluent consists of the following types of wastewater: cooling water, steam condensate, neutralization wastewater, and powerhouse wastewater.</i>						
FLO	MGD	365	5.69E+00	3.17E-01	365	9.06E-01
O&G	mg/L	15	5.30E+00	<1.00E+00	2	3.75E+00
PH	pH	15	7.20	5.60		
TMP	Deg C	15	28.00	11.00	15	22.07
TSS	mg/L	15	6.70E+00	<1.00E+00	14	3.06E+00
Outfall H-008A						
<i>Effluent consists of the following types of wastewater: ash basin discharge.</i>						
FLO	MGD	14	6.26E-01	0.00E+00	14	8.66E-02
O&G	mg/L	6	<1.00E+00	<1.00E+00		

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
PH	pH	6	7.20	6.50		
TSS	mg/L	6	1.03E+01	1.20E+00	6	4.32E+00
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	9	2.58E-01	<5.00E-02	7	1.70E-01
AN	mg/L	5	1.67E+00	<5.00E-02	3	8.91E-01
CR	mg/L	9	<1.00E-02	<5.00E-03		
CU	mg/L	9	1.81E-02	<5.00E-03	5	8.80E-03
FLO	MGD	15	7.20E-01	7.20E-02	15	3.10E-01
HG	mg/L	9	<1.00E-04	<1.00E-04		
MN	mg/L	8	2.46E-02	<1.00E-02	6	1.87E-02
NI	mg/L	9	<1.00E-02	<5.00E-03		
NO3	mg/L	5	1.48E+00	<2.00E-02	4	7.15E-01
O&G	mg/L	15	2.70E+00	<1.00E+00	2	2.35E+00
PB	mg/L	9	<2.00E-02	<3.00E-03		
PH	pH	15	7.00	6.00		
SO4	mg/L	8	1.29E+01	6.40E+00	8	1.08E+01
TMP	Deg C	15	28.00	15.00	15	21.47
TSS	mg/L	15	3.13E+01	<1.00E+00	10	5.72E+00
U308	mg/L	9	<5.00E-01	<2.00E-02		
ZN	mg/L	9	7.16E-02	9.00E-03	9	2.76E-02
Outfall H-013						
<i>Effluent consists of the following types of wastewater: sanitary wastewater.</i>						
BOD	mg/L	6	3.24E+01	<1.00E+00	5	9.52E+00
FEC	#/100mL	4	<2.	<2.		
FLO	MGD	151	1.46E-01	0.00E+00	151	4.25E-02
PH	pH	5	7.80	7.00		
TSS	mg/L	5	7.30E+00	1.90E+00	5	3.88E+00

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
TMP	Deg C	14	26.00	10.00	14	19.14
TSS	mg/L	14	7.30E+00	<1.00E+00	8	4.18E+00
Outfall K-008						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water.</i>						
FLO	MGD	14	8.64E-02	0.00E+00	14	4.32E-02
O&G	mg/L	12	<1.00E+00	<1.00E+00		
PH	pH	12	7.20	6.40		
TMP	Deg C	12	31.00	12.00	12	23.17
TSS	mg/L	12	8.30E+00	<1.00E+00	11	3.32E+00
Outfall K-010						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water.</i>						
FLO	MGD	13	5.76E-02	0.00E+00	13	1.96E-02
O&G	mg/L	10	1.10E+00	<1.00E+00	1	1.10E+00
PH	pH	10	7.20	6.50		
TMP	Deg C	10	26.00	14.00	10	20.20
TSS	mg/L	10	1.10E+01	<1.00E+00	9	4.63E+00

Outfall K-012*Effluent consists of the following types of wastewater: sanitary wastewater.*

BOD	mg/L	15	4.09E+01	<1.00E+00	14	1.02E+01
FEC	#/100mL	14	35.	<2.	5	18.
FLO	MGD	365	3.43E-02	0.00E+00	365	6.70E-03
PH	pH	12	8.90	6.70		
TSS	mg/L	14	4.20E+00	<1.00E+00	14	3.44E+00

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
PH	pH	6	7.20	6.50		
TSS	mg/L	6	1.03E+01	1.20E+00	6	4.32E+00
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	9	2.58E-01	<5.00E-02	7	1.70E-01
AN	mg/L	5	1.67E+00	<5.00E-02	3	8.91E-01
CR	mg/L	9	<1.00E-02	<5.00E-03		
CU	mg/L	9	1.81E-02	<5.00E-03	5	8.80E-03
FLO	MGD	15	7.20E-01	7.20E-02	15	3.10E-01
HG	mg/L	9	<1.00E-04	<1.00E-04		
MN	mg/L	8	2.46E-02	<1.00E-02	6	1.87E-02
NI	mg/L	9	<1.00E-02	<5.00E-03		
NO3	mg/L	5	1.48E+00	<2.00E-02	4	7.15E-01
O&G	mg/L	15	2.70E+00	<1.00E+00	2	2.35E+00
PB	mg/L	9	<2.00E-02	<3.00E-03		
PH	pH	15	7.00	6.00		
SO4	mg/L	8	1.29E+01	6.40E+00	8	1.08E+01
TMP	Deg C	15	28.00	15.00	15	21.47
TSS	mg/L	15	3.13E+01	<1.00E+00	10	5.72E+00
U308	mg/L	9	<5.00E-01	<2.00E-02		
ZN	mg/L	9	7.16E-02	9.00E-03	9	2.76E-02
Outfall H-013						
<i>Effluent consists of the following types of wastewater: sanitary wastewater.</i>						
BOD	mg/L	6	3.24E+01	<1.00E+00	5	9.52E+00
FEC	#/100mL	4	<2.	<2.		
FLO	MGD	151	1.46E-01	0.00E+00	151	4.25E-02
PH	pH	5	7.80	7.00		
TSS	mg/L	5	7.30E+00	1.90E+00	5	3.88E+00

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						

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

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

Outfall H-016

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

AL	mg/L	13	5.00E-02	<2.00E-02	1	5.00E-02
AN	mg/L	52	1.08E+00	<5.00E-02	23	2.94E-01
BOD	mg/L	52	1.97E+01	<1.00E+00	16	4.09E+00
CHL	mg/L	12	1.20E-01	<1.00E-01	1	1.20E-01
CR	mg/L	52	1.60E-02	<5.00E-03	1	1.60E-02
CU	mg/L	52	1.50E-02	<5.00E-03	4	1.25E-02
FLO	MGD	366	3.06E-01	0.00E+00	366	4.51E-02
HG	mg/L	52	3.00E-04	<1.00E-04	3	2.00E-04
MN	mg/L	52	5.30E-02	<5.00E-03	4	3.56E-02
NI	mg/L	13	<1.00E-02	<5.00E-03		
NO3	mg/L	52	3.77E+02	1.98E+00	52	1.79E+01
O&G	mg/L	51	1.00E+01	<1.00E+00	5	4.78E+00
PB	mg/L	52	<2.00E-02	<3.00E-03		
PH	pH	24	8.60	6.20		
TMP	Deg C	82	184570.00	0.00	82	*****
TSS	mg/L	52	1.00E+01	<1.00E+00	16	2.95E+00
U308	mg/L	13	<5.00E-01	<2.00E-02		
ZN	mg/L	52	1.41E-01	<5.00E-03	37	1.75E-02

Outfall H-017

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

AL	mg/L	21	9.58E-01	<5.00E-02	17	3.66E-01
AN	mg/L	21	9.14E-01	<5.00E-02	9	2.45E-01
CR	mg/L	21	<1.00E-02	<5.00E-03		
CU	mg/L	21	1.70E-02	<5.00E-03	14	1.03E-02
FLO	MGD	21	1.10E+00	5.53E-01	21	9.62E-01
HG	mg/L	21	<1.00E-04	<1.00E-04		
MN	mg/L	21	7.70E-02	6.60E-03	16	2.82E-02

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
NI	mg/L	21	<1.00E-02	<5.00E-03		
NO3	mg/L	21	3.58E+02	<2.00E-02	18	2.04E+01
PB	mg/L	21	4.30E-03	<3.00E-03	2	4.00E-03
PH	pH	21	8.30	6.30		
TSS	mg/L	21	3.70E+01	4.90E+00	21	1.19E+01
U308	mg/L	21	<5.00E-01	<2.00E-02		
ZN	mg/L	21	3.36E-01	5.10E-02	21	1.56E-01
Outfall H-018						
<i>Effluent consists of the following types of wastewater: cooling water retention basin effluent.</i>						
AL	mg/L	4	4.66E-01	<5.00E-02	2	3.10E-01
AN	mg/L	4	2.44E-01	<1.00E-01	3	1.54E-01
CR	mg/L	4	<1.00E-02	<5.00E-03		
CU	mg/L	4	2.20E-02	8.80E-03	3	1.49E-02
FLO	MGD	4	1.22E+00	6.84E-01	4	9.25E-01
HG	mg/L	4	<1.00E-04	<1.00E-04		
MN	mg/L	4	7.90E-02	7.60E-03	2	4.33E-02
NI	mg/L	4	<1.00E-02	<5.00E-03		
NO3	mg/L	4	1.35E-01	<2.00E-02	2	8.25E-02
PB	mg/L	4	4.20E-03	4.20E-03	1	4.20E-03
PH	pH	4	8.60	7.00		
TSS	mg/L	4	1.20E+01	2.50E+00	4	6.38E+00
U308	mg/L	4	<5.00E-01	<2.00E-02		
ZN	mg/L	4	1.34E-01	1.50E-02	4	5.75E-02
Outfall K-001 (facility in service but did not discharge)						
<i>Effluent consists of the following types of wastewater: cooling water.</i>						
FLO	MGD	13		0.00E+00	13	0.00E+00
Outfall K-006						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water, ash sluice leakage, and powerhouse wastewater.</i>						
FLO	MGD	15	5.04E-02	0.00E+00	15	3.09E-02
O&G	mg/L	14	<1.00E+00	<1.00E+00		
PH	pH	14	7.00	6.60		

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
TMP	Deg C	14	26.00	10.00	14	19.14
TSS	mg/L	14	7.30E+00	<1.00E+00	8	4.18E+00
Outfall K-008						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water.</i>						
FLO	MGD	14	8.64E-02	0.00E+00	14	4.32E-02
O&G	mg/L	12	<1.00E+00	<1.00E+00		
PH	pH	12	7.20	6.40		
TMP	Deg C	12	31.00	12.00	12	23.17
TSS	mg/L	12	8.30E+00	<1.00E+00	11	3.32E+00
Outfall K-010						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water.</i>						
FLO	MGD	13	5.76E-02	0.00E+00	13	1.96E-02
O&G	mg/L	10	1.10E+00	<1.00E+00	1	1.10E+00
PH	pH	10	7.20	6.50		
TMP	Deg C	10	26.00	14.00	10	20.20
TSS	mg/L	10	1.10E+01	<1.00E+00	9	4.63E+00
Outfall K-012						
<i>Effluent consists of the following types of wastewater: sanitary wastewater.</i>						
BOD	mg/L	15	4.09E+01	<1.00E+00	14	1.02E+01
FEC	#/100mL	14	35.	<2.	5	18.
FLO	MGD	365	3.43E-02	0.00E+00	365	6.70E-03
PH	pH	12	8.90	6.70		
TSS	mg/L	14	4.20E+00	1.00E+00	14	2.11E+00
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	359	8.27E+01	1.68E+01	359	3.91E+01
O&G	mg/L	15	2.00E+00	<1.00E+00	1	2.00E+00
PH	pH	15	7.10	6.60		
TMP	Deg C	367	25.80	7.30	367	17.88
TMP1	Deg C	0				

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
TMP2	Deg C	0				
TSS	mg/L	15	1.57E+01	<1.00E+00	14	6.46E+00
Outfall L-007A						
<i>Effluent consists of the following types of wastewater: sanitary wastewater.</i>						
BOD	mg/L	13	1.20E+01	<1.00E+00	9	4.00E+00
FEC	#/100mL	14	20.	<2.	5	6.
FLO	MGD	365	2.64E-02	0.00E+00	365	3.60E-03
PH	pH	12	7.50	6.90		
TSS	mg/L	13	2.64E+01	<1.00E+00	11	9.26E+00
Outfall L-008						
<i>Effluent consists of the following types of wastewater: nonprocess cooling water and water reservoir sump wastewater.</i>						
FLO	MGD	16	7.78E-02	2.88E-02	16	5.30E-02
O&G	mg/L	15	2.60E+00	<1.00E+00	2	2.10E+00
PH	pH	16	7.30	6.70		
TMP	Deg C	13	27.00	11.00	13	20.77
TSS	mg/L	15	8.00E+00	<1.00E+00	9	2.14E+00
Outfall L-010 (facility in service but did not discharge)						
<i>Effluent consists of the following types of wastewater: stormwater.</i>						
FLO	MGD	3		0.00E+00	3	0.00E+00
Outfall M-004						
<i>Effluent consists of the following types of wastewater: Liquid Effluent Treatment Facility wastewater.</i>						
AG	mg/L	5	<5.00E-03	<5.00E-04		
AL	mg/L	18	6.42E-01	<5.00E-02	10	2.59E-01
CD	mg/L	5	<5.00E-03	<5.00E-03		
CN	mg/L	3	<2.00E-02	<1.00E-02		
CR	mg/L	5	<1.00E-02	<5.00E-03		
CU	mg/L	18	2.00E-02	<5.00E-03	7	1.14E-02
FLO	MGD	48	1.70E-01	0.00E+00	48	8.00E-03
NI	mg/L	18	9.00E-02	<5.00E-03	5	3.21E-02
NO3	mg/L	12	8.46E+01	<2.00E-02	10	3.13E+01
O&G	mg/L	17	1.60E+01	<1.00E+00	6	5.62E+00

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
PB	mg/L	18	<2.00E-02	<3.00E-03		
PH	pH	17	7.10	6.20		
PHOS	mg/L	11	3.70E-01	1.30E-02	11	1.79E-01
TSS	mg/L	18	1.00E+01	<1.00E+00	15	3.86E+00
U308	mg/L	18	<5.00E-01	<2.00E-02		
ZN	mg/L	6	3.75E-01	9.81E-02	6	2.02E-01
Outfall M-005						
<i>Effluent consists of the following types of wastewater: air stripper.</i>						
FLO	MGD	54	7.49E-01	0.00E+00	54	5.03E-01
PERCL	ug/L	46	1.18E+01	<2.00E+00	2	7.75E+00
PH	pH	26	7.10	5.20		
TRICL	ug/L	46	3.10E+00	<2.00E+00	2	3.10E+00
Outfall P-005 (facility in service but did not discharge)						
<i>Effluent consists of the following types of wastewater: ash basin discharge.</i>						
FLO	MGD	12		0.00E+00	12	0.00E+00
Outfall P-007						
<i>Effluent consists of the following types of wastewater: Powerhouse wastewater and nonprocess cooling water.</i>						
FLO	MGD	367	4.14E-01	0.00E+00	367	8.90E-03
Outfall P-013						
<i>Effluent consists of the following types of wastewater: neutralization, reactor process, and cooling water.</i>						
FLO	MGD	365	6.40E+00	1.36E-01	365	2.34E+00
O&G	mg/L	13	2.30E+00	<1.00E+00	1	2.30E+00
PH	pH	13	7.30	6.10		
TMP	Deg C	367	27.00	6.30	367	18.42
TSS	mg/L	13	1.80E+01	1.20E+00	13	5.09E+00
Outfall P-014						
<i>Effluent consists of the following types of wastewater: sanitary wastewater.</i>						
BOD	mg/L	14	2.50E+01	<1.00E+00	9	3.87E+00
FEC	#/100mL	17	7500.	<2.	5	1721.
FLO	MGD	365	2.84E-02	0.00E+00	365	6.00E-03

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
PH	pH	12	7.60	6.90		
TSS	mg/L	14	2.60E+01	1.50E+00	14	7.31E+00
Outfall P-019						
<i>Effluent consists of the following types of wastewater: P-Reactor cooling water.</i>						
FLO	MGD	365	6.98E+01	1.29E+00	365	5.16E+00
O&G	mg/L	14	1.20E+00	<1.00E+00	1	1.20E+00
PH	pH	14	8.60	6.00		
TMP	Deg C	367	26.60	5.90	367	17.92
TSS	mg/L	16	2.48E+01	<1.00E+00	14	5.54E+00
Outfall PP-001						
<i>Effluent consists of the following types of wastewater: stormwater.</i>						
FLO	MGD	5	2.88E-02	7.20E-03	5	1.87E-02
O&G	mg/L	5	2.00E+00	<1.00E+00	1	2.00E+00
PH	pH	5	6.80	6.10		
Outfall S-002 (CS-002)						
<i>Effluent consists of the following types of wastewater: automotive shop and cooling wastewater.</i>						
AL	mg/L	1	7.65E+00	7.65E+00	1	7.65E+00
BOD	mg/L	1	1.15E+01	1.15E+01	1	1.15E+01
FE	mg/L	1	8.58E+00	8.58E+00	1	8.58E+00
FLO	MGD	52	1.44E-01	0.00E+00	52	2.80E-03
O&G	mg/L	1	<1.00E+00	<1.00E+00		
PH	pH	1	6.40	6.40		
TMP	Deg C	1	8.00	8.00	1	8.00
TSS	mg/L	1	1.95E+02	1.95E+02	1	1.95E+02
Outfall S-008 (facility in service but did not discharge)						
<i>Effluent consists of the following types of wastewater: stormwater runoff and cooling wastewater.</i>						
FLO	MGD	12		0.00E+00	12	0.00E+00

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall S-011						
<i>Effluent consists of the following types of wastewater: sanitary wastewater from Central Shops wastewater treatment plant.</i>						
BOD	mg/L	5	2.40E+00	<1.00E+00	4	1.77E+00
FEC	#/100mL	4	<2.	<2.		
FLO	MGD	151	6.32E-02	0.00E+00	151	2.45E-02
PH	pH	5	7.50	7.02		
TSS	mg/L	5	5.20E+00	1.20E+00	5	2.62E+00
Outfall S-014 (facility in service but did not discharge)						
<i>Effluent consists of the following types of wastewater: stormwater.</i>						
FLO	MGD	4		0.00E+00	4	0.00E+00
Outfall SC-004						
<i>Effluent consists of the following types of wastewater: Steel Creek water monitoring below the dam at Road A.</i>						
AG	mg/L	12	3.30E-01	<5.00E-04	1	3.30E-01
AS	mg/L	12	<2.00E-02	<5.00E-03		
BA	mg/L	12	2.10E-02	<5.00E-03	11	1.34E-02
CD	mg/L	12	<5.00E-03	<5.00E-03		
CR	mg/L	12	<1.00E-02	<5.00E-03		
DO	mg/L	359	1.30E+01	2.00E+00	359	8.39E+00
FLO	MGD	365	1.41E+02	2.39E+01	365	4.84E+01
HG	mg/L	12	3.00E-04	<1.00E-04	1	3.00E-04
NO3	mg/L	13	3.30E-01	<2.00E-02	12	9.61E-02
PB	mg/L	12	<2.00E-02	<3.00E-03		
PH	pH	12	7.60	6.00		
PHOS	mg/L	13	7.21E-01	<1.00E-02	11	1.46E-01
SE	mg/L	12	<2.00E-02	<5.00E-03		
TMP	Deg C	359	29.50	8.00	359	19.53

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall T-001 (facility in service but did not discharge)						
<i>Effluent consists of the following types of wastewater: artificial stream water.</i>						
FLO	MGD	13		0.00E+00	13	0.00E+00
Outfall T-005 (facility in service but did not discharge)						
<i>Effluent consists of the following types of wastewater: cooling water, boiler blowdown, and neutralized acid solutions.</i>						
FLO	MGD	14		0.00E+00	14	0.00E+00
Outfall T-007						
<i>Effluent consists of the following types of wastewater: sanitary wastewater from B-Area.</i>						
BOD	mg/L	8	3.20E+00	<1.00E+00	7	2.43E+00
CHL	mg/L	8	3.95E+01	3.00E-02	7	1.59E+01
FEC	#/100mL	6		0.	1	
FLO	MGD	151	2.88E-02	0.00E+00	151	7.90E-03
PH	pH	8	8.00	7.04		
TSS	mg/L	8	5.20E+00	<1.00E+00	7	2.16E+00
Outfall X-004						
<i>Effluent consists of the following types of wastewater: cooling water.</i>						
FLO	MGD	366	7.76E-02	0.00E+00	366	2.70E-02
O&G	mg/L	15	3.50E+00	<1.00E+00	1	3.50E+00
PH	pH	15	7.00	6.40		
TMP	Deg C	15	31.50	19.00	15	23.63
TSS	mg/L	15	6.00E+00	<1.00E+00	13	2.99E+00
Outfall X-008						
<i>Effluent consists of the following types of wastewater: cooling water, cooling tower blowdown, and domestic water overflow.</i>						
AL	mg/L	15	1.55E-01	<2.00E-02	3	1.11E-01
FE	mg/L	15	1.79E+00	9.06E-01	15	1.15E+00
FLO	MGD	15	3.60E-01	1.93E-01	15	2.72E-01
O&G	mg/L	15	4.40E+00	<1.00E+00	1	4.40E+00
PH	pH	15	7.00	6.00		
TMP	Deg C	15	28.00	19.00	15	23.67
TSS	mg/L	15	1.00E+01	1.10E+00	15	3.91E+00

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National Pollutant Discharge Elimination System Monitoring Data

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall X-011						
<i>Effluent consists of the following types of wastewater: cooling water, cooling tower blowdown, and domestic water overflow.</i>						
FLO	MGD	13	7.20E-03	0.00E+00	12	1.40E-03
Outfall X-013 (replaced by Outfall X-008A, permitted by SC0044903)						
<i>Effluent consists of the following types of wastewater: sanitary wastewater.</i>						
Outfall X-014						
<i>Effluent consists of the following types of wastewater: treated wastewater from TNX-ETP.</i>						
BEN	ug/L	46	5.49E+00	<5.00E-01	1	5.49E+00
BOD	mg/L	46	3.50E+01	<1.00E+00	18	3.69E+00
C	mg/L	42	8.70E+00	<1.00E+00	41	4.10E+00
FLO	MGD	365	4.60E-02	0.00E+00	365	4.10E-03
HG	ug/L	46	3.80E-01	<1.00E-04	23	1.46E-01
O&G	mg/L	46	4.50E+00	<1.00E+00	7	2.74E+00
PH	pH	100	8.03	6.80		
PHE	mg/L	46	7.70E-02	<2.00E-03	10	2.62E-02
TSS	mg/L	46	3.90E+01	3.00E+00	46	9.65E+00
Outfall Y-001 (facility in service but did not discharge)						
<i>Effluent consists of the following types of wastewater: cooling water and locomotive wash water.</i>						
FLO	MGD	12		0.00E+00	12	0.00E+00

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0044903						
<i>Note: Permit levels can be found in WSRC NPDES Environmental Monitoring Program (ESH-EMS-910110) or in the permit itself. The permit is available from the South Carolina Department of Health and Environmental Control.</i>						

Outfall A-001A*Effluent consists of the following types of wastewater: air stripper effluent.*

FLO	MGD	366	9.07E-02	0.00E+00	366	5.97E-02
PERCL	ug/L	44	1.33E+01	<2.00E+00	3	9.60E+00
PH	pH	27	7.00	4.70		
TRICL	ug/L	45	8.50E+00	<2.00E+00	3	5.90E+00

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 G-010 (new central sanitary treatment plant)***Effluent consists of the following types of wastewater: treated sanitary wastewater.*

AN-S	mg/L	13	1.35E+00	<5.00E-02	10	4.77E-01
AN-W	mg/L	4	5.32E-01	<1.00E-01	3	4.77E-01
ATOX	PASS/FA	7		0.00E+00	7	0.00E+00
BOD	mg/L	20	1.40E+01	<1.00E+00	19	5.23E+00
CTOX	PASS/FA	7		0.00E+00	7	0.00E+00
DO	mg/L	17	1.04E+01	5.80E+00	17	7.39E+00
FEC	#/100mL	20	270.	<2.	10	47.
FLO	MGD	245	6.56E-01	0.00E+00	245	1.86E-01
PH	pH	18	7.53	6.60		
TSS	mg/L	23	5.50E+01	4.00E+00	23	1.44E+01

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	25	1.20E+00	<5.00E-02	19	2.57E-01
BOD	mg/L	25	1.40E+01	<1.00E+00	19	2.71E+00
CHL	mg/L	104	<1.00E-01	<1.00E-01		

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Measurement	Units	Freq/ Year	Maximum	Minimum	No. in Average	Average
Permit SC0044903						
FEC	#/100mL	25	110.	2.	24	26.
FLO	MGD	365	3.68E+01	1.81E+01	365	2.25E+01
O&G	mg/L	25	1.80E+00	<1.00E+00	1	1.80E+00
PH	pH	365	7.10	5.80		
TMP	Deg C	355	26.90	7.20	355	18.56
TMPD	Deg C	0				
TSS	mg/L	26	1.60E+01	1.60E+00	25	5.11E+00
Outfall PP-004						
<i>Effluent consists of the following filter backwash wastewater.</i>						
FE	mg/L	12	6.16E-01	<2.00E-02	8	3.77E-01
FLO	MGD	12	3.83E-02	8.70E-04	12	1.21E-02
MN	mg/L	12	3.18E+02	3.44E+00	12	3.68E+01
PH	pH	12	6.70	6.00		
TSS	mg/L	12	3.50E+00	<1.00E+00	9	2.03E+00
Outfall X-008A						
<i>Effluent consists of the following types of wastewater: sanitary wastewater.</i>						
BOD	mg/L	24	1.34E+01	<1.00E+00	20	2.64E+00
FEC	#/100mL	24	8.	0.	10	4.
FLO	MGD	365	2.14E-02	0.00E+00	365	6.50E-03
PH	pH	24	8.20	6.80		
TSS	mg/L	24	1.10E+01	<1.00E+00	23	4.22E+00

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National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration

Permit SCR000000

Outfall B-008		Background Grab	Composite	Grab
OIL & GREASE	mg/L	No Flow	<1	
TSS	mg/L	No Flow	4.6	37.8
BOD	mg/L	No Flow	3.2	5.3
NO2,NO3	mg/L	No Flow	0.17	0.22
PO4-P	mg/L	No Flow	0.082	0.097
COD	mg/L	No Flow	<10	<10
TOC	mg/L	No Flow	6.08	7.77
TKN	mg/L	No Flow	0.53	0.4
pH	pH	No Flow	7.1	6.8
AIR TEMP	°C	No Flow		8
WATER TEMP	°C	No Flow		6
RAIN GAUGE				0.24
TOTAL RAIN	in.		1.25	1.23
RAIN DATE	in.		1/14/95	2/10/95
LAST .01 RAIN			1/6/95	2/7/95

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National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall CS-006		Background		Composite	Composite	Grab
		Grab				
OIL & GREASE	mg/L	<1			<1	
TSS	mg/L	4	4.2	6.7	48.5	
BOD	mg/L	<1	<1	3.1	4.6	
NO2,NO3	mg/L	0.02	0.05	0.03	0.16	
PO4-P	mg/L	0.043	0.142	0.042	0.02	
COD	mg/L	<10	<10	11.4	19.5	
TOC	mg/L	4.26	3.78	5	7.33	
TKN	mg/L	0.36	<0.2	<0.2	0.48	
PHENOL	mg/L	<0.002			0.007	
TETRACHLOROETHYLENE	µg/L	<2			<2	
TRICHLOROETHYLENE	µg/L	<2			<2	
1,1,1-TRICHLOROETHYLENE	µg/L	<2			<2	
BENZENE	mg/L	<0.8			<0.8	
AL	mg/L	0.459	0.6	0.285	2.89	
CR	mg/L	<0.005	<0.005	<0.005	<0.005	
CU	mg/L	<0.005	<0.005	<0.005	0.0094	
FE	mg/L	1.06	0.98	1.17	4.32	
PB	mg/L	<0.003	<0.003	<0.003	0.0068	

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National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration			
Permit SCR000000					
MG	mg/L	0.661	0.606	0.633	1.05
NI	mg/L	0.0054	<0.005	<0.005	<0.005
AG	mg/L	<0.0005	<0.0005	<0.0005	<0.0005
ZN	mg/L	0.0201	0.196	0.193	0.0885
pH	pH	6.2			6.5
AIR TEMP	°C	19			31
WATER TEMP	°C	12			26
RAIN GAUGE	in.				
TOTAL RAIN	in.		0.4	0.9	2.75
RAIN DATE		1/12/95	2/15/95	2/28/95	8/25/95
LAST .01 RAIN		1/6/95	2/11/95	2/18/95	8/15/95
Outfall CS-12A		Background Grab		Composite	Grab Composite
OIL & GREASE	mg/L	No Flow		<1	
TSS	mg/L	No Flow	43.8	768	52.5
BOD	mg/L	No Flow	5.8	3.9	3.7
NO2,NO3	mg/L	No Flow	0.96	0.24	0.5
PO4-P	mg/L	No Flow	0.106	3.14	0.119
COD	mg/L	No Flow	35.1	167	<10
TOC	mg/L	No Flow	5.04	6.16	

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National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units		Type Sample/Concentration		
Permit SCR000000					
TKN	mg/L	No Flow	0.62	2.11	0.34
PHENOL	mg/L	No Flow		<0.002	
AL	mg/L	No Flow	5.49	15	5.2
CR	mg/L	No Flow	0.0146	0.0511	
CU	mg/L	No Flow	0.0692	0.368	0.0476
FE	mg/L	No Flow	8.64	36.8	5.74
PB	mg/L	No Flow	0.0256	0.176	0.0279
MG	mg/L	No Flow	2.15	4.3	missed
NI	mg/L	No Flow	0.0067	0.385	<0.005
AG	mg/L	No Flow	0.00094	0.00092	0.00086
ZN	mg/L	No Flow	0.301	2.54	0.268
MN	mg/L	No Flow	0.237	0.699	0.138
B	mg/L	No Flow	0.041	0.152	0.0216
pH	pH	No Flow		7.3	
AIR TEMP	°C	No Flow		33	
WATER TEMP	°C	No Flow		27	
RAIN GAUGE	in.			0.32	
TOTAL RAIN	in.		0.69	2.75	0.4
RAIN DATE			7/11/95	8/25/95	2/15/95
LAST 0.1 RAIN			11/7/95	8/15/95	2/11/95

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National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration	
Permit SCR000000			
Outfall E-001		Grab	Grab
OIL & GREASE	mg/L	<1	<1
TSS	mg/L	8.3	20
BOD	mg/L	2.1	2.1
TDS	mg/L	39	<10
NH3-N	mg/L	<0.05	0.127
NO2,NO3	mg/L	0.07	<0.02
PO4-P	mg/L	0.061	0.313
COD	mg/L	<10	199
TOC	mg/L	2.92	3.3
TKN	mg/L	0.45	0.426
PHENOL	mg/L	<0.002	<0.006
SO4	mg/L	8.1	5.33
BROMIDE	mg/L	<2	<2
CN	mg/L	<0.01	<0.01
AG	mg/L	<0.0005	<0.005
AL	mg/L	0.677	1.31
AS	mg/L	<0.005	<0.02
B	mg/L	0.014	0.057
BA	mg/L	0.0146	0.022

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National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration	
Permit SCR000000			
CD	mg/L	<0.005	<0.005
CR	mg/L	<0.005	<0.01
CU	mg/L	<0.005	<0.005
FE	mg/L	0.75	1.93
HG	mg/L	<0.0001	0.0004
MG	mg/L	1.01	0.931
MN	mg/L	0.047	0.117
NI	mg/L	<0.005	<0.01
PB	mg/L	<0.003	<0.02
SB	mg/L	<0.005	<0.02
SE	mg/L	<0.005	<0.2
SN	mg/L	<0.005	<0.5
U	mg/L	<0.02	<0.5
ZN	mg/L	0.0101	0.01
MG (DISSOLVED)	mg/L		0.794
TETRACHLOROETHYLENE	µg/L	<2	<2
TRICHLOROETHYLENE	µg/L	<2	<2
1,1,1-TRICHLOROETHYLENE	µg/L	<2	<2
pH	pH	6.2	7
AIR TEMP	°C	27	23
WATER TEMP	°C	31	24

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National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
RAIN GAUGE	in.	0.21	0.43			
TOTAL RAIN	in.	2	0.22			
RAIN DATE		7/26/95	9/14/95			
LAST 0.1 RAIN		7/23/95	9/7/95			
Outfall GS-002		Background Grab		Composite	Grab	Grab Composite
O&G	mg/L	No Flow		<1	<1	
BOD	mg/L		1.5	<1	<1	1.6
TSS	mg/L		5.5	6.1	7.6	25.2
SO4	mg/L		3.1	1.4	7.1	4.9
NH3-N	mg/L		0.06	<0.05	0.06	<0.05
NO2,NO3	mg/L		0.39	0.06	0.71	0.24
PO4-P	mg/L		0.054	0.028	0.447	0.131
COD	mg/L		<10	<10	16.6	
TOC	mg/L		1.75	<1	1.49	
TKN	mg/L		0.23	<0.2	0.87	0.29
SB	mg/L		<0.01	<0.005	<0.005	0.0089
CR	mg/L		<0.005	<0.005	0.0105	0.0144
CU	mg/L		0.0099	<0.005	0.0452	0.049
HG	mg/L		<0.0001	<0.0001	<0.0001	<0.0001

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Measurement	Units	Type Sample/Concentration			
Permit SCR000000					
NI	mg/L	<0.005	<0.005	<0.005	<0.005
PB	mg/L	0.147	0.0636	1.2	0.612
SN	mg/L	<0.005	<0.005	<0.005	<0.005
pH	pH	7	4.4	7	
AIR TEMP	°C		11	10	
WATER TEMP	°C		9	8	
RAIN GAUGE	in.		0.26	0.12	
TOTAL RAIN	in.	0.15	1.23	0.7	0.7
RAIN DATE		1/19/95	2/10/95	2/15/95	2/15/95
LAST 0.1 RAIN		1/14/95	2/7/95	2/11/95	2/11/95
Outfall H-007A		Background Grab	Composite	Grab	Composite
O&G	mg/L	No Flow	<1		1.1
BOD	mg/L		1.3	2.8	3.4
TSS	mg/L		13.5	71.5	15.9
NO2,NO3	mg/L		0.81	0.32	1.11
PO4-P	mg/L		0.089	0.153	0.111
COD	mg/L		<10	<10	17.3
TOC	mg/L		4.57	2.11	7.2
TKN	mg/L		0.44	0.26	0.4

Table 66
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration						
Permit SCR000000								
SO4	mg/L	8.1	13.4	11.4	17.4			
AL	mg/L	1.73	1.99	5.62	2.32			
FE	mg/L	2.19	1.71	7.58	2.89			
pH	pH		6.9		6.4			
AIR TEMP	°C		10		29			
WATER TEMP	°C		11		26			
RAIN GAUGE	in.		0.11					
TOTAL RAIN	in.	1	0.5	0.5	0.27			
RAIN DATE		1/28/95	2/15/95	2/15/95	8/2/95			
LAST 0.1 RAIN		1/23/95	2/11/945	2/11/95	7/28/95			
Outfall G-020		Background	Composite	Grab	Composite	Grab	Composite	Composite
O&G	mg/L	No Flow						
BOD	mg/L						3.4	7.4
TSS	mg/L		28.2		63.5			
NO2,NO3	mg/L		0.03		0.11			
PO4-P	mg/L		0.137		0.063			
TKN	mg/L		0.8		0.85			
COD	mg/L		84.3		93			
TOC	mg/L		24.5		39.7			
PHENOL	mg/L							

Table 66
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration			
Permit SCR000000					
pH	pH				
AIR TEMP	°C				
WATER TEMP	°C				
RAIN GAUGE	in.				
TOTAL RAIN	in.	2	1.4	1.3	0.4
RAIN DATE		1/14/95	2/10/95	2/27/95	7/11/95
LAST 0.1 RAIN		1/6/95	2/7/95	2/18/95	7/6/95
Outfall K-002		Background Grab	Composite	Grab	
O&G	mg/L	No Flow	<1		
BOD	mg/L	2.8	6.6		
TSS	mg/L	21.5	48.4		
NO2,NO3	mg/L	0.09	0.43		
PO4-P	mg/L	0.094	0.246		
TKN	mg/L	0.52	0.59		
COD	mg/L	<10	21.5		
TOC	mg/L	5.86	8.33		
pH	pH		5.6		
AIR TEMP	°C		25		
WATER TEMP	°C		25.8		

Table 66
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration			
Permit SCR000000					
RAIN GAUGE	in.			0.68	
TOTAL RAIN	in.	1.73	1.5		
RAIN DATE		1/14/95	7/26/95		
LAST 0.1 RAIN		1/6/95	7/23/95		
Outfall K-004		Background Grab	Composite	Composite	Grab
O&G	mg/L	No Flow		<1	
BOD	mg/L		2.1	4.9	
TSS	mg/L		7.5	55.2	
NO2,NO3	mg/L	0.14		0.41	
PO4-P	mg/L	1		0.251	
TKN	mg/L	1.6		0.34	
COD	mg/L	51		14.9	
TOC	mg/L	6.98		9.2	
pH	pH			6.3	
AIR TEMP	°C			25	
WATER TEMP	°C			26	
RAIN GAUGE	in.			0.6	
TOTAL RAIN	in.	1.71	0.7	1.5	
RAIN DATE		1/14/95	1/28/95	7/26/95	

Table 66
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration		
Permit SCR000000				
LAST 0.1 RAIN		1/6/95	1/23/95	7/23/95
Outfall S-005		Background Grab	Grab	Grab
O&G	mg/L	<1	<1	
BOD	mg/L	2.1	3.8	1.9
TSS	mg/L	58	144	16.2
NO2,NO3	mg/L	0.83	0.18	0.04
PO4-P	mg/L	0.288	0.328	0.1
COD	mg/L	<10	14.4	<10
TOC	mg/L	2.82	8.33	
TKN	mg/L	0.65	1.08	0.27
SO4	mg/L	6.7	8.82	9.4
NH3-N	mg/L	<0.05	0.43	<0.05
PHENOL	mg/L	<0.002	<0.002	0.002
BENZENE	mg/L	<0.8	<0.8	<0.8
B	mg/L	<0.03	0.0404	0.0122
CR	mg/L.	0.0099	<0.005	<0.005
CU	mg/L	0.009	0.019	0.0076
HG	mg/L	<0.0001	<0.0001	<0.0001
PB	mg/L	0.0128	0.0614	0.0193

Table 66
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration			
Permit SCR000000					
ZN	mg/L	0.136	0.149	0.0572	
pH	pH	6.8	5.7	6.6	
AIR TEMP	°C	16	25	29	
WATER TEMP	°C	11	26.5	24	
RAIN GAUGE	in.		0.45		
TOTAL RAIN	in.		1.4	0.3	
RAIN DATE			7/26/95	8/2/95	
LAST 0.1 RAIN		1/6/95	7/23/95	7/28/95	
Outfall X-001		Background Grab		Composite	Grab
O&G	mg/L	No Flow		<1	
BOD	mg/L		4.8	3.9	6.8
TSS	mg/L		74	162	19.4
NO2,NO3	mg/L		0.36	0.41	1.49
PO4-P	mg/L		0.106	0.052	0.291
TKN	mg/L		0.46	0.47	0.4
COD	mg/L		14.3	17.8	13
TOC	mg/L			4.22	7.5
PHENOL	mg/L			<0.002	
BENZENE	mg/L			<0.8	

Table 66
National Pollutant Discharge Elimination System Stormwater Monitoring Data

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Measurement	Units	Type Sample/Concentration		
Permit SCR000000				
CD	mg/L	<0.005	<0.005	<0.005
CR	mg/L	0.0052	0.0102	<0.005
CU	mg/L	0.065	0.0178	0.0142
HG	mg/L	<0.0001	<0.0001	<0.0001
pH	pH		7.3	
AIR TEMP	°C		26	
WATER TEMP	°C		27	
RAIN GAUGE	in.			
TOTAL RAIN	in.	3.2	3.2	1.4
RAIN DATE		8/25/95	8/25/95	8/2/95
LAST 0.1 RAIN	1/6/95	8/15/95	8/15/95	7/28/95

Table 67
SRS Stream Water Quality: Inorganic Contaminants

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Tims Branch-5 (EMS and SCDHEC Sampling Location)							
Parameter ^a	Units	Jan	Feb	Mar	April	May	June
Notes: 1. "ND" denotes "not detected." 2. Fecal coliform results can be found in table 72 on page 232.							
Water volume	L	5.85E+8	7.13E+8	6.17E+8	3.95E+8	3.18E+8	6.63E+8
Sample date		1-5-95	2-6-95	3-21-95	4-12-95	5-25-95	6-1-95
Temperature ^b	°C	6.2	8.0	15.4	18.6	19.0	21.8
pH ^b	pH	6.9	7.2	6.4	6.4	6.2	6.7
Dissolved oxygen ^b	mg/L	11.6	11.0	9.2	9.6	6.8	7.3
Conductivity ^b	µmhos/cm	54	44	40	46	36	36
Alkalinity	mg/L	13	12	18	16	13	12
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	23
Volatile solids	mg/L	3	1	4	6	5	11
Fixed residue	mg/L	4	2	2	11	11	13
Suspended solids	mg/L	7	3	6	17	16	24
Total dissolved solids	mg/L	33	21	36	43	47	50
Total solids	mg/L	40	24	42	60	63	74
Turbidity	NTU	7.0	8.6	8.1	7.7	9.5	14
Chloride	mg/L	3	3	3	4	3	4
Nitrogen-ammonia	mg/L	ND	ND	ND	ND	ND	0.07
Nitrogen-nitrate	mg/L	0.79	0.47	0.42	0.75	0.36	0.32
Nitrogen-total kjeldahl	mg/L	ND	ND	0.22	0.60	0.58	0.90
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	2	2	2	2	1	2
Total organic carbon	mg/L	2.4	2.5	3.9	4.0	4.9	7.2
Aluminum	mg/L			0.27			0.50
Cadmium	mg/L			ND			ND
Calcium	mg/L			1.05			1.36
Chromium	mg/L			ND			ND
Copper	mg/L			ND			0.02
Iron	mg/L			1.34			2.09
Lead	mg/L			ND			ND
Magnesium	mg/L			0.44			0.49
Manganese	mg/L			0.04			0.07
Mercury	mg/L	ND	ND	ND	ND	ND	ND
Nickel	mg/L			ND			0.01
Sodium	mg/L			6.47			7.25
Zinc	mg/L			ND			0.042

a Metals (except mercury) are analyzed quarterly from monthly grab composites. Mercury is analyzed from a composite of monthly grab samples.

b Field measurement

Table 67
SRS Stream Water Quality: Inorganic Contaminants

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Tims Branch-5 (EMS and SCDHEC Sampling Location)							
Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	3.82E+8	4.41E+8	5.23E+8	4.08E+8	4.70E+8	5.86E+8
Sample date		7-12-95	8-3-95	9-7-95	10-24-95	11-8-95	12-6-95
Temperature ^b	°C	22.4	22.4	20.3	17.0	14.0	11.7
pH ^b	pH	6.5	6.9	6.8	6.5	6.7	6.7
Dissolved Oxygen ^b	mg/L	8.3	9.6	7.8	11.0	8.2	9.8
Conductivity ^b	µmhos/cm	33	25	51	32	54	34
Alkalinity	mg/L	13	11	10	11	8	10
Chemical oxygen demand	mg/L	ND	31	ND	ND	ND	ND
Volatile solids	mg/L	ND	13	2	2	9	2
Fixed residue	mg/L	8	21	4	4	17	4
Suspended solids	mg/L	8	34	6	6	26	6
Total dissolved solids	mg/L	48	55	42	37	50	27
Total solids	mg/L	56	89	48	43	76	33
Turbidity	NTU	9.7	22	4.6	6.4	34	5.7
Chloride	mg/L	3	4	3	3	3	3
Nitrogen-ammonia	mg/L	ND	ND	0.12	0.30	0.11	0.11
Nitrogen-nitrate	mg/L	0.23	0.23	0.27	0.41	0.43	0.34
Nitrogen-total kjeldahl	mg/L	0.20	0.41	0.27	ND	0.94	ND
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	1	2	1	2	3	1
Total organic carbon	mg/L	4.4	26.0	ND	1.8	10.0	3.8
Aluminum	mg/L			0.65			0.40
Cadmium	mg/L			ND			ND
Calcium	mg/L			1.15			1.36
Chromium	mg/L			0.02			ND
Copper	mg/L			0.03			0.01
Iron	mg/L			3.48			2.21
Lead	mg/L			ND			ND
Magnesium	mg/L			5.17			ND
Manganese	mg/L			0.11			ND
Mercury	mg/L	ND	ND	ND	ND	ND	ND
Nickel	mg/L			0.02			ND
Sodium	mg/L			5.54			8.40
Zinc	mg/L			0.025			ND

a Metals (except mercury) are analyzed quarterly from monthly grab composite. Mercury is analyzed from a composite of monthly grab samples.

b Field measurement

Table 67
SRS Stream Water Quality: Inorganic Contaminants

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Steel Creek-4 at Road A (EMS and SCDHEC Sampling Location)							
Parameter ^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	7.48E+9	4.61E+9	5.42E+9	5.45E+9	5.44E+9	6.44E+9
Sample date		1-5-95	2-7-95	3-21-95	4-11-95	5-25-95	6-1-95
Temperature ^b	°C	9.9	10.2	14.5	19.0	23.0	23.0
pH ^b	pH	7.2	7.1	6.6	7.3	6.7	6.7
Dissolved oxygen ^b	mg/L	10.5	12.2	10.4	8.8	7.5	7.5
Conductivity ^b	µmhos/cm	70	68	59	52	66	65
Alkalinity	mg/L	14	13	17	13	14	13
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	1	1	2	3	ND	2
Fixed residue	mg/L	1	1	ND	4	6	5
Suspended solids	mg/L	2	2	2	7	6	7
Total dissolved solids	mg/L	39	38	42	41	53	49
Total solids	mg/L	41	40	44	48	59	56
Turbidity	NTU	1.6	1.8	2.5	1.8	2.8	4.4
Chloride	mg/L	7	5	6	6	7	7
Nitrogen-ammonia	mg/L	0.06	ND	ND	ND	ND	ND
Nitrogen-nitrate	mg/L	0.25	0.19	0.21	0.31	0.19	0.15
Nitrogen-total kjeldahl	mg/L	0.31	ND	ND	0.37	ND	ND
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	6	5	6	6	7	6
Total organic carbon	mg/L	1.2	2.8	3.3	3.9	3.5	3.0
Aluminum	mg/L			0.13			0.14
Cadmium	mg/L			ND			ND
Calcium	mg/L			2.73			2.32
Chromium	mg/L			ND			ND
Copper	mg/L			0.01			0.01
Iron	mg/L			0.36			0.24
Lead	mg/L			ND			ND
Magnesium	mg/L			1.05			1.09
Manganese	mg/L			0.04			0.03
Mercury	mg/L	ND	ND	ND	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			6.66			7.37
Zinc	mg/L			ND			ND

^a Metals (except mercury) are analyzed quarterly from monthly grab composite. Mercury is analyzed from a composite of monthly grab samples.

^b Field measurement

Table 67
SRS Stream Water Quality: Inorganic Contaminants

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Steel Creek-4 at Road A (EMS and SCDHEC Sampling Location)							
Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	6.05E+9	6.59E+9	6.27E+9	6.02E+9	4.66E+9	4.89E+9
Sample date		7-12-95	8-3-95	9-7-95	10-24-95	11-8-95	12-6-95
Temperature ^b	°C	28.9	26.0	24.5	20.4	17.4	13.2
pH ^b	pH	6.8	6.9	7.0	6.2	6.7	6.7
Dissolved oxygen ^b	mg/L	5.9	6.0	7.0	9.0	7.9	7.3
Conductivity ^b	µmhos/cm	69	55	78	70	78	77
Alkalinity	mg/L	15	17	18	18	15	17
Chemical oxygen demand	mg/L	ND	20	ND	ND	ND	ND
Volatile solids	mg/L	ND	8	2	1	3	1
Fixed residue	mg/L	3	11	3	2	3	1
Suspended solids	mg/L	3	19	5	3	6	1
Total dissolved solids	mg/L	64	66	60	53	54	45
Total solids	mg/L	67	85	65	56	60	46
Turbidity	NTU	3.0	10	3.0	2.9	1.5	1.9
Chloride	mg/L	7	7	8	7	7	7
Nitrogen-ammonia	mg/L	ND	ND	ND	0.18	ND	0.12
Nitrogen-nitrate	mg/L	0.15	0.21	0.23	0.20	0.17	0.18
Nitrogen-total kjeldahl	mg/L	ND	0.92	0.64	0.12	0.15	0.17
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	7	6	7	6	6	6
Total organic carbon	mg/L	4.8	7.4	4.3	2.5	6.0	4.3
Aluminum	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Calcium	mg/L			2.53			3.06
Chromium	mg/L			ND			ND
Copper	mg/L			0.04			0.02
Iron	mg/L			0.24			0.25
Lead	mg/L			ND			ND
Magnesium	mg/L			1.41			0.85
Manganese	mg/L			ND			ND
Mercury	mg/L	ND	ND	ND	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			8.74			11.70
Zinc	mg/L			0.045			ND

a Metals (except mercury) are analyzed quarterly from monthly grab composite. Mercury is analyzed from a composite of monthly grab samples.

b Field measurement

Table 67
SRS Stream Water Quality: Inorganic Contaminants

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Upper Three Runs-4 at Road A (EMS and SCDHEC Sampling Location)							
Parameter ^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	2.78E+10	2.69E+10	2.45E+10	1.75E+10	1.49E+10	2.27E+10
Sample date		1-5-95	2-7-95	3-21-95	4-11-95	5-25-95	6-1-95
Temperature ^b	°C	7.1	8.4	15.8	20.0	20.3	22.0
pH ^b	pH	7.1	6.9	6.2	7.2	6.2	6.6
Dissolved oxygen ^b	mg/L	11.7	11.0	10.8	9.3	7.8	7.3
Conductivity ^b	µmhos/cm	30	29	19	21	22	20
Alkalinity	mg/L	4	4	6	5	6	4
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	2	1	3	7	4	5
Fixed residue	mg/L	1	2	ND	12	10	8
Suspended solids	mg/L	3	3	3	19	14	12
Total dissolved solids	mg/L	23	21	23	12	30	29
Total solids	mg/L	26	24	26	31	44	41
Turbidity	NTU	2.4	2.3	4.3	3.8	5.2	6.6
Chloride	mg/L	2	2	2	3	2	2
Nitrogen-ammonia	mg/L	ND	ND	ND	ND	ND	ND
Nitrogen-nitrate	mg/L	0.29	0.22	0.22	0.34	0.27	0.23
Nitrogen-total kjeldahl	mg/L	ND	ND	ND	0.37	ND	0.26
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	2	2	1	2	2	2
Total organic carbon	mg/L	1.0	2.5	4.0	3.8	2.7	3.9
Aluminum	mg/L			0.24			0.26
Cadmium	mg/L			ND			ND
Calcium	mg/L			1.48			1.60
Chromium	mg/L			ND			ND
Copper	mg/L			ND			0.01
Iron	mg/L			0.56			0.67
Lead	mg/L			ND			ND
Magnesium	mg/L			0.34			0.34
Manganese	mg/L			0.02			0.02
Mercury	mg/L	ND	ND	ND	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			1.57			1.52
Zinc	mg/L			0.005			ND

a Metals (except mercury) are analyzed quarterly from monthly grab composite. Mercury is analyzed from a composite of monthly grab samples.

b Field measurement

Table 67
SRS Stream Water Quality: Inorganic Contaminants

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Upper Three Runs-4 at Road A (EMS and SCDHEC Sampling Location)							
Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	1.68E+10	2.03E+10	1.95E+10	1.81E+10	1.91E+10	2.12E+10
Sample date		7-12-95	8-3-95	9-7-95	10-24-95	11-8-95	12-6-95
Temperature ^b	°C	23.4	24.0	20.6	21.5	14.7	12.6
pH ^b	pH	6.3	6.7	6.6	5.7	6.7	6.3
Dissolved oxygen ^b	mg/L	7.1	6.3	7.2	6.0	7.8	7.9
Conductivity ^b	µmhos/cm	21	20	32	17	36	23
Alkalinity	mg/L	5	6	5	6	5	5
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	4	6	2	2	5	1
Fixed residue	mg/L	9	12	3	2	8	2
Suspended solids	mg/L	12	18	5	4	13	3
Total dissolved solids	mg/L	35	42	30	28	46	26
Total solids	mg/L	47	60	35	32	59	29
Turbidity	NTU	9.2	13	3.2	3.1	14	2.8
Chloride	mg/L	2	3	3	3	3	3
Nitrogen-ammonia	mg/L	ND	ND	0.11	0.66	ND	0.10
Nitrogen-nitrate	mg/L	0.22	0.28	0.27	0.30	0.19	0.25
Nitrogen-total kjeldahl	mg/L	ND	0.36	0.18	0.19	0.29	0.34
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	2	2	2	2	2	2
Total organic carbon	mg/L	2.9	4.9	1.1	1.9	12.4	4.0
Aluminum	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Calcium	mg/L			1.32			1.83
Chromium	mg/L			ND			ND
Copper	mg/L			0.03			0.02
Iron	mg/L			0.90			0.54
Lead	mg/L			ND			ND
Magnesium	mg/L			0.44			ND
Manganese	mg/L			ND			ND
Mercury	mg/L	ND	0.0001	ND	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			0.29			5.57
Zinc	mg/L			0.03			ND

^a Metals (except mercury) are analyzed quarterly from monthly grab composite. Mercury is analyzed from a composite of monthly grab samples.

^b Field measurement

Table 67
SRS Stream Water Quality: Inorganic Contaminants

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Four Mile Creek at Road A7 (EMS and SCDHEC Sampling Location)							
Parameter ^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	2.69E+9	2.83E+9	1.69E+9	8.37E+8	6.20E+8	1.89E+9
Sample date		1-5-95	2-6-95	3-21-95	4-12-95	5-25-95	6-1-95
Temperature ^b	°C	4.5	6.0	16.0	20.5	21.0	23.0
pH ^b	pH	7.1	6.8	6.3	6.9	6.7	6.6
Dissolved oxygen ^b	mg/L	13.1	11.1	9.1	9.0	7.3	6.9
Conductivity ^b	µmhos/cm	77	35	51	59	89	85
Alkalinity	mg/L	8	7	12	12	18	18
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	1	2	1	5	ND	1
Fixed residue	mg/L	3	4	ND	8	4	3
Suspended solids	mg/L	4	6	1	13	4	4
Total dissolved solids	mg/L	43	37	40	40	81	73
Total solids	mg/L	47	43	41	53	85	77
Turbidity	NTU	2.5	4.4	3.6	4.5	3.3	3.3
Chloride	mg/L	3	4	3	3	4	4
Nitrogen-ammonia	mg/L	ND	ND	ND	ND	ND	ND
Nitrogen-nitrate	mg/L	2.25	1.98	1.77	1.42	3.00	3.00
Nitrogen-total kjeldahl	mg/L	ND	ND	ND	0.42	0.22	0.28
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	11	8	4	4	7	5
Total organic carbon	mg/L	ND	1.7	2.6	3.8	2.8	2.3
Aluminum	mg/L			0.22			0.16
Cadmium	mg/L			ND			ND
Calcium	mg/L			2.59			2.62
Chromium	mg/L			ND			ND
Copper	mg/L			ND			0.01
Iron	mg/L			0.61			0.72
Lead	mg/L			ND			ND
Magnesium	mg/L			0.58			0.48
Manganese	mg/L			0.08			0.05
Mercury	mg/L	ND	ND	ND	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			6.81			9.27
Zinc	mg/L			0.011			ND

^a Metals (except mercury) are analyzed quarterly from monthly grab composite. Mercury is analyzed from a composite of monthly grab samples.

^b Field measurement

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SRS Stream Water Quality: Inorganic Contaminants

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Four Mile Creek at Road A7 (EMS and SCDHEC Sampling Location)							
Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	1.05E+9	1.42E+9	1.31E+9	9.78E+8	1.11E+9	1.60E+9
Sample date		7-12-95	8-3-95	9-7-95	10-24-95	11-8-95	12-6-95
Temperature ^b	°C	25.3	23.7	21.5	21.0	14.5	12.1
pH ^b	pH	6.6	6.5	7.0	6.0	6.6	6.1
Dissolved oxygen ^b	mg/L	5.9	5.1	6.7	15.9	7.0	7.8
Conductivity ^b	µmhos/cm	84	55	93	94	70	92
Alkalinity	mg/L	24	15	17	17	10	13
Chemical oxygen demand	mg/L	ND	20	ND	ND	ND	ND
Volatile solids	mg/L	ND	3	2	1	4	1
Fixed residue	mg/L	5	5	3	2	5	2
Suspended solids	mg/L	5	7	4	3	8	3
Total dissolved solids	mg/L	90	59	80	79	63	58
Total solids	mg/L	95	66	84	82	71	61
Turbidity	NTU	7.8	8.3	2.7	2.0	19	2.8
Chloride	mg/L	4	3	6	7	4	5
Nitrogen-ammonia	mg/L	ND	ND	0.14	0.33	ND	0.18
Nitrogen-nitrate	mg/L	2.49	2.31	3.88	4.59	1.96	3.07
Nitrogen-total kjeldahl	mg/L	0.31	0.89	0.59	0.63	2.30	ND
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	5	3	6	6	5	7
Total organic carbon	mg/L	5.8	6.5	ND	1.9	8.4	3.6
Aluminum	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Calcium	mg/L			2.91			3.56
Chromium	mg/L			ND			ND
Copper	mg/L			0.03			0.01
Iron	mg/L			1.06			0.81
Lead	mg/L			ND			ND
Magnesium	mg/L			1.59			0.82
Manganese	mg/L			0.05			ND
Mercury	mg/L	0.0002	ND	ND	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			9.24			14.30
Zinc	mg/L			0.073			0.037

a Metals (except mercury) are analyzed quarterly from monthly grab composite. Mercury is analyzed from a composite of monthly grab samples.

b Field measurement

Table 67
SRS Stream Water Quality: Inorganic Contaminants

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Crouch Branch							
Parameter^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	2.73E+7	3.22E+7	1.21E+7	2.64E+6	3.94E+6	3.23E+7
Sample date		1-5-95	2-6-95	3-15-95	4-11-95	5-25-95	6-1-95
Temperature ^b	°C	6.0	4.0	12.7	17.3	19.0	25.9
pH ^b	pH	6.6	6.4	6.2	6.0	6.1	5.4
Dissolved oxygen ^b	mg/L	8.2	8.9	8.6	5.8	7.5	5.2
Conductivity ^b	µmhos/cm	66	76	27	65	60	63
Turbidity	NTU	8.3	18	9.7	5.8	28	15
Suspended solids	mg/L	2	7	5	13	47	14

^a Metals (except mercury) are analyzed quarterly from monthly grab composite. Mercury is analyzed from a composite of monthly grab samples.

^b Field measurement

Table 67
SRS Stream Water Quality: Inorganic Contaminants

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Crouch Branch							
Parameter^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	8.34E+6	2.20E+7	1.25E+7	4.85E+6	7.34E+6	1.06E+7
Sample date		7-12-95	8-3-95	9-7-95	10-24-95	11-8-95	12-6-95
Temperature ^b	°C	24.0	24.5	21.0	16.8	14.5	15.0
pH ^b	pH	5.7	6.2	6.3	5.3	5.5	5.3
Dissolved oxygen ^b	mg/L	4.8	6.7	6.9	5.2	7.5	7.2
Conductivity ^b	µmhos/cm	54	49	51	36	56	59
Turbidity	NTU	56	55	13	7.6	60	2.4
Suspended solids	mg/L	89	24	8	5	14	5

^a Metals (except mercury) are analyzed quarterly from monthly grab composite. Mercury is analyzed from a composite of monthly grab samples.

^b Field measurement

Table 67
SRS Stream Water Quality: Inorganic Contaminants

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Lower Three Runs-2							
Parameter ^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	5.73E+9	4.73E+9	4.44E+9	3.29E+9	2.34E+9	5.02E+9
Sample date		1-5-95	2-6-95	3-15-95	4-11-95	5-25-95	6-1-95
Temperature ^b	°C	7.1	8.1	14.1	18.8	20.5	21.6
pH ^b	pH	7.0	6.8	6.6	6.7	6.2	6.6
Dissolved oxygen ^b	mg/L	9.8	10.9	9.8	7.8	8.5	8.9
Conductivity ^b	µmhos/cm	92	86	81	96	80	95
Alkalinity	mg/L	40	36	40	35	37	40
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	20
Volatile solids	mg/L	1	ND	2	6	18	8
Fixed residue	mg/L	1	ND	2	14	36	8
Suspended solids	mg/L	2	ND	3	20	54	16
Total dissolved solids	mg/L	61	49	54	46	69	70
Total solids	mg/L	63	49	57	66	123	86
Turbidity	NTU	1.5	2.1	2.0	2.2	16	6.5
Chloride	mg/L	4	3	3	4	3	3
Nitrogen-ammonia	mg/L	ND	ND	ND	ND	ND	ND
Nitrogen-nitrate	mg/L	0.25	0.21	0.20	0.35	0.27	0.27
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	2	2	2	2	3	2
Aluminum	mg/L			0.08			0.73
Cadmium	mg/L			ND			ND
Calcium	mg/L			12.90			13.40
Chromium	mg/L			ND			ND
Copper	mg/L			ND			0.01
Iron	mg/L			0.24			1.60
Lead	mg/L			ND			ND
Magnesium	mg/L			0.61			0.73
Manganese	mg/L			0.02			0.45
Mercury	mg/L	ND	ND	ND	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			2.34			2.82
Zinc	mg/L			ND			0.006

^a Metals (except mercury) are analyzed quarterly from monthly grab composite. Mercury is analyzed from a composite of monthly grab samples.

^b Field measurement

Table 67
SRS Stream Water Quality: Inorganic Contaminants

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Lower Three Runs-2							
Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	3.57E+9	5.68E+9	4.79E+9	3.44E+9	4.00E+9	5.08E+9
Sample date		7-12-95	8-3-95	9-7-95	10-24-95	11-8-95	12-6-95
Temperature ^b	°C	25.6	23.0	23.0	18.9	14.5	14.6
pH ^b	pH	6.5	6.5	6.8	6.7	6.2	6.3
Dissolved oxygen ^b	mg/L	4.8	6.3	7.7	6.3	7.5	8.6
Conductivity ^b	µmhos/cm	95	78	75	104	67	83
Alkalinity	mg/L	32	32	29	39	22	31
Chemical oxygen demand	mg/L	ND	20	ND	ND	32	ND
Volatile solids	mg/L	3	12	4	1	3	1
Fixed residue	mg/L	3	13	7	2	1	1
Suspended solids	mg/L	6	24	11	3	4	2
Total dissolved solids	mg/L	67	66	59	68	80	58
Total solids	mg/L	73	90	70	71	84	60
Turbidity	NTU	5.4	8.1	2.1	2.1	4.1	1.8
Chloride	mg/L	4	3	4	3	4	4
Nitrogen-ammonia	mg/L	ND	ND	0.13	0.17	0.10	0.14
Nitrogen-nitrate	mg/L	0.23	0.22	0.23	0.26	0.16	0.25
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	2	2	2	2	2	2
Aluminum	mg/L			0.53			ND
Cadmium	mg/L			ND			ND
Calcium	mg/L			9.29			10.20
Chromium	mg/L			ND			ND
Copper	mg/L			0.03			0.02
Iron	mg/L			1.26			1.04
Lead	mg/L			ND			ND
Magnesium	mg/L			1.19			0.65
Manganese	mg/L			0.32			0.20
Mercury	mg/L	ND	ND	ND	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			1.47			7.03
Zinc	mg/L			0.009			ND

a Metals (except mercury) are analyzed quarterly from monthly grab composite. Mercury is analyzed from a composite of monthly grab samples.

b Field measurement

Table 67
SRS Stream Water Quality: Inorganic Contaminants

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McQueens Branch							
Parameter^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	2.34E+8	2.80E+8	1.43E+8	7.78E+7	3.94E+7	1.24E+8
Sample date		1-5-95	2-6-95	3-15-95	4-11-95	5-25-95	6-1-95
Temperature ^b	°C	6.5	6.0	12.8	17.4	19.0	24.6
pH ^b	pH	6.7	6.9	6.2	6.0	6.1	5.9
Dissolved oxygen ^b	mg/L	11.8	10.8	7.8	7.9	8.9	7.8
Conductivity ^b	µmhos/cm	39	62	50	41	50	60
Turbidity	NTU	5.5	6.4	4.5	3.5	8.4	10
Suspended solids	mg/L	8	3	3	14	13	12

^a Metals (except mercury) are analyzed quarterly from monthly grab composite. Mercury is analyzed from a composite of monthly grab samples.

^b Field measurement

Table 67
SRS Stream Water Quality: Inorganic Contaminants

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McQueens Branch							
Parameter^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	7.21E+7	9.10E+7	6.90E+7	5.99E+7	6.46E+7	8.27E+7
Sample date		7-12-95	8-3-95	9-7-95	10-24-95	11-8-95	12-6-95
Temperature ^b	°C	22.2	23.0	20.0	16.9	14.5	14.9
pH ^b	pH	5.2	6.2	6.4	6.6	5.9	5.8
Dissolved oxygen ^b	mg/L	5.6	6.8	8.9	6.4	9.0	8.7
Conductivity ^b	µmhos/cm	18	56	55	25	42	47
Turbidity	NTU	35	60	4.8	4.5	29	2.1
Suspended solids	mg/L	16	37	3	4	10	5

^a Metals (except mercury) are analyzed quarterly from monthly grab composite. Mercury is analyzed from a composite of monthly grab samples.

^b Field measurement

Table 67
SRS Stream Water Quality: Inorganic Contaminants

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Pen Branch-3							
Parameter ^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	6.57E+9	5.10E+9	4.21E+9	2.77E+9	2.67E+9	3.48E+9
Sample date		1-5-95	2-6-95	3-15-95	4-11-95	5-25-95	6-1-95
Temperature ^b	°C	6.7	4.9	13.2	18.8	22.0	23.9
pH ^b	pH	6.6	6.0	6.4	5.8	6.2	6.5
Dissolved oxygen ^b	mg/L	12.4	12.1	11.0	8.9	9.0	9.6
Conductivity ^b	µmhos/cm	69	67	51	118	80	78
Alkalinity	mg/L	16	14	17	19	20	18
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	1	1	3	5	ND	6
Fixed residue	mg/L	2	2	7	11	6	7
Suspended solids	mg/L	3	3	9	16	6	12
Total dissolved solids	mg/L	48	47	46	43	70	66
Total solids	mg/L	51	50	55	59	76	78
Turbidity	NTU	4.6	6.7	6.5	7.2	5.9	7.9
Chloride	mg/L	6	6	4	6	8	7
Nitrogen-ammonia	mg/L	ND	0.09	ND	ND	ND	ND
Nitrogen-nitrate	mg/L	0.37	0.34	0.18	0.44	0.40	0.34
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	6	7	4	6	8	7
Aluminum	mg/L			0.50			0.12
Cadmium	mg/L			ND			ND
Calcium	mg/L			4.27			4.87
Chromium	mg/L			ND			ND
Copper	mg/L			0.04			0.01
Iron	mg/L			0.99			0.48
Lead	mg/L			ND			ND
Magnesium	mg/L			0.86			1.05
Manganese	mg/L			0.07			0.02
Mercury	mg/L	ND	ND	ND	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			4.49			7.98
Zinc	mg/L			0.007			ND

a Metals (except mercury) are analyzed quarterly from monthly grab composite. Mercury is analyzed from a composite of monthly grab samples.

b Field measurement

Table 67
SRS Stream Water Quality: Inorganic Contaminants

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Pen Branch-3							
Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	2.58E+9	3.48E+9	2.94E+9	1.37E+9	1.50E+9	2.20E+9
Sample date		7-12-95	8-3-95	9-7-95	10-24-95	11-8-95	12-6-95
Temperature ^b	°C	21.4	24.0	23.0	20.0	14.0	16.0
pH ^b	pH	8.6	6.4	6.8	6.8	6.2	6.4
Dissolved oxygen ^b	mg/L	7.8	6.9	8.9	7.2	8.4	8.4
Conductivity ^b	µmhos/cm	118	65	71	70	60	73
Alkalinity	mg/L	19	16	18	18	15	19
Chemical oxygen demand	mg/L	ND	20	ND	ND	ND	ND
Volatile solids	mg/L	ND	8	2	1	6	1
Fixed residue	mg/L	3	21	4	4	12	3
Suspended solids	mg/L	3	28	5	5	18	4
Total dissolved solids	mg/L	69	58	54	55	61	47
Total solids	mg/L	72	86	59	60	79	51
Turbidity	NTU	4.3	14	3.7	4.8	14	5.9
Chloride	mg/L	8	5	5	5	5	6
Nitrogen-ammonia	mg/L	ND	ND	ND	0.15	ND	0.12
Nitrogen-nitrate	mg/L	0.29	0.32	0.35	0.31	0.30	0.30
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	7	5	5	5	4	5
Aluminum	mg/L			ND			0.56
Cadmium	mg/L			ND			ND
Calcium	mg/L			4.36			4.86
Chromium	mg/L			ND			ND
Copper	mg/L			0.03			0.02
Iron	mg/L			0.45			1.07
Lead	mg/L			ND			ND
Magnesium	mg/L			1.11			0.95
Manganese	mg/L			0.06			0.10
Mercury	mg/L	ND	ND	0.0005	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			7.04			9.99
Zinc	mg/L			0.018			0.013

a Metals (except mercury) are analyzed quarterly from monthly grab composite. Mercury is analyzed from a composite of monthly grab samples.

b Field measurement

Table 67
SRS Stream Water Quality: Inorganic Contaminants

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Four Mile Creek-6							
Parameter ^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	4.32E+9	4.47E+9	3.38E+9	2.08E+9	1.63E+9	3.44E+9
Sample date		1-5-95	2-6-95	3-15-95	4-11-95	5-25-95	6-1-95
Temperature ^b	°C	5.1	4.2	14.7	19.6	21.0	24.5
pH ^b	pH	7.3	6.8	6.7	5.2	6.5	6.2
Dissolved oxygen ^b	mg/L	12.7	11.6	8.9	9.2	8.4	8.7
Conductivity ^b	µmhos/cm	54	52	44	135	70	67
Alkalinity	mg/L	9	8	11	13	17	15
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	1	ND	2	5	ND	3
Fixed residue	mg/L	1	ND	3	6	6	5
Suspended solids	mg/L	2	ND	5	11	6	7
Total dissolved solids	mg/L	36	33	45	37	57	57
Total solids	mg/L	38	33	50	48	63	64
Turbidity	NTU	2.4	4.8	3.2	3.6	3.6	5.0
Chloride	mg/L	3	3	3	4	5	5
Nitrogen-ammonia	mg/L	ND	ND	ND	ND	ND	ND
Nitrogen-nitrate	mg/L	1.36	1.05	0.92	1.00	0.68	1.07
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	6	5	4	4	5	4
Aluminum	mg/L			0.29			0.10
Cadmium	mg/L			ND			ND
Calcium	mg/L			2.81			2.93
Chromium	mg/L			ND			ND
Copper	mg/L			ND			0.01
Iron	mg/L			0.68			0.57
Lead	mg/L			ND			ND
Magnesium	mg/L			0.63			0.63
Manganese	mg/L			0.04			0.03
Mercury	mg/L	ND	ND	ND	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			4.67			6.01
Zinc	mg/L			0.006			ND

a Metals (except mercury) are analyzed quarterly from monthly grab composite. Mercury is analyzed from a composite of monthly grab samples.

b Field measurement

Table 67
SRS Stream Water Quality: Inorganic Contaminants

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Four Mile Creek-6							
Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	1.93E+9	2.99E+9	2.66E+9	2.05E+9	2.13E+9	2.65E+9
Sample date		7-12-95	8-3-95	9-7-95	10-24-95	11-8-95	12-6-95
Temperature ^b	°C	24.5	24.0	22.0	18.0	14.0	16.1
pH ^b	pH	6.3	6.3	6.6	6.5	6.2	6.1
Dissolved oxygen ^b	mg/L	7.8	6.4	8.4	7.3	8.5	8.0
Conductivity ^b	µmhos/cm	67	58	67	62	65	65
Alkalinity	mg/L	17	17	17	15	12	14
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	ND	3	1	1	3	1
Fixed residue	mg/L	1	4	2	3	3	3
Suspended solids	mg/L	1	7	3	3	6	4
Total dissolved solids	mg/L	61	50	54	51	62	47
Total solids	mg/L	62	57	57	54	68	51
Turbidity	NTU	3.9	5.2	2.0	2.2	7.6	3.5
Chloride	mg/L	4	4	5	5	5	4
Nitrogen-ammonia	mg/L	ND	ND	ND	0.48	ND	0.14
Nitrogen-nitrate	mg/L	0.78	0.60	1.06	1.29	1.30	1.46
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	4	3	4	4	4	5
Aluminum	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Calcium	mg/L			2.99			4.15
Chromium	mg/L			ND			ND
Copper	mg/L			0.04			0.03
Iron	mg/L			1.23			1.00
Lead	mg/L			ND			ND
Magnesium	mg/L			6.08			0.75
Manganese	mg/L			0.08			ND
Mercury	mg/L	ND	ND	ND	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			6.34			11.00
Zinc	mg/L			0.006			0.017

a Metals (except mercury) are analyzed quarterly from monthly grab composite. Mercury is analyzed from a composite of monthly grab samples.

b Field measurement

Table 67
SRS Stream Water Quality: Inorganic Contaminants

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Upper Three Runs-1A							
Parameter^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	1.06E+10	9.87E+9	9.94E+9	8.52E+9	8.19E+9	9.76E+9
Sample date		1-5-95	2-6-95	3-15-95	4-11-95	5-25-95	6-1-95
Temperature ^b	°C	9.5	8.0	14.8	18.0	21.5	19.9
pH ^b	pH	6.6	6.9	6.0	5.6	6.7	5.2
Dissolved oxygen ^b	mg/L	10.3	10.0	9.4	7.4	9.1	8.5
Conductivity ^b	µmhos/cm	15	61	23	55	30	15
Alkalinity	mg/L	2	2	3	3	2	2
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	2	1	2	4	ND	2
Fixed residue	mg/L	ND	ND	2	9	6	2
Suspended solids	mg/L	2	1	4	13	7	4
Total dissolved solids	mg/L	22	12	13	6	25	31
Total solids	mg/L	24	13	17	19	32	35
Turbidity	NTU	1.4	1.9	2.0	2.0	2.6	3.6
Chloride	mg/L	3	2	2	2	3	2
Nitrogen-ammonia	mg/L	ND	ND	ND	ND	ND	ND
Nitrogen-nitrate	mg/L	0.36	0.31	0.31	0.38	0.33	0.28
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	1	1	1	1	1	1
Aluminum	mg/L			0.16			0.10
Cadmium	mg/L			ND			ND
Calcium	mg/L			0.52			0.45
Chromium	mg/L			ND			ND
Copper	mg/L			ND			ND
Iron	mg/L			0.48			0.35
Lead	mg/L			ND			ND
Magnesium	mg/L			0.38			0.32
Manganese	mg/L			0.14			0.01
Mercury	mg/L	ND	ND	ND	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			1.40			1.27
Zinc	mg/L			0.007			ND

a Metals (except mercury) are analyzed quarterly from monthly grab composite. Mercury is analyzed from a composite of monthly grab samples.

b Field measurement

Table 67
SRS Stream Water Quality: Inorganic Contaminants

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Upper Three Runs-1A							
Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	8.65E+9	1.02E+10	9.40E+9	9.25E+9	9.40E+9	9.86E+9
Sample date		7-12-95	8-3-95	9-7-95	10-24-95	11-8-95	12-6-95
Temperature ^b	°C	21.0	22.0	20.0	17.0	15.0	15.2
pH ^b	pH	4.3	5.5	6.2	6.6	4.5	4.7
Dissolved oxygen ^b	mg/L	7.0	6.8	7.8	9.1	8.0	7.4
Conductivity ^b	µmhos/cm	24	16	16	22	20	23
Alkalinity	mg/L	3	2	3	4	2	3
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	1	4	2	1	3	2
Fixed residue	mg/L	4	5	2	3	2	2
Suspended solids	mg/L	5	8	4	4	5	3
Total dissolved solids	mg/L	30	29	25	23	43	24
Total solids	mg/L	35	37	29	27	48	27
Turbidity	NTU	4.3	5.4	2.0	2.4	9.0	1.9
Chloride	mg/L	3	2	2	2	2	4
Nitrogen-ammonia	mg/L	ND	ND	ND	0.79	0.12	0.25
Nitrogen-nitrate	mg/L	0.28	0.28	0.34	0.34	0.24	0.34
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	1	1	1	1	1	1
Aluminum	mg/L			0.25			ND
Cadmium	mg/L			ND			ND
Calcium	mg/L			0.22			0.83
Chromium	mg/L			ND			ND
Copper	mg/L			0.07			0.02
Iron	mg/L			0.41			0.38
Lead	mg/L			ND			ND
Magnesium	mg/L			ND			0.42
Manganese	mg/L			ND			ND
Mercury	mg/L	ND	ND	ND	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			1.65			4.92
Zinc	mg/L			0.061			ND

a Metals (except mercury) are analyzed quarterly from monthly grab composite. Mercury is analyzed from a composite of monthly grab samples.

b Field measurement

Table 68
SRS Stream Water Quality: Pesticides, Herbicides,
and Volatile Organic Compounds

Page 1 of 1

Note: EMS samples from the following SCDHEC locations were analyzed monthly for the constituents listed below. Practical quantification limits (PQLs) listed are achieved for pure water in ideal laboratory conditions. Actual PQLs reported to Westinghouse Savannah River Company by the laboratory may vary because of impurities in the water, instrument variations, sample volume size, and/or sample dilution factors.

	Practical Quantification Limit (µg/L)	µg/L			
		Tims Branch-5	Four Mile Creek-A7	Steel Creek-4	Upper Three Runs Creek-4 at Road A
Pesticides					
Aldrin	0.05	<0.05	<0.05	<0.05	<0.05
Alpha-BHC	0.05	<0.05	<0.05	<0.05	<0.05
Beta-BHC	0.05	<0.05	<0.05	<0.05	<0.05
Delta-BHC	0.05	<0.05	<0.05	<0.05	<0.05
Lindane	0.05	<0.05	<0.05	<0.05	<0.05
Chlordane	0.50	<0.50	<0.50	<0.50	<0.50
4,4-DDD	0.05	<0.05	<0.05	<0.05	<0.05
4,4-DDE	0.05	<0.05	<0.05	<0.05	<0.05
4,4-DDT	0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan I	0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan II	0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	0.05	<0.05	<0.05	<0.05	<0.05
Endrin	0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	0.05	0.052	<0.05	<0.05	<0.05
Heptachlor epoxide	0.05	0.052	<0.05	<0.05	<0.05
Methoxychlor	0.20	0.52	<0.20	<0.20	<0.20
Toxaphene	5.00	5.2	<5.00	4.8	<5.00
Herbicides					
2,4-D	0.10	<0.10	<0.10	<0.10	<0.10
2,4, 5-TP (Silvex)	0.10	<0.10	<0.10	<0.10	0.28
Volatile Organic Compounds					
Tetrachloroethene	2.0	3.4	<2.0	<2.0	3.7
111-Trichloroethane	2.0	<2.0	<2.0	<2.0	<2.0
Trichloroethene	2.0	<2.0	<2.0	<2.0	<2.0

Table 69
SRS Stream and Savannah River Water Quality: Pesticides and Herbicides

Page 1 of 2

	$\mu\text{g/L}$				
	Steel Creek	PAR Pond Pump House	Lower Three Runs-3	Upper Three Runs-4	Upper Three Runs-Road F
Pesticides					
Aldrin	<0.050	<0.056	<0.11	<0.055	Not collected
Alpha-BHC	<0.050	<0.056	<0.11	<0.055	Not collected
Beta-BHC	<0.050	<0.056	<0.11	<0.055	Not collected
Delta-BHC	<0.050	<0.056	<0.11	<0.055	Not collected
Lindane	<0.050	<0.056	<0.11	<0.055	Not collected
Chlordane	<0.50	<0.56	<1.1	<0.55	Not collected
4,4-DDD	<0.10	<0.11	<0.22	<0.11	Not collected
4,4 - DDE	<0.10	<0.11	<0.22	<0.11	Not collected
4,4-DDT	<0.10	<0.11	<0.22	<0.11	Not collected
Dieldrin	<0.10	<0.11	<0.22	<0.11	Not collected
Endosulfan I	<0.050	<0.056	<0.11	<0.055	Not collected
Endosulfan II	<0.10	<0.11	<0.22	<0.11	Not collected
Endosulfan sulfate	<0.10	<0.11	<0.22	<0.11	Not collected
Endrin	<0.10	<0.11	<0.22	<0.11	Not collected
Endrin aldehyde	<0.10	<0.11	<0.22	<0.11	Not collected
Heptachlor	<0.050	<0.056	<0.11	<0.055	Not collected
Heptachlor epoxide	<0.050	<0.056	<0.11	<0.055	Not collected
Methoxychlor	<0.50	<0.56	<1.1	<0.55	Not collected
Toxaphene	<5.0	<5.6	<11	<5.5	Not collected
Herbicides					
2,4-D	<1.0	<1.1	<2.2	<1.1	Not collected
2,4,5-TP (Silvex)	<0.21	<0.22	<0.44	<0.21	Not collected

Table 69
SRS Stream and Savannah River Water Quality: Pesticides and Herbicides

Page 2 of 2

	$\mu\text{g/L}$			
	River 2	River 10	Pen Branch 3	Four Mile 6
Pesticides				
Aldrin	<0.052	<0.052	<0.10	<0.054
Alpha-BHC	<0.052	<0.052	<0.10	<0.054
Beta-BHC	<0.052	<0.052	<0.10	<0.054
Delta-BHC	<0.052	<0.052	<0.10	<0.054
Lindane	<0.052	<0.052	<0.10	<0.054
Chlordane	<0.52	<0.52	<1.0	<0.54
4,4-DDD	<0.10	<0.10	<0.21	<0.11
4,4 - DDE	<0.10	<0.10	<0.21	<0.11
4,4-DDT	<0.10	<0.10	<0.21	<0.11
Dieldrin	<0.10	<0.10	<0.21	<0.11
Endosulfan I	<0.052	<0.052	<0.10	<0.054
Endosulfan II	<0.10	<0.10	<0.21	<0.11
Endosulfan sulfate	<0.10	<0.10	<0.21	<0.11
Endrin	<0.10	<0.10	<0.21	<0.11
Endrin aldehyde	<0.10	<0.10	<0.21	<0.11
Heptachlor	<0.052	<0.052	<0.10	<0.054
Heptachlor epoxide	<0.052	<0.052	<0.10	<0.054
Methoxychlor	<0.52	<0.52	<1.0	<0.54
Toxaphene	<5.2	<5.2	<10	<5.4
Herbicides				
2,4-D	<1.0	<1.2	<2.1	<1.1
2,4,5-TP (Silvex)	<0.20	0.24	<0.42	<0.21

Table 70
Savannah River Water Quality: Inorganic Contaminants

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RM-160 (Above SRS)							
Parameter ^a	Units	Jan	Feb	Mar	April	May	June
Notes: "ND" denotes "not detected." Fecal coliform results can be found in table 72 on page 232.							
Water volume	L	1.15E+12	b	b	6.44E+11	5.24E+11	5.39E+11
Sample date		1-3-95	2-7-95	3-7-95	4-11-95	5-23-95	6-13-95
Temperature ^b	°C	11.2	8.0	11.3	16.1	21.2	23.3
pH ^b	pH	6.8	6.7	6.8	6.9	6.6	6.4
Dissolved oxygen ^b	mg/L	9.8	9.2	10.8	6.7	7.7	7.0
Conductivity ^b	µmhos/cm	79	82	63	80	107	103
Alkalinity	mg/L	18	19	18	20	22	23
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	1	1	ND	4	4	1
Fixed residue	mg/L	4	4	9	12	3	8
Suspended solids	mg/L	5	5	9	16	7	9
Total dissolved solids	mg/L	51	55	51	48	91	86
Total solids	mg/L	56	60	60	64	98	95
Turbidity	NTU	6.3	10	9.6	9.7	8.5	8.9
Chloride	mg/L	7	7	5	8	11	11
Nitrogen-ammonia	mg/L	0.10	0.08	0.05	0.08	0.08	0.09
Nitrogen-nitrate	mg/L	0.34	0.30	0.27	0.45	0.39	0.45
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	6	7	6	7	11	10
Aluminum	mg/L			0.31			0.33
Cadmium	mg/L			ND			ND
Calcium	mg/L			3.52			4.00
Chromium	mg/L			ND			ND
Copper	mg/L			ND			0.01
Iron	mg/L			0.59			0.68
Lead	mg/L			ND			ND
Magnesium	mg/L			1.39			1.33
Manganese	mg/L			0.06			0.07
Mercury	mg/L	ND	ND	ND	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			7.58			11.3
Zinc	mg/L			ND			0.005

a Metals (except mercury) are analyzed quarterly from monthly grab composites. Mercury is analyzed from a composite of monthly grab samples.

b Water volume was too high for flow meter to register.

c Field measurement

Table 70
Savannah River Water Quality: Inorganic Contaminants

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RM-160 (Above SRS)							
Parameter ^a	Units	July	Aug	Sept	Oct	Nov	Dec
Water volume	L	5.80E+11	6.96E+11	7.85E+11	8.58E+11	^b	1.10E+12
Sample date		7-11-95	8-1-95	9-6-95	10-24-95	11-7-95	12-5-95
Temperature ^b	°C	24.4	24.5	21.0	20.7	17.7	13.9
pH ^b	pH	6.0	6.6	6.4	6.0	7.0	6.4
Dissolved oxygen ^b	mg/L	6.9	8.7	7.9	7.9	8.3	9.9
Conductivity ^b	µmhos/cm	99	92	61	78	83	62
Alkalinity	mg/L	23	21	17	17	19	18
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	ND	2	2	1	4	2
Fixed residue	mg/L	3	8	11	9	6	13
Suspended solids	mg/L	3	9	13	10	9	15
Total dissolved solids	mg/L	83	68	55	53	69	54
Total solids	mg/L	86	77	68	63	78	69
Turbidity	NTU	6.0	8.9	7.4	6.8	4.8	15
Chloride	mg/L	10	8	5	5	8	5
Nitrogen-ammonia	mg/L	ND	ND	ND	0.16	ND	0.15
Nitrogen-nitrate	mg/L	0.37	0.34	0.31	0.29	0.32	0.31
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	9	8	4	5	7	5
Aluminum	mg/L			0.65			0.48
Cadmium	mg/L			ND			ND
Calcium	mg/L			3.41			3.20
Chromium	mg/L			ND			ND
Copper	mg/L			0.02			0.01
Iron	mg/L			0.64			0.61
Lead	mg/L			ND			ND
Magnesium	mg/L			1.37			1.22
Manganese	mg/L			0.11			0.07
Mercury	mg/L	ND	ND	0.0006	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			9.24			10.70
Zinc	mg/L			0.059			0.020

a Metals (except mercury) are analyzed quarterly from monthly grab composites. Mercury is analyzed from a composite of monthly grab samples.

b Water volume was too high for flow meter to register

c Field measurement

Table 70
Savannah River Water Quality: Inorganic Contaminants

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Plant Vogtle Discharge		Jan	Feb	Mar	April	May	June
Parameter ^a	Units						
Water volume	L	1.20E+12	b	b	6.30E+11	4.98E+11	5.26E+11
Sample date		1-3-95	2-7-95	3-7-95	4-11-95	5-23-95	6-13-95
Temperature ^b	°C	11.0	8.1	11.3	16.8	21.9	24.1
pH ^b	pH	6.8	6.7	6.8	6.9	6.7	6.4
Dissolved oxygen ^b	mg/L	9.7	11.2	10.1	6.1	7.3	5.3
Conductivity ^b	µmhos/cm	77	85	68	81	107	102
Alkalinity	mg/L	18	18	17	21	23	25
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	1	5	ND	4	3	2
Fixed residue	mg/L	6	5	7	13	6	10
Suspended solids	mg/L	7	10	7	16	9	12
Total dissolved solids	mg/L	54	58	51	53	90	88
Total solids	mg/L	61	68	58	69	99	100
Turbidity	NTU	6.0	10	9.3	10	9.2	11
Chloride	mg/L	7	6	5	8	11	11
Nitrogen-ammonia	mg/L	0.08	0.10	ND	ND	0.08	0.11
Nitrogen-nitrate	mg/L	0.35	0.32	0.26	0.42	0.42	0.44
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	6	7	6	7	11	10
Aluminum	mg/L			0.30			0.44
Cadmium	mg/L			ND			ND
Calcium	mg/L			3.83			4.45
Chromium	mg/L			ND			ND
Copper	mg/L			ND			0.01
Iron	mg/L			0.58			0.79
Lead	mg/L			ND			ND
Magnesium	mg/L			1.51			1.43
Manganese	mg/L			0.07			0.07
Mercury	mg/L	ND	ND	ND	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			7.67			11.20
Zinc	mg/L			0.009			0.010

a Metals (except mercury) are analyzed quarterly from monthly grab composites. Mercury is analyzed from a composite of monthly grab samples.

b Water volume was too high for flow meter to register

c Field measurement

Table 70
Savannah River Water Quality: Inorganic Contaminants

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Plant Vogtle Discharge		July	Aug	Sept	Oct	Nov	Dec
Parameter ^a	Units						
Water volume	L	5.52E+11	6.83E+11	7.70E+11	8.41E+11	^b	1.17E+12
Sample date		7-11-95	8-1-95	9-6-95	10-24-95	11-7-95	12-5-95
Temperature ^b	°C	25.2	25.0	21.2	20.5	17.5	14.1
pH ^b	pH	6.1	6.5	5.9	5.9	6.5	6.9
Dissolved oxygen ^b	mg/L	6.1	6.9	7.4	7.0	7.1	9.3
Conductivity ^b	µmhos/cm	109	92	63	70	80	70
Alkalinity	mg/L	23	21	18	17	20	20
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	ND	3	3	1	4	3
Fixed residue	mg/L	6	7	17	9	7	16
Suspended solids	mg/L	6	9	20	10	11	18
Total dissolved solids	mg/L	90	66	52	55	70	62
Total solids	mg/L	96	75	72	65	81	80
Turbidity	NTU	7.2	8.8	11	6.9	7.6	16
Chloride	mg/L	12	8	5	5	8	7
Nitrogen-ammonia	mg/L	ND	ND	0.15	0.12	0.14	0.14
Nitrogen-nitrate	mg/L	0.42	0.35	0.34	0.29	0.33	0.35
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	10	8	5	5	7	6
Aluminum	mg/L			0.29			ND
Cadmium	mg/L			ND			ND
Calcium	mg/L			2.97			3.32
Chromium	mg/L			ND			ND
Copper	mg/L			0.02			0.01
Iron	mg/L			0.39			0.73
Lead	mg/L			ND			ND
Magnesium	mg/L			1.24			1.41
Manganese	mg/L			0.11			0.07
Mercury	mg/L	ND	ND	0.0004	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			7.04			11.90
Zinc	mg/L			0.015			0.009

^a Metals (except mercury) are analyzed quarterly from monthly grab composites. Mercury is analyzed from a composite of monthly grab samples.

^b Water volume was too high for flow meter to register.

^c Field measurement

Table 70
Savannah River Water Quality: Inorganic Contaminants

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RM-120 (Below SRS)							
Parameter ^a	Units	Jan	Feb	Mar	April	May	June
Water volume	L	1.26E+12	1.31E+12	1.87E+12	6.15E+11	4.72E+11	5.13E+11
Sample date		1-3-95	2-7-95	3-7-95	4-11-95	5-23-95	6-13-95
Temperature ^b	°C	10.8	8.4	12.3	17.3	21.9	24.2
pH ^b	pH	6.9	7.1	6.9	6.7	6.6	6.3
Dissolved oxygen ^b	mg/L	9.3	7.2	9.4	6.6	7.5	6.0
Conductivity ^b	µmhos/cm	83	94	54	87	102	98
Alkalinity	mg/L	19	19	18	22	22	22
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	1	2	ND	4	4	3
Fixed residue	mg/L	7	6	5	14	8	16
Suspended solids	mg/L	8	8	5	17	11	18
Total dissolved solids	mg/L	59	57	54	58	89	82
Total solids	mg/L	67	65	59	75	100	100
Turbidity	NTU	6.7	9.1	10	9.9	9.1	11
Chloride	mg/L	8	7	5	8	10	9
Nitrogen-ammonia	mg/L	0.09	0.09	ND	ND	ND	0.08
Nitrogen-nitrate	mg/L	0.38	0.34	0.27	0.47	0.46	0.46
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	7	9	6	8	11	10
Aluminum	mg/L			0.47			0.43
Cadmium	mg/L			ND			ND
Calcium	mg/L			4.22			4.79
Chromium	mg/L			ND			ND
Copper	mg/L			ND			0.01
Iron	mg/L			0.96			0.91
Lead	mg/L			ND			ND
Magnesium	mg/L			1.51			1.48
Manganese	mg/L			0.06			0.07
Mercury	mg/L	ND	ND	ND	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			8.32			10.6
Zinc	mg/L			ND			0.036

a Metals (except mercury) are analyzed quarterly from monthly grab composites. Mercury is analyzed from a composite of monthly grab samples.

b Field measurement

Table 70
Savannah River Water Quality: Inorganic Contaminants

Page 6 of 6

RM-120 (Below SRS)		July	Aug	Sept	Oct	Nov	Dec
Parameter ^a	Units						
Water volume	L	5.23E+11	6.70E+11	7.55E+11	8.24E+12	1.35E+12	1.23E+12
Sample date		7-11-95	8-1-95	9-6-95	10-24-95	11-7-95	12-5-95
Temperature ^b	°C	26.2	25.7	22.0	19.9	17.2	13.1
pH ^b	pH	6.7	6.6	6.7	5.9	6.8	4.9
Dissolved oxygen ^b	mg/L	6.5	6.6	7.3	7.6	7.7	7.3
Conductivity ^b	µmhos/cm	104	102	65	88	102	84
Alkalinity	mg/L	23	20	18	17	22	21
Chemical oxygen demand	mg/L	ND	ND	ND	ND	ND	ND
Volatile solids	mg/L	1	2	4	3	4	2
Fixed residue	mg/L	6	10	23	14	7	6
Suspended solids	mg/L	7	12	27	17	11	7
Total dissolved solids	mg/L	82	71	55	52	80	63
Total solids	mg/L	89	83	82	69	91	70
Turbidity	NTU	6.8	10	12	9.1	5.4	14
Chloride	mg/L	11	9	5	5	9	7
Nitrogen-ammonia	mg/L	ND	ND	0.13	0.55	0.24	0.14
Nitrogen-nitrate	mg/L	0.41	0.35	0.35	0.28	0.33	0.29
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	10	9	5	5	8	7
Aluminum	mg/L			ND			ND
Cadmium	mg/L			ND			ND
Calcium	mg/L			3.86			3.77
Chromium	mg/L			ND			ND
Copper	mg/L			0.03			0.02
Iron	mg/L			0.93			0.84
Lead	mg/L			ND			ND
Magnesium	mg/L			1.44			1.18
Manganese	mg/L			0.11			ND
Mercury	mg/L	ND	ND	0.0015	ND	ND	ND
Nickel	mg/L			ND			ND
Sodium	mg/L			12.80			12.60
Zinc	mg/L			0.043			0.008

^a Metals (except mercury) are analyzed quarterly from monthly grab composites. Mercury is analyzed from a composite of monthly grab samples.

^b Field measurement

Table 71
Savannah River Water Quality:
Georgia Department of Natural Resources and EMS Sampling Location

Page 1 of 2

Parameter	Units	June	Duplicate	December	Duplicate
<i>Note: "ND" denotes "none detected."</i> <i>All analyses were analyzed from grab samples.</i>					
681-5G^a					
Field Analyses					
Sample Date		6-13-95	6-13-95	12-5-95	12-5-95
Laboratory Analyses					
pH	pH	6.95	6.95	7.32	7.26
Conductivity	µmhos/cm	102	102	69	71
Alkalinity	mg/L	23	23	19	18
Chemical oxygen demand	mg/L	ND	ND	ND	ND
Volatile solids	mg/L	1	1	2	2
Fixed residue	mg/L	6	6	15	15
Suspended solids	mg/L	7	7	17	16
Total dissolved solids	mg/L	83	83	55	54
Total solids	mg/L	90	90	72	70
Turbidity	NTU	9.7	9.6	15	15
Chloride	mg/L	10	10	6	6
Nitrogen- ammonia	mg/L	0.08	0.08	0.16	0.14
Nitrogen- nitrate	mg/L	0.42	0.43	0.33	0.32
Phosphate P	mg/L	ND	ND	ND	ND
Sulfate	mg/L	9	9	5	5
Offsite Analyses					
Aluminum	mg/L	0.33	0.42	ND	0.69
Cadmium	mg/L	ND	ND	ND	ND
Calcium	mg/L	4.23	4.25	3.36	3.64
Chromium	mg/L	ND	ND	ND	ND
Copper	mg/L	ND	ND	0.01	0.01
Iron	mg/L	0.75	0.78	1.20	1.19
Lead	mg/L	ND	ND	ND	ND
Magnesium	mg/L	1.35	1.37	1.13	1.75
Manganese	mg/L	0.07	0.073	ND	0.12

^a This location is sampled monthly by the Georgia Department of Natural Resources and twice yearly by the Environmental Monitoring Section.

Table 71
Savannah River Water Quality:
Georgia Department of Natural Resources and EMS Sampling Location

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Parameter	Units	June	Duplicate	December	Duplicate
Mercury	mg/L	ND	ND	ND	ND
Nickel	mg/L	ND	ND	ND	ND
Sodium	mg/L	11.2	11.2	10.3	11.7
Zinc	mg/L	ND	ND	0.009	ND

Table 72
SRS Streams and Savannah River Water Quality:
Fecal Coliform Bacteria Exceedances

Page 1 of 2

Date	Location	Number of Counts
Notes: 1. Fecal coliform bacteria counts are collected at the following locations: River-120, Vogtle Discharge, River-160, U3R-1A, U3R-4, FM-6, PB-3, 400-D, L3R-3, L3R-TCR, SC-4, TB-5, and FM-A7. 2. The standard for South Carolina states that the fecal coliform count should not exceed a geometric mean of 200/100 mL, based on five samples during any 30-day period, nor shall more than 10 percent of the samples during any consecutive 30-day period exceed 400/100 mL. 3. The following ambient quality data did not achieve the standards prescribed for primary and secondary recreational waters.		
1/10/95	Vogtle Discharge	700
1/16/95	U3R-1A	800
1/17/95	Vogtle Discharge	1400
1/17/95	400-D	500
1/31/95	Vogtle Discharge	500
1/31/95	River Mile-120	500
2/14/95	River Mile-120	700
2/14/95	Vogtle Discharge	500
3/6/95	U3R-1A	500
4/24/95	U3R-1A	500
5/15/95	U3R-1A	700
5/22/95	U3R-1A	500
5/30/95	U3R-4	900
5/30/95	U3R-1A	3000
6/1/95	TB-5	500
6/5/95	U3R-1A	1700
6/6/95	FM-6	900
6/6/95	PB-3	1600
6/6/95	U3R-4	500
6/6/95	L3R-3	900
6/6/95	River Mile-160	1600
6/13/95	PB-3	900
6/27/95	U3R-4	900
7/5/95	L3R-3	500
7/10/95	U3R-1A	300
7/17/95	U3R-1A	900
7/18/95	Vogtle Discharge	500
7/24/95	U3R-1A	300

Table 72
SRS Streams and Savannah River Water Quality:
Fecal Coliform Bacteria Exceedances

Page 2 of 2

Date	Location	Number of Counts
7/25/95	L3R-3	500
7/25/95	U3R-4	>1600
8/3/95	FM-7A	1600
8/7/95	U3R-1	500
8/8/95	L3R-3	1600
8/8/95	U3R-4	500
8/22/95	L3R-3	1600
9/12/95	U3R-4	2200
9/12/95	U3R-1	2600
9/19/95	River Mile-120	>600
9/26/95	L3R-3	480
9/26/95	PB-3	500
9/26/95	400-D	400
9/26/95	Vogtle Discharge	2600
9/26/95	River Mile-160	3200
10/4/95	L3R-3	230
10/10/95	L3R-3	220
12/19/95	Vogtle Discharge	2300
12/19/95	River Mile-160	1900
12/19/95	L3R-3	700
12/19/95	FM-6	800

Table 73
Sediment Surveillance: Pesticides and Herbicides

Page 1 of 2

	$\mu\text{g/l}$				
	Steel Creek-4	PAR Pond Pump House	Lower Three Runs-3	Upper Three Runs-4	Upper Three Runs-Road F
Pesticides					
Aldrin	<8.7	<2.4	<5.5	<3.5	Not collected
Alpha-BHC	<8.7	<2.4	<5.5	<3.5	Not collected
Beta-BHC	<8.7	<2.4	<5.5	<3.5	Not collected
Delta-BHC	<8.7	<2.4	<5.5	<3.5	Not collected
Lindane	<8.7	<2.4	<5.5	<3.5	Not collected
Chlordane	<87	<24	<55	<35	Not collected
4,4-DDD	<17	<4.8	<11	17	Not collected
4,4 - DDE	<17	<4.8	24	10	Not collected
4,4-DDT	<17	<4.8	<11	<6.7	Not collected
Dieldrin	<17	<4.8	<11	<6.7	Not collected
Endosulfan I	<8.7	<2.4	<5.5	<3.5	Not collected
Endosulfan II	<17	<4.8	<11	<6.7	Not collected
Endosulfan sulfate	<17	<4.8	<11	<6.7	Not collected
Endrin	<17	<4.8	<11	<6.7	Not collected
Endrin aldehyde	<17	<4.8	15	<6.7	Not collected
Heptachlor	<8.7	<2.4	<5.5	<3.5	Not collected
Heptachlor epoxide	<8.7	<2.4	<5.5	<3.5	Not collected
Methoxychlor	<87	<244	<55	<35	Not collected
Toxaphene	<870	<240	<550	<350	Not collected
Herbicides					
2,4-D	<1300	<360	<820	<520	Not collected
2,4,5-TP (Silvex)	<210	<58	<130	<83	Not collected

Table 73
Sediment Surveillance: Pesticides and Herbicides

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	$\mu\text{g/l}$			
	River-2	River-10	Pen Branch-3	Four Mile-6
Pesticides				
Aldrin	<2.7	<2.9	<2.2	<2.7
Alpha-BHC	<2.7	<2.9	<2.2	<2.7
Beta-BHC	<2.7	<2.9	<2.2	<2.7
Delta-BHC	<2.7	<2.9	<2.2	<2.7
Lindane	<2.7	<2.9	<2.2	<2.7
Chlordane	<27	<29	<22	<27
4,4-DDD	<5.2	<5.6	<4.4	<5.3
4,4 - DDE	<5.2	<5.6	<4.4	<5.3
4,4-DDT	<5.2	<5.6	<4.4	<5.3
Dieldrin	<5.2	<5.6	<4.4	<5.3
Endosulfan I	<2.7	<2.9	<2.2	<2.7
Endosulfan II	<5.2	<5.6	<4.4	<5.3
Endosulfan sulfate	<5.2	<5.6	<4.4	<5.3
Endrin	<5.2	<5.6	<4.4	<5.3
Endrin aldehyde	<5.2	<5.6	<4.4	<5.3
Heptachlor	<2.7	<2.9	<2.2	<2.7
Heptachlor epoxide	<2.7	<2.9	<2.2	<2.7
Methoxychlor	<27	<29	<22	<27
Toxaphene	<270	<290	<220	<270
Herbicides				
2,4-D	<400	<440	<340	<400
2,4,5-TP (Silvex)	<64	<70	<54	<65

Table 74
Fish Surveillance: Mercury

Page 1 of 2

Location/Species	Mercury (µg Hg/g – Parts Per Million)						Min	Max
	Analytical Results							
Note: ND denotes “not detected; the result is less than 0.17 µg/g.”								
Augusta Lock and Dam								
Catfish	ND	0.17	0.20	ND	0.37		ND	0.37
Panfish	ND	ND	ND	ND	ND		ND	ND
Beaver Dam Creek								
Bream	0.17	ND	ND	ND	0.17		ND	0.17
Beaver Dam Creek @ Creek Mouth								
Bass		0.63					0.63	0.83
Bream	ND	0.17	ND	ND			ND	0.17
Catfish	0.17	ND	ND	ND	ND	0.27	ND	0.27
Four Mile Creek @ Creek Mouth								
Catfish	0.20							
Highway 301								
Bass	0.43	0.43	0.53	0.50	0.37		0.37	0.53
Bream	0.23	0.23	0.20	0.20	0.20		0.20	0.23
Catfish	ND	0.27	0.63	0.57	0.53		ND	0.63
L-Lake								
Bass	1.00	1.70	1.50	1.47	1.33		1.00	1.70
Bream	ND	ND	ND	ND	ND		ND	ND
Lower Three Runs-2								
Panfish [Crappie]	ND						ND	ND
Lower Three Runs @ Creek Mouth								
Catfish	ND	ND	ND				ND	ND
Panfish	0.20						0.20	0.20
PAR Pond								
Bass	1.13	0.43	0.70	0.70	0.70		0.43	1.13
Bluegill	ND	0.17					ND	0.17
Panfish	0.23	0.47	0.77				0.23	0.77
Pond B								
Bass	0.33	0.70	0.50	0.43	1.40		0.33	1.40
Bluegill	ND	0.27					ND	0.27
Bream	0.23	0.57	ND				ND	0.57

Table 74
Fish Surveillance: Mercury

Page 2 of 2

Location/Species	Mercury (µg Hg/g – Parts Per Million)						Min	Max
	Analytical Results							
Steel Creek–4								
Bass	1.47	0.33	1.03	0.50	1.10		0.33	1.47
Panfish [Crappie]	0.17	ND	0.17	ND	ND		ND	0.17
Steel Creek @ Creek Mouth								
Bass	0.43	0.67	0.70	0.17	0.23		0.17	0.70
Catfish	0.23	0.27	0.23	0.27	0.23		0.23	0.27
Crappie	0.77							
Upper Three Runs–4								
Bass	0.57						0.57	0.57
Catfish	0.17						0.17	0.17
Panfish [Crappie]	0.87						0.87	0.87
Upper Three Runs @ Creek Mouth								
Bass	0.47						0.47	0.47
Catfish	0.23	0.17	ND	0.43	0.70		ND	0.43
Crappie	ND	0.40	ND				ND	0.47
Pan fish	ND						ND	ND

Table 75
Blind Sample Results for pH Field Measurements

Page 1 of 1

Sample Identification	pH Units		
	Measured Value	Actual Value	Difference
BpH-01-1	4.00	3.93	0.07 units
BpH-01-2	6.82	6.84	0.02 units
BpH-01-3	7.40	7.44	0.04 units
BpH-02-1	4.00	3.89	0.11 units
BpH-02-2	7.10	6.83	0.27 units
BpH-02-3	7.40	7.42	0.02 units
BpH-03-1	3.85	3.91	0.06 units
BpH-03-2	6.80	6.86	0.06 units
BpH-03-3	7.50	7.47	0.03 units
BpH-04-1	7.40	7.41	0.01 units
BpH-04-2	4.00	4.01	0.01 units
BpH-04-3	9.9	10.21	0.31 units
BpH-05-1	7.40	4.39	0.01 units
BpH-05-2	4.10	4.04	0.06 units
BpH-05-3	9.80	9.94	0.14 units
BpH-06-1	6.80	6.82	0.02 units
BpH-06-2	4.02	4.01	0.01 units
BpH-06-3	7.38	7.47	0.09 units
BpH-07-1	4.00	4.06	0.06 units
BpH-07-2	6.85	6.82	0.03 units
BpH-07-3	9.84	10.24	0.40 units
BpH-08-1	4.07	4.01	0.06 units
BpH-08-2	6.86	6.85	0.01 units
BpH-08-3	10.30	10.30	0.00 units
BpH-09-1	3.90	4.01	0.11 units
BpH-09-2	6.90	6.79	0.11 units
BpH-09-3	9.04	9.08	0.04 units
BpH-10-1	3.90	4.05	0.15 units
BpH-10-2	6.90	6.86	0.04 units
BpH-10-3	8.80	9.14	0.34 units
BpH-11-1	4.00	4.09	0.09 units
BpH-11-2	6.80	6.87	0.07 units
BpH-11-3	8.85	9.16	0.31 units
BpH-12-1	6.82	6.84	0.02 units
BpH-12-2	9.20	9.08	0.12 units
BpH-12-3	7.30	7.42	0.12 units

Table 76
Blind Sample Results for Conductivity Field Measurements

Page 1 of 1

Sample Identification	(μmhos/cm)		
	Measured Value	Actual Value	Difference
BC-01-1	99	96	3.13%
BC-01-2	219	222	1.35%
BC-01-3	134	125	7.20%
BC-02-1	125	122	2.46%
BC-02-2	136	137	0.73%
BC-02-3	119	116	2.59%
BC-02-4	113	114	0.88%
BC-03-1	117	119	1.68%
BC-03-2	134	135	0.74%
BC-03-3	113	114	0.88%
BC-04-1	42	44	4.55%
BC-04-2	110	111	0.90%
BC-04-3	149	151	1.32%
BC-05-1	43	43	0.00%
BC-05-2	109	111	1.80%
BC-05-3	150	148	1.35%
BC-06-1	126	131	3.82%
BC-06-2	110	114	3.51%
BC-06-3	44	44	0.00%
BC-07-1	74	75	1.33%
BC-07-2	97	100	3.00%
BC-07-3	267	226	18.14%
BC-08-1	72	77	6.49%
BC-08-2	94	95	0.74%
BC-08-3	223	227	1.76%
BC-09-1	74	75	1.33%
BC-09-2	143	149	4.03%
BC-09-3	71	72	1.39%
BC-10-1	76	75	1.33%
BC-10-2	142	151	5.96%
BC-10-3	70	75	6.67%
BC-11-1	71	77	7.79%
BC-11-2	148	153	3.27%
BC-11-3	75	73	2.74%
BC-12-1	99	88	12.50%
BC-12-2	84	84	0.00%
BC-12-3	116	108	7.41%

Table 77
EMS Blind Sample Results for Tritium

Page 1 of 1

Sample Date	pCi/L		Ratio	Range	
	Measured Value	Known Value		Lower Control Limit ^a	Upper Control Limit ^a
02-17-95	0.84 ± 0.31	0.67 ± 0.60	1.25	0.43	1.24
03-16-95	4.75 ± 0.37	5.88 ± 0.60	0.81	3.76	10.87
04-11-95	7.41 ± 0.41	7.71 ± 0.60	0.96	4.93	14.26
05-10-95	7.26 ± 0.3	8.77 ± 0.60	0.83	5.61	16.22
07-17-95	1.31 ± 0.3	1.16 ± 0.60	1.13	0.74	2.14
07-17-95	5.36 ± 0.38	5.82 ± 0.60	0.92	3.72	10.77
08-21-95	5.31 ± 0.37	5.78 ± 0.60	0.92	3.70	10.70
10-17-95	0.75 ± 0.35	0.95 ± 0.6	0.79	0.61	1.76
11-16-95	13.1 ± 0.55	14.10 ± 0.60	0.93	9.02	26.09
12-16-95	4.36 ± 0.43	4.39 ± 0.60	0.99	2.81	8.12

^a Tritium control limits are according to DOE/EML limits.

Table 78
EMS Blind Sample Results for Gross Alpha and Beta
and Gamma-Emitting Radionuclides

Page 1 of 1

Sample Number	Nuclide	pCi/L		Ratio Found/Actual	Range	
		Found Value	Actual Value		Lower Control Limit ^a	Upper Control Limit ^a
Gross Alpha and Beta						
139	Alpha	44.3 ± 6.45	57 ± 14	0.78	33	81
	Beta	24.1 ± 5.13	23 ± 5	1.05	14	32
142	Alpha	2.08 ± 1.06	5 ± 5	0.42	−4	14
	Beta	7.62 ± 1.93	5 ± 5	1.52	−4	14
Gamma						
138	Co-60	62 ± 3	59 ± 5	1.05	50	68
	Zn-65	88.6 ± 3	100 ± 10	0.89	83	117
	Cs-134	19.4 ± 3	24 ± 5	0.81	15	33
	Cs-137	64.8 ± 3	49 ± 5	1.32	40	58
	Ba-133	66.7 ± 3	73 ± 7	0.91	61	85
147	Co-60	40.9 ± 2	40.0 ± 5	1.02	31	49
	Zn-65	90.3 ± 7	76 ± 8	1.19	62	90
	Cs-134	45.9 ± 2	50 ± 5	0.92	41	59
	Cs-137	36.3 ± 3	35 ± 5	1.04	26	44
	Ba-133	80.3 ± 4	79 ± 8	1.02	65	93

^a Alpha, beta, and gamma control limits are according to QAD/EPA limits.

Table 79
NPDES Blind Sample Results

Page 1 of 3

NPDES Site	Parameter Sampled	Units	Result 1	Result 2	Difference
<i>Note: The laboratories performing the analyses were ThermoAnalytical, Inc. (TMA) and Shealy Environmental Services, Inc. This table compares the analytical results from each laboratory.</i>					
A-001	1,1,1-Trichloroethylene	µg/L	<2	<2	<2
M-005	1,1,1-Trichloroethylene	µg/L	<2	<2	<2
A-001A	1,1,1-Trichloroethylene	µg/L	<2	<2	<2
A-014	1,1,1-Trichloroethylene	µg/L	<2	<2	<2
A-005	1,1,1-Trichloroethylene	µg/L	<2	<2	<2
H-017	Aluminum	mg/L	0.101	0.956	-0.855
M-004	Aluminum	mg/L	<0.05	<0.05	<0.05
F-008	Aluminum	mg/L	<0.005	0.522	<0.522
F-012	Ammonia	mgSO ₄ /L	<0.05	<0.05	<0.05
X-014	Benzene	mg/L	<0.8	<0.8	<0.8
X-014	Benzene	mg/L	<0.5	<0.5	<0.5
X-014	Biological Oxygen Demand	mg/L	<1	<1	<1
DW-004	Biological Oxygen Demand	mg/L	2.1	1.7	0.4
X-014	Biological Oxygen Demand	mg/L	1.2	1.2	0
K-018	Biological Oxygen Demand	mg/L	<1	<1	<1
A-001	Biological Oxygen Demand	mg/L	<1	<1	<1
F-003	Biological Oxygen Demand	mg/L	<1	<1	<1
H-017	Chromium	mg/L	<0.005	<0.005	<0.005
M-004	Chromium	mg/L	<0.01	<0.01	<0.01
A-003	Chromium	mg/L	<0.01	<0.01	<0.01
F-008	Chromium	mg/L	<0.01	<0.01	<0.01
H-017	Copper	mg/L	<0.005	<0.005	<0.005
M-004	Copper	mg/L	<0.005	<0.005	<0.005
F-008	Copper	mg/L	<0.01	<0.01	<0.01
M-004	Cyanide	mg/L	<0.01	<0.01	<0.01
X-008	Iron	mg/L	0.924	1.01	-0.086
H-017	Lead	mg/L	0.0043	0.0042	0.0001
M-004	Lead	mg/L	<0.02	<0.02	<0.02
F-008	Lead	mg/L	<0.02	<0.02	<0.02
H-017	Manganese	mg/L	0.0296	0.0302	-0.0006
F-008	Manganese	mg/L	<0.01	<0.01	<0.01
H-017	Mercury	mg/L	<0.005	<0.005	<0.005
M-004	Nickel	mg/L	<0.01	<0.01	<0.01

Table 79
NPDES Blind Sample Results

Page 2 of 3

NPDES Site	Parameter Sampled	Units	Result 1	Result 2	Difference
F-008	Nickel	mg/L	<0.01	<0.01	<0.01
F-012	Nitrate	mgN/L	1.84	1.86	-0.02
F-008	Nitrate	mgN/L	<0.02	<0.02	<0.02
A-001	Oil & Grease	mg/L	<1	<1	<1
F-001	Oil & Grease	mg/L	<1	<1	<1
C-001	Oil & Grease	mg/L	<1	<1	<1
C-004	Oil & Grease	mg/L	<1	<1	<1
A-011	Oil & Grease	mg/L	<1	<1	<1
A-005	Oil & Grease	mg/L	2.1	<1	<2.1
X-014	Phenol	mg/L	<0.002	<0.002	<0.002
X-014	Phenol	mg/L	<0.006	<0.006	<0.006
M-004	Phosphate	mgP/L	0.109	0.122	-0.013
H-017	Silver	mg/L	<0.0005	<0.0005	<0.0005
A-001	Tetrachloroethylene	µg/L	<2	<2	<2
M-005	Tetrachloroethylene	µg/L	<2	<2	<2
A-001A	Tetrachloroethylene	µg/L	<2	<2	<2
A-014	Tetrachloroethylene	µg/L	<2	<2	<2
A-005	Tetrachloroethylene	µg/L	<2.0	<2.0	<2.0
X-014	Total Organic Carbon	mg/L	4.3	4.6	-0.3
X-014	Total Organic Carbon	mg/L	1.8	2.2	-0.4
X-014	Total Suspended Solids	mg/L	6.2	2.8	3.4
X-014	Total Suspended Solids	mg/L	10	56	46
K-018	Total Suspended Solids	mg/L	12	10	2
A-001	Total Suspended Solids	mg/L	<1	<1	<1
H-007	Total Suspended Solids	mg/L	8	2	6
H-008	Total Suspended Solids	mg/L	2.2	1	1.2
F-003	Total Suspended Solids	mg/L	<1	<1	<1
C-004	Total Suspended Solids	mg/L	3	6	-3
F-008	Total Suspended Solids	mg/L	2	2	0
C-001	Total Suspended Solids	mg/L	10	10	0
F-001	Total Suspended Solids	mg/L	<1	<1	<1
A-001	Trichloroethylene	µg/L	<2	<2	<2
M-005	Trichloroethylene	µg/L	<2	<2	<2
A-001A	Trichloroethylene	µg/L	<2	<2	<2
A-014	Trichloroethylene	µg/L	<2	<2	<2
A-005	Trichloroethylene	µg/L	<2.0	<2.0	<2.0

Table 79
NPDES Blind Sample Results

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NPDES Site	Parameter Sampled	Units	Result 1	Result 2	Difference
H-017	Uranium	mg/L	<0.02	<0.02	<0.02
F-008	Uranium	mg/L	<0.5	<0.5	<0.5
H-017	Zinc	mg/L	0.126	0.17	-0.044
F-008	Zinc	mg/L	0.012	0.02	-0.008

Table 80
NPDES Duplicate Sample Results

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Sample	Analyte	Units	Result 1	Result 2	Difference
<i>Note: Result 1 and Result 2 were duplicate samples analyzed by the same laboratory, ThermoAnalytical, Inc. (TMA).</i>					
X-008	Total Suspended Solids	mg/L	2.8	1.9	0.9
A-001	1,1,1-Trichloroethylene	µg/L	<2	<2	<2
A-005	1,1,1-Trichloroethylene	µg/L	<2	<2	<2
A-001A	1,1,1-Trichloroethylene	µg/L	<2	<2	<2
A-001A	1,1,1-Trichloroethylene	µg/L	<2	<2	<2
A-001	1,1,1-Trichloroethylene	µg/L	<2	<2	<2
A-005	1,1,1-Trichloroethylene	µg/L	<2	<2	<2
A-014	1,1,1-Trichloroethylene	µg/L	<2	<2	<2
M-005	1,1,1-Trichloroethylene	µg/L	<2	<2	<2
A-003	1,1,1-Trichloroethylene	µg/L	<2	<2	<2
A-003	1,1,1-Trichloroethylene	µg/L	<2	<2	<2
A-001	1,1,1-Trichloroethylene	µg/L	<2	<2	<2
A-001A	1,1,1-Trichloroethylene	µg/L	<2	<2	<2
A-001	1,1,1-Trichloroethylene	µg/L	<2	<2	<2
F-012	Aluminum	mg/L	0.312	0.357	-0.045
K-018	Aluminum	mg/L	0.256	0.257	-0.001
M-004	Aluminum	mg/L	0.13	0.113	0.017
F-012	Aluminum	mg/L	0.194	0.166	0.028
K-018	Aluminum	mg/L	0.282	0.14	0.142
K-018	Aluminum	mg/L	0.19	0.204	-0.014
M-004	Aluminum	mg/L	0.194	0.187	0.007
K-018	Aluminum	mg/L	0.109	0.121	-0.012
F-008	Aluminum	mg/L	0.2	0.198	0.002
H-012	Aluminum	mg/L	0.116	0.116	0
F-012	Aluminum	mg/L	0.142	0.149	-0.007
F-012	Aluminum	mg/L	0.185	0.155	0.03
K-018	Aluminum	mg/L	0.284	0.455	-0.171
F-008	Aluminum	mg/L	0.274	<0.05	<0.274
H-012	Aluminum	mg/L	0.24	<0.05	<0.24
F-012	Aluminum	mg/L	0.336	<0.05	<0.336
M-004	Aluminum	mg/L	<0.05	<0.05	<0.05
F-012	Ammonia	mg/L	<.05	<.05	<.05
H-016	Ammonia	mgSO4/L	<.05	<.05	<.05
H-017	Ammonia	mgSO4/L	0.18	0.26	-0.08
F-013	Ammonia	mgSO4/L	<.05	<.05	<.05
F-013	Ammonia	mgSO4/L	<.05	<.05	<.05
F-012	Ammonia	mgSO4/L	<.05	<.05	<.05
H-017	Ammonia	mgSO4/L	<0.05	<0.05	<0.05
H-016	Ammonia	mgSO4/L	0.13	0.16	-0.03
F-008	Ammonia	mgSO4/L	<0.05	<0.05	<0.05
H-012	Ammonia	mgSO4/L	0.09	<0.05	<0.09
H-017	Ammonia	mgSO4/L	<0.05	<0.05	<0.05
F-012	Ammonia	mgSO4/L	<0.05	<0.05	<0.05
F-012	Ammonia	mgSO4/L	<0.05	<0.05	<0.05
H-017	Ammonia	mgSO4/L	<0.05	<0.05	<0.05

Table 80
NPDES Duplicate Sample Results

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Sample	Analyte	Units	Result 1	Result 2	Difference
F-012	Ammonia	mgSO4/L	0.12	0.111	0.009
H-017	Ammonia	mgSO4/L	0.142	0.124	0.018
F-008	Ammonia	mgSO4/L	0.576	0.452	0.124
H-012	Ammonia	mgSO4/L	0.913	0.783	0.13
F-012	Ammonia	mgSO4/L	1.46	2.36	-0.9
H-017	Ammonia	mgSO4/L	<0.1	<0.1	<0.1
F-012	Ammonia	mgSO4/L	0.299	0.115	0.184
SC-004	Arsenic	mg/L	<.005	<.005	<.005
SC-004	Arsenic	mg/L	<.005	<.005	<.005
SC-004	Arsenic	mg/L	<0.02	<0.02	<0.02
SC-004	Arsenic	mg/L	<0.02	<0.02	<0.02
SC-004	Barium	mg/L	0.0124	0.0124	0
SC-004	Barium	mg/L	0.0129	0.0126	0.0003
SC-004	Barium	mg/L	0.021	0.032	-0.011
SC-004	Barium	mg/L	<0.005	<0.005	<0.005
X-014	Benzene	mg/L	<0.8	<0.8	<0.8
X-014	Benzene	mg/L	<0.8	<0.8	<0.8
X-014	Benzene	mg/L	<0.8	<0.8	<0.8
X-014	Benzene	mg/L	<0.8	<0.8	<0.8
X-014	Benzene	mg/L	<0.5	<0.5	<0.5
X-014	Benzene	mg/L	<0.5	<0.5	<0.5
F-003	Biological Oxygen Demand	mg/L	1.6	1.3	0.3
DW-004	Biological Oxygen Demand	mg/L	<1	<1	<1
A-001	Biological Oxygen Demand	mg/L	2.3	1.3	1
A-005	Biological Oxygen Demand	mg/L	<1	<1	<1
K-018	Biological Oxygen Demand	mg/L	<1	1.5	<1.5
A-001	Biological Oxygen Demand	mg/L	<1	<1	<1
A-005	Biological Oxygen Demand	mg/L	<1	<1	<1
K-018	Biological Oxygen Demand	mg/L	2.1	1.8	0.3
K-018	Biological Oxygen Demand	mg/L	1.6	1	0.6
K-018	Biological Oxygen Demand	mg/L	2	2	0
X-014	Biological Oxygen Demand	mg/L	<1	<1	<1
A-001	Biological Oxygen Demand	mg/L	1.2	<1	<1.2
A-011	Biological Oxygen Demand	mg/L	<1	<1	<1
F-003	Biological Oxygen Demand	mg/L	<1	<1	<1
A-001	Biological Oxygen Demand	mg/L	<1	<1	<1
A-005	Biological Oxygen Demand	mg/L	<1	<1	<1
A-011	Biological Oxygen Demand	mg/L	<1	<1	<1
X-014	Biological Oxygen Demand	mg/L	<1	<1	<1
A-011	Biological Oxygen Demand	mg/L	1.2	1.3	-0.1
X-014	Biological Oxygen Demand	mg/L	1.3	1.8	-0.5
A-001	Biological Oxygen Demand	mg/L	181	<1	<181
K-018	Biological Oxygen Demand	mg/L	14	7.6	6.4
F-003	Biological Oxygen Demand	mg/L	2.2	7	-4.8
A-005	Biological Oxygen Demand	mg/L	<1	1.5	<1.5
A-011	Biological Oxygen Demand	mg/L	<1	1.7	<1.7
A-001	Biological Oxygen Demand	mg/L	<1	<1	<1
A-001	Biological Oxygen Demand	mg/L	<1	<1	<1

Table 80
NPDES Duplicate Sample Results

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Sample	Analyte	Units	Result 1	Result 2	Difference
K-018	Biological Oxygen Demand	mg/L	1.6	<1	<1.6
X-014	Biological Oxygen Demand	mg/L	<1	<1	<1
A-011	Biological Oxygen Demand	mg/L	<1	<1	<1
DW-004	Biological Oxygen Demand	mg/L	3.6	3.3	0.3
A-011	Biological Oxygen Demand	mg/L	4	3.6	0.4
F-003	Biological Oxygen Demand	mg/L	2	2.1	-0.1
A-005	Biological Oxygen Demand	mg/L	2.1	1.5	0.6
A-001	Biological Oxygen Demand	mg/L	5.8	6.3	-0.5
H-016	Biological Oxygen Demand	mg/L	<1	<1	<1
X-014	Biological Oxygen Demand	mg/L	<1	<1	<1
SC-004	Cadmium	mg/L	<0.005	<0.005	<0.005
SC-004	Cadmium	mg/L	<0.005	<0.005	<0.005
M-004	Cadmium	mg/L	<0.005	<0.005	<0.005
SC-004	Cadmium	mg/L	<0.005	<0.005	<0.005
SC-004	Cadmium	mg/L	<0.005	<0.005	<0.005
F-012	Chromium	mg/L	<0.005	<0.005	<0.005
H-016	Chromium	mg/L	<0.005	<0.005	<0.005
SC-004	Chromium	mg/L	<0.005	<0.005	<0.005
SC-004	Chromium	mg/L	<0.005	<0.005	<0.005
F-012	Chromium	mg/L	<0.005	<0.005	<0.005
M-004	Chromium	mg/L	<0.005	<0.005	<0.005
H-016	Chromium	mg/L	<0.005	<0.005	<0.005
F-008	Chromium	mg/L	<0.005	<0.005	<0.005
H-012	Chromium	mg/L	<0.005	<0.005	<0.005
F-012	Chromium	mg/L	<0.005	<0.005	<0.005
F-012	Chromium	mg/L	<0.01	<0.01	<0.01
SC-004	Chromium	mg/L	<0.01	<0.01	<0.01
F-008	Chromium	mg/L	<0.01	<0.01	<0.01
H-012	Chromium	mg/L	<0.01	<0.01	<0.01
F-012	Chromium	mg/L	<0.01	<0.01	<0.01
SC-004	Chromium	mg/L	<0.01	<0.01	<0.01
F-012	Copper	mg/L	0.0113	0.0076	0.0037
H-016	Copper	mg/L	<0.005	0.0135	<0.0135
H-017	Copper	mg/L	0.0079	0.0075	0.0004
M-004	Copper	mg/L	<0.005	0.0053	<0.0053
F-012	Copper	mg/L	<0.005	<0.005	<0.005
F-013	Copper	mg/L	<0.005	<0.005	<0.005
F-013	Copper	mg/L	<0.005	<0.005	<0.005
H-017	Copper	mg/L	<0.005	<0.005	<0.005
M-004	Copper	mg/L	<0.005	<0.005	<0.005
H-016	Copper	mg/L	<0.005	<0.005	<0.005
F-008	Copper	mg/L	0.0124	<0.005	<0.0124
H-012	Copper	mg/L	0.0083	0.0088	-0.0005
F-012	Copper	mg/L	0.0107	0.0119	-0.0012
F-012	Copper	mg/L	<0.01	<0.01	<0.01
F-008	Copper	mg/L	<0.005	<0.005	<0.005
H-012	Copper	mg/L	<0.005	0.007	<0.007
F-012	Copper	mg/L	<0.005	0.008	<0.008

Table 80
NPDES Duplicate Sample Results

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Sample	Analyte	Units	Result 1	Result 2	Difference
M-004	Copper	mg/L	<0.01	<0.01	<0.01
M-004	Cyanide	mg/L	<10	<10	<10
X-008	Iron	mg/L	1.79	1.66	0.13
D-001B	Iron	mg/L	295	308	-13
D-001B	Iron	mg/L	344	342	2
F-012	Lead	mg/L	<.003	<.003	<.003
H-016	Lead	mg/L	<.003	<.003	<.003
SC-004	Lead	mg/L	<.003	<.003	<.003
M-004	Lead	mg/L	<.003	<.003	<.003
SC-004	Lead	mg/L	<.003	<.003	<.003
F-012	Lead	mg/L	<0.003	<0.003	<0.003
M-004	Lead	mg/L	<0.015	<0.015	<0.015
H-016	Lead	mg/L	<0.003	<0.003	<0.003
F-008	Lead	mg/L	<0.003	<0.003	<0.003
H-012	Lead	mg/L	<0.003	<0.003	<0.003
F-012	Lead	mg/L	0.0036	<0.003	<.0036
F-012	Lead	mg/L	<0.02	0.033	<0.033
SC-004	Lead	mg/L	<0.02	<0.02	<0.02
F-008	Lead	mg/L	<0.02	<0.02	<0.02
H-012	Lead	mg/L	<0.02	<0.02	<0.02
F-012	Lead	mg/L	<0.02	<0.02	<0.02
SC-004	Lead	mg/L	<0.02	<0.02	<0.02
M-004	Lead	mg/L	<0.02	<0.02	<0.02
D-001B	Magnesium	mg/L	26.1	27.5	-1.4
D-001B	Magnesium	mg/L	32.1	34.3	-2.2
F-012	Manganese	mg/L	0.0087	0.0088	-0.0001
H-016	Manganese	mg/L	<.005	<.005	<.005
H-017	Manganese	mg/L	0.0579	0.0576	0.0003
F-012	Manganese	mg/L	0.03598	0.0015	0.03448
F-013	Manganese	mg/L	0.0131	0.0124	0.0007
F-013	Manganese	mg/L	0.0288	0.0229	0.0059
F-012	Manganese	mg/L	0.0163	0.0165	-0.0002
H-017	Manganese	mg/L	0.0296	0.0295	0.0001
H-016	Manganese	mg/L	<0.005	<0.005	<0.005
F-008	Manganese	mg/L	0.0102	0.0102	0
H-012	Manganese	mg/L	0.012	0.0117	0.0003
F-012	Manganese	mg/L	0.0176	0.0177	0.0001
F-012	Manganese	mg/L	0.045	0.084	-0.039
F-008	Manganese	mg/L	0.055	<0.01	<0.055
H-012	Manganese	mg/L	<0.01	<0.01	<0.01
F-012	Manganese	mg/L	<0.01	<0.01	<0.01
F-012	Mercury	mg/L	<.0001	0.00048	<0.00048
X-014	Mercury	mg/L	0.1	0.14	-0.04
X-014	Mercury	mg/L	0.2	0.32	-0.12
H-016	Mercury	mg/L	<0.0001	<0.0001	<0.0001
SC-004	Mercury	mg/L	<0.0001	<0.0001	<0.0001
H-017	Mercury	mg/L	<0.0001	<0.0001	<0.0001
F-012	Mercury	mg/L	<0.0001	<0.0001	<0.0001

Table 80
NPDES Duplicate Sample Results

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Sample	Analyte	Units	Result 1	Result 2	Difference
F-013	Mercury	mg/L	<0.0001	<0.0001	<0.0001
SC-004	Mercury	mg/L	<0.0001	<0.0001	<0.0001
F-013	Mercury	mg/L	<0.0001	<0.0001	<0.0001
F-012	Mercury	mg/L	<0.0001	<0.0001	<0.0001
H-017	Mercury	mg/L	<0.0001	<0.0001	<0.0001
X-014	Mercury	mg/L	0.14	<0.1	<0.14
H-016	Mercury	mg/L	<0.0001	<0.0001	<0.0001
F-008	Mercury	mg/L	<0.0001	<0.0001	<0.0001
H-012	Mercury	mg/L	<0.0001	<0.0001	<0.0001
F-012	Mercury	mg/L	<0.0001	<0.0001	<0.0001
F-012	Mercury	mg/L	<0.0001	0.0004	<0.0004
SC-004	Mercury	mg/L	0.0003	<0.001	<0.003
F-008	Mercury	mg/L	<0.0001	<0.0001	<0.0001
H-012	Mercury	mg/L	<0.0001	<0.0001	<0.0001
F-012	Mercury	mg/L	<0.0001	<0.0001	<0.0001
SC-004	Mercury	mg/L	<0.0001	<0.0001	<0.0001
F-012	Nickel	mg/L	<.005	<.005	<.005
M-004	Nickel	mg/L	0.0202	0.0151	0.0051
M-004	Nickel	mg/L	0.0114	0.0134	-0.002
F-008	Nickel	mg/L	<0.005	<0.005	<0.005
H-012	Nickel	mg/L	<0.005	<0.005	<0.005
F-012	Nickel	mg/L	<0.005	<0.005	<0.005
F-012	Nickel	mg/L	<0.01	<0.01	<0.01
F-008	Nickel	mg/L	<0.01	<0.01	<0.01
H-012	Nickel	mg/L	<0.01	<0.01	<0.01
F-012	Nickel	mg/L	<0.01	<0.01	<0.01
M-004	Nickel	mg/L	<0.01	<0.01	<0.01
H-016	Nitrate	mgN/L	8.74	9.07	-0.33
SC-004	Nitrate	mgN/L	0.1	0.09	0.01
M-004	Nitrate	mgN/L	35.9	34.7	1.2
F-012	Nitrate	mgN/L	3.81	4.04	-0.23
SC-004	Nitrate	mgN/L	0.05	0.07	-0.02
H-016	Nitrate	mgN/L	23	20.8	2.2
M-004	Nitrate	mgN/L	84.6	111	-26.4
F-008	Nitrate	mgN/L	0.03	0.03	0
H-012	Nitrate	mgN/L	<0.02	0.04	<0.04
H-017	Nitrate	mgN/L	<0.02	<0.02	<0.02
F-012	Nitrate	mgN/L	<0.02	<0.02	<0.02
F-012	Nitrate	mgN/L	0.05	0.04	0.01
H-017	Nitrate	mgN/L	0.1	0.09	0.01
F-012	Nitrate	mgN/L	0.117	0.123	-0.006
H-017	Nitrate	mgN/L	0.219	0.207	0.012
SC-004	Nitrate	mgN/L	0.026	0.025	0.001
F-008	Nitrate	mgN/L	<0.02	<0.02	<0.02
H-012	Nitrate	mgN/L	0.02	<0.02	<0.02
F-012	Nitrate	mgN/L	<0.02	<0.02	<0.02
SC-004	Nitrate	mgN/L	<0.02	0.061	<0.061
H-017	Nitrate	mgN/L	<0.02	<0.02	<0.02

Table 80
NPDES Duplicate Sample Results

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Sample	Analyte	Units	Result 1	Result 2	Difference
F-012	Nitrate	mgN/L	<0.02	<0.02	<0.02
K-010	Oil & Grease	mg/L	<1	<1	<1
D-006	Oil & Grease	mg/L	<1	<1	<1
L-007	Oil & Grease	mg/L	<1	<1	<1
L-008	Oil & Grease	mg/L	<1	<1	<1
H-007A	Oil & Grease	mg/L	<1	<1	<1
F-001	Oil & Grease	mg/L	<1	<1	<1
F-002	Oil & Grease	mg/L	<1	<1	<1
X-014	Oil & Grease	mg/L	<1	<1	<1
L-007	Oil & Grease	mg/L	<1	<1	<1
A-001	Oil & Grease	mg/L	<1	<1	<1
A-005	Oil & Grease	mg/L	<1	<1	<1
K-018	Oil & Grease	mg/L	<1	<1	<1
H-016	Oil & Grease	mg/L	<1	<1	<1
M-004	Oil & Grease	mg/L	<1	<1	<1

Table 81
QAP Interlaboratory Comparison of Analytical Results

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Nuclide	SRS Value ^a	QAP Value ^b	SRS/QAP Ratio	Range	
				Lower Control Limit ^c	Upper Control Limit ^c
March-June 1995					
Air					
Alpha	3.64 ± 0.2	3.22	1.13	1.61	4.83
Beta	1.99 ± 0.07	1.85	1.08	0.925	2.77
Ce-144	66.0 ± 2.5	91.2	0.56	53.8	124.
Co-57	9.6 ± 0.5	12.7	0.57	8.13	18.4
Co-60	3.2 ± 0.2	3.76	0.69	2.67	4.85
Cs-134	5.4 ± 0.6	5.75	0.73	3.74	7.01
Cs-137	4.4 ± 0.6	5.28	0.66	3.64	6.97
Mn-54	4.1 ± 0.5	4.71	0.66	3.48	6.41
Pu-238	0.063 ± 0.003	0.122	0.52	0.059	0.214
Pu-239	0.033 ± 0.002	0.0623	0.53	0.036	0.1
Sb-125	8.9 ± 1	9.42	0.73	4.71	17.
Soil					
Cs-137	299 ± 10	266.	1.12	184.	388.
K-40	393 ± 41	384.	1.02	257.	588.
Vegetation					
Co-60	11.2 ± 5.9	10.7	1.05	5.35	16.1
Cs-137	133.6 ± 9.8	117.	1.14	58.5	176.
K-40	1161 ± 236	1030.	1.13	515.	1545.
Pu-238	0.13 ± 0.04	0.0887	1.47	0.044	0.133
Pu-239	1.19 ± 0.15	1.12	1.06	0.56	1.68
Sr-90	274 ± 28	512.	0.54	256.	768.
Water					
Alpha	1236 ± 47	1340.	0.92	670.	2010.
Am-241	1.34 ± 0.19	1.33	1.01	0.758	2.
Beta	666 ± 26	653.	1.02	326.	980.
Co-60	216 ± 4	196.	1.10	155.	231.
Cs-134	88 ± 2	83.5	1.05	61.8	108.
Cs-137	89 ± 3	76.8	1.16	63.	99.1
H-3	71 ± 5	60.3	1.18	38.6	112.

a Values are Bq/L, Bq/Kg, Bq/filter.

b Quality Assessment Program conducted by EPA National Exposure Research Laboratory Characterization Research Division-Las Vegas chemistry laboratories

c Control limits were established by EML/QAP from historical data.

Table 81
QAP Interlaboratory Comparison of Analytical Results

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Nuclide	SRS Value ^a	QAP Value ^b	SRS/QAP Ratio	Range	
				Lower Control Limit ^c	Upper Control Limit ^c
Mn-54	50 ± 1	43.5	1.15	35.2	54.4
Pu-239	0.588 ± 0.021	0.591	0.99	0.319	0.792
Sr-90	2.2 ± 0.5	2.4	0.92	1.37	3.43
U-234	0.356 ± 0.056	0.373	0.95	0.283	0.571
U-235	0.252 ± 0.052	0.196	1.29	0.149	0.3
U-238	0.028 ± 0.014	0.0727	0.39	0.056	0.105
September–December 1995					
Air					
Am-241	0.16 ± 0.01	0.189	0.85	0.102	0.31
Ce-144	35 ± 3	52.1	0.67	30.7	70.9
Co-57	10.1 ± 0.9	14.7	0.69	9.41	21.3
Co-60	26 ± 1	32.6	0.80	23.1	42.1
Cs-134	15 ± 1	17.9	0.84	11.6	21.8
Cs-137	5.5 ± 0.9	7.25	0.76	5.	9.57
GA	3 ± 0.09	3.3	0.91	1.65	4.95
GB	1.63 ± 0.06	1.12	1.46	0.56	1.68
Mn-54	4.2 ± 0.7	5.34	0.79	3.95	7.26
Pu-238	0.099 ± 0.016	0.0962	1.03	0.046	0.168
Pu-239	0.205 ± 0.028	0.0927	2.21	0.053	0.148
Ru-106	17 ± 8	17.	1.00	8.5	25.5
Sb-125	10 ± 2	11.4	0.88	5.7	20.5
U-234	0.058 ± 0.003	0.0517	1.12	0.036	0.09
U-238	0.059 ± 0.003	0.0533	1.11	0.039	0.1
Soil					
Cs-137	202 ± 16	207.	0.98	143.	302.
K-40	406 ± 33	377.	1.08	253.	577.
Pu-238	19.3 ± 2.1	17.5	1.10	3.67	24.7
Pu-239	5.83 ± 0.71	5.17	1.13	2.84	10.6
Vegetation					
Co-60	9 ± 2	9.17	0.98	6.33	12.8
Cs-137	107 ± 10	97.2	1.10	67.1	151.

a Values are Bq/L, Bq/Kg, Bq/filter.

b Quality Assessment Program conducted by EPA National Exposure Research Laboratory Characterization Research Division—Las Vegas chemistry laboratories

c Control limits were established by EML/QAP from historical data.

Table 81
QAP Interlaboratory Comparison of Analytical Results

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Nuclide	SRS Value ^a	QAP Value ^b	SRS/QAP Ratio	Range	
				Lower Control Limit ^c	Upper Control Limit ^c
K-40	407 ± 22	352.	1.16	151.	521.
Pu-239	0.85 ± 0.18	0.98	0.87	0.549	1.9
Sr-90	376 ± 58	587.	0.64	258.	816.
Water					
Co-60	214 ± 4	196.	1.09	155.	231.
Cs-137	84 ± 3	75.2	1.12	61.7	97.
GA	1223.88 ± 122	1310.	0.93	655.	2358.
GB	398.77 ± 39	410.	0.97	205.	738.
H-3	270 ± 7	168.	1.61	108.	311.
Mn-54	52 ± 3	44.9	1.16	36.4	56.1
Pu-238	1.458 ± 0.018	1.41	1.03	0.55	2.51
Pu-239	0.29 ± 0.006	0.272	1.07	0.147	0.364
Sr-90	3 ± 0.23	2.	1.50	1.14	2.86
U-234	0.346 ± 0.052	0.306	1.13	0.233	0.468
U-238	0.325 ± 0.048	0.311	1.05	0.239	0.451

a Values are Bq/L, Bq/Kg, Bq/filter.

b Quality Assessment Program conducted by EPA National Exposure Research Laboratory Characterization Research Division—Las Vegas chemistry laboratories

c Control limits were established by EML/QAP from historical data.

Table 82
QAD Interlaboratory Comparison of Analytical Results

Page 1 of 2

Sample Date	Nuclide	SRS Value	QAD ^a Value	SRS/QAD Ratio	Range	
					Lower Control Limit ^b	Upper Control Limit ^b
Air Filter Samples (pCi/filter)						
08-25-95	Alpha	29.8 ± 3.4	25 ± 6.3	1.19	14.1	35.9
08-25-95	Beta	75.9 ± 4.0	86.6 ± 10	0.88	69.3	103.9
08-25-95	Cs-137	24 ± 5	25 ± 5	0.96	16.3	33.7
Milk Samples (pCi/L)						
09-29-95	Cs-137	53 ± 4	50 ± 5	1.06	41.3	58.7
09-29-95	I-131	102 ± 8	99 ± 10	1.03	81.7	116.3
09-29-95	Sr-90	18 ± 5	15 ± 5	1.20	6.3	23.7
Water Samples (pCi/L)						
01-27-95	Alpha	3.3 ± 3	5 ± 5	0.66	-3.7	13.7
04-18-95		50.4 ± 2.2	47.5 ± 11.9	1.06	26.9	68.1
07-21-95		15.6 ± 5.5	27.5 ± 6.9	0.57	15.6	39.4
10-27-95		26.1 ± 3.6	51.2 ± 12.8	0.51	29.0	73.4
06-09-95	Ba-133	76 ± 4	79 ± 8	0.96	65.2	92.8
11-03-95		99 ± 5	99 ± 10	1.00	81.7	116.3
01-27-95	Beta	12 ± 4	5 ± 5	2.40	-3.7	13.7
04-18-95		76.2 ± 2.0	86.6 ± 10	0.88	69.3	103.9
07-21-95		17.1 ± 4.3	19.4 ± 5	0.88	10.7	28.1
10-27-95		19.2 ± 2.6	24.8 ± 5.0	0.77	16.1	33.5
04-18-95	Co-60	29 ± 4	29 ± 5	1.00	20.3	37.7
06-09-95		43 ± 3	40 ± 5	1.08	31.3	48.7
10-17-95		52 ± 5	49 ± 5	1.06	40.3	57.7
11-03-95		66 ± 8	60 ± 5	1.10	51.3	68.7
04-18-95	Cs-134	19 ± 4	20 ± 5	0.95	11.3	28.7
06-09-95		46 ± 3	50 ± 5	0.92	41.3	58.7
10-17-95		37.3 ± 4	40 ± 5	0.93	31.3	48.7
11-03-95		43 ± 6	40 ± 4	1.08	33.1	46.9

a EPA Quality Assurance Division

b Control limits were established by EPA National Exposure Research Laboratory Characterization Research Division—Las Vegas.

Table 82
QAD Interlaboratory Comparison of Analytical Results

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Sample Date	Nuclide	SRS Value	QAD ^a Value	SRS/QAD Ratio	Range	
					Lower Control Limit ^b	Upper Control Limit ^b
04-18-95	Cs-137	11 ± 4	11 ± 5	1.00	2.3	19.7
06-09-95		40 ± 4	35 ± 5	1.14	26.3	43.7
10-17-95		31 ± 4	30 ± 5	1.03	21.3	38.7
11-03-95		54 ± 9	49 ± 5	1.10	40.3	57.7
03-10-95	H-3	7250 ± 108	7435 ± 744	0.98	6147	8723
08-04-95		4663 ± 155	4872 ± 487	0.96	4029	5715
03-17-95	Pu-239	10.7 ± 1.0	11.1 ± 1.1	0.96	9.2	13.0
01-13-95	Sr-89	7 ± 1.1	20 ± 5	0.35	11.3	28.7
04-18-95		18 ± 2.3	20 ± 5	0.90	11.3	28.7
07-14-95		13 ± 1.1	20 ± 5	0.65	11.3	28.7
10-17-95		12 ± 6	20 ± 5	0.60	11.3	28.7
01-13-95	Sr-90	9.3 ± 1.3	15 ± 5	0.62	6.3	23.7
04-18-95		17 ± 0.98	15 ± 5	1.13	6.3	23.7
07-14-95		7 ± 1.1	8 ± 5	0.88	-0.7	16.7
10-17-95		10.3 ± 2	10 ± 5	1.03	1.3	18.7
06-09-95	Zn-65	78 ± 8	76 ± 8	1.03	62.2	89.8
11-03-95		128 ± 12	125 ± 13	1.02	102.5	147.5

^a EPA Quality Assurance Division

^b Control limits were established by EPA National Exposure Research Laboratory Characterization Research Division-Las Vegas.

Table 83
Metals Analysis on Split Duplicate Samples

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Parameter	RM-160		U3R-4	
	Weston	ThermoAnalytical	Weston	ThermoAnalytical
First Quarter	(mg/L)			
Aluminum	0.153	0.308	0.182	0.24
Calcium	3.55	3.52	1.7	1.48
Cadmium	<0.0047	<0.005	<0.0047	<0.005
Chromium	<0.01	<0.005	<0.01	<0.005
Copper	<0.018	<0.005	0.002	<0.005
Iron	0.368	0.59	0.428	0.558
Magnesium	1.4	1.39	0.478	0.344
Manganese	0.0591	0.0619	0.0193	0.021
Sodium	7.24	7.58	1.43	1.57
Nickel	0.00063	<0.005	0.0017	<0.005
Lead	<0.013	<0.003	<0.013	<0.003
Zinc	0.0072	<0.005	0.0094	0.0054
Second Quarter	PB-3		TB-5	
	Weston	ThermoAnalytical	Weston	ThermoAnalytical
	(mg/L)			
Aluminum	0.106	0.121	0.261	0.502
Calcium	3.58	4.87	1.32	1.36
Cadmium	<0.0047	<0.005	<0.0047	<0.005
Chromium	<0.01	<0.005	<0.01	<0.005
Copper	<0.018	0.0086	<0.018	0.02
Iron	0.292	0.484	1.59	2.09
Magnesium	0.8	1.05	0.483	0.488
Manganese	0.0161	0.0221	0.0589	0.0686
Sodium	5.73	7.98	6.2	7.25
Nickel	<0.0054	<0.005	0.0106	0.0095
Lead	<0.013	<0.003	<0.013	<0.003
Zinc	<0.0097	<0.005	0.0412	0.0421

Table 83
Metals Analysis on Split Duplicate Samples

Page 2 of 2

Parameter	SC-004		U3R-1A	
	Weston	Shealy	Weston	Shealy
Third Quarter	(mg/L)			
Aluminum	<0.087	<0.05	<0.087	0.254
Calcium	3.04	2.53	1.29	0.7
Cadmium	<0.0047	<0.005	<0.0047	<0.005
Chromium	<0.01	<0.01	<0.01	<0.01
Copper	0.0322	0.039	0.0391	0.065
Iron	0.19	0.24	0.315	0.408
Magnesium	1.31	1.41	0.779	<0.05
Manganese	0.0242	<0.01	<0.0057	<0.01
Sodium	7.31	8.74	1.35	1.65
Nickel	<0.0054	<0.01	<0.0054	<0.01
Lead	<0.013	<0.02	<0.013	<0.02
Zinc	0.0258	0.045	0.0179	0.061

Table 84
Metals Analysis on Split Blind Quarterly Composites

Page 1 of 2

Metals	Weston				ThermoAnalytical, Inc.			
	Duplicate 1	Duplicate 2	Duplicate 3	Average	Duplicate 1	Duplicate 2	Duplicate 3	Average
First Quarter	(mg/L)							
Aluminum	0.149	0.138	0.162	0.1497	0.225	0.224	0.249	0.2327
Cadmium	<0.0047	<0.0047	<0.0047	<0.0047	<0.005	<0.005	<0.005	<0.005
Calcium	3.82	3.79	3.84	3.8167	3.82	3.98	4.02	3.9400
Chromium	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Copper	0.008	0.0085	0.0075	0.0080	0.0088	0.0107	0.0092	0.0096
Iron	0.381	0.394	0.37	0.3817	0.541	0.554	0.788	0.6277
Lead	<0.013	<0.013	<0.013	<0.013	<0.003	<0.003	<0.003	<0.003
Magnesium	0.685	0.652	0.644	0.6603	0.62	0.669	0.67	0.6530
Manganese	0.0276	0.0281	0.0287	0.0281	0.0323	0.0335	0.0351	0.0336
Nickel	0.00099	0.0012	0.0011	0.0011	<0.005	<0.005	<0.005	<0.005
Sodium	3.28	3.3	3.3	3.2933	3.44	3.58	3.47	3.4967
Zinc	0.0071	0.0087	0.0093	0.0084	<0.005	<0.005	<0.005	<0.005
Second Quarter	(mg/L)							
Aluminum	0.142	0.174	0.14	0.1520	0.219	0.21	0.326	0.2517
Cadmium	<0.0047	<0.0047	<0.0047	<0.0047	<0.005	<0.005	<0.005	<0.005
Calcium	3.81	4.42	3.58	3.9367	4.34	4.26	4.32	4.3067
Chromium	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Copper	<0.018	<0.018	<0.018	<0.018	0.0062	0.0084	<0.005	0.0065
Iron	0.455	0.517	0.445	0.4723	0.658	0.643	0.71	0.6703

Table 84
Metals Analysis on Split Blind Quarterly Composites

Page 2 of 2

Metals	Weston				ThermoAnalytical, Inc.			
	Duplicate 1	Duplicate 2	Duplicate 3	Average	Duplicate 1	Duplicate 2	Duplicate 3	Average
Lead	<0.013	<0.013	<0.013	<0.013	<0.003	<0.003	<0.003	<0.003
Magnesium	0.667	0.831	0.62	0.7060	0.696	0.689	0.703	0.6960
Maganese	0.0764	0.0886	0.0718	0.0789	0.981	0.955	0.984	0.9733
Nickel	<0.0054	<0.0054	<0.0054	<0.0054	<0.005	<0.005	<0.005	<0.005
Sodium	3.8	4.38	3.51	3.8967	4.6	4.43	4.52	4.5167
Zinc	0.01	<0.0097	0.0479	0.0225	<0.005	0.0241	<0.005	0.0114

Third Quarter	Weston				Shealy			
	(mg/L)							
Aluminum	0.115	0.135	0.0886	0.1129	<0.05	0.376	0.21	0.2120
Cadmium	<0.0047	<0.0047	<0.0047	<0.0047	<0.005	<0.005	<0.005	<0.005
Calcium	5.18	4.72	5.23	5.0433	4.26	3.82	3.41	3.8300
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	0.0226	<0.018	0.0199	0.0202	0.024	0.029	0.016	0.0230
Iron	0.539	0.607	0.618	0.5880	0.745	0.724	0.588	0.6857
Lead	<0.013	0.0264	0.0184	0.0192	<0.02	<0.02	<0.02	<0.02
Magnesium	1.49	1.12	1.29	1.3000	0.788	0.791	0.704	0.7610
Manganese	0.0876	0.0953	0.0979	0.0936	0.103	0.077	0.071	0.0837
Nickel	<0.0054	<0.0054	<0.0054	<0.0054	<0.01	<0.01	<0.01	<0.01
Sodium	4	4.09	4.34	4.1433	4.84	3.64	3.24	3.9067
Zinc	0.0185	0.0156	0.0289	0.0210	0.017	0.011	0.014	0.0140

Errata from 1994 Report

The following information was either incorrect in, or missing from, *Savannah River Site Environmental Data for 1994*, WSRC-TR-95-077:

Table 23, Radioactivity in SRS Stream Water, page 81, should have included:

Location	No. of Samples	Arithmetic Mean $\pm \sigma$	Maximum $\pm \sigma$	Minimum $\pm \sigma$
Gross A, $\mu\text{Ci/mL}$				
Upper Three Runs				
Crouch Branch at Road 4	25	$(2.79 \pm 3.30)\text{E-10}$	$(1.29 \pm 0.54)\text{E-09}$	$(-0.78 \pm 2.48)\text{E-10}$
U3R-1A Treadway Bridge RD 8-1	52	$(1.49 \pm 0.85)\text{E-09}$	$(3.48 \pm 0.60)\text{E-09}$	$(3.82 \pm 2.50)\text{E-10}$
U3R-3 at Road C	25	$(1.81 \pm 0.99)\text{E-09}$	$(4.46 \pm 0.72)\text{E-09}$	$(4.87 \pm 2.55)\text{E-10}$
U3R-4 at Road A	26	$(1.57 \pm 0.79)\text{E-09}$	$(3.09 \pm 0.65)\text{E-09}$	$(2.15 \pm 2.20)\text{E-10}$
Four Mile Creek				
FM-2 at Road 4	25	$(1.19 \pm 0.40)\text{E-09}$	$(1.79 \pm 0.56)\text{E-09}$	$(4.99 \pm 3.21)\text{E-10}$
FM-2B Above F-Area Effluent	24	$(3.50 \pm 2.23)\text{E-10}$	$(8.08 \pm 5.30)\text{E-10}$	$(0.08 \pm 2.50)\text{E-10}$
FM-3A Below F-Area Effluent	26	$(1.51 \pm 0.72)\text{E-09}$	$(3.51 \pm 0.97)\text{E-09}$	$(5.76 \pm 3.36)\text{E-10}$
FM-6 at Road A-12.2	26	$(3.02 \pm 2.92)\text{E-10}$	$(9.10 \pm 4.15)\text{E-10}$	$(-1.56 \pm 1.27)\text{E-10}$
FM-A7 at Road A-7	25	$(8.81 \pm 3.68)\text{E-10}$	$(1.77 \pm 0.57)\text{E-09}$	$(2.52 \pm 3.30)\text{E-10}$
H-008 Outfall	51	$(2.34 \pm 1.20)\text{E-09}$	$(7.72 \pm 1.00)\text{E-09}$	$(9.48 \pm 5.14)\text{E-10}$
HP-50 Tritium Facility Outfall	25	$(3.81 \pm 2.19)\text{E-09}$	$(9.63 \pm 1.13)\text{E-09}$	$(2.70 \pm 3.04)\text{E-10}$