WSRC-TR-97-0077

Environmental Data for 1996

Westinghouse Savannah River Company
Savannah River Site
Aiken, SC 29808

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Preface

This document presents data from Savannah River Site routine environmental monitoring and surveillance programs. Information in the book is summarized in the *Savannah River Site Environmental Report for 1996* (WSRC–TR–97–0171). Information about the environmental monitoring program, including a complete description of 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.

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; 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. Charts of units of measure used in this book, scientific notation, and conversion tables also will help the reader.

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 occurred. Also, 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.
- An uncertainty quoted with means represents 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.

Copies of environmental reports may be obtained by contacting

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Savannah River Site
Environmental Data for 1996

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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
Technetium-99	Tc-99	2.13+E05 y
Tritium	H-3	12.3 y
Uranium-235	U-235	7.1E8 y
Uranium-238	U-238	4.5E9 y

a h = hour; d = day; y = year
b Reference: Chart of the Nuclides, 14th edition, revised to April 1988, General Electric Company

Nomenclature and Half-Life for Radionuclides

Radionuclide	Symbol	Half-life[a,b]
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

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

Nomenclature for Elements and Chemical Constituent Analyses

Constituent	Symbol
Phosphorus	P
Phosphate	PO_4 (or PHOS)
Phosphate as Phosphorus	Phosphate P
Polychlorinated Biphenyl	PCB
Potassium	K
Radium	Ra
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_3O_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
A–14	Road A–14
AAP	Aiken Airport
AUG L&D	Augusta Lock and Dam
ALLEN	Allendale Gate
BARN	Barnwell Gate
BDC	Beaver Dam Creek
BG	Burial Ground
BGN	Burial Ground North
BGS	Burial Ground South
DARK H	Dark Horse
E TAL	East Talatha
FM	Four Mile
FMC	Four Mile Creek (Fourmile Branch)
GR PND	Green Pond
HP	HP (sampling location designation only; not an actual abbreviation)
IBG	Indian Burial Ground
IGB	Indian Grave Branch
JACK	Jackson
L3R	Lower Three Runs
LTR	Lower Three Runs
PATT MR	Patterson Mill Road
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
WIND	Windsor Road
W JACK	West Jackson
SAV 1	Savannah 1
SAV 2	Savannah 2

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 Leigh Road

Four Mile Creek at Road A7; FM–A7; 4M–A7

Lower Three Runs–2; L3R–2; L3R Creek and Patterson Mill

River Mile 120; RM–120; River 10; R–10

River Mile 140; RM–140; R–8A

River Mile 160; RM–160; River 2; R–2

Steel Creek–4; SC–4; Steel Creek–4 at Road A; SC and Highway 125

Tinker Creek at Kennedy Pond; TC/KP; TC–1

Upper Three Runs–4 at Road A; U3R–4; U3R–Rd A

Vogtle Discharge; River 3B; R–3B

Other Abbreviations Used in This Book

AMAD	Activity Median Aerodynamic Diameter
DCG	Derived Concentration Guide
DOE	Department of Energy
Dup, DUP	Duplicate
EML	Department of Energy's Environmental Measurements Laboratory
ETF	Effluent Treatment Facility
GP	Georgia Power
MDA	Minimum Detectable Activity
MDC	Minimum Detectable Concentration
MDL	Minimum Detectable Limit
MGD	Million Gallons Per Day
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
RR	Railroad Yard
SRTC	Savannah River Technology Center
SWDF	Solid Waste Disposal Facility
TLD	Thermoluminescent Dosimeter

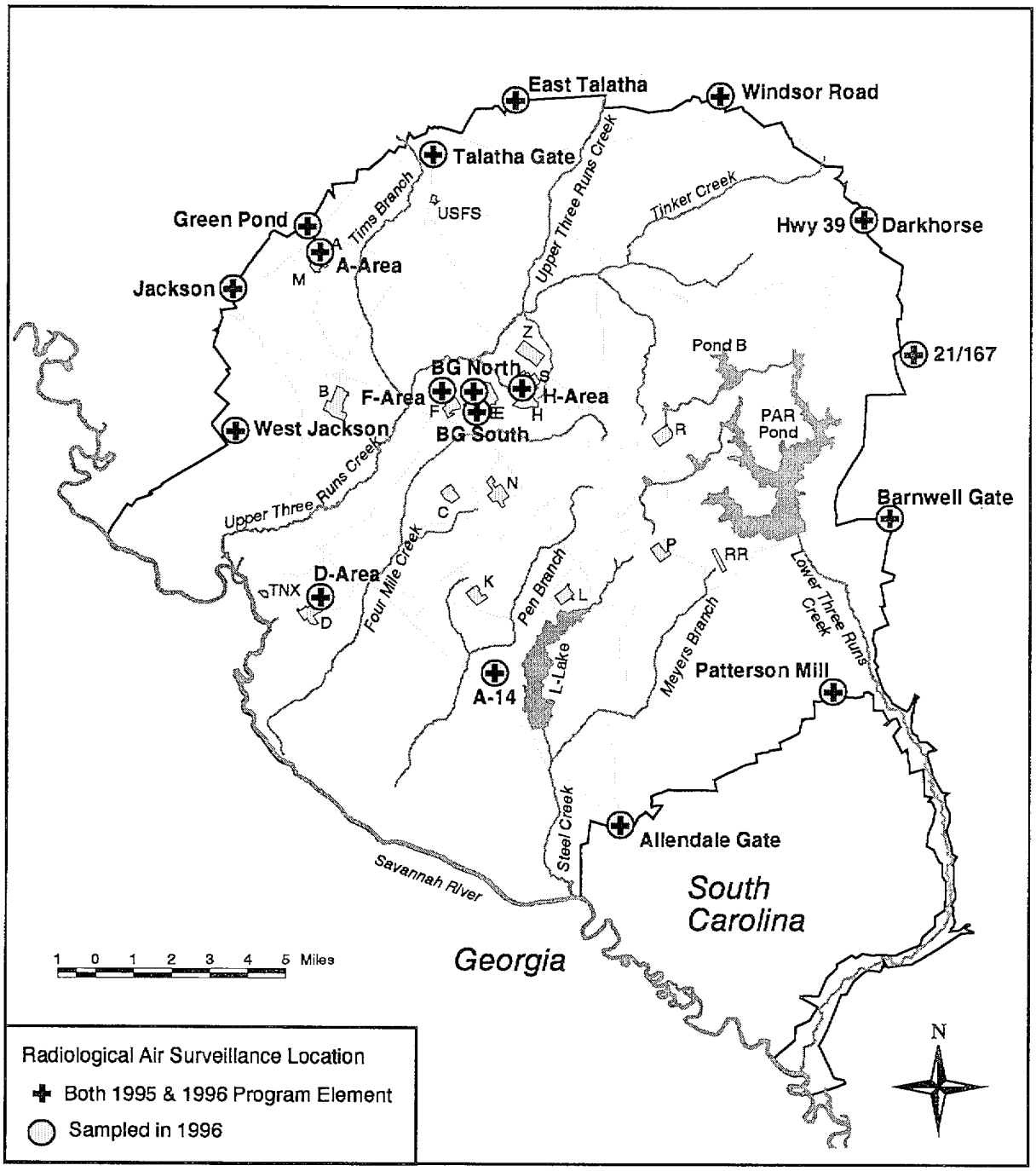
Units of Measure, Scientific Notation, and Conversion Tables

Units of Measure			
Symbol	**Name**	**Symbol**	**Name**
Temperature		*Mass*	
°C	degrees Centigrade	g	gram
°F	degrees Fahrenheit	kg	kilogram
		mg	milligram
		µg	microgram
Time		*Area*	
d	day	mi^2	square mile
h	hour	ft^2	square foot
y	year		
Length		*Radioactivity*	
cm	centimeter	Ci	curie
ft	foot	cpm	counts per minute
in.	inch	mCi	millicurie
km	kilometer	µCi	microcurie
m	meter	pCi	picocurie
mm	millimeter	Bq	becquerel
µm	micrometer		
Volume		*Radiation Dose*	
gal	gallon	mrad	millirad
L	liter	mrem	millirem
mL	milliliter	Sv	sievert
ppb	parts per billion	mSv	millisievert
ppm	parts per million	µSv	microsievert
		R	roentgen
Rate		mR	milliroentgen
cfs	cubic feet per second	µR	microroentgen
gpm	gallons per minute	Gy	gray

Fractions and Multiples of Units				
Multiple	Decimal Equivalent	Prefix	Symbol	Report Format
10^6	1,000,000	mega-	M	E+06
10^3	1,000	kilo-	k	E+03
10^2	100	hecto-	h	E+02
10	10	deka-	da	E+01
10^{-1}	0.1	deci-	d	E–01
10^{-2}	0.01	centi-	c	E–02
10^{-3}	0.001	milli-	m	E–03
10^{-6}	0.000001	micro-	µ	E–06
10^{-9}	0.000000001	nano-	n	E–09
10^{-12}	0.000000000001	pico-	p	E–12
10^{-15}	0.000000000000001	femto-	f	E–15
10^{-18}	0.000000000000000001	atto-	a	E–18

Conversion Table (Units of Radiation Measure)		
Current System	***Systéme International***	**Conversion**
curie (Ci)	becquerel (Bq)	1 Ci = 3.7×10^{10}Bq
rad (radiation absorbed dose)	gray (Gy)	1 rad = 0.01 Gy
rem (roentgen equivalent man)	sievert (Sv)	1 rem = 0.01 Sv

Conversion Table					
Multiply	By	To Obtain	Multiply	By	To Obtain
in.	2.54	cm	cm	0.394	in.
ft	0.305	m	m	3.28	ft
mi	1.61	km	km	0.621	mi
lb	0.4536	kg	kg	2.205	lb
liq qt-U.S.	0.946	L	L	1.057	liq qt-U.S.
ft^2	0.093	m^2	m^2	10.764	ft^2
mi^2	2.59	km^2	km^2	0.386	mi^2
ft^3	0.028	m^3	m^3	35.31	ft^3
d/m	0.450	pCi	pCi	2.22	d/m
pCi	10^{-6}	µCi	µCi	10^6	pCi
pCi/L (water)	10^{-9}	µCi/mL (water)	µCi/mL (water)	10^9	pCi/L (water)
pCi/m^3 (air)	10^{-12}	µCi/mL (air)	µCi/mL (air)	10^{12}	pCi/m^3 (air)



EPD/GIS Map

Figure 1 Radiological Sampling Locations — Air Surveillance

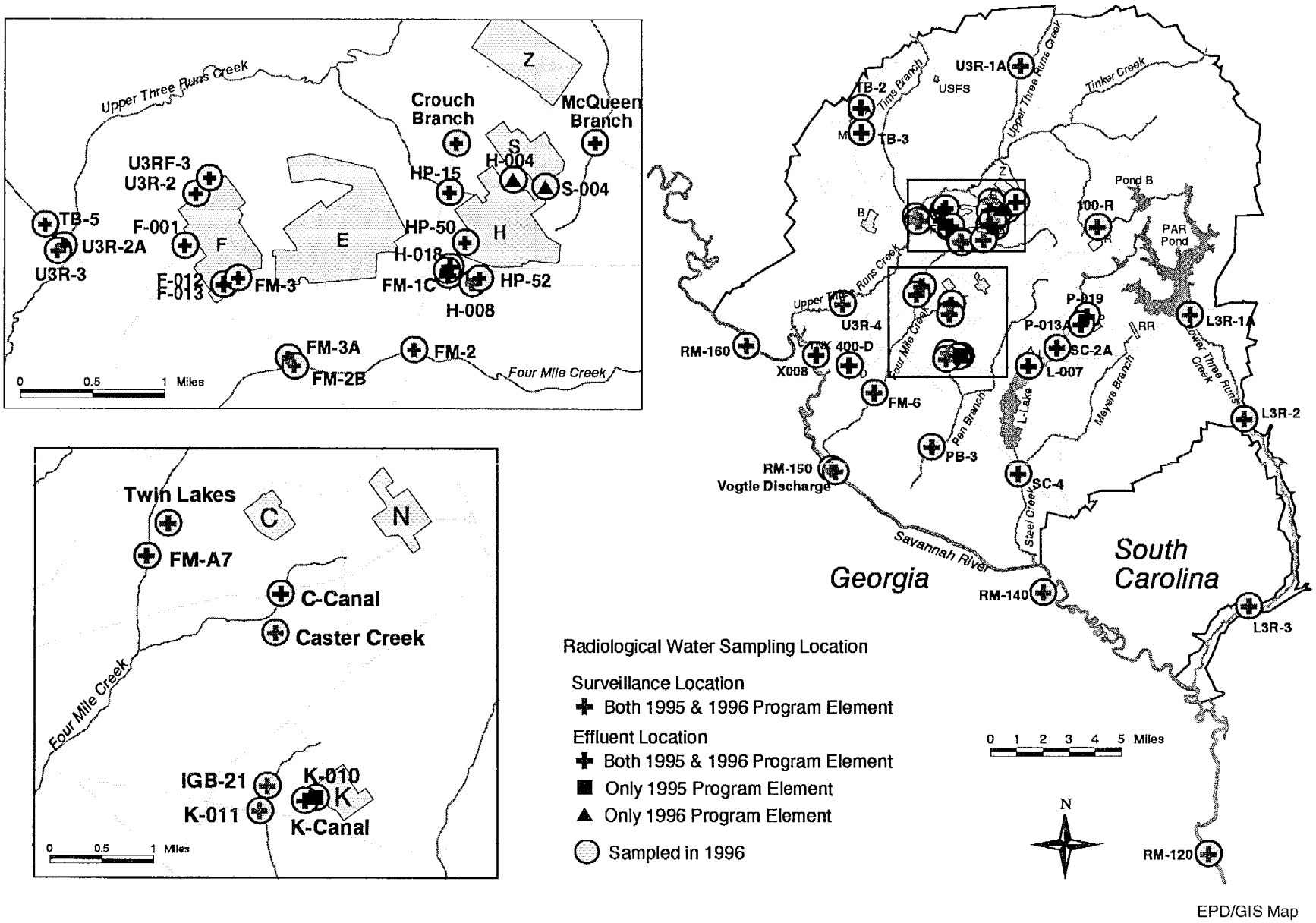


Figure 2 Radiological Sampling Locations — Surface Water

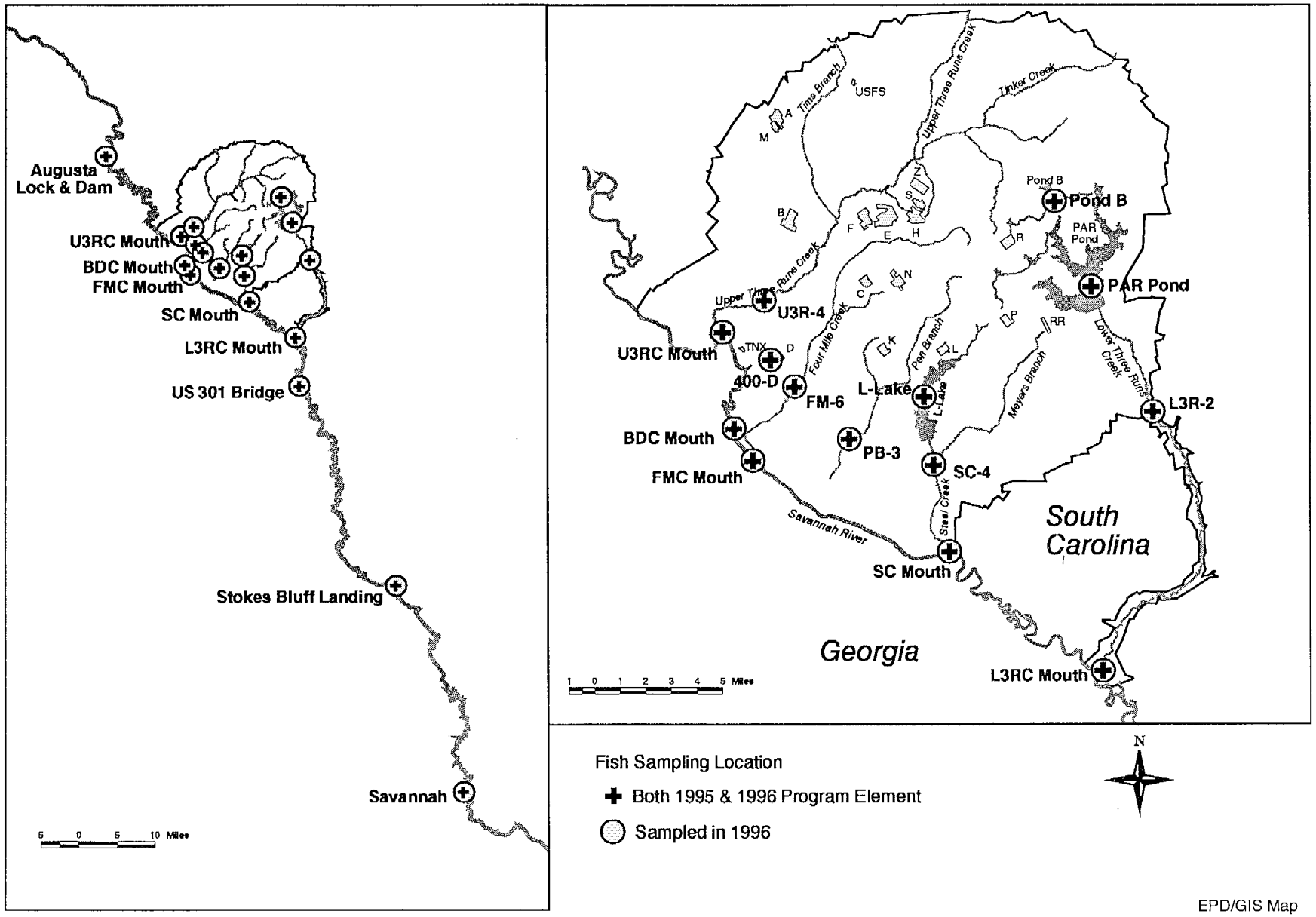
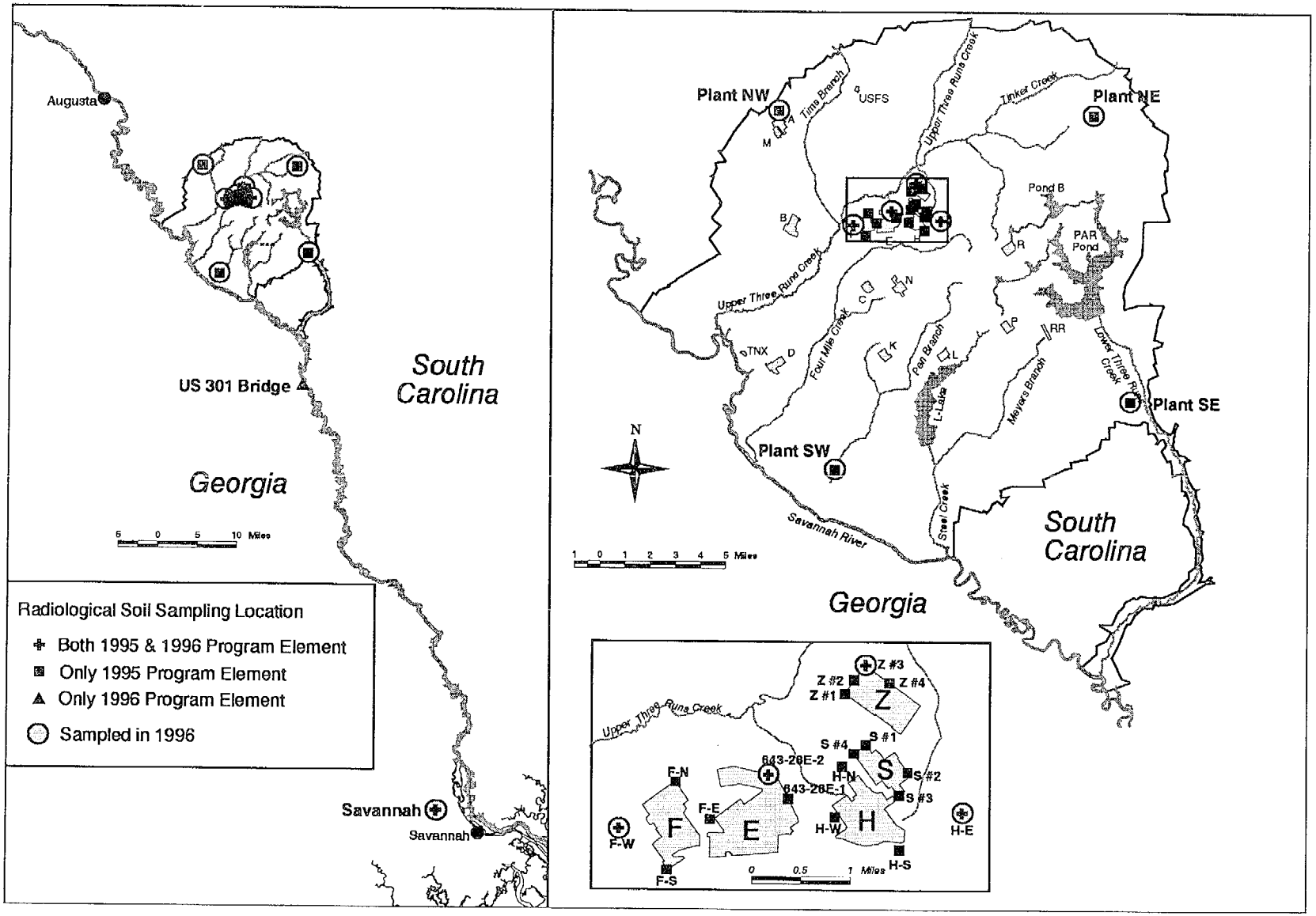
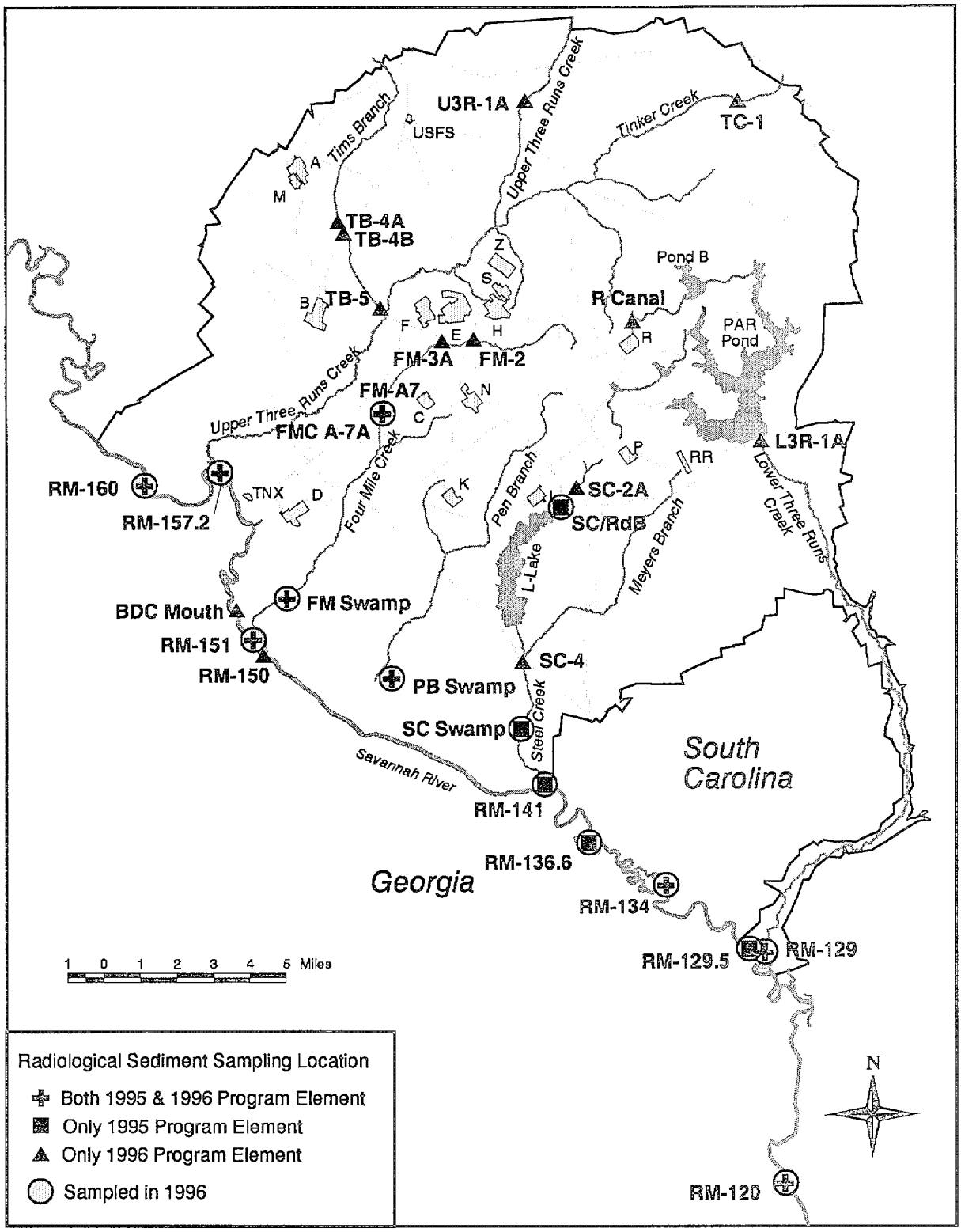


Figure 3 Radiological and Nonradiological Sampling Locations — Fish



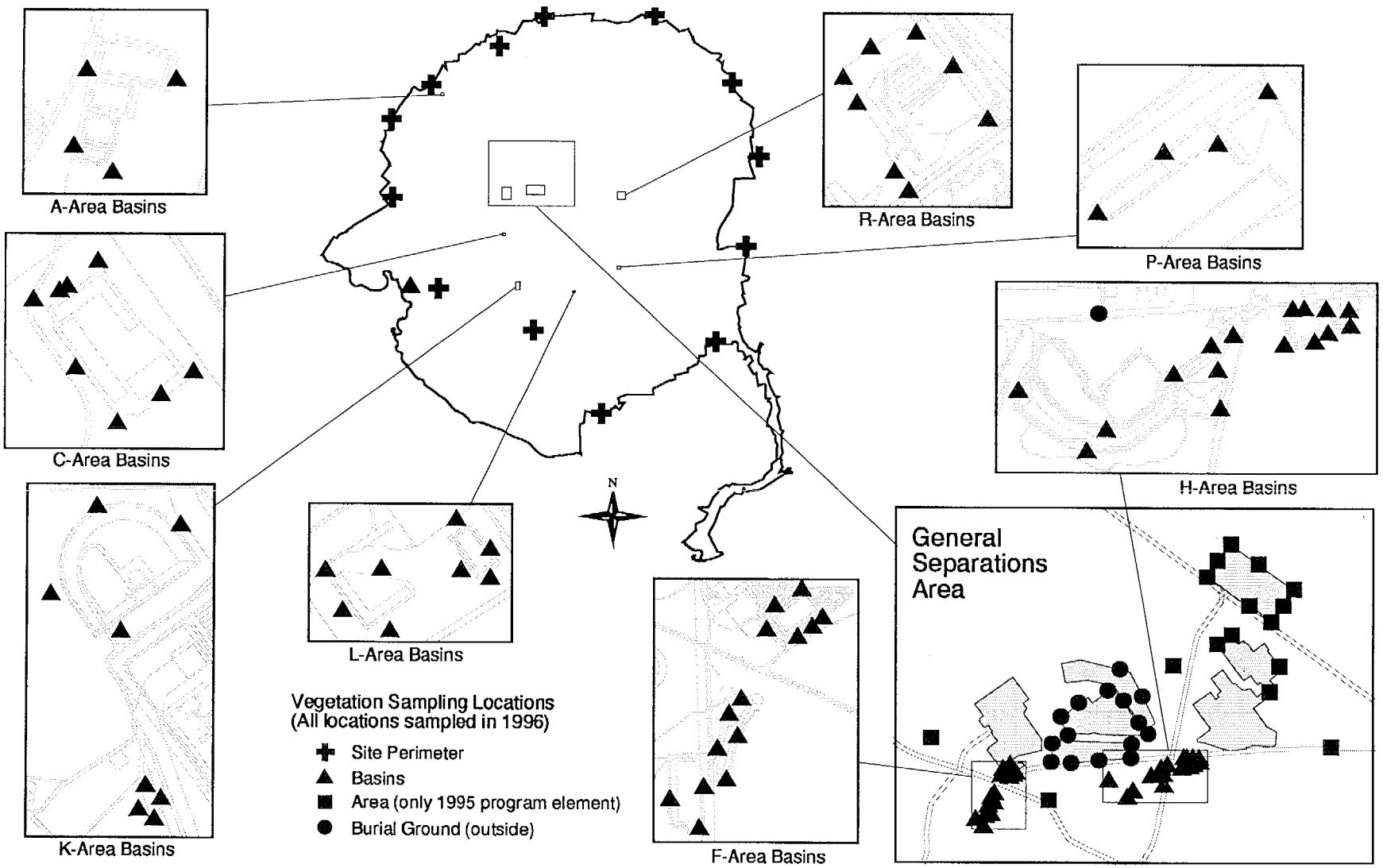
EPD/GIS Map

Figure 4 Radiological Sampling Locations — Soil



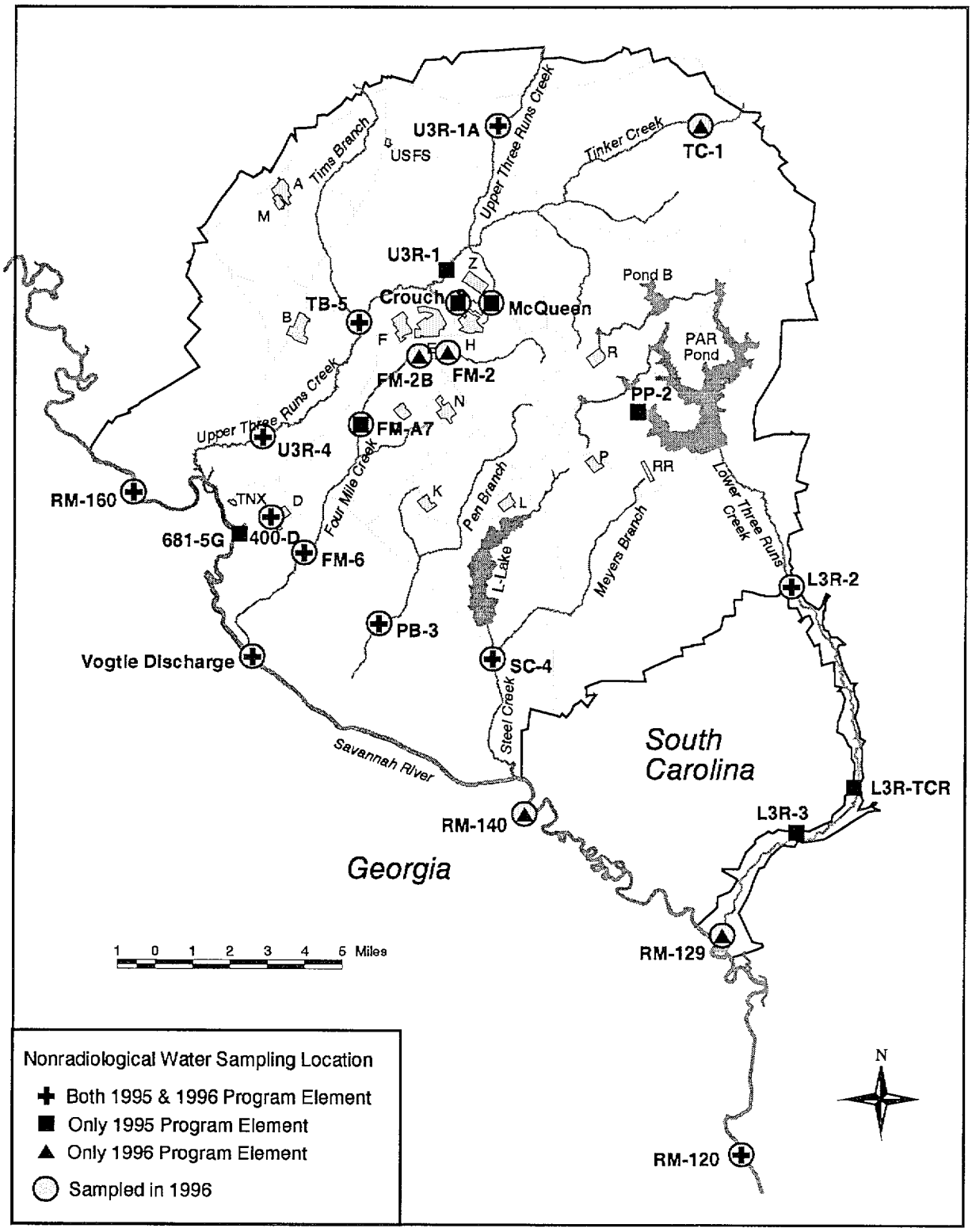
EPD/GIS Map

Figure 5 Radiological Sampling Locations — Sediment



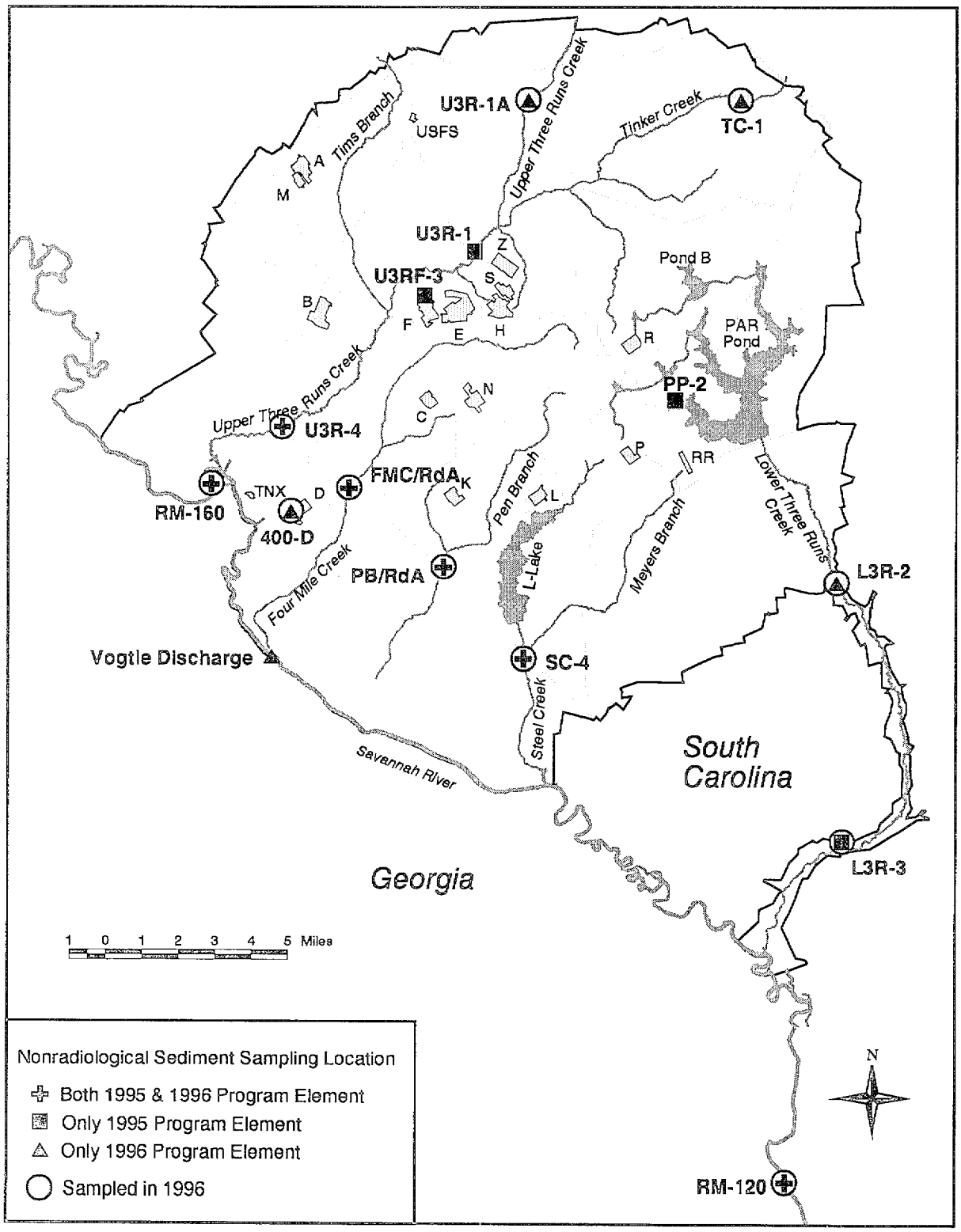
EPD/GIS Map

Figure 6 Radiological Sampling Locations — Vegetation



EPD/GIS Map

Figure 7 Nonradiological Sampling Locations — SRS Stream and Savannah River Water



EPD/GIS Map

Figure 8 Nonradiological Sampling Locations — SRS Stream and Savannah River Sediment

Table 1
Sample Media Information

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

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	60 g	5 mL

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

	pCi/L		pCi/m^2	pCi/m^3
Nuclide	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 0.031m^2. 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]

	fCi/g			pCi/g	pCi/L
Nuclide	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]

Sample Type	Units	Pu-239	Pu-238	U-238	U-234	U-235
Air filter	$\mu Ci/m^3$	2.4E–11	4.3E–11	2.4E–11	2.8E–11	2.9E–11
Rainwater	$\mu Ci/m^2$	3.3E–7	5.8E–7	3.1E–7	3.5E–7	3.6E–7
Stream water	µCi/mL	1.0E–11	1.8E–11	9.5E–12	1.1E–11	1.1E–11
River water	µCi/mL	1.0E–12	1.8E–12	9.5E–13	1.1E–12	1.1E–12
Foodstuff	µCi/g	1.5E–10	1.4E–10			
Soil and sediment	µCi/g	5.9E–10	7.3E–10			
Vegetation	µCi/g	7.3E–11	1.1E–10			
Tissue	µCi/g	2.4E–10	1.7E–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 regent 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 $0.031 m^2$. The other sample sizes are 1 L for stream water, 10 L for river water, 10g for soil and sediment, and 100g for foodstuff, vegetation, and tissue. 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]

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

Nuclide	Typical Minimum Detectable Concentration (µCi/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 (µCi/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
Nonradiological Environmental Surveillance Detection/Report Limits

Parameter	Units	Quantitation Limit: First, Second, and Third Quarters	Quantitation Limit: Fourth Quarter[a]	Report Value Round to Nearest:
Note: "NA" denotes "not applicable."				
Temperature	°C	NA	NA	0.1
pH	pH	NA	NA	0.1
Dissolved oxygen	mg/L	1.0	1.0	0.1
Conductivity	µmhos/cm	0.1	0.1	1
Alkalinity	mg/L	1.0	1.0	1
Chemical oxygen demand	mg/L	20.0	20.0	1
Volatile solids	mg/L	1.0	1.0	1
Fixed residue	mg/L	1.0	1.0	1
Suspended solids	mg/L	1.0	1.0	1
Total dissolved solids	mg/L	1.0	1.0	1
Total solids	mg/L	1.0	1.0	1
Turbidity	NTU	0.05	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	1.0	1
Nitrogen–Nitrate	mg/L	0.02	0.02	0.01
Phosphate–P	mg/L	0.005	0.005	0.1
Sulfate	mg/L	1.0	1.0	1
Ammonia–Nitrogen	mg/L	0.05	0.05	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	0.01	0.01	0.01
Copper	mg/L	0.01	0.005	0.01
Iron	mg/L	0.02	0.02	0.01
Lead	mg/L	0.02	0.003	0.01

a A contract amendment changed some of the values.

Table 6
Nonradiological Environmental Surveillance Detection/Report Limits

		Quantitation Limit		
Parameters	**Units**	**First, Second, and Third Quarters**	**Fourth Quarter[a]**	**Report Value Round to Nearest:**
Magnesium	mg/L	0.003	0.003	0.01
Manganese	mg/L	0.01	0.01	0.01
Mercury	mg/L	0.0001	0.0001	0.0001
Nickel	mg/L	0.01	0.01	0.01
Sodium	mg/L	0.09	0.09	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	0.1	0.1	0.01

a A contract amendment changed some of the values.

Table 7
Radioactive Atmospheric Releases by Source

Radio-nuclide	Half-life	Curies[a] Reactors	Separations[b]	Reactor Materials	Heavy Water	SRTC[c]	Diffuse and Fugitive[d]	Total
Note: Blank spaces indicate no quantifiable activity; h = hour, d = day, y = year								
GASES AND VAPORS								
H-3 (oxide)	12.3 y	1.10E+04	2.85E+04		3.29E+02		2.23E+02	4.01E+04
H-3 (elem)	12.3 y		1.51E+04					1.51E+04
H-3 Total	12.3 y	1.10E+04	4.37E+04		3.29E+02		2.23E+02	5.53E+04
C-14	5.73E3 y		8.11E+00				5.88E–09	8.11E+00
Kr-85	10.73 y		5.47E+03					5.47E+03
I-129	1.57E7 y		1.04E–02				3.83E–06	1.04E–02
I-131	8.040 d		5.74E–05			2.98E–05		8.72E–05
I-133	20.8 h					5.94E–04		5.94E–04
Xe-135	9.10 h					1.20E–03		1.20E–03
PARTICULATES								
Co-57	271.8 d		5.76E–09					5.76E–09
Co-60	5.271 y		3.85E–07			8.55E–06	4.71E–07	9.41E–06
Ni-59	7.6E4 y						2.51E–08	2.51E–08
Zn-65	243.8 d						1.46E–16	1.46E–16
Se-79	6.5E4 y						2.47E–08	2.47E–08
Sr-90[e,f]	29.1 y	1.05E–03	1.46E–03	4.04E–05	9.48E–05	g	4.75E–04	3.12E–03
Zr-95	64.02 d						2.13E–05	2.13E–05
Nb-95	34.97 d						1.55E–15	1.55E–15
Tc-99	2.13E5 y						2.65E–08	2.65E–08
Ru-106	1.020 y		9.18E-07				7.00E–02	7.00E–02
Sn-126	1E5 y						6.79E–09	6.79E–09
Sb-125	2.758 y		2.61E–07				2.28E–04	2.28E–04
Cs-134	2.065 y		1.97E–07				2.49E–15	1.97E–07
Cs-137	30.17 y	1.76E–05	4.82E–04	3.94E–07	1.11E–06	1.22E–06	4.33E–03	4.83E–03
Ce-144	284.6 d		6.77E–07				7.36E–06	8.04E–06
Pm-147	2.623 y						6.75E–06	6.75E–06
Eu-154	8.59 y		1.87E–07				6.42E–06	6.61E–06

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 emissions
f Includes Sr-89
g No unidentified emissions

Table 7
Radioactive Atmospheric Releases by Source

Radio-nuclide	Half-life	Curies[a]						
		Reactors	Separa-tions[b]	Reactor Materials	Heavy Water	SRTC[c]	Diffuse and Fugitive[d]	Total
Eu-155	4.71 y		8.33E–07				1.66E–06	1.66E–06
Th-232	1.40E10 y						1.28E–08	1.28E–08
Pa-231	3.28E4 y						1.00E–09	1.00E–09
U-233	1.592E5 y						1.62E–08	1.62E–08
U–234	2.46E5 y		2.44E–04	6.81E–06			2.93E–07	2.51E–04
U–235	7.04E8 y		4.67E–05	1.06E–06			4.10E–05	8.88E–05
U–236	2.342E7 y						5.79E–08	5.79E–08
U–238	4.47E9 y		1.37E–03	1.09E–06			1.35E–06	1.37E–03
Np-237	2.14E6 y						4.66E–08	4.66E–08
Np-239	2.35 d						2.17E–07	2.17E–07
Pu-238	87.7 y		4.79E–04	2.23E–09			5.19E–06	4.84E–04
Pu-239[e]	2.410E4 y	6.74E–05	2.65E–04	2.78E–05	6.39E–06	6.67E–06	1.83E–04	5.57E–04
Pu-240	6.56E3 y						2.11E–07	2.11E–07
Pu-241	14.4 y						3.75E–06	3.75E–06
Am-241	432.7 y		1.27E–05	1.06E–08			4.20E–07	1.31E–05
Am-243	7.37E3 y						1.76E–05	1.76E–05
Cm-242	162.8 d						2.03E–16	2.03E–16
Cm-244	18.1 y		4.47E–06	2.43E–09			1.28E–04	1.32E–04

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 8
Radioactive Atmospheric Releases by Stack/Facility and Comparison of Annual Average Concentrations to DOE Derived Concentration Guides

Stack/Facility	Radionuclide	Quantity Released During 1996 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1996 (μCi/mL)	DOE DCGs[a] (μCi/mL)
Note: Blank spaces indicate no quantifiable activity.					
A-Area (Savannah River Technology Center)					
735–A					
773–A C					
773–A B	Cs–137	2.83E–01	1.57E+15	1.80E–16	4.0E–10
773–A Sandfilter	Co–60	8.55E+00	9.89E+14	8.64E–15	8.0E–11
	I–131	2.97E+01	9.89E+14	3.00E–14	4.0E–10
	I–133	5.90E+02	9.89E+14	5.97E–13	2.0E–09
	Xe–135	1.20E+03	9.89E+14	1.21E–12	8.0E–08
	Cs–137	9.35E–01	9.89E+14	9.45E–16	4.0E–10
776–A	I–131	7.84E–02	2.18E+14	3.60E–16	4.0E–10
	I–133	4.26E+00	2.18E+14	1.96E–14	2.0E–09
C-Area (C-Reactor)					
728–N					
C Decon					
C Disassembly					
C–Area Main (148ft)	H–3 (oxide)	5.54E+08	2.85E+15	1.95E–07	1.0E–07
D-Area (Heavy Water Rework)					
420–D Stack	H–3 (oxide)	2.48E+08	2.31E+14	1.07E–06	1.0E–07
421–2D Stack	H–3 (oxide)	2.06E+07	1.54E+14	1.34E–07	1.0E–07
	Cs–137	1.11E+00	1.54E+14	7.25E–15	4.0E–10
772–D Stack	H–3 (oxide)	6.08E+07	2.64E+14	2.30E–07	1.0E–07
F-Area (Separations and Waste Management)					
235–F Sandfilter	U–234	6.94E–02	5.92E+14	1.17E–16	9.0E–14
	U–235	1.03E–02	5.92E+14	1.73E–17	1.0E–13
	U–238	6.89E–02	5.92E+14	1.16E–16	1.0E–13
	Pu–238	1.08E–02	5.92E+14	1.82E–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 8
Radioactive Atmospheric Releases by Stack/Facility and Comparison of Annual Average Concentrations to DOE Derived Concentration Guides

Stack/Facility	Radionuclide	Quantity Released During 1996 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1996 (μCi/mL)	DOE DCGs[a] (μCi/mL)
	Pu–239	3.27E–03	5.92E+14	5.52E–18	2.0E–14
	Am–241	2.77E–02	5.92E+14	4.68E–17	2.0E–14
241–F Misc	Cs–137	5.01E+00	2.02E+13	2.48E–13	4.0E–10
241–F Purge	Cs–137	6.70E+00	5.46E+13	1.23E–13	4.0E–10
241–F Annulus	Cs–137	1.35E+01	2.01E+14	6.70E–14	4.0E–10
247–F Main	U–234	1.14E+00	1.42E+15	8.06E–16	9.0E–14
	U–238	8.11E–02	1.42E+15	5.71E–17	1.0E–13
	Pu–239	5.64E–02	1.42E+15	3.98E–17	2.0E–14
	Am–241	3.53E–02	1.42E+15	2.49E–17	2.0E–14
291–F Stack Iso-kinetic	Sr–89,90	1.57E+01	3.97E+15	3.95E–15	9.0E–12
	I–129	8.80E+03	3.97E+15	2.22E–12	7.0E–11
	I–131	4.42E+01	3.97E+15	1.11E–16	4.0E–10
	Cs–137	3.98E+01	3.97E+15	1.00E–14	4.0E–10
	U–234	2.41E+02	3.97E+15	6.06E–14	9.0E–14
	U–235	4.66E+01	3.97E+15	1.17E–14	1.0E–13
	U–238	1.37E+03	3.97E+15	3.45E–13	1.0E–13
	Pu–238	1.25E+02	3.97E+15	3.14E–14	3.0E–14
	Pu–239	2.04E+02	3.97E+15	5.13E–14	2.0E–14
	Am–241	9.94E+00	3.97E+15	2.50E–15	2.0E–14
	Cm–244	3.37E+00	3.97E+15	8.48E–16	4.0E–14
6.1D	Cs–134	6.36E–02	2.59E+12	2.45E–14	2.0E–10
	Cs–137	1.35E+02	2.59E+12	5.21E–11	4.0E–10
	Eu–154	1.87E–01	2.59E+12	7.23E–14	5.0E–11
	Eu–155	2.92E–01	2.59E+12	1.13E–13	3.0E–10
	Am–241	4.52E–01	2.59E+12	1.74E–13	2.0E–14
6.4D	Co–57	5.76E–03	2.55E+11	2.26E–14	2.0E–09
	Co–60	3.85E–01	2.55E+11	1.51E–12	8.0E–11
	Ru–106	9.18E–01	2.55E+11	3.60E–12	3.0E–11

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 8
Radioactive Atmospheric Releases by Stack/Facility and Comparison of Annual Average Concentrations to DOE Derived Concentration Guides

Stack/Facility	Radionuclide	Quantity Released During 1996 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1996 (μCi/mL)	DOE DCGs[a] (μCi/mL)
	Sb–125	2.61E–01	2.55E+11	1.02E–12	1.0E–09
	Cs–134	1.33E–01	2.55E+11	5.22E–13	2.0E–10
	Cs–137	8.45E+01	2.55E+11	3.31E–10	4.0E–10
	Ce–144	6.77E–01	2.55E+11	2.65E–12	3.0E–11
	Eu–155	5.41E–01	2.55E+11	2.12E–12	3.0E–10
	Am–241	7.51E–02	2.55E+11	2.95E–13	2.0E–14
723–F					
772–1F					
772–4F	Sr–89,90	2.70E–01	2.21E+15	1.22E–16	9.0E–12
	U–238	1.03E–02	2.21E+15	4.67E–18	1.0E–13
	Pu–238	7.79E–03	2.21E+15	3.52E–18	3.0E–14
	Pu–239	5.35E–02	2.21E+15	2.42E–17	2.0E–14
	Am–241	1.77E–02	2.21E+15	8.02E–18	2.0E–14
800 Cell (211–F)					
A–Line (221–1F)	Cs–137	1.32E+00	3.56E+13	3.71E–14	4.0E–10
	U–234	8.82E–01	3.56E+13	2.47E–14	9.0E–14
	U–235	5.55E–02	3.56E+13	1.56E–15	1.0E–13
	U–238	1.59E+00	3.56E+13	4.45E–14	1.0E–13
	Pu–238	5.22E–02	3.56E+13	1.47E–15	3.0E–14
	Pu–239	3.87E–01	3.56E+13	1.09E–14	2.0E–14
	Am–241	3.16E–02	3.56E+13	8.65E–16	2.0E–14
	Cm–244	1.14E–01	3.56E+13	3.19E–15	4.0E–14
H–Area (Separations and Waste Management)					
241–84H (ETF Lab)					
241–81H (ETF Process)					

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 8
Radioactive Atmospheric Releases by Stack/Facility and Comparison of Annual Average Concentrations to DOE Derived Concentration Guides

Stack/Facility	Radionuclide	Quantity Released During 1996 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1996 (μCi/mL)	DOE DCGs[a] (μCi/mL)
241–H Misc	Cs–137	2.09E+01	3.41E+14	6.13E–14	4.0E–10
241–H Purge	Cs–137	9.77E+01	1.19E+14	8.21E–13	4.0E–10
241–H Annulus	Cs–137	3.47E+01	6.50E+14	5.34E–14	4.0E–10
244–H RBOF	Cs–137	3.65E+00	3.55E+14	1.03E–14	4.0E–10
244–H RBOF-Vessel Vent	Cs–137	2.90E+00	5.47E+12	5.31E–13	4.0E–10
253–H Waste Compactor					
291–H Isokinetic	Sr–89,90	2.54E+01	3.77E+15	6.74E–15	9.0E–12
	I–129	1.60E+03	3.77E+15	4.26E–13	7.0E–11
	I–131	1.32E+01	3.77E+15	3.50E–15	4.0E–10
	Cs–137	2.68E+01	3.77E+15	7.11E–15	4.0E–10
	U–234	8.04E–01	3.77E+15	2.13E–16	9.0E–14
	U–235	7.41E–02	3.77E+15	1.97E–17	1.0E–13
	U–238	1.48E+00	3.77E+15	3.94E–16	1.0E–13
	Pu–238	3.53E+02	3.77E+15	9.35E–14	3.0E–14
	Pu–239	9.60E+00	3.77E+15	2.55E–15	2.0E–14
	Am–241	2.01E+00	3.77E+15	5.34E–16	2.0E–14
	Cm–244	9.56E–01	3.77E+15	2.54E–16	4.0E–14
299–H (Bldg & HP Hood)	Cs–137	1.48E–01	2.31E+14	6.41E–16	4.0E–10
Tritium Facility Stacks (200ft)	H–3 (elem)	1.51E+10	2.08E+15	7.26E–06	2.0E–02
	H–3 (oxide)	2.85E+10	2.08E+15	1.37E–05	1.0E–07
	Cs–137	9.39E+00	2.08E+15	4.52E–15	4.0E–10
K-Area (K–Reactor)					
K Disassembly	H–3 (oxide)	4.29E+08	2.82E+15	1.52E–07	1.0E–07
	Cs–137	1.76E+01	2.82E+15	6.24E–15	4.0E–10

a Source: DOE Order 5400.5. In cases where different chemical forms have different DCGs, the lowest DCG for the radionuclide is given. These DCGs are defined as the air concentration of that radionuclide that will give a 50-year committed 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 8
Radioactive Atmospheric Releases by Stack/Facility and Comparison of Annual Average Concentrations to DOE Derived Concentration Guides

Stack/Facility	Radionuclide	Quantity Released During 1996 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1996 (μCi/mL)	DOE DCGs[a] (μCi/mL)
K–Area Main Stack (148ft)	H–3 (oxide)	2.08E+09	3.19E+15	6.52E–07	1.0E–07
L-Area (L–Reactor)					
L Disassembly	H–3 (oxide)	5.31E+08	1.21E+15	4.40E–07	1.0E–07
L Main (148ft)	H–3 (oxide)	1.91E+09	3.62E+15	5.27E–07	1.0E–07
M-Area (Reactor Materials)					
313–M Stacks	U–234	1.82E–03	5.88E+13	3.09E–17	9.0E–14
	U–235	2.26E–04	5.88E+13	3.84E–18	1.0E–13
	Pu–239	1.35E–04	5.88E+13	2.29E–18	2.0E–14
	Am–241	3.03E–03	5.88E+13	5.14E–17	2.0E–14
320–M Stacks	U–235	7.31E–04	3.44E+12	2.13E–16	1.0E–13
321–M Machine Room Isokinetic	U–234	1.82E+00	2.37E+13	7.69E–14	9.0E–14
	U–235	2.34E–01	2.37E+13	9.88E–15	1.0E–13
321–M Mach Rm	U–234	2.05E–01	4.66E+13	4.41E–15	9.0E–14
	U–235	3.77E–02	4.66E+13	8.09E–16	1.0E–13
	U–238	1.83E–03	4.66E+13	3.93E–17	1.0E–13
	Am–241	5.73E–04	4.66E+13	1.23E–17	2.0E–14
321–M Stacks	Cs–137	3.94E–01	6.83E+14	5.77E–16	4.0E–10
	U–234	3.86E+00	6.83E+14	5.66E–15	9.0E–14
	U–235	6.19E–01	6.83E+14	9.06E–16	1.0E–13
	U–238	3.31E–01	6.83E+14	4.85E–16	1.0E–13
	Pu–239	5.28E–03	6.83E+14	7.73E–18	2.0E–14
	Am–241	4.49E–03	6.83E+14	6.57E–18	2.0E–14
322–M Stacks	U–234	5.79E–01	1.94E+14	2.99E–15	9.0E–14
	U–235	7.86E–02	1.94E+14	4.06E–16	1.0E–13
	U–238	7.60E–01	1.94E+14	3.93E–15	1.0E–13
	Pu–238	1.12E–03	1.94E+14	5.76E–18	3.0E–14
	Am–241	2.15E–03	1.94E+14	1.11E–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 8
Radioactive Atmospheric Releases by Stack/Facility and Comparison of Annual Average Concentrations to DOE Derived Concentration Guides

Stack/Facility	Radionuclide	Quantity Released During 1996 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1996 (μCi/mL)	DOE DCGs[a] (μCi/mL)
	Cm–244	2.43E–03	1.94E+14	1.26E–17	4.0E–14
M–Area VTF	U–234	3.45E–01	4.77E+14	7.24E–16	9.0E–14
	U–235	8.79E–02	4.77E+14	1.84E–16	1.0E–13
	Pu-238	1.11E–03	4.77E+14	2.33E–18	3.0E–13
	Pu-239	5.47E–05	4.77E+14	1.15E–19	2.0E–14
	Am-241	3.88E–04	4.77E+14	8.13E–19	2.0E–14
P-Area (P–Reactor)					
P Disassembly	H–3 (oxide)	2.61E+08	2.65E+14	9.85E–07	1.0E–07
P Main (148ft)	H–3 (oxide)	5.19E+09	2.82E+15	1.84E–06	1.0E–07
S-Area (Defense Waste Processing Facility)					
221–S Personnel Area (Zone 2)	U–235	2.29E–04	1.60E+14	1.43E–18	1.0E–13
	U–238	1.07E–03	1.60E+14	6.66E–18	1.0E–13
	Pu–238	3.63E–01	1.60E+14	2.26E–15	3.0E–14
	Pu–239	6.92E–03	1.60E+14	4.32E–17	2.0E–14
	Am–241	2.95E–03	1.60E+14	1.84E–17	2.0E–14
	Cm–244	1.10E–03	1.60E+14	6.88E–18	4.0E–14
250–S Glass Waste Bldg #1488	Pu–238	5.15E–03	1.65E+14	3.11E–17	3.0E–14
	Pu–239	1.21E–02	1.65E+14	7.30E–17	2.0E–14
	Am–241	9.61E–04	1.65E+14	5.81E–18	2.0E–14
250–S Glass Waste Bldg #1509	Pu–238	1.69E–03	1.16E+14	1.45E–17	3.0E–14
	Pu–239	5.12E–03	1.16E+14	4.41E–17	2.0E–14
	Am–241	3.43E–04	1.16E+14	2.96E–18	2.0E–14
250–S Glass Waste Bldg #3928	Pu–238	5.71E–04	2.85E+13	2.00E–17	3.0E–14
	Pu–239	2.95E–04	2.85E+13	1.04E–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 8
Radioactive Atmospheric Releases by Stack/Facility and Comparison of Annual Average Concentrations to DOE Derived Concentration Guides

Stack/Facility	Radionuclide	Quantity Released During 1996 (μCi)	Atmospheric Release Volume (mL)	Average Effluent Concentration During 1996 (μCi/mL)	DOE DCGs[a] (μCi/mL)
250–S Glass Waste Bldg #3940	U–238	1.73E–04	9.15E+12	1.89E–17	1.0E–13
	Pu–239	1.62E–05	9.15E+12	1.77E–18	2.0E–14
	Am–241	7.71E–06	9.15E+12	8.43E–19	2.0E–14
291–S Vit. Process (Zone 1)	U–238	8.35E–02	1.14E+15	7.36E–17	1.0E–13
	Pu–238	2.08E–01	1.14E+15	1.84E–16	3.0E–14
	Pu–239	2.73E–01	1.14E+15	2.40E–16	2.0E–14
	Am–241	1.18E–01	1.14E+15	1.04E–16	2.0E–14
	Cm–244	2.62E–02	1.14E+15	2.30E–17	4.0E–14
511–S Low Pt Pump Pit	U–234	3.68E–02	2.13E+14	1.73E–16	9.0E–14
	U–235	5.46E–03	2.13E+14	2.56E–17	1.0E–13
	U–238	2.36E–01	2.13E+14	1.11E–15	1.0E–13
	Pu–238	7.91E–02	2.13E+14	3.71E–16	3.0E–14
	Pu–239	2.26E–02	2.13E+14	1.06E–16	2.0E–14
	Am–241	1.55E–03	2.13E+14	7.28E–18	2.0E–14
512–S Late Wash	Am–241	1.77E–04	2.83E+12	6.26E–17	2.0E–14
Z-Area (Saltstone)					
210–Z					
704–Z					

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 Liquid Releases by Source
(Including Direct and Seepage Basin Migration Releases)

Radio-nuclide	Half-life	Curies[a,b]					
		Reactors	Separa-tions[c]	Reactor Materials	Heavy Water/TNX	Savannah River Technology Center	Total
Note:	*Blank spaces indicate no quantifiable activity; h = hour, d = day, y = year*						
H-3 (oxide)	12.3 y	2.73E+03	5.81E+03		1.83E+02	8.78E–01	8.95E+03[d]
Sr-90[e,f]	29.1 y	1.35E–01	1.21E–01	[g]	5.38E–03	9.31E–04	2.62E–01
I-129	1.6E7 y		7.82E–02				7.82E–02
Cs-137	30.2 y	2.30E–02	9.35E–02				1.17E–01[h]
Pm-147	2.6 y		4.80E–04				4.80E–04
U-234	2.46E5 y	1.19E–03	6.90E–03	3.55E–05	7.45E–07	5.06E–05	8.18E–03
U-235	7.04E8 y	1.81E–05	2.08E–04			1.43E–06	2.28E–04
U-238	4.47E9 y	8.21E–04	9.59E–03	5.83E–05	1.75E–06	5.00E–05	1.05E–02
Pu-238	87.7 y	1.36E–04	2.61E–03	4.01E–05	1.97E–06	6.71E–06	2.79E–03
Pu-239[i]	2.410E4 y	1.07E–02	1.52E–02	[g]	4.19E–04	3.41E–04	2.67E–02
Am-241	432.7 y		4.03E–06	6.72E–05			7.12E–05
Cm-244	18.1 y		6.23E–07	1.19E–05			1.25E–05

a One curie equals 3.7E+10 Becquerels.
b Blank spaces indicate no quantifiable activity.
c Includes separations, waste management, and tritium facilities
d For conservatism, the slightly higher river transport number (8.95E+03 Ci) was used for dose calculations.
e Includes unidentified beta
f Includes Sr-89
g No quantifiable unidentified releases
h For conservatism, the higher release number (1.55E–01 Ci), calculated from River Mile 120 fish concentrations, was used for dose calculations.
i Includes unidentified alpha

Table 10
Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual Average Radionuclide Concentrations to DOE Derived Concentration Guides

Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1996 (Ci)	Average Effluent Concentration During 1996 (μCi/mL)	DOE DCGs[a] (μCi/mL)	Fraction of DOE DCG
Note: "MDL" denotes "minimum detectable level."					
A-Area (Savannah River Technology Center)					
TB–2 Outfall at Rd 1A	H-3	8.78E–01	1.39E–06	2.00E–03	6.94E–04
	Cs-137	Below MDL	5.56E–10	3.00E–06	1.85E–04
	U-234	5.06E–05	1.41E–10	6.00E–07	2.35E–04
	U-235	1.43E–06	8.76E–12	6.00E–07	1.46E–05
	U-238	5.00E–05	1.43E–10	6.00E–07	2.39E–04
	Pu-238	6.71E–06	2.33E–11	4.00E–08	5.83E–04
	Pu-239	6.91E–08	–5.63E–13	3.00E–08	0.00E+00
C-Area (C-Reactor)					
C-Canal	H-3	1.47E+00	2.78E–07	2.00E–03	1.39E–04
	Sr-89,90	Below MDL	5.31E–11	1.00E–06	5.31E–05
	Cs-137	Below MDL	8.95E–10	3.00E–06	2.98E–04
D-Area (Heavy Water Rework)					
400–D Effluent Discharge	H-3	1.83E+02	2.57E–05	2.00E–03	1.29E–02
	Sr-89,90	Below MDL	1.15E–10	1.00E–06	1.15E–04
	Cs-137	Below MDL	1.18E–09	3.00E–06	3.94E–04
D-Area Process Sewer	Sr-89,90	Below MDL	1.15E–10	1.00E–06	1.15E–04
F-Area (Separations and Waste Management)					
F–01	H-3	2.94E–02	6.12E–08	2.00E–03	3.06E–05
	Sr-89,90	Below MDL	–2.75E–11	1.00E–06	0.00E+00
	Cs-137	Below MDL	4.73E–10	3.00E–06	1.58E–04
F–012 (281–8F Retention Basin)	H-3	3.41E–01	9.22E–06	2.00E–03	4.61E–03
	Sr-89,90	1.18E–04	5.02E–09	1.00E–06	5.02E–03
	Cs-137	8.05E–04	1.30E–08	3.00E–06	4.35E–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 10
Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual Average Radionuclide Concentrations to DOE Derived Concentration Guides

Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1996 (Ci)	Average Effluent Concentration During 1996 (μCi/mL)	DOE DCGs[a] (μCi/mL)	Fraction of DOE DCG
F–013 (200–F Cooling Basin)	H-3	3.21E–03	1.88E–06	2.00E–03	9.39E–04
	Sr-89,90	5.05E–05	1.14E–08	1.00E–06	1.14E–02
	Cs-137	4.86E–05	1.64E–08	3.00E–06	5.48E–03
FM–3 (F–Area Effluent)	H-3	1.07E+00	5.76E–07	2.00E–03	2.88E–04
	Sr-89,90	Below MDL	3.50E–10	1.00E–06	3.50E–04
	Cs-137	Below MDL	8.18E–10	3.00E–06	2.73E–04
U3R–2 (F Storm Sewer)	H-3	1.28E–01	7.81E–07	2.00E–03	3.90E–04
	Sr-89,90	Below MDL	4.30E–11	1.00E–06	4.30E–05
	Cs-137	9.56E–04	4.94E–09	3.00E–06	1.65E–03
	Pm-147	2.09E–04	–1.92E–10	1.00E–04	0.00E+00
	U-234	1.33E–05	7.72E–11	6.00E–07	1.29E–04
	U-235	6.73E–07	5.67E–12	6.00E–07	9.45E–06
	U-238	3.52E–05	1.91E–10	6.00E–07	3.19E–04
	Pu-238	5.83E–06	4.50E–11	4.00E–08	1.13E–03
	Pu-239	4.29E–06	2.79E–11	3.00E–08	9.31E–04
	Am-241	2.96E–06	9.37E–12	3.00E–08	3.12E–04
	Cm-244	6.23E–07	5.42E–12	6.00E–08	9.04E–05
U3RF–3 (Naval Fuels Effluent)	H-3	1.24E+00	3.31E–06	2.00E–03	1.65E–03
	Sr-89,90	Below MDL	9.24E–11	1.00E–06	9.24E–05
	Cs-137	Below MDL	2.81E–10	3.00E–06	9.38E–05
	U-234	1.80E–05	7.66E–11	6.00E–07	1.28E–04
	U-235	1.36E–07	2.10E–12	6.00E–07	3.50E–06
	U-238	9.93E–06	3.67E–11	6.00E–07	6.11E–05
	Pu-238	3.64E–06	7.83E–12	4.00E–08	1.96E–04
	Pu-239	1.03E–07	2.10E–12	3.00E–08	7.00E–05
	Am-241	1.07E–06	1.48E–12	3.00E–08	4.95E–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.

Table 10
Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual Average Radionuclide Concentrations to DOE Derived Concentration Guides

Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1996 (Ci)	Average Effluent Concentration During 1996 (μCi/mL)	DOE DCGs[a] (μCi/mL)	Fraction of DOE DCG
H-Area (Separations and Waste Management)					
FM–1C (H-Area Effluent)	H-3	3.34E+00	8.05E–06	2.00E–03	4.03E–03
	Sr-89,90	Below MDL	4.62E–10	1.00E–06	4.623E–04
	Cs-137	3.96E–04	2.89E–09	3.00E–06	9.63E–04
H–004[b]	H-3	1.99E–01	1.79E–05	2.00E–03	8.95E–03
	Sr-89,90	Below MDL	4.51E–10	1.00E–06	4.51E–04
	Cs-137	Below MDL	1.37E–09	3.00E–06	4.57E–04
	U-234	9.71E–08	1.32E–11	6.00E–07	2.19E–05
	U-238	1.38E–07	2.61E–11	6.00E–07	4.35E–05
	Pu-238	1.19E–07	1.02E–11	4.00E–08	2.56E–04
	Pu-239	4.14E–08	1.04E–11	3.00E–08	3.45E–04
H–017 (281–8H Retention Basin)	H-3	5.26E–01	9.29E–06	2.00E–03	4.65E–03
	Sr-89,90	1.49E–04	5.61E–09	1.00E–06	5.61E–03
	Cs-137	1.09E–02	1.19E–07	3.00E–06	3.98E–02
H–018 (200–H Cooling Basin)	H-3	8.47E–02	1.55E–05	2.00E–03	7.77E–03
	Sr-89,90	3.02E–04	5.54E–08	1.00E–06	5.54E–02
	Cs-137	9.17E–04	1.54E–07	3.00E–06	5.14E–02
HP–15 (Tritium Facility Outfall)	H-3	2.61E+00	1.29E–05	2.00E–03	6.46E–03
	Cs-137	Below MDL	7.22E–10	3.00E–06	2.41E–04
HP–52 (H-Area Tank Farm)	H-3	1.41E+00	1.65E–06	2.00E–03	8.25E–04
	Sr-89,90	Below MDL	7.52E–11	1.00E–06	7.52E–05
	Cs-137	Below MDL	1.90E–09	3.00E–06	6.34E–04
McQueen Branch at Rd F	H-3	8.68E+00	9.66E–06	2.00E–03	4.83E–03
	Cs-137	Below MDL	7.89E–10	3.00E–06	2.63E–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.

b Data used for establishing baseline before facility startup. It is not an official point-of-discharge, and data are not used in dose calculations.

Table 10
Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual Average Radionuclide Concentrations to DOE Derived Concentration Guides

Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1996 (Ci)	Average Effluent Concentration During 1996 (μCi/mL)	DOE DCGs[a] (μCi/mL)	Fraction of DOE DCG
U3R–2A (ETF Outfall at Rd C)	H-3	3.08E+02	4.22E–03	2.00E–03	2.11E+00
	Sr-89,90	5.77E–07	1.22E–09	1.00E–06	1.22E–03
	Cs-137	3.23E–02	4.86E–07	3.00E–06	1.62E–01
	Pm-147	2.71E–04	4.87E–09	1.00E–04	4.87E–05
K-Area (K-Reactor)					
K-Canal	H-3	1.22E+01	3.39E–07	2.00E–03	1.69E–04
	Sr-89,90	Below MDL	3.61E–11	1.00E–06	3.61E–05
	Cs-137	Below MDL	6.63E–10	3.00E–06	2.21E–04
PB–1 (K-Area Sec. Effluent)	H-3	8.62E–03	2.56E–06	2.00E–03	1.28E–03
L-Area (L-Reactor)					
L–007	H-3	7.72E+00	2.67E–07	2.00E–03	1.33E–04
	Sr-89,90	Below MDL	2.27E–10	1.00E–06	2.27E–04
	Cs-137	Below MDL	6.37E–10	3.00E–06	2.12E–04
M-Area (Reactor Materials)					
TB–3 (M-Area Effluent at Rd D)	Cs-137	Below MDL	6.15E–10	3.00E–06	2.05E–04
	U-234	3.55E–05	2.72E–11	6.00E–07	4.54E–05
	U-238	5.83E–05	3.44E–11	6.00E–07	5.74E–05
	Pu-238	4.01E–05	1.43E–11	4.00E–08	3.59E–04
	Am-241	6.72E–05	3.45E–11	3.00E–08	1.15E–03
	Cm-244	1.19E–05	9.23E–12	6.00E–08	1.54E–04
P-Area (P-Reactor)					
105–R Sumps	H-3	7.26E–01	4.39E–04	2.00E–03	2.19E–01
	Sr-89,90	3.07E–06	2.59E–09	1.00E–06	2.59E–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 10
Liquid Radioactive Releases by Outfall/Facility and Comparison of Annual Average Radionuclide Concentrations to DOE Derived Concentration Guides

Outfall or Facility	Radionuclide	Quantity of Radionuclides Released During 1996 (Ci)	Average Effluent Concentration During 1996 (μCi/mL)	DOE DCGs[a] (μCi/mL)	Fraction of DOE DCG
	Cs-137	4.53E–05	3.37E–08	3.00E–06	1.12E–02
P–013A	H-3	2.02E+00	3.70E–07	2.00E–03	1.85E–04
	Sr-89,90	Below MDL	3.54E–11	1.00E–06	3.54E–05
	Cs-137	Below MDL	4.23E–10	3.00E–06	1.41E–04
P–019 (P-Area Canal PAR Pond)	H-3	3.38E–01	3.09E–07	2.00E–03	1.54E–04
	Sr-89,90	Below MDL	1.03E–10	1.00E–06	1.03E–04
	Cs-137	Below MDL	2.77E–11	3.00E–06	9.24E–06
S-Area (DWPF)					
S–004[b]	H-3	5.82E–01	1.45E–05	2.00E–03	7.26E–03
	Sr-89,90	Below MDL	–6.81E–11	1.00E–06	0.00E+00
	Cs-137	Below MDL	3.08E–10	3.00E–06	1.03E–04
	U-234	5.02E–07	2.08E–11	6.00E–07	3.47E–05
	U-235	4.58E–08	5.94E–12	6.00E–07	9.90E–06
	U-238	6.32E–07	3.02E–11	6.00E–07	5.04E–05
	Pu-238	2.71E–05	6.46E–10	4.00E–08	1.62E–02
	Pu-239	3.04E–05	7.07E–10	3.00E–08	2.36E–02
TNX Area					
TNX–008	H-3	1.95E–02	1.26E–07	2.00E–03	6.28E–05
	Cs-137	Below MDL	8.90E–10	3.00E–06	2.97E–04
	U-234	7.45E–07	1.70E–12	6.00E–07	2.84E–06
	U-238	1.75E–06	8.52E–12	6.00E–07	1.42E–05
	Pu-238	1.94E–06	6.58E–12	4.00E–08	1.65E–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.

b For dose calculations, releases from S–004 were not added into the site's aqueous source term because they are included in the McQueen Branch totals (S–004 discharges into McQueen Branch upstream of the McQueen Branch sampling station).

Table 11
Calculated Migration of Radioactivity from Seepage Basins

Location	Source Description	1992	1993	1994	1995	1996
				Tritium (Curies)		
FMA7–(FM3A+FM2B)	200–F seepage basins to Four Mile Creek	4,260	2,180	2880	2,370	1,620
FM2B–(FM1C+H017+ H018+HP52)	200–H seepage basins to Four Mile Creek	1,470	1,020	739	528	505
FM3A–(FM3+F012+ F013)	200–H seepage basin 4 and Solid Waste Disposal Facility to Four Mile Creek	4,090	5,330	3090	4,010	3,200
K018–K Canal	K-Area retention basin to Indian Grave Branch	1,530	1,100	878	1,650	1,290
SC2A	100–P seepage basin to Steel Creek[a]	232	382	386	355	320
				Total Strontium (Millicuries)		
FMA7–(FM3A+FM2B)	200–F seepage basins and Solid Waste Disposal Facility to Four Mile Creek	194	150	78	111	68.2
FM2B–FM1C	200–H seepage basins and Solid Waste Disposal Facility to Four Mile Creek	78	65	35	40	31.3
				Cesium-137 (Millicuries)		
FMA7–(direct discharges to Four Mile Creek)	200–F seepage basins and Solid Waste Disposal Facility to Four Mile Creek	[b]	[b]	3	[b]	29.8
	200–H seepage basins and Solid Waste Disposal Facility to Four Mile Creek	[b]	[b]	[b]	[b]	17.4
				Iodine-129 (Millicuries)		
FMA7	200–F and 200–H seepage basins and Solid Waste Disposal Facility to Four Mile Creek	22	22	74	10	78.2
				Technetium-99 (Millicuries)		
FMA7	200–F and 200–H seepage basins and Solid Waste Disposal Facility to Four Mile Creek	[c]	[c]	9	[b]	[c]

a Includes some secondary effluent releases from P-Area when water is diverted from PAR Pond.
b Not detected
c Not measured

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

Area	Release Point	Direct Releases (Curies) 1992	1993	1994	1995	1996
Reactor						
100–P	PAR Pond overflow to Lower Three Runs Creek (L3R2)	100	64	59	56	47
	*Process sewer to PAR Pond					
	*Reactor heat exchanger cooling water to PAR Pond					
	*Combined in 1992 (P019)	(8)[a]	(3)[a]	(2)[a]	(5)[a]	(1)[a]
100–L	L-Lake overflow to Steel Creek (SC4)	515	650	473	472	376
	*Process sewer to L Lake					
	*Reactor heat exchanger cooling water to L Lake					
	*Combined in 1992 (L007)	(58)[a]	(9)[a]	(19)[a]	(11)[a]	(10)[a]
100–K	(K-Canal)	126	16	15	11	12
	(K008)	3	<1	<1	<1	<1
	K-Area secondary effluent (PB1)	3	<1	<1	<1	<1
100–C	Process Sewer to Four Mile Creek (C-Canal)	28	12	1	3	2
	Subtotal	775	742	548	542	437
Separations						
200–F	Effluent to Four Mile Creek (FM3)	5	4	13	2	1
	Effluent to Upper Three Runs	1	1	1	1	2
200–H	Effluent to Four Mile Creek	13	12	10	9	7
	Effluent to Upper Three Runs (HP15+MQB)	15	17	13	14	11
	Effluent Treatment Facility (U3R2A)	1,010	395	389	142	308
	Subtotal	1,040	426	426	168	329

a Not used in totals because release was counted elsewhere

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

		Direct Releases (Curies)				
Area	**Release Point**	**1992**	**1993**	**1994**	**1995**	**1996**
400–D	Process sewer to Beaver Dam Creek (400–D)	576	499	235	628	183
	Subtotal	576	499	235	628	183
	Total Direct Releases[a]	**2,390**	**1,670**	**1,210**	**1,340**	**949**

		Migration (Curies)				
Area	**Release Point**	**1992**	**1993**	**1994**	**1995**	**1996**
200–F&H	Solid Waste Disposal Facility (FM3A–FM3) and H-Area seepage basin to Four Mile Creek	4,090	5,330	3090	4,010	3,200
	200–F seepage basin to Four Mile Creek	4,260	2,180	2880	2,370	1,620
	200–H seepage basin to Four Mile Creek	1,470	1,020	739	528	505
100–K	904–88G to Indian Grave Branch	1,530	1,100	878	1,650[b]	1,290[b]
100–P	Seepage basin to Steel Creek	(232)[c]	(382)[c]	(386)[c]	(355)[c]	(320)[c]
	Subtotal	11,400	9,630	7,500	8,560	6,610
	Total Direct Releases and Migration[a]	**13,800**	**11,300**	**8,800**	**9,900**	**7,560**

		Stream Transport (Curies)				
Area	**Release Point**	**1992**	**1993**	**1994**	**1995**	**1996**
ETF	Upper Three Runs at Road A (U3R4)	1,300	879	747	483	485
400–D	Beaver Dam Creek at swamp	576	499	235	628	183
20–F&H	Four Mile Creek at Road A13 (FM6)	8,710	9,000	6,980	7,350	4,620
100–K	Pen Branch at Road A (PB3)	1,850	1,580	1,890	2,440	2,310
100–L	Steel Creek at Road A (SC4)	515	650	473	472	376
100–P	Lower Three Runs at Road B (L3R2)	100	64	59	56	47
	Total[a]	**13,100**	**12,700**	**10,400**	**11,430**	**8,020**

a Because of rounding, sums of individual columns might not equal totals.
b Beginning in 1995, this value was determined from K018–K Canal. The K018 location is to be discontinued in 1997.
c Not used in totals because release was counted elsewhere

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

	River Transport (Curies)				
	1992	1993	1994	1995	1996
Tritium measured in the Savannah River below SRS (RM 120)	16,000	12,600	12,100	12,600	10,090
Tritium measured in the Savannah River above SRS (RM 160)	2,210	433	1,170	1,940	1,140
Tritium measured in the Savannah River below SRS (downriver minus upriver)[a]	**13,800**	**12,200**	**10,900**	**10,660**	**8,950**

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

Table 13
Transport of Actinides in Savannah River Site Streams

Location	Source Description	1996
		Uranium–234 (Curies)
FM–6	stream transport	6.08E–04
U3R–4	stream transport	6.38E–03
PB–3	stream transport	5.47E–04
L3R–2	stream transport	6.45E–04
SC–4	stream transport	a
		Uranium-235 (Curies)
FM–6	stream transport	5.47E–06
U3R–4	stream transport	2.04E–04
PB–3	stream transport	5.31E–06
L3R–2	stream transport	1.28E–05
SC–4	stream transport	a
		Uranium-238 (Curies)
FM–6	stream transport	8.09E–04
U3R–4	stream transport	8.89E–03
PB–3	stream transport	4.66E–04
L3R–2	stream transport	3.55E–04
SC–4	stream transport	a
		Plutonium-238 (Curies)
FM–6	stream transport	1.38E–04
U3R–4	stream transport	2.53E–03
PB–3	stream transport	5.29E–05
L3R–2	stream transport	8.30E–05
SC–4	stream transport	a
		Plutonium-239 (Curies)
FM–6	stream transport	b
U3R–4	stream transport	b
PB–3	stream transport	b
L3R–2	stream transport	b
SC–4	stream transport	a

a Not analyzed
b Below minimum detectable concentration (1.0E–11µCi/mL)

Table 14
Radioactivity in Air

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
H-3, pCi/cu m				
Onsite				
A-Area	26	(1.30 ± 1.07)E+01	(3.76 ± 0.49)E+01	(–2.06 ± 2.98)E+00
Burial Ground North	24	(9.19 ± 6.88)E+01	(2.67 ± 0.10)E+02	(2.50 ± 0.20)E+00
Burial Ground South	26	(7.87 ± 4.72)E+01	(2.17 ± 0.09)E+02	(2.59 ± 0.23)E+00
F-Area	26	(2.85 ± 1.93)E+01	(6.84 ± 0.76)E+01	(2.00 ± 0.14)E–02
H-Area	26	(2.90 ± 2.28)E+02	(7.81 ± 0.17)E+02	(8.56 ± 0.30)E+00
Site Perimeter				
Allendale Gate	26	(6.95 ± 7.51)E+00	(3.06 ± 1.28)E+01	(-4.92 ± 5.41)E+00
Barnwell Gate	26	(1.04 ± 0.64)E+01	(3.07 ± 1.51)E+01	(1.26 ± 6.81)E–01
D-Area	26	(1.89 ± 1.21)E+01	(5.79 ± 0.74)E+01	(8.52 ± 2.93)E+00
Darkhorse @ Williston Gate	26	(1.08 ± 0.84)E+01	(4.12 ± 0.72)E+01	(1.20 ± 2.82)E+00
East Talatha	26	(1.03 ± 0.62)E+01	(2.48 ± 0.69)E+01	(0.60 ± 1.88)E+00
Green Pond	26	(1.09 ± 0.91)E+01	(4.20 ± 0.68)E+01	(–0.40 ± 2.78)E+00
Highway 125 @ Road A–14	26	(1.26 ± 0.92)E+01	(3.93 ± 1.72)E+01	(–0.29 ± 3.42)E+00
Highway 21/167	26	(9.70 ± 6.63)E+00	(3.31 ± 0.87)E+01	(–0.34 ± 2.40)E+00
Highway 39 @ Williston Gate	26	(1.01 ± 0.93)E+01	(4.90 ± 0.86)E+01	(4.86 ± 1.69)E–01
Jackson	26	(1.11 ± 0.72)E+01	(2.93 ± 0.83)E+01	(5.69 ± 2.27)E–02
Patterson Mill Road	25	(7.55 ± 4.12)E+00	(1.79 ± 0.34)E+01	(1.24 ± 3.72)E+00
Talatha Gate	26	(1.33 ± 0.83)E+01	(2.76 ± 0.44)E+01	(3.01 ± 1.66)E+00
West Jackson	26	(1.01 ± 0.71)E+01	(2.71 ± 0.52)E+01	(–2.59 ± 1.85)E+00
Windsor Road	26	(1.05 ± 0.61)E+01	(3.11 ± 1.85)E+01	(2.01 ± 2.67)E+00
25-Mile Radius				
Augusta Lock and Dam 614	26	(4.08 ± 6.12)E+00	(2.31 ± 0.65)E+01	(–1.40 ± 3.59)E+00
Highway 301 @ state line	22	(5.56 ± 4.56)E+00	(1.27 ± 0.63)E+01	(–0.15 ± 1.35)E+01
100-Mile Radius				
Savannah, Ga.	26	(4.24 ± 5.86)E+00	(1.62 ± 0.67)E+01	(–0.55 ± 1.53)E+01
Co-60, pCi/cu m				
Onsite				
A-Area	12	(0.59 ± 1.87)E–03	(3.50 ± 1.53)E–03	(–3.59 ± 1.57)E–03
Burial Ground North	11	(5.61 ± 8.85)E–04	(1.95 ± 0.88)E–03	(–7.33 ± 8.98)E–04
Burial Ground South	12	(5.41 ± 8.46)E–04	(2.90 ± 0.87)E–03	(–4.24 ± 6.92)E–04

Table 14
Radioactivity in Air

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
F-Area	12	(0.92 ± 1.34)E–03	(4.16 ± 1.83)E–03	(–3.83 ± 5.73)E–04
H-Area	12	(3.68 ± 6.81)E–04	(1.58 ± 0.84)E–03	(–4.99 ± 8.17)E–04
Site Perimeter				
Barnwell Gate	49	(1.59 ± 3.62)E–03	(8.69 ± 5.45)E–03	(–6.16 ± 4.39)E–03
D-Area	1	(–1.19 ± 2.60)E–03		
Highway 21/167	50	(1.81 ± 3.32)E–03	(9.37 ± 3.74)E–03	(–6.52 ± 4.73)E–03
Site perimeter	50	(1.54 ± 2.75)E–04	(1.04 ± 0.69)E–03	(–3.01 ± 2.83)E–04
West Jackson	1	(–0.60 ± 2.23)E–03		
25-Mile Radius				
25-mile radius	49	(0.72 ± 2.48)E–03	(6.85 ± 3.52)E–03	(–6.02 ± 4.76)E–03
Augusta Lock and Dam 614	52	(0.33 ± 2.42)E–03	(4.92 ± 2.89)E–03	(–4.42 ± 4.53)E–03
Highway 301 @ state line	43	(1.72 ± 4.28)E–03	(1.41 ± 0.42)E–02	(–7.88 ± 6.27)E–03
100-Mile Radius				
100-mile radius	51	(0.89 ± 4.30)E–03	(1.17 ± 0.48)E–02	(–9.52 ± 6.02)E–03
Cs-137, pCi/cu m				
Onsite				
A-Area	12	(0.07 ± 1.27)E–03	(1.96 ± 0.96)E–03	(–3.04 ± 1.50)E–03
Burial Ground North	11	(0.83 ± 6.73)E–04	(1.25 ± 0.72)E–03	(–7.94 ± 8.03)E–04
Burial Ground South	12	(1.88 ± 5.86)E–04	(1.08 ± 0.54)E–03	(–5.19 ± 8.06)E–04
F-Area	12	(–0.58 ± 7.62)E–04	(1.18 ± 0.66)E–03	(–1.13 ± 1.09)E–03
H-Area	12	(–0.94 ± 7.24)E–04	(1.22 ± 0.83)E–03	(–1.31 ± 0.79)E–03
Site Perimeter				
Barnwell Gate	49	(0.65 ± 2.90)E–03	(8.05 ± 4.15)E–03	(–4.81 ± 3.67)E–03
D-Area	1	(–1.93 ± 2.50)E–03		
Highway 21/167	50	(0.69 ± 2.36)E–03	(5.39 ± 3.63)E–03	(–4.67 ± 3.21)E–03
Site perimeter	50	(0.39 ± 2.34)E–04	(4.96 ± 2.61)E–04	(–6.36 ± 2.55)E–04
West Jackson	1	(–3.71 ± 2.50)E–03		
25-Mile Radius				
25-mile radius	49	(0.83 ± 2.36)E–03	(6.84 ± 4.65)E–03	(–3.83 ± 1.64)E–03
Augusta Lock and Dam 614	52	(3.72 ± 2.98)E–03	(1.10 ± 0.43)E–02	(–1.66 ± 3.14)E–03
Highway 301 @ state line	43	(4.40 ± 5.84)E–03	(1.85 ± 1.35)E–02	(–9.55 ± 4.95)E–03
100-Mile Radius				
100-mile radius	51	(0.80 ± 2.95)E–03	(1.09 ± 0.45)E–02	(–7.71 ± 3.48)E–03

Table 14
Radioactivity in Air

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Pu-238, pCi/cu m				
Onsite				
A-Area	11	(–0.07 ± 1.29)E–05	(1.31 ± 0.63)E–05	(–3.35 ± 0.67)E–05
Burial Ground North	9	(0.68 ± 3.76)E–06	(7.73 ± 5.70)E–06	(–4.58 ± 2.77)E–06
Burial Ground South	9	(1.94 ± 5.57)E–06	(8.16 ± 4.56)E–06	(–8.59 ± 1.74)E–06
F-Area	11	(3.39 ± 5.57)E–06	(1.42 ± 0.82)E–05	(–4.75 ± 3.92)E–06
H-Area	11	(4.49 ± 7.77)E–06	(1.84 ± 0.66)E–05	(–9.65 ± 4.15)E–06
Site Perimeter				
Site perimeter	47	(–0.28 ± 1.70)E–06	(3.89 ± 1.86)E–06	(–4.80 ± 0.89)E–06
25-Mile Radius				
25-mile radius	45	(–0.45 ± 1.36)E–05	(1.59 ± 1.51)E–05	(–5.17 ± 0.65)E–05
100-Mile Radius				
100-mile radius	48	(–0.76 ± 2.18)E–05	(2.53 ± 2.38)E–05	(–7.42 ± 0.89)E–05
Pu-239, pCi/cu m				
Onsite				
A-Area	11	(0.31 ± 4.12)E–06	(7.83 ± 4.77)E–06	(–5.55 ± 3.07)E–06
Burial Ground North	9	(5.30 ± 3.59)E–06	(1.15 ± 0.89)E–05	(1.09 ± 4.71)E–06
Burial Ground South	9	(0.36 ± 7.90)E–06	(1.86 ± 0.76)E–05	(–5.17 ± 2.57)E–06
F-Area	11	(0.84 ± 7.53)E–06	(1.41 ± 0.75)E–05	(–1.33 ± 0.29)E–05
H-Area	11	(–0.87 ± 3.78)E–06	(9.07 ± 4.56)E–06	(–5.58 ± 4.51)E–06
Site Perimeter				
Site perimeter	47	(–0.25 ± 1.08)E–06	(2.32 ± 2.78)E–06	(–2.40 ± 0.56)E–06
25-Mile Radius				
25-mile radius	45	(–0.29 ± 1.03)E–05	(3.42 ± 3.02)E–05	(–2.36 ± 0.96)E–05
100-Mile Radius				
100-mile radius	48	(–0.68 ± 1.33)E–05	(2.55 ± 1.37)E–05	(–5.09 ± 3.54)E–05
Sr-89,90, pCi/cu m				
Onsite				
A-Area	12	(–0.11 ± 2.95)E–04	(5.82 ± 4.26)E–04	(–5.31 ± 4.72)E–04
Burial Ground North	11	(0.76 ± 1.23)E–04	(2.84 ± 2.17)E–04	(–1.83 ± 3.43)E–04
Burial Ground South	12	(3.34 ± 2.42)E–04	(8.08 ± 3.50)E–04	(–0.70 ± 3.77)E–04
F-Area	12	(–0.52 ± 3.26)E–04	(3.40 ± 4.64)E–04	(–5.65 ± 4.18)E–04
H-Area	12	(3.27 ± 1.77)E–04	(6.43 ± 2.87)E–04	(0.48 ± 2.45)E–04

Table 14
Radioactivity in Air

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Site Perimeter				
Site perimeter	51	(0.48 ± 1.01)E–04	(4.92 ± 1.39)E–04	(–2.39 ± 0.98)E–04
25-Mile Radius				
25-mile radius	52	(–0.06 ± 5.44)E–04	(1.30 ± 1.53)E–03	(–1.49 ± 1.15)E–03
100-Mile Radius				
100-mile radius	52	(1.37 ± 9.15)E–04	(3.04 ± 1.22)E–03	(–1.83 ± 0.89)E–03
Gross Beta, pCi/cu m				
Onsite				
A-Area	52	(1.42 ± 0.48)E–02	(2.48 ± 0.20)E–02	(2.57 ± 0.20)E–05
Burial Ground North	47	(1.50 ± 0.37)E–02	(2.27 ± 0.13)E–02	(5.80 ± 0.83)E–03
Burial Ground South	52	(1.66 ± 0.40)E–02	(2.72 ± 0.14)E–02	(8.34 ± 0.94)E–03
F-Area	51	(1.53 ± 0.47)E–02	(2.86 ± 0.19)E–02	(7.62 ± 0.91)E–03
H-Area	52	(1.44 ± 0.35)E–02	(2.34 ± 0.13)E–02	(7.62 ± 0.92)E–03
Site Perimeter				
Allendale Gate	52	(1.57 ± 0.47)E–02	(2.79 ± 0.15)E–02	(1.58 ± 0.10)E–03
Barnwell Gate	50	(1.60 ± 0.39)E–02	(2.66 ± 0.15)E–02	(1.03 ± 0.11)E–02
D-Area	52	(1.26 ± 0.43)E–02	(2.12 ± 0.12)E–02	(2.16 ± 0.21)E–03
Darkhorse @ Williston Gate	52	(1.59 ± 0.44)E–02	(2.54 ± 0.15)E–02	(6.52 ± 0.62)E–03
East Talatha	52	(1.62 ± 0.48)E–02	(2.73 ± 0.14)E–02	(2.64 ± 0.72)E–03
Green Pond	51	(1.90 ± 1.99)E–02	(1.54 ± 0.09)E–01	(7.66 ± 0.90)E–03
Highway 125 @ Road A–14	51	(1.58 ± 0.48)E–02	(2.87 ± 0.22)E–02	(7.34 ± 0.91)E–03
Highway 21/167	52	(1.64 ± 0.42)E–02	(2.73 ± 0.15)E–02	(9.54 ± 1.01)E–03
Highway 39 @ Williston Gate	52	(1.61 ± 0.42)E–02	(2.61 ± 0.10)E–02	(8.50 ± 0.92)E–03
Jackson	52	(0.36 ± 6.56)E–02	(2.54 ± 0.20)E–02	(–4.59 ± 4.68)E–01
Patterson Mill Road	52	(1.49 ± 0.45)E–02	(2.64 ± 0.13)E–02	(6.77 ± 0.81)E–03
Talatha Gate	52	(1.31 ± 0.41)E–02	(2.29 ± 0.14)E–02	(3.29 ± 0.71)E–03
West Jackson	52	(1.60 ± 0.44)E–02	(2.78 ± 0.16)E–02	(5.64 ± 0.96)E–03
Windsor Road	52	(1.65 ± 0.46)E–02	(2.86 ± 0.14)E–02	(7.79 ± 0.91)E–03
25-Mile Radius				
Augusta Lock and Dam 614	52	(1.50 ± 0.50)E–02	(2.70 ± 0.16)E–02	(3.05 ± 0.20)E–05
Highway 301 @ state line	43	(1.64 ± 0.58)E–02	(3.34 ± 0.24)E–02	(4.30 ± 0.75)E–03

Table 14
Radioactivity in Air

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
100-Mile Radius				
Savannah, Ga.	52	(1.35 ± 0.36)E–02	(2.43 ± 0.15)E–02	(8.02 ± 1.00)E–03
Gross Alpha, pCi/cu m				
Onsite				
A-Area	52	(9.65 ± 5.81)E–04	(2.62 ± 0.78)E–03	(2.50 ± 0.77)E–06
Burial Ground North	47	(1.21 ± 0.50)E–03	(2.50 ± 0.51)E–03	(3.07 ± 2.48)E–04
Burial Ground South	52	(1.25 ± 0.40)E–03	(2.08 ± 0.59)E–03	(3.30 ± 2.67)E–04
F-Area	51	(1.30 ± 0.81)E–03	(4.96 ± 5.65)E–03	(3.26 ± 2.64)E–04
H-Area	52	(9.75 ± 4.71)E–04	(2.50 ± 0.54)E–03	(0.57 ± 1.74)E–04
Site Perimeter				
Allendale Gate	52	(1.03 ± 0.42)E–03	(2.06 ± 0.48)E–03	(1.49 ± 0.38)E–04
Barnwell Gate	50	(9.04 ± 4.90)E–04	(1.96 ± 0.63)E–03	(0.65 ± 2.02)E–04
D-Area	52	(8.20 ± 3.69)E–04	(1.74 ± 0.47)E–03	(0.97 ± 2.13)E–04
Darkhorse @ Williston Gate	52	(9.67 ± 3.86)E–04	(1.96 ± 0.51)E–03	(3.21 ± 2.59)E–04
East Talatha	52	(1.00 ± 0.46)E–03	(2.34 ± 0.55)E–03	(2.13 ± 2.41)E–04
Green Pond	51	(1.26 ± 1.63)E–03	(1.21 ± 0.31)E–02	(–0.76 ± 5.72)E–04
Highway 125 @ Road A–14	51	(1.04 ± 0.41)E–03	(1.96 ± 0.60)E–03	(0.95 ± 2.11)E–04
Highway 21/167	52	(1.04 ± 0.46)E–03	(2.16 ± 0.50)E–03	(0.94 ± 2.08)E–04
Highway 39 @ Williston Gate	52	(9.60 ± 4.21)E–04	(2.03 ± 0.52)E–03	(1.93 ± 1.61)E–04
Jackson	52	(1.06 ± 2.33)E–03	(0.17 ± 1.30)E–01	(1.01 ± 3.16)E–04
Patterson Mill Road	52	(8.85 ± 3.83)E–04	(1.68 ± 0.43)E–03	(1.42 ± 1.85)E–04
Talatha Gate	52	(8.27 ± 3.80)E–04	(1.57 ± 0.43)E–03	(2.03 ± 2.30)E–04
West Jackson	52	(1.05 ± 0.48)E–03	(2.28 ± 0.52)E–03	(2.12 ± 2.39)E–04
Windsor Road	52	(1.12 ± 0.48)E–03	(2.80 ± 0.69)E–03	(3.62 ± 2.35)E–04
25-Mile Radius				
Augusta Lock and Dam 614	52	(1.06 ± 0.56)E–03	(2.31 ± 0.56)E–03	(2.26 ± 0.70)E–06
Highway 301 @ state line	43	(9.56 ± 6.11)E–04	(2.67 ± 0.75)E–03	(–0.70 ± 2.85)E–04
100-Mile Radius				
Savannah, Ga.	52	(9.40 ± 3.74)E–04	(1.86 ± 0.50)E–03	(1.84 ± 2.09)E–04

Table 15
Tritium in Rainwater

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
H-3, μCi/mL				
Onsite				
A-Area	25	(5.75 ± 5.10)E–07	(1.56 ± 0.26)E–06	(–2.58 ± 2.51)E–07
Burial Ground North	23	(3.28 ± 4.12)E–06	(1.66 ± 0.06)E–05	(0.44 ± 3.75)E–07
Burial Ground South	26	(3.53 ± 4.30)E–06	(1.79 ± 0.06)E–05	(–0.78 ± 3.56)E–07
F-Area	25	(1.47 ± 1.85)E–06	(7.40 ± 0.46)E–06	(–1.32 ± 3.59)E–07
H-Area	25	(1.55 ± 1.18)E–05	(4.20 ± 0.09)E–05	(9.39 ± 3.61)E–07
Site Perimeter				
Allendale Gate	26	(2.71 ± 8.11)E–07	(3.85 ± 0.40)E–06	(–5.12 ± 3.51)E–07
Barnwell Gate	24	(3.56 ± 4.51)E–07	(1.69 ± 0.37)E–06	(–4.04 ± 3.52)E–07
D-Area	25	(0.91 ± 1.08)E–06	(4.08 ± 0.41)E–06	(–2.22 ± 3.52)E–07
Darkhorse @ Williston Gate	25	(2.41 ± 3.21)E–07	(1.01 ± 0.36)E–06	(–3.62 ± 3.63)E–07
East Talatha	25	(4.96 ± 5.73)E–07	(1.90 ± 0.39)E–06	(–2.09 ± 3.34)E–07
Green Pond	25	(3.73 ± 4.16)E–07	(1.11 ± 0.32)E–06	(–2.33 ± 3.68)E–07
Highway 125 @ Road A–14	26	(3.29 ± 4.96)E–07	(1.76 ± 0.39)E–06	(–4.21 ± 3.37)E–07
Highway 21/167	25	(2.64 ± 3.39)E–07	(9.92 ± 3.59)E–07	(–2.60 ± 3.62)E–07
Highway 39 @ Williston Gate	25	(1.76 ± 3.76)E–07	(1.29 ± 0.36)E–06	(–2.81 ± 3.50)E–07
Jackson	25	(3.22 ± 3.69)E–07	(1.38 ± 0.28)E–06	(–0.35 ± 3.39)E–07
Patterson Mill Road	25	(1.06 ± 3.97)E–07	(9.57 ± 3.58)E–07	(–5.93 ± 3.35)E–07
Talatha Gate	25	(4.12 ± 6.65)E–07	(2.60 ± 0.38)E–06	(–4.11 ± 3.39)E–07
West Jackson	26	(4.04 ± 5.62)E–07	(1.81 ± 0.40)E–06	(–3.28 ± 3.67)E–07
Windsor Road	25	(3.42 ± 3.28)E–07	(9.03 ± 3.92)E–07	(–4.28 ± 3.65)E–07
25-Mile Radius				
Aiken Airport	1	(2.22 ± 3.71)E–07		
Augusta Lock and Dam 614	26	(1.21 ± 3.52)E–07	(9.42 ± 3.82)E–07	(–5.83 ± 3.50)E–07
Highway 301 @ State Line	21	(0.86 ± 2.09)E–07	(4.22 ± 2.57)E–07	(–4.94 ± 2.57)E–07
100-Mile Radius				
Savannah, Ga.	23	(1.33 ± 2.03)E–07	(4.84 ± 3.71)E–07	(–3.09 ± 3.71)E–07

Table 16
Radioactivity in Rain Ion Columns

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Co-60, pCi/sq m				
Onsite				
H-Area	13	(0.78 ± 1.06)E+01	(2.57 ± 1.05)E+01	(–0.89 ± 1.11)E+01
Site Perimeter				
Barnwell Gate	13	(4.47 ± 9.82)E+00	(1.83 ± 0.80)E+01	(–1.09 ± 0.72)E+01
D-Area	13	(2.50 ± 6.20)E+00	(1.63 ± 0.90)E+01	(–7.78 ± 9.17)E+00
Darkhorse @ Williston Gate	13	(2.69 ± 8.84)E+00	(1.86 ± 0.97)E+01	(–1.21 ± 1.23)E+01
Green Pond	12	(0.20 ± 1.09)E+01	(2.79 ± 1.01)E+01	(–1.14 ± 0.96)E+01
Patterson Mill Road	13	(0.24 ± 1.08)E+01	(2.90 ± 0.89)E+01	(–1.51 ± 1.03)E+01
25-Mile Radius				
Aiken Airport	1	(–1.02 ± 0.98)E+01		
Augusta Lock and Dam 614	13	(7.64 ± 9.76)E+00	(2.40 ± 1.14)E+01	(–1.30 ± 0.83)E+01
Highway 301 @ state line	12	(0.55 ± 1.12)E+01	(2.11 ± 0.97)E+01	(–1.09 ± 0.73)E+01
100-Mile Radius				
Savannah, Ga.	13	(0.77 ± 1.07)E+01	(2.85 ± 1.14)E+01	(–9.39 ± 7.31)E+00
Cs-137, pCi/sq m				
Onsite				
H-Area	13	(0.16 ± 1.05)E+01	(1.94 ± 0.97)E+01	(–1.66 ± 1.12)E+01
Site Perimeter				
Barnwell Gate	13	(0.62 ± 1.07)E+01	(3.41 ± 1.52)E+01	(–3.53 ± 7.32)E+00
D-Area	13	(2.79 ± 8.47)E+00	(1.79 ± 0.93)E+01	(–8.16 ± 8.24)E+00
Darkhorse @ Williston Gate	13	(4.77 ± 7.92)E+00	(1.90 ± 0.88)E+01	(–8.81 ± 9.18)E+00
Green Pond	12	(5.02 ± 9.81)E+00	(2.72 ± 0.91)E+01	(–9.68 ± 9.85)E+00
Patterson Mill Road	13	(5.16 ± 8.97)E+00	(2.37 ± 0.95)E+01	(–1.16 ± 0.91)E+01
25-Mile Radius				
Aiken Airport	1	(4.01 ± 9.03)E+00		
Augusta Lock and Dam 614	13	(1.65 ± 7.50)E+00	(1.40 ± 0.86)E+01	(–1.29 ± 0.80)E+01
Highway 301 @ state line	12	(1.25 ± 9.03)E+00	(2.11 ± 0.97)E+01	(–1.44 ± 0.86)E+01
100-Mile Radius				
Savannah, Ga.	13	(0.14 ± 9.25)E+00	(1.77 ± 0.99)E+01	(–1.31 ± 0.96)E+01

Table 16
Radioactivity in Rain Ion Columns

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Pu-238, pCi/sq m				
Onsite				
H-Area	4	(–0.72 ± 1.30)E–01	(1.14 ± 1.08)E–01	(–1.62 ± 0.63)E–01
Site Perimeter				
Barnwell Gate	3	(–1.48 ± 0.56)E–01	(–0.89 ± 1.09)E–01	(–2.00 ± 0.16)E–01
D-Area	4	(–8.92 ± 7.86)E–02	(1.25 ± 7.65)E–02	(–1.52 ± 0.48)E–01
Darkhorse @ Williston Gate	4	(–7.80 ± 7.20)E–02	(–3.85 ± 6.63)E–02	(–1.86 ± 0.46)E–01
Green Pond	4	(0.10 ± 1.90)E–01	(2.15 ± 1.23)E–01	(–2.02 ± 0.50)E–01
Patterson Mill Road	4	(–0.20 ± 1.11)E–01	(7.76 ± 9.01)E–02	(–1.65 ± 0.64)E–01
25-Mile Radius				
Augusta Lock and Dam 614	4	(–2.07 ± 7.30)E–02	(6.80 ± 7.76)E–02	(–1.06 ± 0.55)E–01
Highway 301 @ state line	3	(–1.38 ± 0.95)E–01	(–5.09 ± 6.18)E–02	(–2.39 ± 0.36)E–01
100-Mile Radius				
Savannah, Ga.	4	(0.53 ± 2.07)E–01	(2.61 ± 2.21)E–01	(–2.16 ± 0.41)E–01
Pu-239, pCi/sq m				
Onsite				
H-Area	4	(–1.93 ± 1.77)E–01	(0.08 ± 1.02)E–01	(–4.05 ± 1.38)E–01
Site Perimeter				
Barnwell Gate	3	(–1.32 ± 1.17)E–01	(–0.60 ± 1.52)E–01	(–2.67 ± 0.90)E–01
D-Area	4	(–1.33 ± 1.75)E–01	(–0.27 ± 1.15)E–01	(–3.93 ± 0.94)E–01
Darkhorse @ Williston Gate	4	(–1.78 ± 0.95)E–01	(–9.73 ± 5.25)E–02	(–3.01 ± 1.01)E–01
Green Pond	4	(–1.41 ± 1.68)E–01	(1.09 ± 1.28)E–01	(–2.50 ± 2.41)E–01
Patterson Mill Road	4	(–1.73 ± 0.68)E–01	(–9.46 ± 8.20)E–02	(–2.57 ± 1.85)E–01
25-Mile Radius				
Augusta Lock and Dam 614	4	(–8.47 ± 5.44)E–02	(–0.07 ± 1.14)E–01	(–1.34 ± 0.58)E–01
Highway 301 @ state line	3	(–1.76 ± 1.57)E–01	(–5.47 ± 9.90)E–02	(–3.53 ± 2.02)E–01
100-Mile Radius				
Savannah, Ga.	4	(–1.28 ± 8.18)E–02	(7.60 ± 8.82)E–02	(–1.21 ± 0.45)E–01
Sr-89,90, pCi/sq m				
Onsite				
H-Area	4	(9.64 ± 7.32)E+00	(1.83 ± 1.08)E+01	(1.08 ± 9.17)E+00

Table 16
Radioactivity in Rain Ion Columns

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Site Perimeter				
Site perimeter				
Barnwell Gate	4	(–1.89 ± 3.48)E+00	(2.81 ± 8.12)E+00	(–5.42 ± 4.39)E+00
D-Area	4	(0.13 ± 5.95)E+00	(4.70 ± 7.99)E+00	(–8.42 ± 8.67)E+00
Darkhorse @ Williston Gate	4	(–0.84 ± 8.14)E+00	(5.50 ± 7.91)E+00	(–1.28 ± 1.08)E+01
Green Pond	4	(–1.37 ± 6.22)E+00	(2.30 ± 9.67)E+00	(–1.06 ± 1.31)E+01
Patterson Mill Road	4	(3.39 ± 3.04)E+00	(0.73 ± 1.02)E+01	(0.84 ± 8.21)E+00
25-Mile Radius				
Augusta Lock and Dam 614	4	(–3.99 ± 5.82)E+00	(1.12 ± 9.55)E+00	(–1.20 ± 0.80)E+01
Highway 301 @ state line	2	(–0.42 ± 2.00)E+00	(1.00 ± 9.79)E+00	(–1.83 ± 4.54)E+00
100-Mile Radius				
Savannah, Ga.	4	(–0.46 ± 1.04)E+01	(6.28 ± 4.89)E+00	(–1.81 ± 1.36)E+01
Gross Beta, pCi/sq m				
Onsite				
H-Area	13	(5.65 ± 5.165)E+01	(1.79 ± 0.08)E+02	(6.73 ± 5.36)E+00
Site Perimeter				
Barnwell Gate	12	(4.25 ± 4.03)E+01	(1.19 ± 0.07)E+02	(6.09 ± 5.36)E+00
Barnwell Gate	1	(0.15 ± 8.80)E+00		
D-Area	9	(6.37 ± 5.26)E+01	(1.62 ± 0.09)E+02	(3.28 ± 3.24)E+00
Darkhorse @ Williston Gate	11	(7.43 ± 6.58)E+01	(2.28 ± 0.12)E+02	(4.67 ± 4.27)E+00
Green Pond	9	(6.13 ± 4.21)E+01	(1.07 ± 0.09)E+02	(8.02 ± 5.36)E+00
Patterson Mill Road	10	(4.72 ± 3.13)E+01	(1.07 ± 0.09)E+02	(1.44 ± 0.58)E+01
25-Mile Radius				
Aiken Airport	1	(2.86 ± 0.56)E+01		
Augusta Lock and Dam 614	13	(6.67 ± 6.31)E+01	(2.00 ± 0.11)E+02	(4.81 ± 5.27)E+00
Highway 301 @ state line	11	(7.31 ± 3.72)E+01	(1.57 ± 0.11)E+02	(1.67 ± 0.59)E+01
100-Mile Radius				
Savannah, Ga.	13	(6.85 ± 9.29)E+01	(3.44 ± 0.16)E+02	(0.61 ± 3.09)E+00
Gross Alpha, pCi/sq m				
Onsite				
H-Area	13	(0.68 ± 1.73)E+00	(3.85 ± 3.08)E+00	(–2.07 ± 1.64)E+00

Table 16
Radioactivity in Rain Ion Columns

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Site Perimeter				
Barnwell Gate	12	(0.31 ± 1.05)E+01	(3.61 ± 0.52)E+01	(–2.13 ± 1.69)E+00
Barnwell Gate	1	(2.33 ± 4.94)E+00		
D-Area	9	(0.10 ± 1.31)E+00	(2.40 ± 2.72)E+00	(–1.38 ± 1.07)E+00
Darkhorse @ Williston Gate	11	(0.45 ± 1.45)E+00	(3.35 ± 3.19)E+00	(–1.42 ± 1.11)E+00
Green Pond	9	(–0.63 ± 1.40)E+00	(1.45 ± 3.28)E+00	(–2.46 ± 1.95)E+00
Patterson Mill Road	10	(1.36 ± 1.49)E+00	(3.06 ± 2.40)E+00	(–1.07 ± 1.88)E+00
25-Mile Radius				
Aiken Airport	1	(0.88 ± 1.96)E+00		
Augusta Lock and Dam 614	13	(3.34 ± 4.90)E+00	(1.65 ± 1.07)E+01	(–1.39 ± 1.93)E+00
Highway 301 @ state line	11	(1.51 ± 1.86)E+00	(3.65 ± 3.60)E+00	(–1.30 ± 1.19)E+00
100-Mile Radius				
Savannah, Ga.	13	(2.34 ± 5.80)E+00	(1.67 ± 0.63)E+01	(–4.39 ± 3.13)E+00

Table 17
Thermoluminescent Dosimeter (TLD) Results — SRS Areas

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

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
643–26E 1	0.30	0.33	0.25	0.31	109
643–26E 2	0.23	0.25	0.21	0.22	82
643–7G 1	0.26	0.29	0.23	0.26	96
643–7G 2	0.29	0.31	0.24	0.27	102
643–7G 3	0.32			0.27	106
643–7G 4	0.66	0.78	0.53	0.65	239
643–G 1	0.23	0.25	0.22	0.24	85
643–G 2	0.30	0.32	0.26	0.30	107
643–G 3	0.50	0.53	0.39	0.46	172
643–G 4	0.32	0.35	0.27	0.32	115
A 1	0.22	0.26	0.20	0.24	85
A 2	0.31	0.36	0.25	0.33	114
A 3	0.25	0.28	0.23	0.25	92
A 4	0.27	0.30	0.25	0.27	100
A 5	0.23	0.26	0.23	0.24	88
A 6	0.24	0.27	0.23	0.25	91
A 7	0.28	0.31	0.26	0.28	103
A 8	0.18	0.24	0.18	0.18	71
B 1	0.22	0.23	0.21	0.23	81
B 2	0.21	0.22	0.20	0.20	75
B 3	0.21	0.23	0.20	0.21	77
B 4	0.21	0.22	0.20	0.21	77
C 1	0.22	0.22	0.23		
C 2	0.20	0.20	0.22		

Notes: *1. 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.*
2. An 18% uncertainty is associated with each result.
3. Blank spaces indicate missing TLD results, in most instances. Program modifications implemented in mid-1996 resulted in the elimination of some locations; fourth quarter and annual exposures are not presented for these locations.

Table 17
Thermoluminescent Dosimeter (TLD) Results — SRS Areas

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

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
C 3	0.22	0.22	0.22		
C 4	0.21	0.21	0.23		
CY 1	0.21	0.20	0.21		
CY 2	0.22	0.22	0.22		
CY 3	0.24	0.23	0.24		
CY 4	0.19	0.18	0.19		
D 1	0.21	0.21	0.22		
D 2	0.21	0.20	0.23		
D 3	0.23	0.23			
D 4	0.23	0.22			
D 5	0.18	0.19	0.20		
D 6	0.17	0.18	0.18		
F 1	0.24	0.26	0.20	0.22	84
F 2	0.25	0.28	0.24	0.26	94
F 3	0.27	0.29	0.24	0.57	127
F 4	0.27	0.29	0.24	0.26	96
F 5	0.38	0.43	0.31	0.37	136
F 6	0.28	0.30	0.25	0.28	101
H 1	0.26	0.28	0.23	0.25	93
H 2	0.25	0.28	0.24	0.27	95
H 3	0.26	0.29	0.23	0.27	96
H 4	0.45	0.46	0.33	0.38	147
H 5	0.42	0.48	0.35	0.41	151
H 6	0.26	0.29	0.23	0.25	95
H 7	0.28	0.30	0.24	0.28	100
H 8	0.27	0.31	0.25	0.28	100
K 1	0.21	0.21	0.22	0.17	73
K 2	0.18	0.19	0.20	0.14	66
K 3	0.25	0.25	0.27	0.20	88
K 4	0.21	0.21	0.23	0.18	75

Table 17
Thermoluminescent Dosimeter (TLD) Results — SRS Areas

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

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
L 1	0.21	0.22	0.23	0.18	76
L 2	0.21	0.21	0.22	0.16	73
L 3	0.21	0.22	0.22	0.18	75
L 4	0.24	0.23	0.25	0.19	83
M 1	0.28	0.31	0.23		
M 2	0.20	0.20	0.17		
M 3	0.29	0.32	0.24		
M 4	0.22	0.24	0.19		
M 5	0.24	0.26	0.21		
M 6	0.21	0.22	0.18		
M 7	0.26	0.30	0.22		
M 8	0.30	0.35	0.25		
N 1	0.27	0.27	0.27	0.25	97
N 2	0.28	0.27	0.28	0.25	99
N 3	0.36	0.35	0.36	0.33	128
N 4	0.34	0.33	0.34	0.31	121
N 5	0.80	0.72	0.73	0.53	252
P 1	0.23	0.23	0.24	0.21	83
P 2	0.21	0.20	0.22	0.18	73
P 3	0.22	0.20	0.22	0.20	76
P 4	0.23	0.22	0.24	0.21	81
R 1	0.21	0.20	0.22		76
R 2	0.22	0.23	0.24		84
R 3	0.19	0.18	0.22		72
R 4	0.23	0.23	0.23		84
R 5	0.22	0.23	0.24		84
R 6	0.21	0.20	0.21		76
R 7	0.17	0.21	0.23		74
RR 1	0.25	0.27	0.23	0.25	92
RR 2	0.26	0.29	0.23	0.25	95

Table 17
Thermoluminescent Dosimeter (TLD) Results — SRS Areas

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

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
S 1			0.24	0.27	94
S 2	0.34	0.39	0.29	0.34	124
S 3	0.32	0.36	0.27	0.31	115
S 4	0.30	0.34	0.27	0.31	111
T 1	0.19	0.19	0.21		
T 2	0.26	0.26	0.20		
T 3	0.23	0.24	0.20		
T 4	0.31	0.26	0.20		
Z 1	0.22	0.23	0.20	0.21	78
Z 2	0.20	0.22	0.19	0.20	75
Z 3	0.20	0.21	0.20	0.21	75
Z 4	0.20	0.28	0.22	0.23	85

Table 18
Thermoluminescent Dosimeter (TLD) Results — Site Perimeter Stations

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

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
1A	0.18		0.22		
1B	0.18		0.23		
1C	0.19		0.24		
1D	0.18		0.21		
2A	0.26		0.31		
2B	0.20		0.25		
2C	0.19		0.24		
2D	0.18		0.22		
3A	0.19		0.23		
3B	0.18		0.22		
3C	0.19		0.23		
3D	0.22		0.27		
4A	0.21		0.26		
4B	0.19				
4C	0.19		0.23		
4D	0.18		0.22		
5A	0.21		0.27		
5B	0.21		0.25		
5C	0.22		0.28		
5D	0.28		0.32		
6A	0.27		0.32		
6B	0.28		0.34		
6C	0.22		0.27		
6D	0.18		0.22		

Notes: 1. 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.
2. An 18% uncertainty is associated with each result.
3. Blank spaces indicate missing TLD results, in most instances. Program modifications implemented in mid-1996 resulted in the elimination of some locations; fourth quarter and annual exposures are not presented for these locations.

Table 18
Thermoluminescent Dosimeter (TLD) Results — Site Perimeter Stations

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

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
7A	0.22		0.27		
7B	0.24		0.30		
7C	0.20		0.25		
7D	0.21		0.26		
8A	0.20		0.25		
8B	0.22		0.27		
8C	0.22		0.27		
8D	0.20		0.25		
9A	0.22		0.26		
9B	0.19		0.22		
9C	0.19		0.23		
9D	0.14		0.18		
10	0.17		0.21		
11	0.18				
12	0.18		0.24		
13	0.18		0.22		
14	0.20		0.25		
15	0.20		0.25		83
16	0.23		0.28		
17	0.24		0.30		
18	0.21		0.26		
19	0.20		0.25		
20	0.27		0.32		
21	0.18		0.23		
22	0.19		0.24		
23	0.21		0.25		
24	0.18		0.23		
25	0.18		0.22		
26	0.17		0.22		
27	0.19	0.19	0.20		

Table 18
Thermoluminescent Dosimeter (TLD) Results — Site Perimeter Stations

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

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
28	0.20	0.19	0.21		
29	0.17	0.17	0.18		
30	0.21	0.20	0.20		
31	0.18	0.17	0.19		
32	0.20	0.19	0.20		
33	0.20	0.19	0.20		
34	0.20		0.21		
35	0.19	0.18	0.20		
36	0.21	0.18	0.22		
37	0.17	0.20	0.19		
38	0.22	0.23	0.24		
39	0.19	0.20	0.20		
40	0.16	0.18	0.19		
41	0.17	0.19	0.18		
42		0.20	0.22	0.28	99
43	0.22	0.23	0.24		
44	0.17	0.19	0.20		
45	0.18	0.20	0.19		
46	0.19	0.21	0.21		
47	0.19	0.20	0.20		
48	0.18	0.19	0.20	0.26	85
49	0.26	0.29	0.28		
50	0.17	0.19	0.19		
51	0.18	0.19	0.20	0.27	86
52	0.19	0.21	0.21		
53	0.16	0.17	0.18		
54	0.15	0.17	0.17		
55	0.15	0.17	0.17		
56		0.16	0.16		
57A	0.15	0.17	0.17		

Table 18
Thermoluminescent Dosimeter (TLD) Results — Site Perimeter Stations

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

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
57B	0.17	0.17	0.19		
57C	0.17	0.18	0.18		
57D	0.17	0.19	0.19	0.25	83
58A	0.21	0.23	0.23		
58B	0.18	0.19	0.19		
58C	0.17	0.19	0.19		
58D	0.19	0.20	0.20		
59A	0.17	0.17	0.19		
59B	0.18	0.19	0.20		
59C	0.22	0.22	0.23		
59D	0.15	0.17	0.16		
60A	0.21	0.21	0.23		
60B	0.18	0.17	0.20		
60C	0.18	0.17	0.20		
60D	0.18	0.17	0.19		
61A	0.19	0.17	0.20		
61B	0.19	0.18	0.21		71
61C	0.18	0.17	0.20		
61D	0.20	0.19	0.21		
62A	0.18	0.17	0.20		
62B	0.17	0.17	0.19		
62C	0.20	0.19	0.22		
62D	0.25	0.24	0.26		
63A	0.18	0.17	0.20		
63B	0.19	0.17	0.20		
63C	0.19	0.18	0.20		
63D	0.18	0.16	0.18		
64A	0.18	0.17	0.19		
64B	0.17	0.15	0.18		
64C	0.18	0.17	0.19		

Table 18
Thermoluminescent Dosimeter (TLD) Results — Site Perimeter Stations

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

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
64D	0.17	0.16	0.19		
65A	0.20	0.18	0.20		
65B	0.23	0.21	0.25		
65C	0.26	0.26	0.28		
65D	0.22	0.21	0.24	0.28	97
66A	0.26	0.25	0.27		
66B	0.27	0.26	0.28		
66C	0.21	0.19	0.21		
66D	0.22	0.20	0.23		
67A	0.20	0.18	0.21		
67B	0.21	0.20	0.23		
67C	0.21	0.20	0.22		
67D	0.17	0.16	0.19		
68A	0.18	0.17	0.19		
68B	0.18	0.16	0.19		
68C	0.21	0.20	0.22		
68D	0.23	0.22	0.24		
69A	0.25	0.24	0.26		
69B	0.18	0.16	0.18		
69C	0.19	0.18	0.20		
69D	0.21	0.19	0.22		
70A	0.20	0.19	0.22		
70B	0.18	0.16	0.18		
70C	0.19	0.18	0.20		
70D	0.21	0.20	0.23		
71A	0.18	0.17	0.20		
71B	0.21	0.21	0.22		
71C	0.20	0.19	0.22		
71D	0.22	0.21	0.23		
72A	0.20	0.19	0.21		

Table 18
Thermoluminescent Dosimeter (TLD) Results — Site Perimeter Stations

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

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
72B	0.20	0.18	0.22	0.26	87
72C	0.19	0.18	0.21		
72D	0.19	0.17	0.21		
73A	0.17	0.17	0.18		
73B	0.19	0.18	0.21		
73C	0.19	0.18	0.20		
73D	0.19	0.17	0.19		
74A	0.18	0.16	0.18		
74B	0.17	0.15	0.18		
74C	0.16	0.16	0.17		
74D	0.18	0.16	0.18		
75A	0.17	0.16	0.17		
75B	0.18	0.17	0.19		
75C	0.16	0.15	0.17		
75D	0.17	0.16	0.19	0.24	77
76A	0.18	0.17	0.19		
76B	0.18	0.17	0.20		
76C	0.19	0.17	0.19		
76D	0.18	0.17	0.19		
77	0.19	0.18	0.20		
78		0.18	0.20		
79A	0.20	0.19	0.21		
79B	0.20	0.18	0.21		
79C	0.22	0.20	0.23		
79D	0.18	0.17	0.19		
AG 1		0.18	0.19		
AG 2	0.14	0.16	0.16		
AG 3	0.16	0.17			
AG 4	0.15	0.17	0.16		
PH RD 1	0.22	0.20	0.22		

Table 18
Thermoluminescent Dosimeter (TLD) Results — Site Perimeter Stations

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

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
PH RD 2	0.21	0.20	0.25		
PH RD 3	0.16	0.15	0.18		
PH RD 4	0.18	0.17	0.19		
PH RD 5	0.26	0.25			
PH RD 6	0.22	0.20	0.23		

Table 19
Thermoluminescent Dosimeter (TLD) Results — Environmental Surveillance (Air Monitoring) Stations

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

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
A AREA	0.23	0.24	0.25	0.27	90
BGN	0.35	0.30	0.34	0.28	116
BGS	0.26	0.24	0.29	0.23	92
F AREA	0.32	0.29	0.34	0.29	113
H AREA	0.34	0.26	0.29	0.26	105
A–14	0.18	0.18	0.19	0.20	69
AIKEN	0.21	0.22	0.23	0.24	81
ALLEN	0.16	0.16	0.17	0.17	60
BARN	0.20	0.20	0.21	0.22	75
D AREA	0.18	0.18	0.20	0.21	70
DARK H	0.19	0.20	0.20	0.22	74
E TAL	0.17	0.17	0.19	0.18	65
GR PND	0.18	0.18	0.20	0.19	69
HWY 21/167	0.25	0.26	0.26	0.28	95
HWY 39	0.19	0.19	0.20	0.21	72
JACK	0.21	0.21	0.22	0.22	78
PATT MR	0.17	0.16	0.18	0.18	64
W JACK	0.23	0.24	0.25	0.26	89
WIND	0.18	0.15	0.19	0.15	62
AAP	0.16	0.15	0.19	0.15	59
AUG L&D	0.23	0.21	0.26	0.22	84
HWY 301		0.15	0.26	0.22	77
SAV 1	0.19	0.17	0.18	0.17	65
SAV 2	0.14	0.16	0.15	0.12	52

Notes: *1. 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.*
2. An 18% uncertainty is associated with each result.
3. Blank space indicates missing TLD results.

Table 20
Thermoluminescent Dosimeter (TLD) Results — Population Centers

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

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
Barnwell	0.28	0.27	0.24	0.20	90
Beech Island	0.28	0.30	0.28	0.25	100
Jackson	0.22	0.25	0.26	0.22	86
Martin	0.16	0.17	0.18	0.15	61
Williston	0.29	0.30	0.31	0.28	108
Windsor	0.15	0.17	0.20	0.12	58
New Ellenton	0.25	0.27	0.26	0.25	93
Girard	0.22	0.27	0.31	0.29	99
McBean		0.27	0.25	0.23	90

Notes: *1. 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.*
2. An 18% uncertainty is associated with each result.
3. Blank space indicates missing TLD results.

Table 21
Thermoluminescent Dosimeter (TLD) Results — Vogtle Electric Generating Plant Vicinity

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

Location	Quarter 1	Quarter 2	Quarter 3	Quarter 4	mR/Year
GAP 1H	0.21	0.17	0.16	0.15	62
GAP 1L	0.21	0.17	0.16	0.14	62
GAP 2H	0.23	0.19	0.17	0.16	68
GAP 2L	0.23	0.19	0.17	0.16	68
GAP 3H	0.23	0.20	0.18	0.17	70
GAP 3L	0.23	0.18		0.16	68
GAP 4H	0.22	0.18	0.17	0.16	65
GAP 4L	0.22	0.18	0.17	0.16	65
GAP 5H	0.22	0.18	0.16	0.15	63
GAP 5L	0.17	0.15	0.16	0.12	53
NRC 1	0.18	0.18	0.23		72
NRC 2	0.13	0.13	0.18	0.15	54
NRC 3	0.14	0.13	0.19	0.16	56
NRC 4	0.15	0.16	0.20	0.17	63
NRC 5	0.21	0.21	0.27	0.24	85
NRC 6	0.16	0.15	0.21	0.18	64
NRC 7	0.15	0.15	0.20	0.16	60
NRC 8	0.13	0.13	0.17	0.14	51

Notes: *1. 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.*
2. An 18% uncertainty is associated with each result.
3. Blank spaces indicate missing TLD results.

Table 22
Radioactivity in Seepage Basin Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
H-3, μCi/mL				
CSB–1 C-Area Seepage Basin	2	(3.94 ± 0.27)E–06	(4.13 ± 3.53)E–06	(3.75 ± 3.05)E–06
EAV Basin North (E–004)	12	(3.99 ± 2.31)E–06	(7.90 ± 0.48)E–06	(1.07 ± 0.42)E–06
LSB–1 L-Area Seepage Basin	3	(2.25 ± 2.08)E–06	(4.51 ± 3.56)E–06	(0.42 ± 2.99)E–06
PSB–1 P-Area Seepage Basin	2	(7.82 ± 6.64)E–05	(1.25 ± 0.70)E–04	(3.13 ± 7.01)E–05
SWDF Basin South (E–001)	10	(1.10 ± 0.79)E–05	(2.22 ± 0.07)E–05	(1.28 ± 0.23)E–06
TNX–SB Seepage Basin	1	(6.41 ± 3.83)E–07		
CSB–1 C-Area Seepage Basin	2	(3.57 ± 0.24)E–07	(3.75 ± 0.51)E–07	(3.40 ± 0.48)E–07
EAV Basin North (E–004)	12	(0.62 ± 1.41)E–07	(4.14 ± 0.42)E–07	(–7.05 ± 3.33)E–08
LSB–1 L-Area Seepage Basin	3	(1.30 ± 2.51)E–07	(3.06 ± 0.41)E–07	(–1.58 ± 0.46)E–07
PSB–1 P-Area Seepage Basin	2	(1.93 ± 2.04)E–07	(3.37 ± 0.45)E–07	(4.89 ± 3.16)E–08
Co-60, μCi/mL				
CSB–1 C-Area Seepage Basin	2	(1.02 ± 0.10)E–08	(1.09 ± 0.36)E–08	(9.48 ± 3.41)E–09
EAV Basin North (E–004)	12	(0.36 ± 3.14)E–09	(5.33 ± 1.85)E–09	(–5.01 ± 2.93)E–09
LSB–1 L-Area Seepage Basin	3	(1.87 ± 3.52)E–09	(5.93 ± 3.01)E–09	(–0.24 ± 3.07)E–09
PSB–1 P-Area Seepage Basin	2	(5.93 ± 0.89)E–09	(6.55 ± 1.62)E–09	(5.30 ± 3.43)E–09
Cs-137, μCi/mL				
CSB–1 C-Area Seepage Basin	2	(1.46 ± 1.24)E–08	(2.33 ± 0.66)E–08	(5.84 ± 3.69)E–09
EAV Basin North (E–004)	12	(5.05 ± 9.02)E–10	(2.20 ± 2.25)E–09	(–1.09 ± 2.13)E–09
LSB–1 L-Area Seepage Basin	3	(2.34 ± 4.70)E–09	(7.64 ± 3.03)E–09	(–1.34 ± 2.92)E–09
PSB–1 P-Area Seepage Basin	2	(3.77 ± 0.99)E–08	(4.47 ± 0.60)E–08	(3.06 ± 0.36)E–08
U-234, μCi/mL				
TNX–SB Seepage Basin	1	(2.95 ± 0.40)E–10		
U-235, μCi/mL				
TNX–SB Seepage Basin	1	(–2.41 ± 0.11)E–12		

Table 22
Radioactivity in Seepage Basin Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
U-238, μCi/mL				
TNX–SB Seepage Basin	1	(7.29 ± 0.62)E–10		
Pu-238, μCi/mL				
TNX–SB Seepage Basin	1	(0.29 ± 2.26)E–11		
Pu-239, μCi/mL				
TNX–SB Seepage Basin	1	(0.00 ± 1.24)E–10		
Sr-89,90, μCi/mL				
LSB–1 L-Area Seepage Basin	3	(3.54 ± 7.33)E–09	(1.17 ± 4.62)E–08	(–0.24 ± 1.55)E–08
Gross Beta, μCi/mL				
CSB–1 C-Area Seepage Basin	2	(4.05 ± 0.52)E–08	(4.42 ± 0.62)E–08	(3.69 ± 0.52)E–08
EAV Basin North (E–004)	12	(2.91 ± 0.96)E–09	(4.83 ± 1.11)E–09	(1.69 ± 0.73)E–09
LSB–1 L-Area Seepage Basin	3	(1.22 ± 2.23)E–09	(2.54 ± 4.10)E–09	(–1.35 ± 3.20)E–09
PSB–1 P-Area Seepage Basin	2	(2.62 ± 0.98)E–08	(3.32 ± 0.57)E–08	(1.93 ± 0.49)E–08
SWDF Basin South (E–001)	10	(3.88 ± 2.20)E–09	(7.01 ± 1.11)E–09	(–8.18 ± 5.56)E–10
TNX–SB Seepage Basin	1	(4.39 ± 2.09)E–09		
Gross Alpha, μCi/mL				
CSB–1 C-Area Seepage Basin	2	(–1.52 ± 0.66)E–09	(–1.06 ± 0.95)E–09	(–1.99 ± 1.41)E–09
EAV Basin North (E–004)	12	(1.01 ± 0.89)E–09	(3.15 ± 1.28)E–09	(–2.21 ± 2.05)E–10
LSB–1 L-Area Seepage Basin	3	(–1.00 ± 0.05)E–09	(–0.96 ± 1.67)E–09	(–1.06 ± 0.95)E–09
PSB–1 P-Area Seepage Basin	2	(0.51 ± 2.09)E–09	(1.99 ± 2.44)E–09	(–0.96 ± 1.67)E–09
SWDF Basin South (E–001)	10	(1.24 ± 1.49)E–09	(3.65 ± 1.07)E–09	(–2.45 ± 2.24)E–10
TNX–SB Seepage Basin	1	(0.59 ± 1.35)E–09		

Table 23
Radioactivity in Savannah River Site Stream Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
H-3, μCi/mL				
Tims Branch				
TB–5 near Road C	26	(8.89 ± 2.78)E–07	(1.39 ± 0.38)E–06	(5.01 ± 3.85)E–07
Upper Three Runs				
Crouch Branch at Road 4	26	(1.33 ± 0.26)E–05	(1.69 ± 0.04)E–05	(8.27 ± 0.49)E–06
U3R–1A Treadway Bridge Road 8–1	51	(4.60 ± 2.92)E–07	(1.06 ± 0.38)E–06	(–1.94 ± 3.53)E–07
U3R–3 at Road C	19	(3.53 ± 3.76)E–06	(1.58 ± 0.04)E–05	(9.46 ± 3.71)E–07
U3R–4 at Road A	26	(2.42 ± 2.01)E–06	(8.16 ± 0.49)E–06	(8.01 ± 3.80)E–07
Four Mile Creek				
Caster Creek—southeast of C-Area	39	(3.56 ± 0.63)E–06	(6.98 ± 0.33)E–06	(2.85 ± 0.40)E–06
FM–2 at Road 4	15	(2.24 ± 0.74)E–05	(3.61 ± 0.08)E–05	(1.18 ± 0.03)E–05
FM–2B above F-Area effluent	26	(9.12 ± 1.60)E–05	(1.24 ± 0.05)E–04	(6.34 ± 0.45)E–05
FM–3A below F-Area effluent	26	(1.59 ± 0.15)E–03	(1.97 ± 0.03)E–03	(1.33 ± 0.02)E–03
FM–6 at Road A–12.2	26	(2.10 ± 0.17)E–04	(2.44 ± 0.03)E–04	(1.79 ± 0.01)E–04
FM–A7 at Road A–7	26	(4.73 ± 0.83)E–04	(6.48 ± 0.12)E–04	(3.20 ± 0.07)E–04
H–008 Outfall	37	(1.95 ± 1.43)E–06	(8.56 ± 0.47)E–06	(2.30 ± 2.92)E–07
HP–50 Tritium Facility Outfall	26	(1.50 ± 1.46)E–05	(6.43 ± 0.08)E–05	(1.48 ± 0.38)E–06
Twin Lakes—west of C-Area	39	(1.45 ± 0.13)E–05	(1.66 ± 0.06)E–05	(1.04 ± 0.05)E–05
Pen Branch				
IGB–21 800ft south of Road 6–1	39	(5.82 ± 0.64)E–04	(6.94 ± 0.10)E–04	(4.56 ± 0.09)E–04
K–011 Outfall at B Road	39	(4.80 ± 1.44)E–05	(1.02 ± 0.01)E–04	(2.55 ± 0.07)E–05
PB–3 at Road A–13.2	26	(6.22 ± 1.15)E–05	(8.82 ± 0.10)E–05	(4.11 ± 0.09)E–05
Steel Creek				
SC–2A 1 mile above Road B	24	(5.60 ± 2.99)E–05	(1.31 ± 0.01)E–04	(4.07 ± 0.08)E–05
SC–4 Steel Creek at Road A	26	(7.54 ± 0.86)E–06	(8.81 ± 0.48)E–06	(5.40 ± 0.44)E–06
Lower Three Runs Creek				
L3R–1A at Road B	25	(8.45 ± 2.84)E–07	(1.38 ± 0.39)E–06	(3.39 ± 3.58)E–07
L3R–2 Patterson Mill Road	26	(1.12 ± 0.30)E–06	(1.60 ± 0.38)E–06	(4.52 ± 2.27)E–07

Table 23
Radioactivity in Savannah River Site Stream Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
L3R–3 at Highway 125	12	(5.72 ± 3.27)E–07	(1.13 ± 0.37)E–06	(–1.37 ± 3.10)E–07
R-Area downstream of R–1	39	(0.84 ± 1.26)E–05	(6.02 ± 0.09)E–05	(7.16 ± 3.83)E–07
Co-60, μCi/mL				
Upper Three Runs				
Crouch Branch at Road 4	26	(0.13 ± 3.27)E–09	(5.65 ± 2.10)E–09	(–1.02 ± 0.61)E–08
U3R–3 at Road C	21	(0.56 ± 3.42)E–09	(4.92 ± 2.98)E–09	(–7.89 ± 2.66)E–09
U3R–4 at Road A	26	(–0.15 ± 3.85)E–09	(7.32 ± 3.47)E–09	(–9.80 ± 2.97)E–09
Four Mile Creek				
FM–2 at Road 4	15	(0.97 ± 2.55)E–09	(4.00 ± 2.76)E–09	(–5.05 ± 2.58)E–09
FM–2B above F-Area effluent	25	(1.81 ± 3.00)E–09	(7.34 ± 2.73)E–09	(–4.95 ± 2.48)E–09
FM–3A below F-Area effluent	25	(0.36 ± 2.70)E–09	(6.13 ± 2.57)E–09	(–4.02 ± 2.60)E–09
FM–6 at Road A–12.2	26	(0.19 ± 3.76)E–09	(5.47 ± 2.73)E–09	(–1.19 ± 1.14)E–08
FM–A7 at Road A–7	25	(0.94 ± 1.88)E–09	(4.59 ± 2.56)E–09	(–2.58 ± 2.60)E–09
H–008 Outfall	37	(0.89 ± 2.58)E–09	(6.26 ± 2.58)E–09	(–7.31 ± 2.87)E–09
HP–50 Tritium Facility Outfall	6	(1.72 ± 1.60)E–09	(3.30 ± 2.26)E–09	(–1.32 ± 2.45)E–09
Pen Branch				
K–011 Outfall at B Road	38	(0.21 ± 2.85)E–09	(5.08 ± 2.01)E–09	(–4.53 ± 2.95)E–09
PB–3 at Road A–13.2	25	(1.57 ± 6.25)E–09	(2.71 ± 1.46)E–08	(–5.24 ± 2.62)E–09
Steel Creek				
SC–2A 1 mile above Road B	24	(1.36 ± 3.41)E–09	(0.99 ± 1.25)E–08	(–6.54 ± 8.47)E–09
SC–4 Steel Creek at Road A	26	(0.18 ± 3.44)E–09	(4.28 ± 2.47)E–09	(–1.18 ± 1.22)E–08
Lower Three Runs Creek				
L3R–2 Patterson Mill Road	26	(–0.28 ± 2.88)E–09	(3.52 ± 2.19)E–09	(–1.03 ± 1.04)E–08
L3R–3 at Highway 125	12	(1.42 ± 1.72)E–09	(3.57 ± 1.52)E–09	(–1.68 ± 1.47)E–09
R-Area downstream of R–1	37	(0.97 ± 2.56)E–09	(5.78 ± 2.29)E–09	(–7.01 ± 2.73)E–09
Cs-137, μCi/mL				
Upper Three Runs				
Crouch Branch at Road 4	26	(0.89 ± 2.50)E–09	(7.32 ± 2.53)E–09	(–3.41 ± 2.12)E–09
U3R–3 at Road C	21	(0.39 ± 5.23)E–09	(5.03 ± 2.36)E–09	(–1.91 ± 0.97)E–08
U3R–4 at Road A	26	(0.32 ± 2.95)E–09	(7.85 ± 3.83)E–09	(–6.94 ± 9.64)E–09

Table 23
Radioactivity in Savannah River Site Stream Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Four Mile Creek				
FM–2 at Road 4	15	(1.25 ± 0.93)E–08	(3.20 ± 0.47)E–08	(–0.34 ± 1.45)E–09
FM–2B above F-Area effluent	25	(7.86 ± 5.01)E–09	(1.99 ± 0.43)E–08	(1.38 ± 1.83)E–09
FM–3A below F-Area effluent	25	(1.84 ± 2.40)E–09	(6.30 ± 2.40)E–09	(–2.03 ± 2.33)E–09
FM–6 at Road A–12.2	26	(1.92 ± 4.27)E–09	(1.31 ± 0.40)E–08	(–1.19 ± 0.97)E–08
FM–A7 at Road A–7	26	(8.92 ± 8.24)E–09	(4.04 ± 0.48)E–08	(1.25 ± 2.66)E–09
H–008 Outfall	37	(2.55 ± 2.59)E–09	(1.03 ± 0.27)E–08	(–0.66 ± 2.46)E–09
HP–50 Tritium Facility Outfall	6	(–0.57 ± 1.55)E–09	(1.97 ± 1.73)E–09	(–1.95 ± 1.06)E–09
Pen Branch				
K–011 Outfall at B Road	38	(0.53 ± 2.40)E–09	(5.82 ± 2.28)E–09	(–5.09 ± 2.94)E–09
PB–3 at Road A–13.2	25	(1.50 ± 3.07)E–09	(1.31 ± 0.90)E–08	(–1.39 ± 2.32)E–09
Steel Creek				
SC–2A 1 mile above Road B	24	(1.76 ± 5.43)E–09	(1.41 ± 0.20)E–08	(–1.23 ± 0.96)E–08
SC–4 Steel Creek at Road A	26	(0.77 ± 2.55)E–09	(4.53 ± 2.27)E–09	(–4.85 ± 8.89)E–09
Lower Three Runs Creek				
L3R–2 Patterson Mill Road	26	(2.69 ± 4.62)E–09	(1.12 ± 0.30)E–08	(–1.51 ± 0.97)E–08
L3R–3 at Highway 125	12	(2.17 ± 2.26)E–09	(4.73 ± 2.63)E–09	(–2.21 ± 2.23)E–09
R-Area downstream of R–1	37	(1.05 ± 0.41)E–08	(1.95 ± 0.36)E–08	(3.76 ± 2.91)E–09
U-234, μCi/mL				
Upper Three Runs				
U3R–4 at Road A	25	(3.64 ± 3.91)E–11	(2.08 ± 0.14)E–10	(1.21 ± 0.69)E–11
Four Mile Creek				
FM–6 at Road A–12.2	26	(2.98 ± 2.57)E–11	(1.21 ± 0.16)E–10	(–1.35 ± 0.75)E–11
Pen Branch				
PB–3 at Road A–13.2	25	(1.82 ± 2.68)E–11	(8.83 ± 1.04)E–11	(–1.55 ± 0.30)E–11
Lower Three Runs Creek				
L3R–2 (weekly grab)	40	(1.47 ± 1.14)E–11	(4.28 ± 0.76)E–11	(–9.48 ± 7.72)E–12
L3R–2 Patterson Mill Road	26	(1.91 ± 1.74)E–11	(6.09 ± 1.18)E–11	(–3.52 ± 5.96)E–12
U-235, μCi/mL				
Upper Three Runs				
U3R–4 at Road A	25	(2.77 ± 4.55)E–12	(1.64 ± 0.37)E–11	(–3.21 ± 1.05)E–12

Table 23
Radioactivity in Savannah River Site Stream Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Four Mile Creek				
FM–6 at Road A–12.2	26	(4.06 ± 3.76)E–12	(1.13 ± 0.68)E–11	(–3.68 ± 2.61)E–12
Pen Branch				
PB–3 at Road A–13.2	25	(2.12 ± 3.38)E–12	(9.95 ± 7.48)E–12	(–4.13 ± 0.18)E–12
Lower Three Runs Creek				
L3R–2 (weekly grab)	39	(0.89 ± 3.24)E–12	(7.66 ± 3.90)E–12	(–5.38 ± 0.77)E–12
L3R–2 Patterson Mill Road	26	(1.21 ± 3.69)E–12	(9.43 ± 4.62)E–12	(–4.68 ± 0.90)E–12
U-238, μCi/mL				
Upper Three Runs				
U3R–4 at Road A	25	(4.76 ± 3.97)E–11	(2.15 ± 0.14)E–10	(1.18 ± 0.66)E–11
Four Mile Creek				
FM–6 at Road A–12.2	26	(3.65 ± 3.18)E–11	(1.06 ± 0.17)E–10	(–3.33 ± 1.31)E–11
Pen Branch				
PB–3 at Road A–13.2	25	(1.14 ± 2.22)E–11	(5.36 ± 1.29)E–11	(–3.24 ± 0.36)E–11
Lower Three Runs Creek				
L3R–2 (weekly grab)	40	(0.94 ± 1.31)E–11	(3.23 ± 0.73)E–11	(–1.58 ± 0.47)E–11
L3R–2 Patterson Mill Road	26	(1.17 ± 1.57)E–11	(4.57 ± 1.04)E–11	(–2.73 ± 1.48)E–11
Upper Three Runs				
U3R–4 at Road A	26	(1.16 ± 4.74)E–11	(2.38 ± 0.25)E–10	(–2.05 ± 0.63)E–11
Four Mile Creek				
FM–6 at Road A–12.2	24	(0.43 ± 1.64)E–11	(3.73 ± 0.90)E–11	(–2.05 ± 0.18)E–11
Pen Branch				
PB–3 at Road A–13.2	23	(0.35 ± 1.09)E–11	(2.33 ± 0.78)E–11	(–1.90 ± 0.76)E–11
Lower Three Runs Creek				
L3R–2 (weekly grab)	37	(0.49 ± 2.23)E–11	(1.25 ± 0.13)E–10	(–1.32 ± 0.33)E–11
L3R–2 Patterson Mill Road	25	(3.12 ± 9.69)E–12	(3.26 ± 1.10)E–11	(–1.29 ± 0.64)E–11
Pu-238, μCi/mL				
Upper Three Runs				
U3R–4 at Road A	26	(1.16 ± 4.74)E–11	(2.38 ± 0.25)E–10	(–2.05 ± 0.63)E–11
Four Mile Creek				
FM–6 at Road A–12.2	24	(0.43 ± 1.64)E–11	(3.73 ± 0.90)E–11	(–2.05 ± 0.18)E–11
Pen Branch				
PB–3 at Road A–13.2	23	(0.35 ± 1.09)E–11	(2.33 ± 0.78)E–11	(–1.90 ± 0.76)E–11

Table 23
Radioactivity in Savannah River Site Stream Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Lower Three Runs Creek				
L3R–2 (Weekly Grab)	37	(0.49 ± 2.23)E–11	(1.25 ± 0.13)E–10	(–1.32 ± 0.33)E–11
L3R–2 Patterson Mill Rd	25	(3.12 ± 9.69)E–12	(3.26 ± 1.10)E–11	(–1.29 ± 0.64)E–11
Pu-239, μCi/mL				
Upper Three Runs				
U3R–4 at Road A	25	(–0.07 ± 2.26)E–12	(3.72 ± 3.72)E–12	(–3.74 ± 1.70)E–12
Four Mile Creek				
FM–6 at Road A–12.2	24	(0.97 ± 3.38)E–12	(8.19 ± 4.50)E–12	(–7.03 ± 1.50)E–12
Pen Branch				
PB–3 at Road A–13.2	22	(0.56 ± 3.18)E–12	(5.48 ± 3.67)E–12	(–5.39 ± 3.56)E–12
Lower Three Runs Creek				
L3R–2 (weekly grab)	37	(–0.30 ± 1.20)E–11	(5.08 ± 4.78)E–12	(–5.16 ± 0.21)E–11
L3R–2 Patterson Mill Road	25	(–0.02 ± 2.80)E–12	(5.20 ± 3.67)E–12	(–9.04 ± 1.97)E–12
Sr-89,90, μCi/mL				
Upper Three Runs				
Crouch Branch at Road 4	12	(0.19 ± 1.54)E–10	(4.00 ± 2.10)E–10	(–1.65 ± 1.68)E–10
U3R–3 at Road C	10	(1.75 ± 7.41)E–10	(1.98 ± 0.34)E–09	(–5.60 ± 4.44)E–10
Four Mile Creek				
FM–2 at Road 4	7	(3.15 ± 1.89)E–09	(6.32 ± 0.51)E–09	(9.92 ± 4.29)E–10
FM–2B above F-Area effluent	12	(6.48 ± 1.72)E–09	(8.93 ± 0.79)E–09	(4.53 ± 0.52)E–09
FM–3A below F-Area effluent	12	(3.96 ± 3.27)E–10	(1.06 ± 0.67)E–09	(0.05 ± 5.27)E–10
FM–6 at Road A–12.2	12	(3.83 ± 0.65)E–09	(5.16 ± 0.35)E–09	(3.06 ± 0.26)E–09
FM–A7 at Road A–7	11	(9.27 ± 2.10)E–09	(1.42 ± 0.10)E–08	(6.20 ± 0.58)E–09
H–008 Outfall	12	(0.06 ± 3.36)E–10	(5.52 ± 3.72)E–10	(–4.81 ± 7.32)E–10
Pen Branch				
IGB–21 800ft south of Road 6–1	4	(1.80 ± 2.00)E–10	(4.35 ± 4.10)E–10	(–0.52 ± 4.40)E–10
K–011 Outfall at B Road	12	(1.13 ± 2.94)E–10	(8.06 ± 4.40)E–10	(–2.48 ± 2.21)E–10
PB–3 at Road A–13.2	12	(1.77 ± 2.35)E–10	(8.67 ± 1.95)E–10	(–0.53 ± 1.38)E–10
Steel Creek				
SC–2A 1 mile above Road B	12	(–0.26 ± 1.52)E–10	(2.40 ± 2.21)E–10	(–3.90 ± 2.76)E–10
SC–4 Steel Creek at Road A	12	(1.11 ± 1.27)E–10	(3.16 ± 1.66)E–10	(–0.91 ± 1.30)E–10

Table 23
Radioactivity in Savannah River Site Stream Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Lower Three Runs Creek				
L3R–1A at Road B	12	(0.04 ± 1.37)E–10	(2.22 ± 2.29)E–10	(–2.04 ± 2.02)E–10
L3R–2 Patterson Mill Road	12	(2.39 ± 0.73)E–10	(3.88 ± 1.44)E–10	(1.20 ± 1.42)E–10
L3R–3 at Highway 125	12	(0.79 ± 2.25)E–10	(4.94 ± 3.35)E–10	(–3.18 ± 3.82)E–10
Gross Beta, μCi/mL				
Tims Branch				
TB–5 near Road C	26	(2.29 ± 0.92)E–09	(5.46 ± 0.69)E–09	(1.01 ± 0.40)E–09
Upper Three Runs				
Crouch Branch at Road 4	26	(1.20 ± 0.45)E–09	(2.36 ± 0.59)E–09	(4.72 ± 4.25)E–10
U3R–1A Treadway Bridge Road 8–1	48	(1.18 ± 0.70)E–09	(2.79 ± 0.57)E–09	(–0.92 ± 4.08)E–10
U3R–3 at Road C	21	(1.26 ± 0.73)E–09	(2.94 ± 0.52)E–09	(1.71 ± 4.00)E–10
U3R–4 at Road A	26	(1.48 ± 1.26)E–09	(5.89 ± 0.64)E–09	(–0.29 ± 3.89)E–10
Four Mile Creek				
FM–2 at Road 4	15	(1.73 ± 1.31)E–08	(4.63 ± 0.16)E–08	(3.28 ± 0.55)E–09
FM–2B above F-Area effluent	25	(1.58 ± 0.49)E–08	(2.63 ± 0.11)E–08	(9.31 ± 0.70)E–09
FM–3A below F-Area effluent	24	(3.24 ± 1.21)E–09	(6.42 ± 1.14)E–09	(1.56 ± 0.50)E–09
FM–6 at Road A–12.2	26	(9.22 ± 3.80)E–09	(1.52 ± 0.24)E–08	(9.85 ± 4.30)E–10
FM–A7 at Road A–7	24	(2.25 ± 0.61)E–08	(3.97 ± 0.15)E–08	(1.43 ± 0.08)E–08
H–008 Outfall	38	(5.22 ± 2.54)E–09	(1.76 ± 0.11)E–08	(1.54 ± 0.42)E–09
HP–50 Tritium Facility Outfall	24	(3.86 ± 1.74)E–09	(7.01 ± 0.48)E–09	(4.08 ± 3.87)E–10
Pen Branch				
IGB–21 800ft south of Road 6–1	4	(1.17 ± 0.51)E–09	(1.53 ± 0.51)E–09	(4.35 ± 3.40)E–10
K–011 Outfall at B Road	39	(1.80 ± 0.61)E–09	(3.61 ± 0.50)E–09	(7.82 ± 3.30)E–10
PB–3 at Road A–13.2	26	(1.25 ± 0.78)E–09	(4.18 ± 1.16)E–09	(4.10 ± 3.89)E–10
Steel Creek				
SC–2A 1 mile above Road B	24	(3.78 ± 3.97)E–09	(2.10 ± 0.19)E–08	(3.54 ± 3.91)E–10
SC–4 Steel Creek at Road A	26	(1.51 ± 0.81)E–09	(2.98 ± 0.51)E–09	(3.53 ± 3.79)E–10
Lower Three Runs Creek				
L3R–1A at Road B	26	(2.73 ± 0.76)E–09	(4.74 ± 0.67)E–09	(1.59 ± 0.47)E–09
L3R–2 Patterson Mill Road	26	(1.78 ± 0.65)E–09	(3.35 ± 0.62)E–09	(0.48 ± 3.83)E–10

Table 23
Radioactivity in Savannah River Site Stream Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
L3R–3 at Highway 125	12	(1.60 ± 0.72)E–09	(3.07 ± 0.61)E–09	(5.68 ± 4.45)E–10
R-Area downstream of R–1	39	(9.35 ± 3.55)E–09	(2.25 ± 0.13)E–08	(3.21 ± 0.57)E–09
Gross Alpha, μCi/mL				
Tims Branch				
TB–5 near Road C	26	(1.94 ± 1.60)E–09	(8.63 ± 1.03)E–09	(–1.10 ± 1.91)E–10
Upper Three Runs				
Crouch Branch at Road 4	26	(1.93 ± 2.78)E–10	(7.00 ± 3.33)E–10	(–2.35 ± 1.68)E–10
U3R–1A Treadway Bridge Road 8–1	48	(2.14 ± 1.01)E–09	(5.25 ± 0.88)E–09	(7.39 ± 3.50)E–10
U3R–3 at Road C	21	(1.48 ± 1.01)E–09	(3.75 ± 0.66)E–09	(–2.35 ± 1.68)E–10
U3R–4 at Road A	26	(1.84 ± 1.68)E–09	(8.56 ± 1.00)E–09	(0.47 ± 2.30)E–10
Four Mile Creek				
FM–2 at Road 4	15	(2.98 ± 3.33)E–09	(1.25 ± 0.16)E–08	(6.94 ± 3.40)E–10
FM–2B above F-Area effluent	25	(5.39 ± 3.76)E–10	(1.55 ± 0.45)E–09	(–1.50 ± 1.36)E–10
FM–3A below F-Area effluent	24	(1.38 ± 0.76)E–09	(3.53 ± 0.92)E–09	(5.56 ± 3.93)E–10
FM–6 at Road A–12.2	26	(4.52 ± 5.10)E–10	(1.61 ± 0.46)E–09	(–4.33 ± 7.58)E–10
FM–A7 at Road A–7	24	(1.54 ± 1.65)E–09	(6.94 ± 1.11)E–09	(–1.36 ± 1.24)E–10
H–008 Outfall	38	(3.96 ± 2.46)E–09	(1.41 ± 0.16)E–08	(6.92 ± 4.18)E–10
HP–50 Tritium Facility Outfall	24	(2.98 ± 1.91)E–09	(6.73 ± 0.65)E–09	(0.00 ± 2.58)E–10
Pen Branch				
IGB–21 800ft south of Road 6–1	4	(2.44 ± 3.68)E–10	(7.10 ± 3.97)E–10	(–0.85 ± 2.26)E–10
K–011 Outfall at B Road	39	(2.91 ± 3.75)E–10	(1.43 ± 0.39)E–09	(–1.75 ± 1.82)E–10
PB–3 at Road A–13.2	26	(3.07 ± 7.36)E–10	(3.68 ± 1.23)E–09	(–4.55 ± 3.20)E–10
Steel Creek				
SC–2A 1 mile above Road B	24	(0.71 ± 1.00)E–09	(4.14 ± 1.19)E–09	(–1.35 ± 2.33)E–10
SC–4 Steel Creek at Road A	26	(2.48 ± 3.27)E–10	(8.66 ± 3.89)E–10	(–3.14 ± 2.85)E–10
Lower Three Runs Creek				
L3R–1A at Road B	26	(1.43 ± 2.58)E–10	(9.63 ± 3.97)E–10	(–1.77 ± 1.46)E–10
L3R–2 Patterson Mill Road	26	(3.70 ± 4.15)E–10	(1.63 ± 0.50)E–09	(–1.81 ± 1.42)E–10
L3R–3 at Highway 125	12	(2.80 ± 2.84)E–10	(9.53 ± 4.16)E–10	(–1.30 ± 2.25)E–10
R-Area downstream of R–1	39	(2.98 ± 3.32)E–10	(1.69 ± 0.54)E–09	(–1.35 ± 1.25)E–10

Table 24
Radioactivity in Savannah River Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
H-3, μCi/mL				
Edisto River				
E–1 Edisto R. Aiken State Park	26	(1.94 ± 0.97)E–07	(3.78 ± 1.29)E–07	(–2.37 ± 9.48)E–08
Savannah River				
River Mile 120	53	(1.16 ± 0.39)E–06	(2.15 ± 0.15)E–06	(5.20 ± 1.34)E–07
River Mile 140	52	(1.44 ± 0.60)E–06	(3.78 ± 0.15)E–06	(2.36 ± 1.33)E–07
River Mile 150	52	(1.47 ± 0.77)E–06	(3.00 ± 0.15)E–06	(1.41 ± 1.26)E–07
River Mile 160	52	(0.95 ± 1.42)E–07	(4.48 ± 1.28)E–07	(–3.64 ± 1.38)E–07
Vogtle Discharge	51	(9.96 ± 8.73)E–07	(3.56 ± 0.16)E–06	(–0.16 ± 1.30)E–07
Co-60, μCi/mL				
Savannah River				
River Mile 120	50	(0.21 ± 1.34)E–09	(3.52 ± 1.31)E–09	(–2.52 ± 1.28)E–09
River Mile 140	47	(0.62 ± 1.43)E–09	(3.41 ± 1.27)E–09	(–3.59 ± 1.67)E–09
River Mile 150	49	(0.42 ± 1.36)E–09	(3.41 ± 1.12)E–09	(–2.32 ± 1.63)E–09
River Mile 160	49	(0.29 ± 1.35)E–09	(2.93 ± 1.27)E–09	(–3.20 ± 1.36)E–09
Vogtle Discharge	49	(0.58 ± 1.53)E–09	(3.94 ± 1.39)E–09	(–3.01 ± 1.27)E–09
Cs-137, μCi/mL				
Savannah River				
River Mile 120	50	(0.20 ± 1.08)E–09	(3.34 ± 1.34)E–09	(–2.00 ± 1.28)E–09
River Mile 140	47	(0.30 ± 1.01)E–09	(2.76 ± 1.21)E–09	(–1.76 ± 1.10)E–09
River Mile 150	49	(1.82 ± 9.04)E–10	(2.11 ± 1.17)E–09	(–2.10 ± 1.42)E–09
River Mile 160	49	(0.39 ± 1.00)E–09	(3.03 ± 1.26)E–09	(–2.90 ± 1.20)E–09
Vogtle Discharge	49	(0.35 ± 1.11)E–09	(4.28 ± 1.54)E–09	(–1.80 ± 1.27)E–09
Gross Beta, μCi/mL				
Edisto River				
E–1 Edisto R. Aiken State Park	26	(1.12 ± 0.39)E–09	(1.93 ± 0.47)E–09	(4.55 ± 3.88)E–10
Savannah River				
River Mile 120	53	(1.81 ± 0.51)E–09	(2.80 ± 0.44)E–09	(7.29 ± 5.80)E–10
River Mile 140	53	(1.92 ± 0.69)E–09	(3.95 ± 0.61)E–09	(7.05 ± 4.46)E–10
River Mile 150	52	(1.80 ± 0.50)E–09	(2.84 ± 0.60)E–09	(7.92 ± 3.76)E–10
River Mile 160	52	(1.85 ± 0.65)E–09	(3.63 ± 0.71)E–09	(6.15 ± 4.15)E–10
Vogtle Discharge	52	(1.96 ± 0.62)E–09	(3.38 ± 0.52)E–09	(6.30 ± 4.39)E–10

Table 24
Radioactivity in Savannah River Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Gross Alpha, μCi/mL				
Edisto River				
E–1 Edisto R. Aiken State Park	26	(7.43 ± 3.61)E–10	(1.58 ± 0.45)E–09	(2.80 ± 2.17)E–10
Savannah River				
River Mile 120	53	(1.07 ± 2.41)E–10	(9.71 ± 3.65)E–10	(–2.07 ± 1.75)E–10
River Mile 140	53	(1.24 ± 3.17)E–10	(1.02 ± 0.50)E–09	(–4.26 ± 3.02)E–10
River Mile 150	52	(2.71 ± 3.21)E–10	(1.09 ± 0.45)E–09	(–3.86 ± 2.21)E–10
River Mile 160	52	(1.43 ± 2.40)E–10	(7.46 ± 4.61)E–10	(–3.17 ± 2.27)E–10
Vogtle Discharge	52	(2.67 ± 3.72)E–10	(1.49 ± 0.53)E–09	(–2.90 ± 2.29)E–10

Table 25
Summary of SRS Tritium Transport, 1960–1996

	Estimated Tritium Transport (Ci)		
Year	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
1996	7,560	8,020	8,950

a Includes direct releases to streams and migration from seepage basins and the Solid Waste Disposal Facility to streams
b Includes heat exchanger cooling water released from P-Area (of PAR Pond origin) to Steel Creek

Table 26
Radioactivity in Drinking Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
H-3 (μCi/mL)				
Onsite				
105–C C-Area domestic water faucet	9	(0.13 ± 1.01)E–07	(1.83 ± 0.92)E–07	(–1.11 ± 1.35)E–07
105–K K-Area domestic water faucet	12	(0.00 ± 1.41)E–07	(2.28 ± 1.32)E–07	(–2.70 ± 1.33)E–07
105–L L-Area domestic water faucet	12	(–0.05 ± 1.57)E–07	(3.50 ± 1.42)E–07	(–2.17 ± 1.34)E–07
105–P P-Area domestic water faucet	11	(1.34 ± 2.71)E–06	(9.14 ± 0.19)E–06	(–1.25 ± 1.35)E–07
221–F F-Area domestic water faucet	12	(0.30 ± 1.17)E–07	(1.77 ± 1.35)E–07	(–1.55 ± 1.32)E–07
221–H H-Area domestic water faucet	12	(0.39 ± 1.33)E–07	(2.94 ± 1.32)E–07	(–2.57 ± 1.33)E–07
241–24H H-Area domestic water faucet	4	(8.60 ± 9.28)E–08	(1.89 ± 1.36)E–07	(–0.36 ± 1.26)E–07
617–G Wackenhut training facility	4	(4.57 ± 0.92)E–07	(5.86 ± 1.42)E–07	(3.73 ± 1.29)E–07
618–G class. yard lunchroom	3	(0.69 ± 1.02)E–06	(1.86 ± 0.10)E–06	(0.44 ± 1.24)E–07
661–G Firing Range (pumphouse)	4	(8.32 ± 2.03)E–07	(1.04 ± 0.13)E–06	(5.54 ± 1.26)E–07
679–T TNX domestic water faucet	4	(0.02 ± 1.95)E–07	(1.98 ± 1.27)E–07	(–2.53 ± 1.32)E–07
681–3G domestic water faucet	4	(0.11 ± 1.63)E–07	(2.00 ± 1.41)E–07	(–1.80 ± 1.35)E–07
701–12G Patrol Gate 7	4	(4.46 ± 2.01)E–07	(6.73 ± 1.40)E–07	(1.88 ± 1.27)E–07
701–13G Patrol Gate 6	4	(1.84 ± 1.22)E–06	(2.57 ± 0.16)E–06	(0.22 ± 1.27)E–07
701–1F F-Area domestic water faucet	4	(0.37 ± 1.83)E–07	(2.23 ± 1.36)E–07	(–1.57 ± 1.33)E–07
701–1H H-Area domestic water faucet	4	(9.36 ± 7.77)E–08	(1.62 ± 1.35)E–07	(–0.18 ± 1.34)E–07
701–3G Barnwell Gate	4	(1.14 ± 1.02)E–07	(2.34 ± 1.42)E–07	(0.09 ± 1.36)E–07
701–4G Williston Gate	4	(1.49 ± 0.70)E–07	(2.37 ± 1.24)E–07	(0.68 ± 1.36)E–07
701–5G Talatha Gate	4	(6.32 ± 0.95)E–07	(7.35 ± 0.92)E–07	(5.04 ± 1.37)E–07
701–6G Jackson Gate	4	(–7.59 ± 8.75)E–08	(0.11 ± 1.26)E–07	(–1.89 ± 1.23)E–07
701–8G Patrol Gate 8	4	(2.10 ± 0.38)E–06	(2.66 ± 0.14)E–06	(1.84 ± 0.15)E–06
703–A EOC (kitchen)	3	(–6.07 ± 7.65)E–08	(1.54 ± 9.90)E–08	(–1.38 ± 1.36)E–07
704–F F-Area domestic water faucet	4	(–0.10 ± 1.18)E–07	(1.50 ± 1.36)E–07	(–1.25 ± 1.25)E–07

Table 26
Radioactivity in Drinking Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
704–H H-Area domestic water faucet	4	(0.50 ± 1.13)E–07	(1.42 ± 1.35)E–07	(–1.13 ± 1.36)E–07
704–S S-Area domestic water faucet	4	(–2.22 ± 8.24)E–08	(0.68 ± 1.23)E–07	(–1.14 ± 1.34)E–07
708–A A-Area cafeteria (restroom)	4	(6.94 ± 5.94)E–08	(1.22 ± 1.38)E–07	(–1.58 ± 8.71)E–08
735–7G PAR Pond lab	4	(–0.06 ± 1.00)E–07	(1.36 ± 1.40)E–07	(–0.98 ± 1.35)E–07
760–G Forestry Building	4	(9.24 ± 1.38)E–07	(1.13 ± 0.13)E–06	(8.33 ± 1.38)E–07
772–F F-Area domestic water faucet	4	(0.66 ± 1.49)E–07	(2.13 ± 1.33)E–07	(–1.39 ± 1.33)E–07
TC-1 B-Area cafeteria	4	(–0.09 ± 1.90)E–07	(1.94 ± 1.41)E–07	(–2.58 ± 1.34)E–07
D-Area Powerhouse Lab	1	(4.72 ± 1.34)E–07		
D-Area Powerhouse Lab	1	(0.22 ± 1.34)E–07		
Z-Area Building 704–Z	4	(–1.43 ± 9.96)E–08	(1.04 ± 1.27)E–07	(–1.39 ± 1.32)E–07
Treatment Plants—Raw				
Beaufort Public Water Works	12	(9.52 ± 2.39)E–07	(1.27 ± 0.14)E–06	(4.98 ± 0.97)E–07
N. Augusta Public Water Works	12	(0.78 ± 1.16)E–07	(3.81 ± 1.36)E–07	(–0.38 ± 1.25)E–07
Savannah Public Water Works	12	(9.62 ± 2.66)E–07	(1.26 ± 0.14)E–06	(5.80 ± 1.28)E–07
EMS Sampler				
Beaufort Public Water Works	24	(9.19 ± 2.70)E–07	(1.36 ± 0.15)E–06	(3.74 ± 1.36)E–07
Treatment Plants—Finished				
Beaufort Public Water Works	12	(9.16 ± 2.74)E–07	(1.39 ± 0.10)E–06	(4.90 ± 1.27)E–07
N. Augusta Public Water Works	12	(1.27 ± 1.00)E–07	(2.79 ± 1.37)E–07	(–0.50 ± 1.24)E–07
Savannah Public Water Works	12	(9.88 ± 2.77)E–07	(1.33 ± 0.14)E–06	(5.14 ± 1.38)E–07
Co-60 (μCi/mL)				
Onsite				
D-Area Powerhouse Lab	1	(1.25 ± 2.39)E–09		
D-Area Powerhouse Lab	1	(2.64 ± 2.15)E–09		
Treatment Plants—Raw				
Beaufort Public Water Works	12	(0.90 ± 2.26)E–09	(3.98 ± 1.89)E–09	(–2.65 ± 2.73)E–09

Table 26
Radioactivity in Drinking Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
N. Augusta Public Water Works	12	(–0.08 ± 3.08)E–09	(6.47 ± 2.14)E–09	(–5.68 ± 2.58)E–09
Savannah Public Water Works	12	(0.75 ± 3.46)E–09	(6.29 ± 2.40)E–09	(–3.75 ± 2.95)E–09
EMS Sampler				
Beaufort Public Water Works	24	(–0.39 ± 2.85)E–09	(6.32 ± 2.21)E–09	(–4.54 ± 2.91)E–09
Treatment Plants—Finished				
Beaufort Public Water Works	12	(0.42 ± 3.05)E–09	(6.94 ± 2.99)E–09	(–3.76 ± 2.45)E–09
N. Augusta Public Water Works	12	(0.71 ± 3.42)E–09	(6.75 ± 3.50)E–09	(–4.67 ± 2.68)E–09
Savannah Public Water Works	12	(1.23 ± 3.13)E–09	(8.03 ± 2.60)E–09	(–4.94 ± 2.39)E–09
Cs-137 (μCi/mL)				
Onsite				
D-Area Powerhouse Lab	1	(1.36 ± 2.20)E–09		
D-Area Powerhouse Lab	1	(–0.98 ± 1.95)E–09		
Treatment Plants—Raw				
Beaufort Public Water Works	12	(–0.20 ± 1.93)E–09	(2.33 ± 2.22)E–09	(–3.38 ± 2.52)E–09
N. Augusta Public Water Works	12	(–0.05 ± 2.12)E–09	(2.65 ± 2.11)E–09	(–4.09 ± 2.30)E–09
Savannah Public Water Works	12	(1.05 ± 2.09)E–09	(3.87 ± 2.27)E–09	(–1.94 ± 1.36)E–09
EMS Sampler				
Beaufort Public Water Works	24	(0.15 ± 2.33)E–09	(5.18 ± 1.98)E–09	(–3.68 ± 2.41)E–09
Treatment Plants—Finished				
Beaufort Public Water Works	12	(0.01 ± 3.16)E–09	(3.85 ± 2.50)E–09	(–7.26 ± 2.76)E–09
N. Augusta Public Water Works	12	(0.56 ± 1.84)E–09	(4.96 ± 2.21)E–09	(–2.62 ± 2.30)E–09
Savannah Public Water Works	12	(0.68 ± 1.85)E–09	(3.20 ± 2.21)E–09	(–1.96 ± 1.95)E–09
Gross Beta (μCi/mL)				
Onsite				
105–C C-Area domestic water faucet	8	(1.05 ± 0.62)E–09	(1.85 ± 0.51)E–09	(–0.60 ± 5.09)E–10

Table 26
Radioactivity in Drinking Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
105–K K-Area domestic water faucet	12	(2.14 ± 0.91)E–09	(4.08 ± 0.99)E–09	(1.17 ± 0.58)E–09
105–L L-Area domestic water faucet	11	(1.30 ± 0.58)E–09	(2.11 ± 0.50)E–09	(4.28 ± 4.06)E–10
105–P P-Area domestic water faucet	11	(3.38 ± 4.52)E–09	(1.68 ± 0.25)E–08	(6.96 ± 4.15)E–10
221–F F-Area domestic water faucet	12	(4.94 ± 2.22)E–09	(9.38 ± 2.09)E–09	(1.75 ± 0.50)E–09
221–H H-Area domestic water faucet	11	(4.79 ± 2.32)E–09	(9.37 ± 1.51)E–09	(2.09 ± 0.65)E–09
241–24H H-Area domestic water faucet	4	(5.71 ± 2.95)E–09	(9.75 ± 0.96)E–09	(2.68 ± 0.52)E–09
617–G Wackenhut training facility	4	(7.09 ± 3.56)E–10	(1.18 ± 0.49)E–09	(3.15 ± 3.89)E–10
618–G class. yard lunchroom	3	(2.48 ± 0.32)E–09	(2.85 ± 0.64)E–09	(2.26 ± 0.42)E–09
661–G Firing Range (pumphouse)	4	(1.34 ± 0.75)E–09	(2.05 ± 0.52)E–09	(4.18 ± 3.88)E–10
679–T TNX domestic water faucet	4	(3.06 ± 0.24)E–09	(3.30 ± 0.62)E–09	(2.83 ± 0.66)E–09
681–3G domestic water faucet	4	(2.20 ± 0.80)E–09	(3.31 ± 0.99)E–09	(1.53 ± 0.48)E–09
701–12G Patrol Gate 7	4	(1.43 ± 0.50)E–09	(2.18 ± 0.50)E–09	(1.07 ± 0.49)E–09
701–13G Patrol Gate 6	4	(7.37 ± 2.18)E–10	(9.63 ± 4.61)E–10	(4.72 ± 3.98)E–10
701–1F F-Area domestic water faucet	4	(3.66 ± 1.98)E–09	(6.24 ± 0.70)E–09	(1.42 ± 0.49)E–09
701–1H H-Area domestic water faucet	4	(4.41 ± 2.14)E–09	(7.16 ± 0.75)E–09	(2.00 ± 0.50)E–09
701–3G Barnwell Gate	4	(2.12 ± 1.92)E–10	(4.10 ± 4.33)E–10	(–0.24 ± 7.03)E–10
701–4G Williston Gate	4	(–0.38 ± 1.06)E–09	(4.70 ± 4.00)E–10	(–1.93 ± 1.35)E–09
701–5G Talatha Gate	4	(4.29 ± 1.48)E–09	(6.48 ± 0.71)E–09	(3.38 ± 0.57)E–09
701–6G Jackson Gate	4	(1.42 ± 0.19)E–09	(1.67 ± 0.50)E–09	(1.23 ± 0.44)E–09
701–8G Patrol Gate 8	4	(3.62 ± 2.46)E–10	(6.61 ± 4.44)E–10	(1.57 ± 3.80)E–10
703–A EOC (kitchen)	3	(4.73 ± 5.09)E–10	(1.05 ± 0.45)E–09	(0.91 ± 4.11)E–10
704–F F-Area domestic water faucet	4	(4.28 ± 1.23)E–09	(5.77 ± 0.65)E–09	(3.03 ± 0.59)E–09
704–H H-Area domestic water faucet	4	(5.18 ± 1.10)E–09	(6.82 ± 0.67)E–09	(4.50 ± 0.63)E–09
704–S S-Area domestic water faucet	4	(1.87 ± 0.83)E–09	(3.06 ± 0.54)E–09	(1.18 ± 0.49)E–09

Table 26
Radioactivity in Drinking Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
708–A A-Area cafeteria (restroom)	4	(6.01 ± 7.37)E–10	(1.52 ± 0.49)E–09	(–0.72 ± 4.26)E–10
735–7G PAR Pond lab	4	(4.55 ± 4.68)E–09	(1.14 ± 0.10)E–08	(1.26 ± 0.43)E–09
760–G Forestry Building	4	(7.94 ± 3.52)E–10	(1.23 ± 0.50)E–09	(4.94 ± 4.11)E–10
772–F F-Area domestic water faucet	4	(5.74 ± 1.02)E–09	(6.77 ± 0.88)E–09	(4.55 ± 0.62)E–09
TC-1 B-Area cafeteria	4	(8.98 ± 2.19)E–10	(1.18 ± 0.51)E–09	(6.57 ± 4.66)E–10
D-Area Powerhouse Lab	1	(1.77 ± 0.33)E–09		
D-Area Powerhouse Lab	1	(2.29 ± 0.88)E–09		
Z-Area Building 704–Z	4	(2.87 ± 1.51)E–09	(5.00 ± 0.64)E–09	(1.43 ± 0.51)E–09
Treatment Plants—Raw				
Beaufort Public Water Works	12	(1.97 ± 0.23)E–09	(2.33 ± 0.30)E–09	(1.58 ± 0.50)E–09
N. Augusta Public Water Works	12	(1.57 ± 0.37)E–09	(2.18 ± 0.57)E–09	(1.00 ± 0.54)E–09
Savannah Public Water Works	12	(1.61 ± 0.42)E–09	(2.47 ± 0.57)E–09	(1.03 ± 0.50)E–09
EMS Sampler				
Beaufort Public Water Works	24	(2.03 ± 0.59)E–09	(3.15 ± 0.62)E–09	(1.06 ± 0.55)E–09
Treatment Plants—Finished				
Beaufort Public Water Works	12	(1.52 ± 0.44)E–09	(2.26 ± 0.59)E–09	(7.88 ± 5.25)E–10
N. Augusta Public Water Works	12	(1.48 ± 0.58)E–09	(2.74 ± 0.60)E–09	(9.13 ± 3.55)E–10
Savannah Public Water Works	12	(1.65 ± 0.44)E–09	(2.60 ± 0.54)E–09	(9.70 ± 4.38)E–10
Gross Alpha (μCi/mL)				
Onsite				
105–C C-Area domestic water faucet	8	(7.88 ± 3.32)E–10	(1.12 ± 0.45)E–09	(0.92 ± 3.08)E–10
105–K K-Area domestic water faucet	12	(–0.77 ± 2.27)E–10	(2.69 ± 4.45)E–10	(–3.91 ± 3.71)E–10
105–L L-Area domestic water faucet	11	(1.51 ± 3.89)E–10	(1.07 ± 0.78)E–09	(–3.12 ± 2.22)E–10
105–P P-Area domestic water faucet	11	(6.31 ± 7.49)E–10	(1.75 ± 0.97)E–09	(–2.75 ± 1.95)E–10
221–F F-Area domestic water faucet	12	(2.91 ± 1.48)E–09	(4.77 ± 1.03)E–09	(5.09 ± 6.27)E–10

Table 26
Radioactivity in Drinking Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
221–H H-Area domestic water faucet	11	(1.80 ± 1.27)E–09	(4.79 ± 1.37)E–09	(–0.31 ± 2.26)E–10
241–24H H-Area domestic water faucet	4	(2.71 ± 2.32)E–09	(6.05 ± 1.06)E–09	(8.56 ± 3.78)E–10
617–G Wackenhut training facility	4	(9.06 ± 6.35)E–10	(1.53 ± 0.34)E–09	(3.01 ± 3.57)E–10
618–G class. yard lunchroom	3	(9.83 ± 6.07)E–10	(1.61 ± 0.59)E–09	(3.94 ± 3.89)E–10
661–G Firing Range (pumphouse)	4	(2.42 ± 1.23)E–09	(3.28 ± 0.63)E–09	(6.39 ± 3.39)E–10
679–T TNX domestic water faucet	4	(5.16 ± 9.49)E–10	(1.93 ± 0.77)E–09	(–1.15 ± 3.10)E–10
681–3G domestic water faucet	4	(0.87 ± 1.10)E–09	(2.22 ± 0.63)E–09	(–4.36 ± 4.22)E–10
701–12G Patrol Gate 7	4	(4.26 ± 7.72)E–10	(1.50 ± 0.56)E–09	(–2.75 ± 1.95)E–10
701–13G Patrol Gate 6	4	(1.00 ± 0.41)E–09	(1.49 ± 0.44)E–09	(6.57 ± 3.46)E–10
701–1F F-Area domestic water faucet	4	(2.66 ± 0.52)E–09	(3.38 ± 0.79)E–09	(2.24 ± 0.75)E–09
701–1H H-Area domestic water faucet	4	(2.54 ± 1.33)E–09	(4.42 ± 0.91)E–09	(1.31 ± 0.49)E–09
701–3G Barnwell Gate	4	(–0.22 ± 1.13)E–10	(1.02 ± 2.27)E–10	(–1.18 ± 2.01)E–10
701–4G Williston Gate	4	(–2.01 ± 3.19)E–10	(0.00 ± 2.26)E–10	(–6.74 ± 5.35)E–10
701–5G Talatha Gate	4	(1.05 ± 0.22)E–08	(1.39 ± 0.13)E–08	(8.92 ± 1.02)E–09
701–6G Jackson Gate	4	(2.06 ± 0.35)E–09	(2.54 ± 0.58)E–09	(1.73 ± 0.48)E–09
701–8G Patrol Gate 8	4	(4.08 ± 2.99)E–10	(7.19 ± 3.27)E–10	(0.00 ± 2.15)E–10
703–A EOC (kitchen)	3	(6.05 ± 1.37)E–10	(7.46 ± 4.19)E–10	(4.72 ± 3.93)E–10
704–F F-Area domestic water faucet	4	(3.03 ± 0.75)E–09	(3.54 ± 0.80)E–09	(1.94 ± 0.68)E–09
704–H H-Area domestic water faucet	4	(3.17 ± 1.41)E–09	(4.29 ± 0.87)E–09	(1.15 ± 0.51)E–09
704–S S-Area domestic water faucet	4	(8.78 ± 1.78)E–10	(9.83 ± 4.26)E–10	(6.11 ± 3.29)E–10
708–A A-Area cafeteria (restroom)	4	(5.50 ± 3.81)E–10	(9.45 ± 5.12)E–10	(1.53 ± 3.40)E–10
735–7G PAR Pond lab	4	(2.50 ± 2.33)E–10	(4.95 ± 4.44)E–10	(–0.60 ± 1.60)E–10
760–G Forestry Building	4	(4.93 ± 6.69)E–10	(1.42 ± 0.50)E–09	(0.00 ± 2.87)E–10
772–F F-Area domestic water faucet	4	(4.25 ± 1.90)E–09	(7.01 ± 1.25)E–09	(2.94 ± 0.80)E–09
TC-1 B-Area cafeteria	4	(9.78 ± 7.70)E–10	(1.71 ± 0.65)E–09	(0.00 ± 3.12)E–10

Table 26
Radioactivity in Drinking Water

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
D-Area Powerhouse Lab	1	(3.08 ± 2.26)E–10		
D-Area Powerhouse Lab	1	(1.07 ± 5.10)E–10		
Z-Area Building 704–Z	4	(1.95 ± 0.98)E–09	(2.72 ± 0.67)E–09	(6.14 ± 3.73)E–10
Treatment Plants—Raw				
Beaufort Public Water Works	12	(2.47 ± 2.56)E–10	(7.39 ± 4.03)E–10	(–0.84 ± 2.25)E–10
N. Augusta Public Water Works	12	(0.43 ± 2.05)E–10	(3.31 ± 2.67)E–10	(–3.24 ± 1.67)E–10
Savannah Public Water Works	12	(1.10 ± 2.51)E–10	(4.69 ± 4.49)E–10	(–3.24 ± 1.57)E–10
EMS Sampler				
Beaufort Public Water Works	24	(4.34 ± 3.80)E–10	(1.32 ± 0.57)E–09	(–1.17 ± 3.16)E–10
Treatment Plants—Finished				
Beaufort Public Water Works	12	(0.19 ± 2.10)E–10	(3.41 ± 3.81)E–10	(–3.15 ± 2.29)E–10
N. Augusta Public Water Works	12	(1.58 ± 3.18)E–10	(8.33 ± 5.07)E–10	(–2.74 ± 1.37)E–10
Savannah Public Water Works	12	(1.17 ± 2.75)E–10	(7.75 ± 4.79)E–10	(–2.00 ± 2.01)E–10

Table 27
Radioactivity in Terrestrial Food Products — Greens, Fruit, and Beef

Location	H-3 (pCi/g±σ)	Co-60 (pCi/g±σ)	Cs-137 (pCi/g±σ)	Pu-238 (pCi/g±σ)	Pu-239 (pCi/g±σ)	Sr-89,90 (pCi/g±σ)
Note: All results except those for H-3 are expressed in dry weight.						
Greens						
Northeast quadrant 0–10 miles	(2.74 ± 2.93)E–02	(5.98±4.25)E–03	(1.32 ± 0.58)E–02	(–2.58 ± 4.29)E–05	(1.60 ± 4.05)E–05	(–1.77 ± 3.24)E–02
Northwest quadrant 0–10 miles	(9.02 ± 2.59)E–02	(0.61±2.59)E–03	(–1.03 ± 2.93)E–03	(–7.36 ± 2.03)E–05	(–3.29 ± 4.00)E–05	(4.78 ± 3.58)E–02
Southeast quadrant 0–10 miles	(4.93 ± 2.71)E–02	(–0.57±2.64)E–03	(4.93 ± 2.56)E–03	(–4.38 ± 2.51)E–05	(5.53 ± 3.35)E–05	(–0.65 ± 2.62)E–02
Southeast quadrant 25 miles	(9.19 ± 4.69)E–02	(–0.30±2.63)E–03	(–1.99 ± 2.95)E–03	(–4.77 ± 5.62)E–05	(4.94 ± 5.84)E–05	(1.12 ± 2.39)E–02
Southwest quadrant 0–10 miles	(7.45 ± 2.84)E–02	(2.10±3.00)E–03	(2.39 ± 3.07)E–03	(1.93 ± 0.92)E–04	(6.38 ± 5.18)E–05	(1.74 ± 2.44)E–02
Fruit						
Northeast quadrant 0–10 miles	(5.19 ± 4.55)E–02	(–3.14±3.64)E–03	(1.63 ± 2.71)E–03	(4.42 ± 0.42)E–03	(–0.88 ± 2.75)E–05	(–0.55 ± 2.28)E–02
Southeast quadrant 0–10 miles	(7.50 ± 4.78)E–02	(–0.31±3.78)E–03	(0.33 ± 2.79)E–03	(–1.01 ± 7.60)E–05	(–0.51 ± 7.10)E–05	(0.75 ± 2.37)E–02
Southeast quadrant 25 miles	(3.72 ± 3.40)E–02	(–4.49±2.42)E–03	(4.47 ± 2.38)E–03	(–7.57 ± 4.48)E–05	(–9.42 ± 5.03)E–05	(1.24 ± 1.70)E–02
Beef						
Northeast quadrant 0–10 miles	(1.63 ± 0.31)E–01	(0.06 ± 2.74)E–03	(9.38 ± 3.04)E–03	(–5.97 ± 2.44)E–05	(2.16 ± 4.62)E–05	(2.38 ± 3.23)E–02
Northwest quadrant 0–10 miles	(1.27 ± 0.42)E–01	(0.27 ± 3.25)E–03	(4.79 ± 0.49)E–02	(1.88 ± 2.84)E–05	(–1.56 ± 1.04)E–05	(9.59 ± 5.36)E–02
Southeast quadrant 0–10 miles	(1.68 ± 0.45)E–01	(–1.05 ± 5.56)E–03	(2.45 ± 5.21)E–03	(1.55 ± 0.20)E–03	(–0.86 ± 3.35)E–05	(–3.88 ± 4.69)E–02

Table 27
Radioactivity in Terrestrial Food Products — Greens, Fruit, and Beef

Location	H-3 (pCi/g±σ)	Co-60 (pCi/g±σ)	Cs-137 (pCi/g±σ)	Pu-238 (pCi/g±σ)	Pu-239 (pCi/g±σ)	Sr-89,90 (pCi/g±σ)
Southeast quadrant 25 miles	(6.90 ± 4.73)E–02	(–0.38 ± 3.16)E–03	(4.32 ± 3.07)E–03	(0.54 ± 1.00)E–04	(–0.31 ± 1.34)E–04	(3.66 ± 3.54)E–02
Southwest quadrant 0–10 miles	(1.33 ± 0.39)E–01	(3.14 ± 4.53)E–03	(5.84 ± 3.48)E–03	(–1.37 ± 2.35)E–05	(–1.88 ± 2.93)E–05	(1.56 ± 3.15)E–02

Table 28
Radioactivity in Terrestrial Food Products — Milk

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
H-3, μCi/mL				
Communities around SRS				
Dairy (major distributor)	12	(4.76 ± 9.35)E–08	(2.54 ± 1.06)E–07	(–9.54 ± 8.93)E–08
Denmark, S.C.	11	(0.69 ± 1.37)E–07	(3.03 ± 0.80)E–07	(–1.88 ± 1.23)E–07
Girard, Ga., dairy	10	(1.15 ± 0.68)E–07	(1.92 ± 1.35)E–07	(–0.25 ± 1.22)E–07
Girard, Ga., dairy	1	(0.23 ± 1.27)E–07		
Gracewood, Ga., dairy	10	(1.13 ± 0.68)E–07	(2.23 ± 1.35)E–07	(0.10 ± 1.24)E–07
Jackson, S.C., dairy	12	(5.22 ± 0.94)E–07	(6.69 ± 1.28)E–07	(2.99 ± 1.07)E–07
Waynesboro, Ga., dairy	11	(6.78 ± 7.68)E–08	(2.38 ± 1.06)E–07	(–0.09 ± 1.27)E–07
Waynesboro, Ga., dairy	1	(–1.66 ± 1.26)E–07		
Co-60, μCi/mL				
Communities around SRS				
Dairy (major distributor)	12	(0.05 ± 1.45)E–09	(1.85 ± 1.10)E–09	(–3.00 ± 1.59)E–09
Denmark, S.C.	11	(0.89 ± 2.27)E–09	(4.49 ± 1.23)E–09	(–2.62 ± 1.53)E–09
Girard, Ga., dairy	10	(0.77 ± 1.91)E–09	(3.43 ± 1.20)E–09	(–1.76 ± 1.69)E–09
Girard, Ga., dairy	1	(–0.84 ± 1.59)E–09		
Gracewood, Ga., dairy	10	(1.33 ± 2.08)E–09	(3.84 ± 1.14)E–09	(–1.72 ± 1.92)E–09
Jackson, S.C., dairy	12	(1.23 ± 1.68)E–09	(3.60 ± 1.34)E–09	(–1.82 ± 1.42)E–09
Waynesboro, Ga., dairy	11	(0.74 ± 2.05)E–09	(3.68 ± 1.18)E–09	(–2.48 ± 1.50)E–09
Waynesboro, Ga., dairy	1	(–0.13 ± 1.89)E–09		
Sr-90, μCi/mL				
Communities around SRS				
Dairy (major distributor)	2	(8.22 ± 9.61)E–10	(1.50 ± 0.92)E–09	(1.43 ± 8.58)E–10
Denmark, S.C.	3	(5.10 ± 3.60)E–09	(9.22 ± 2.67)E–09	(2.56 ± 1.02)E–09
Girard, Ga., dairy	2	(4.58 ± 2.07)E–09	(6.04 ± 1.56)E–09	(3.11 ± 1.09)E–09
Gracewood, Ga., dairy	2	(1.87 ± 0.60)E–09	(2.29 ± 1.15)E–09	(1.45 ± 1.16)E–09
Jackson, S.C., dairy	3	(8.65 ± 5.32)E–09	(1.29 ± 0.37)E–08	(2.69 ± 1.09)E–09
Waynesboro, Ga., dairy	3	(2.07 ± 3.25)E–09	(5.36 ± 1.75)E–09	(–1.15 ± 1.30)E–09
Cs-137, μCi/mL				
Communities around SRS				
Dairy (major distributor)	12	(1.90 ± 1.19)E–09	(3.43 ± 1.16)E–09	(1.49 ± 9.52)E–10
Denmark, S.C.	11	(2.27 ± 1.00)E–09	(4.16 ± 1.50)E–09	(9.54 ± 9.78)E–10
Girard, Ga., dairy	10	(1.28 ± 0.91)E–09	(2.81 ± 0.84)E–09	(0.27 ± 1.05)E–09
Girard, Ga., dairy	1	(2.39 ± 0.99)E–09		
Gracewood, Ga., dairy	10	(1.50 ± 1.21)E–09	(2.84 ± 0.90)E–09	(–1.35 ± 0.97)E–09
Jackson, S.C., dairy	12	(2.14 ± 1.12)E–09	(3.73 ± 1.45)E–09	(0.12 ± 1.07)E–09
Waynesboro, Ga., dairy	11	(1.65 ± 0.85)E–09	(3.41 ± 0.97)E–09	(5.98 ± 5.87)E–10
Waynesboro, Ga., dairy	1	(1.96 ± 9.75)E–10		

Table 29
Radioactivity in Aquatic Food Products — Freshwater Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
H-3, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bass	3	(9.93 ± 2.74)E–02	(1.31 ± 0.51)E–01	(8.13 ± 4.99)E–02
Bream	3	(2.66 ± 5.85)E–02	(7.08 ± 4.92)E–02	(–3.97 ± 3.82)E–02
Catfish	3	(2.57 ± 2.63)E–02	(5.50 ± 3.92)E–02	(0.41 ± 4.31)E–02
Beaver Dam Creek River Mouth				
Bass	3	(8.93 ± 1.71)E–02	(1.06 ± 0.37)E–01	(7.15 ± 3.70)E–02
Bream	3	(4.99 ± 3.16)E–02	(7.90 ± 4.12)E–02	(1.63 ± 3.89)E–02
Catfish	3	(1.57 ± 0.54)E–01	(2.09 ± 0.23)E–01	(1.02 ± 0.41)E–01
Four Mile Creek River Mouth				
Bass	3	(0.96 ± 1.48)E+01	(2.67 ± 0.01)E+01	(8.64 ± 0.39)E–01
Bream	3	(3.36 ± 4.94)E+00	(9.05 ± 0.11)E+00	(2.50 ± 0.27)E–01
Catfish	3	(6.22 ± 1.66)E–01	(7.70 ± 0.58)E–01	(4.43 ± 0.55)E–01
Hwy–301 Bridge Area				
Bass	3	(2.79 ± 0.40)E–01	(3.25 ± 0.45)E–01	(2.54 ± 0.37)E–01
Bream	3	(2.95 ± 0.50)E–01	(3.36 ± 0.49)E–01	(2.39 ± 0.45)E–01
Catfish	3	(2.36 ± 0.35)E–01	(2.77 ± 0.43)E–01	(2.15 ± 0.36)E–01
L3R Creek River Mouth				
Bass	3	(4.27 ± 2.09)E–01	(6.14 ± 0.40)E–01	(2.02 ± 0.20)E–01
Bream	3	(6.00 ± 1.07)E–01	(6.96 ± 0.58)E–01	(4.85 ± 0.44)E–01
Catfish	3	(3.61 ± 0.84)E–01	(4.57 ± 0.56)E–01	(3.08 ± 0.48)E–01
Steel Creek River Mouth				
Bass	3	(3.67 ± 0.99)E+00	(4.70 ± 0.06)E+00	(2.74 ± 0.06)E+00
Bream	3	(4.36 ± 0.99)E+00	(5.05 ± 0.08)E+00	(3.22 ± 0.06)E+00
Catfish	3	(2.24 ± 1.98)E+00	(4.26 ± 0.07)E+00	(3.09 ± 0.35)E–01
U3R Creek River Mouth				
Bass	3	(1.20 ± 0.87)E–01	(1.77 ± 0.42)E–01	(1.91 ± 3.22)E–02
Bream	3	(1.40 ± 0.87)E–01	(2.28 ± 0.35)E–01	(5.32 ± 2.83)E–02
Catfish	3	(9.41 ± 4.00)E–02	(1.39 ± 0.33)E–01	(6.09 ± 3.83)E–02
Co-60, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bass	3	(–1.50 ± 1.60)E–02	(–1.30 ± 7.62)E–03	(–3.25 ± 1.77)E–02

Table 29
Radioactivity in Aquatic Food Products — Freshwater Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Bream	3	(–0.26 ± 1.08)E–02	(0.50 ± 1.21)E–02	(–1.50 ± 1.56)E–02
Catfish	3	(8.01 ± 3.82)E–03	(1.11 ± 1.28)E–02	(0.37 ± 1.30)E–02
Beaver Dam Creek River Mouth				
Bass	3	(1.07 ± 1.51)E–02	(2.81 ± 1.37)E–02	(0.13 ± 1.33)E–02
Bream	3	(–4.17 ± 6.99)E–03	(0.39 ± 2.17)E–02	(–0.86 ± 2.40)E–02
Catfish	3	(–7.66 ± 6.07)E–03	(–0.10 ± 1.37)E–02	(–1.29 ± 1.16)E–02
Four Mile Creek River Mouth				
Bass	3	(–0.46 ± 1.62)E–02	(9.68 ± 7.87)E–03	(–2.21 ± 1.41)E–02
Bream	3	(–5.38 ± 4.69)E–03	(00.00 ± 1.51)E–02	(–0.88 ± 1.57)E–02
Catfish	3	(–0.43 ± 2.36)E–02	(2.00 ± 1.37)E–02	(–2.73 ± 1.30)E–02
Hwy–301 Bridge Area				
Bass	3	(–1.35 ± 0.60)E–02	(–8.49 ± 7.63)E–03	(–2.01 ± 1.04)E–02
Bream	3	(2.29 ± 2.79)E–02	(4.68 ± 1.19)E–02	(–7.81 ± 9.73)E–03
Catfish	3	(0.28 ± 1.22)E–02	(1.37 ± 0.73)E–02	(–1.03 ± 1.04)E–02
L3R Creek River Mouth				
Bass	3	(–0.11 ± 1.53)E–02	(1.18 ± 1.46)E–02	(–1.81 ± 1.36)E–02
Bream	3	(–1.09 ± 1.64)E–02	(0.65 ± 1.53)E–02	(–2.60 ± 1.39)E–02
Catfish	3	(1.22 ± 2.37)E–02	(3.70 ± 1.44)E–02	(–1.03 ± 1.40)E–02
Steel Creek River Mouth				
Bass	3	(1.50 ± 1.70)E–02	(2.98 ± 1.10)E–02	(–3.58 ± 6.15)E–03
Bream	3	(4.39 ± 7.69)E–03	(1.32 ± 1.50)E–02	(–0.12 ± 1.98)E–02
Catfish	3	(4.91 ± 9.47)E–03	(1.31 ± 1.51)E–02	(–0.55 ± 1.66)E–02
Stokes Bluff Landing				
Bass	3	(–0.39 ± 1.09)E–02	(0.32 ± 1.28)E–02	(–1.65 ± 1.13)E–02
Bream	2	(–0.02 ± 2.00)E–02	(1.40 ± 1.94)E–02	(–1.44 ± 2.70)E–02
Catfish	1	(0.09 ± 1.97)E–02		
U3R Creek River Mouth				
Bass	3	(0.85 ± 2.87)E–03	(0.29 ± 1.11)E–02	(–0.24 ± 1.34)E–02
Bream	3	(–1.29 ± 3.13)E–02	(2.23 ± 2.55)E–02	(–3.72 ± 2.10)E–02
Catfish	3	(2.22 ± 3.86)E–03	(0.57 ± 1.23)E–02	(–1.96 ± 6.65)E–03
Onsite (Edible)				
L-Lake				
Bass	3	(–0.22 ± 1.19)E–02	(1.02 ± 1.77)E–02	(–1.35 ± 1.42)E–02
Bream	2	(–4.69 ± 5.94)E–03	(–0.05 ± 3.65)E–02	(–0.89 ± 3.00)E–02

Table 29
Radioactivity in Aquatic Food Products — Freshwater Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Crappie	1	(0.53 ± 3.59)E–02		
PAR Pond				
Bass	3	(0.76 ± 2.16)E–02	(3.23 ± 1.58)E–02	(–0.80 ± 1.67)E–02
Bream	3	(–1.06 ± 1.30)E–02	(0.05 ± 3.97)E–02	(–2.50 ± 1.73)E–02
Catfish	1	(3.48 ± 2.18)E–02		
Pond B				
Bass	3	(1.77 ± 3.32)E–02	(5.20 ± 2.38)E–02	(–1.42 ± 1.66)E–02
Bream	3	(–1.34 ± 1.70)E–02	(–0.27 ± 1.71)E–02	(–3.31 ± 2.45)E–02
SC–4 Steel Creek at Road A				
Bass	3	(0.98 ± 1.88)E–02	(2.72 ± 2.02)E–02	(–1.02 ± 1.36)E–02
Bream	3	(0.58 ± 1.98)E–02	(2.19 ± 2.00)E–02	(–1.62 ± 1.87)E–02
Offsite (Nonedible)				
Augusta Lock and Dam				
Bass	3	(–2.10 ± 1.14)E–02	(–0.79 ± 1.05)E–02	(–2.79 ± 1.38)E–02
Bream	3	(–1.81 ± 4.28)E–02	(3.08 ± 1.53)E–02	(–4.87 ± 1.44)E–02
Catfish	3	(–4.69 ± 5.48)E–03	(00.00 ± 1.14)E–02	(–1.07 ± 1.12)E–02
Beaver Dam Creek River Mouth				
Bass	3	(1.45 ± 0.95)E–02	(2.24 ± 1.20)E–02	(0.40 ± 1.38)E–02
Bream	3	(–1.50 ± 1.78)E–02	(0.21 ± 1.18)E–02	(–3.34 ± 1.14)E–02
Catfish	3	(0.08 ± 1.36)E–02	(1.62 ± 1.27)E–02	(–0.94 ± 1.02)E–02
Four Mile Creek River Mouth				
Bass	3	(1.40 ± 1.72)E–02	(3.34 ± 1.54)E–02	(0.05 ± 1.38)E–02
Catfish	3	(0.86 ± 2.20)E–03	(0.29 ± 1.39)E–02	(–0.15 ± 1.14)E–02
Hwy–301 Bridge Area				
Bass	3	(–3.19 ± 1.38)E–03	(–1.80 ± 7.79)E–03	(–0.46 ± 1.04)E–02
Bream	3	(1.42 ± 1.54)E–02	(2.77 ± 1.29)E–02	(–0.25 ± 1.24)E–02
Catfish	3	(4.60 ± 6.33)E–04	(0.93 ± 8.26)E–03	(–0.26 ± 4.51)E–03
L3R Creek River Mouth				
Bass	3	(–1.06 ± 2.81)E–02	(2.18 ± 1.25)E–02	(–2.94 ± 1.44)E–02
Bream	3	(–6.10 ± 4.58)E–03	(–0.34 ± 1.11)E–02	(–1.14 ± 1.43)E–02
Catfish	3	(–0.51 ± 1.10)E–02	(0.76 ± 1.34)E–02	(–1.21 ± 1.33)E–02
Steel Creek River Mouth				
Bass	3	(0.99 ± 1.34)E–03	(0.25 ± 1.07)E–02	(0.20 ± 9.55)E–03
Bream	3	(–6.85 ± 9.82)E–03	(0.45 ± 1.38)E–02	(–1.31 ± 1.37)E–02

Table 29
Radioactivity in Aquatic Food Products — Freshwater Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Catfish	3	(–2.01 ± 4.96)E–03	(0.27 ± 1.42)E–02	(–0.72 ± 1.33)E–02
U3R Creek River Mouth				
Bass	3	(8.63 ± 3.94)E–03	(1.25 ± 1.02)E–02	(4.58 ± 7.36)E–03
Bream	3	(–2.01 ± 1.53)E–02	(–0.94 ± 2.17)E–02	(–3.77 ± 2.18)E–02
Catfish	3	(0.50 ± 2.00)E–02	(2.55 ± 1.10)E–02	(–1.45 ± 1.63)E–02
Cs-137, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bass	3	(5.00 ± 2.36)E–02	(6.61 ± 2.72)E–02	(2.29 ± 1.22)E–02
Bream	3	(2.42 ± 0.98)E–02	(3.42 ± 1.46)E–02	(1.47 ± 0.91)E–02
Catfish	3	(3.24 ± 0.87)E–02	(4.15 ± 1.74)E–02	(2.43 ± 1.40)E–02
Beaver Dam Creek River Mouth				
Bass	3	(2.11 ± 1.95)E–01	(4.33 ± 0.35)E–01	(6.94 ± 2.30)E–02
Bream	3	(4.98 ± 1.46)E–02	(5.85 ± 2.42)E–02	(3.29 ± 1.84)E–02
Catfish	3	(4.81 ± 1.17)E–02	(6.05 ± 1.87)E–02	(3.72 ± 1.35)E–02
Four Mile Creek River Mouth				
Bass	3	(7.38 ± 4.40)E–01	(1.10 ± 0.04)E+00	(2.48 ± 0.26)E–01
Bream	3	(1.81 ± 2.54)E–01	(4.73 ± 0.36)E–01	(2.32 ± 1.25)E–02
Catfish	3	(8.56 ± 2.40)E–02	(1.11 ± 0.16)E–01	(6.39 ± 2.04)E–02
Hwy–301 Bridge Area				
Bass	3	(7.85 ± 0.99)E–02	(8.96 ± 0.87)E–02	(7.07 ± 0.90)E–02
Bream	3	(4.65 ± 2.02)E–02	(5.84 ± 1.22)E–02	(2.32 ± 0.82)E–02
Catfish	3	(5.59 ± 1.75)E–02	(7.29 ± 1.14)E–02	(3.80 ± 1.02)E–02
L3R Creek River Mouth				
Bass	3	(1.20 ± 0.07)E–01	(1.27 ± 0.22)E–01	(1.13 ± 0.24)E–01
Bream	3	(5.59 ± 3.82)E–02	(9.48 ± 1.83)E–02	(1.84 ± 1.37)E–02
Catfish	3	(2.90 ± 2.74)E–01	(6.04 ± 0.46)E–01	(9.80 ± 1.82)E–02
Steel Creek River Mouth				
Bass	3	(1.82 ± 1.08)E+00	(2.99 ± 0.08)E+00	(8.53 ± 0.38)E–01
Bream	3	(4.36 ± 2.71)E–01	(7.32 ± 0.33)E–01	(1.99 ± 0.44)E–01
Catfish	3	(2.42 ± 2.15)E–01	(4.90 ± 0.33)E–01	(1.09 ± 0.26)E–01
Stokes Bluff Landing				
Bass	3	(9.71 ± 1.68)E–02	(1.10 ± 0.24)E–01	(7.83 ± 1.49)E–02
Bream	2	(6.04 ± 1.93)E–02	(7.40 ± 2.08)E–02	(4.68 ± 2.68)E–02

Table 29
Radioactivity in Aquatic Food Products — Freshwater Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Catfish	1	(5.31 ± 2.26)E–02	(5.31 ± 2.26)E–02	(5.31 ± 2.26)E–02
U3R Creek River Mouth				
Bass	3	(3.43 ± 4.52)E–01	(8.63 ± 0.52)E–01	(3.51 ± 1.40)E–02
Bream	3	(5.66 ± 5.34)E–02	(1.18 ± 0.38)E–01	(2.08 ± 2.40)E–02
Catfish	3	(5.74 ± 6.43)E–02	(1.29 ± 0.21)E–01	(0.53 ± 1.16)E–02
Onsite (Edible)				
L-Lake				
Bass	3	(6.35 ± 0.59)E–01	(7.03 ± 0.55)E–01	(5.99 ± 0.53)E–01
Bream	2	(4.27 ± 0.37)E–01	(4.53 ± 0.65)E–01	(4.01 ± 0.50)E–01
Crappie	1	(5.35 ± 0.67)E–01		
PAR Pond				
Bass	3	(7.93 ± 0.05)E+00	(7.99 ± 0.38)E+00	(7.88 ± 0.38)E+00
Bream	3	(4.90 ± 2.04)E+00	(7.25 ± 0.35)E+00	(3.55 ± 0.11)E+00
Catfish	1	(4.55 ± 0.21)E+00		
Pond B				
Bass	3	(1.10 ± 0.09)E+02	(1.18 ± 0.05)E+02	(1.01 ± 0.04)E+02
Bream	3	(3.36 ± 0.48)E+01	(3.87 ± 0.08)E+01	(2.91 ± 0.07)E+01
SC–4 Steel Creek at Road A				
Bass	3	(2.86 ± 0.71)E+00	(3.52 ± 0.14)E+00	(2.10 ± 0.08)E+00
Bream	3	(3.56 ± 0.66)E–01	(4.31 ± 0.42)E–01	(3.06 ± 0.38)E–01
Offsite (Nonedible)				
Augusta Lock and Dam				
Bass	3	(3.89 ± 0.69)E–02	(4.68 ± 1.42)E–02	(3.38 ± 1.36)E–02
Bream	3	(3.69 ± 4.04)E–02	(8.13 ± 1.57)E–02	(0.21 ± 1.28)E–02
Catfish	3	(1.69 ± 2.77)E–03	(0.49 ± 1.33)E–02	(–0.01 ± 1.27)E–02
Beaver Dam Creek River Mouth				
Bass	3	(1.12 ± 0.81)E–01	(1.96 ± 0.26)E–01	(3.47 ± 1.57)E–02
Bream	3	(2.98 ± 1.95)E–02	(4.13 ± 1.97)E–02	(0.73 ± 1.29)E–02
Catfish	3	(4.42 ± 0.77)E–02	(5.27 ± 1.85)E–02	(3.76 ± 1.91)E–02
Four Mile Creek River Mouth				
Bass	3	(3.87 ± 2.05)E–01	(5.64 ± 0.31)E–01	(1.63 ± 0.24)E–01
Catfish	3	(5.68 ± 1.59)E–02	(6.87 ± 1.82)E–02	(3.88 ± 2.25)E–02
Hwy–301 Bridge Area				
Bass	3	(5.49 ± 1.47)E–02	(6.88 ± 1.05)E–02	(3.94 ± 0.92)E–02

Table 29
Radioactivity in Aquatic Food Products — Freshwater Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Bream	3	(2.88 ± 1.99)E–02	(4.86 ± 1.21)E–02	(8.84 ± 8.03)E–03
Catfish	3	(3.06 ± 0.24)E–02	(3.33 ± 1.09)E–02	(2.86 ± 1.03)E–02
L3R Creek River Mouth				
Bass	3	(5.67 ± 2.01)E–02	(7.38 ± 2.39)E–02	(3.45 ± 1.60)E–02
Bream	3	(6.02 ± 3.74)E–02	(1.03 ± 0.24)E–01	(3.55 ± 1.39)E–02
Catfish	3	(1.27 ± 1.70)E–01	(3.20 ± 0.31)E–01	(–0.25 ± 1.20)E–02
Steel Creek River Mouth				
Bass	3	(9.98 ± 5.13)E–01	(1.53 ± 0.06)E+00	(5.07 ± 0.27)E–01
Bream	3	(2.91 ± 1.25)E–01	(4.21 ± 0.32)E–01	(1.72 ± 0.23)E–01
Catfish	3	(1.28 ± 1.25)E–01	(2.70 ± 0.19)E–01	(3.69 ± 1.84)E–02
U3R Creek River Mouth				
Bass	3	(1.71 ± 2.07)E–01	(4.05 ± 0.22)E–01	(1.03 ± 1.41)E–02
Bream	3	(1.81 ± 0.92)E–02	(2.71 ± 1.91)E–02	(8.60 ± 8.89)E–03
Catfish	3	(5.86 ± 1.55)E–02	(7.35 ± 2.38)E–02	(4.27 ± 1.97)E–02
Pu-238, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bass	3	(–5.24 ± 1.58)E–05	(–4.32 ± 2.59)E–05	(–7.07 ± 2.14)E–05
Bream	3	(0.43 ± 2.24)E–04	(2.97 ± 1.09)E–04	(–1.25 ± 0.79)E–04
Catfish	3	(–6.00 ± 0.57)E–05	(–5.37 ± 2.55)E–05	(–6.48 ± 2.13)E–05
Beaver Dam Creek River Mouth				
Bass	3	(3.21 ± 4.88)E–05	(6.90 ± 6.74)E–05	(–2.32 ± 1.39)E–05
Bream	3	(0.93 ± 1.16)E–04	(2.15 ± 1.15)E–04	(–1.55 ± 6.76)E–05
Catfish	3	(1.29 ± 3.02)E–04	(4.77 ± 2.07)E–04	(–6.52 ± 2.11)E–05
Four Mile Creek River Mouth				
Bass	3	(–0.44 ± 2.73)E–05	(1.25 ± 1.72)E–05	(–3.59 ± 2.43)E–05
Bream	3	(–0.59 ± 7.01)E–05	(6.36 ± 6.54)E–05	(–7.66 ± 5.16)E–05
Catfish	3	(5.39 ± 7.66)E–05	(1.07 ± 1.21)E–04	(–3.39 ± 3.45)E–05
Hwy–301 Bridge Area				
Bass	3	(3.86 ± 3.28)E–05	(7.64 ± 5.08)E–05	(1.69 ± 2.54)E–05
Bream	3	(–1.69 ± 9.89)E–05	(8.48 ± 6.59)E–05	(–1.13 ± 0.52)E–04
Catfish	3	(3.03 ± 3.21)E–05	(6.71 ± 8.35)E–05	(0.85 ± 3.44)E–05
L3R Creek River Mouth				
Bass	3	(2.60 ± 3.92)E–05	(5.02 ± 5.25)E–05	(–1.92 ± 3.31)E–05

Table 29
Radioactivity in Aquatic Food Products — Freshwater Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Bream	3	(–0.97 ± 1.02)E–04	(0.58 ± 3.54)E–05	(–1.98 ± 0.56)E–04
Catfish	3	(0.47 ± 3.20)E–05	(3.34 ± 8.60)E–05	(–2.99 ± 2.83)E–05
Steel Creek River Mouth				
Bass	3	(–5.21 ± 4.39)E–05	(–1.31 ± 2.62)E–05	(–9.96 ± 1.08)E–05
Bream	3	(–8.38 ± 9.54)E–05	(0.96 ± 4.13)E–05	(–1.81 ± 0.99)E–04
Catfish	3	(0.77 ± 2.24)E–05	(2.59 ± 4.22)E–05	(–1.73 ± 2.02)E–05
U3R Creek River Mouth				
Bass	3	(2.50 ± 8.95)E–05	(1.27 ± 1.04)E–04	(–3.88 ± 4.48)E–05
Bream	3	(0.76 ± 1.29)E–05	(2.13 ± 3.42)E–05	(–0.44 ± 5.49)E–05
Catfish	3	(3.44 ± 3.29)E–05	(5.69 ± 5.76)E–05	(–0.34 ± 2.01)E–05
Pu-239, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bass	3	(–1.40 ± 0.37)E–05	(–0.97 ± 1.23)E–05	(–1.66 ± 1.23)E–05
Bream	3	(–1.51 ± 1.28)E–04	(–3.53 ± 4.99)E–05	(–2.88 ± 0.78)E–04
Catfish	3	(–2.21 ± 1.01)E–05	(–1.24 ± 2.93)E–05	(–3.26 ± 1.76)E–05
Beaver Dam Creek River Mouth				
Bass	3	(1.05 ± 6.88)E–05	(8.55 ± 6.07)E–05	(–4.95 ± 3.90)E–05
Bream	3	(5.56 ± 4.30)E–05	(8.44 ± 7.94)E–05	(0.62 ± 7.92)E–05
Catfish	3	(–1.01 ± 0.33)E–04	(–7.06 ± 2.52)E–05	(–1.35 ± 0.30)E–04
Four Mile Creek River Mouth				
Bass	3	(–3.40 ± 5.48)E–06	(0.28 ± 1.72)E–05	(–0.76 ± 1.19)E–05
Bream	3	(–0.99 ± 3.85)E–05	(3.32 ± 6.17)E–05	(–4.10 ± 4.10)E–05
Catfish	3	(–1.33 ± 9.14)E–05	(6.13 ± 3.88)E–05	(–1.15 ± 0.48)E–04
Hwy–301 Bridge Area				
Bass	3	(–4.51 ± 4.32)E–05	(0.24 ± 1.72)E–05	(–8.19 ± 3.31)E–05
Bream	3	(–1.19 ± 3.62)E–05	(2.93 ± 6.16)E–05	(–3.87 ± 3.75)E–05
Catfish	3	(–0.70 ± 7.83)E–05	(4.37 ± 2.44)E–05	(–9.72 ± 4.86)E–05
L3R Creek River Mouth				
Bass	3	(–0.35 ± 1.09)E–04	(8.06 ± 5.49)E–05	(–1.37 ± 0.47)E–04
Bream	3	(–0.96 ± 1.49)E–04	(7.23 ± 4.52)E–05	(–2.12 ± 0.52)E–04
Catfish	3	(0.89 ± 6.60)E–05	(0.70 ± 1.04)E–04	(–6.13 ± 3.71)E–05
Steel Creek River Mouth				
Bass	3	(0.11 ± 2.24)E–05	(2.05 ± 4.31)E–05	(–2.35 ± 2.01)E–05

Table 29
Radioactivity in Aquatic Food Products — Freshwater Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Bream	3	(–2.17 ± 1.50)E–05	(–0.47 ± 9.21)E–05	(–3.29 ± 3.30)E–05
Catfish	3	(–0.62 ± 3.58)E–05	(2.84 ± 1.87)E–05	(–4.31 ± 3.76)E–05
U3R Creek River Mouth				
Bass	3	(4.89 ± 1.40)E–05	(6.51 ± 4.20)E–05	(0.41 ± 1.23)E–04
Bream	3	(0.55 ± 2.10)E–05	(2.92 ± 6.23)E–05	(–1.08 ± 4.94)E–05
Catfish	3	(2.18 ± 1.77)E–05	(4.16 ± 3.91)E–05	(0.74 ± 2.70)E–05
Sr-89,90, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bass	2	(1.04 ± 1.39)E–03	(2.03 ± 2.39)E–03	(0.06 ± 2.37)E–03
Bream	3	(2.08 ± 1.84)E–03	(3.34 ± 5.80)E–03	(–0.03 ± 5.19)E–03
Catfish	3	(4.84 ± 2.25)E–03	(7.16 ± 2.68)E–03	(2.66 ± 1.60)E–03
Beaver Dam Creek River Mouth				
Bass	3	(1.55 ± 2.60)E–03	(4.00 ± 2.84)E–03	(–1.18 ± 1.55)E–03
Bream	3	(0.99 ± 3.23)E–03	(4.71 ± 4.92)E–03	(–1.19 ± 4.55)E–03
Catfish	3	(0.78 ± 1.78)E–03	(2.42 ± 1.48)E–03	(–1.11 ± 3.77)E–03
Four Mile Creek River Mouth				
Bass	3	(4.42 ± 4.10)E–02	(8.85 ± 0.85)E–02	(7.44 ± 2.31)E–03
Bream	3	(1.10 ± 0.29)E–02	(1.43 ± 0.50)E–02	(8.83 ± 5.54)E–03
Catfish	3	(4.10 ± 3.64)E–03	(8.24 ± 5.84)E–03	(1.40 ± 3.05)E–03
Hwy–301 Bridge Area				
Bass	3	(2.87 ± 0.99)E–03	(3.59 ± 2.25)E–03	(1.74 ± 1.46)E–03
Bream	2	(7.55 ± 3.96)E–03	(1.04 ± 0.45)E–02	(4.76 ± 5.64)E–03
Catfish	3	(3.51 ± 1.62)E–03	(4.75 ± 2.10)E–03	(1.68 ± 2.11)E–03
L3R Creek River Mouth				
Bass	3	(7.89 ± 7.93)E–03	(1.70 ± 0.52)E–02	(3.20 ± 2.72)E–03
Bream	3	(5.47 ± 5.13)E–03	(9.89 ± 4.47)E–03	(–0.15 ± 4.54)E–03
Catfish	2	(5.80 ± 8.13)E–03	(1.16 ± 0.30)E–02	(0.05 ± 1.93)E–03
Steel Creek River Mouth				
Bass	3	(4.43 ± 3.77)E–03	(7.57 ± 2.66)E–03	(0.25 ± 2.10)E–03
Bream	3	(1.04 ± 0.46)E–02	(1.55 ± 0.90)E–02	(6.73 ± 5.67)E–03
Catfish	3	(3.00 ± 1.08)E–03	(3.94 ± 2.16)E–03	(1.81 ± 1.43)E–03
U3R Creek River Mouth				
Bass	3	(3.22 ± 6.32)E–03	(1.03 ± 0.35)E–02	(–1.78 ± 5.94)E–03

Table 29
Radioactivity in Aquatic Food Products — Freshwater Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Bream	3	(3.19 ± 5.68)E–03	(7.82 ± 5.97)E–03	(–3.15 ± 5.83)E–03
Catfish	3	(1.65 ± 1.74)E–03	(2.77 ± 2.88)E–03	(–0.35 ± 2.57)E–03
Onsite (Edible)				
SC–4 Steel Creek at Road A				
Bass	1	(0.46 ± 2.87)E–03		
Offsite (Nonedible)				
Augusta Lock and Dam				
Bass	3	(1.76 ± 1.81)E–01	(3.83 ± 0.90)E–01	(4.68 ± 1.31)E–02
Bream	3	(1.00 ± 0.27)E–01	(1.27 ± 0.16)E–01	(7.28 ± 1.41)E–02
Catfish	3	(1.03 ± 0.26)E–01	(1.33 ± 0.39)E–01	(8.25 ± 2.85)E–02
Beaver Dam Creek River Mouth				
Bass	3	(9.24 ± 2.00)E–02	(1.11 ± 0.24)E–01	(7.12 ± 1.52)E–02
Bream	3	(1.40 ± 0.45)E–01	(1.86 ± 0.31)E–01	(9.63 ± 2.47)E–02
Catfish	3	(1.07 ± 0.13)E–01	(1.22 ± 0.27)E–01	(1.00 ± 0.23)E–01
Four Mile Creek River Mouth				
Bass	3	(1.53± 0.94)E+00	(2.67 ± 0.05)E+00	(9.28 ± 0.47)E–01
Catfish	3	(3.91 ± 0.73)E–01	(4.44 ± 0.57)E–01	(3.08 ± 0.54)E–01
Hwy–301 Bridge Area				
Bass	3	(5.21 ± 1.68)E–01	(6.94 ± 1.00)E–01	(3.59 ± 0.59)E–01
Bream	3	(3.72 ± 0.16)E–01	(3.88 ± 0.62)E–01	(3.56 ± 0.63)E–01
Catfish	3	(6.22 ± 1.66)E–01	(7.47 ± 0.88)E–01	(4.34 ± 0.93)E–01
L3R Creek River Mouth				
Bass	3	(1.75 ± 0.29)E–01	(1.94 ± 0.42)E–01	(1.42 ± 0.40)E–01
Bream	3	(2.09 ± 0.76)E–01	(2.95 ± 0.44)E–01	(1.51 ± 0.40)E–01
Catfish	3	(1.90 ± 0.68)E–01	(2.65 ± 0.46)E–01	(1.32 ± 0.39)E–01
Steel Creek River Mouth				
Bass	3	(3.58 ± 1.19)E–01	(4.45 ± 0.57)E–01	(2.22 ± 0.63)E–01
Bream	3	(4.69 ± 1.21)E–01	(6.09 ± 1.02)E–01	(3.90 ± 0.48)E–01
Catfish	3	(3.37 ± 1.20)E–01	(4.34 ± 0.42)E–01	(2.03 ± 0.31)E–01
U3R Creek River Mouth				
Bass	3	(7.51 ± 9.19)E–01	(1.80 ± 0.14)E–00	(7.41 ± 2.13)E–02
Bream	3	(1.17 ± 0.43)E–01	(1.63 ± 0.26)E–01	(7.72 ± 2.33)E–02
Catfish	3	(8.74 ± 0.61)E–02	(9.44 ± 2.16)E–02	(8.34 ± 1.70)E–02

Table 29
Radioactivity in Aquatic Food Products — Freshwater Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Gross Beta, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bass	3	(2.13 ± 0.20)E+00	(2.31 ± 0.42)E+00	(1.91 ± 0.42)E+00
Bream	3	(2.41 ± 0.24)E+00	(2.60 ± 0.35)E+00	(2.14 ± 0.39)E+00
Catfish	3	(2.14 ± 0.43)E+00	(2.49 ± 0.32)E+00	(1.66 ± 0.39)E+00
Beaver Dam Creek River Mouth				
Bass	3	(2.46 ± 0.67)E+00	(3.11 ± 0.48)E+00	(1.77 ± 0.30)E+00
Bream	3	(2.18 ± 0.46)E+00	(2.68 ± 0.44)E+00	(1.77 ± 0.30)E+00
Catfish	3	(2.28 ± 0.36)E+00	(2.70 ± 0.43)E+00	(2.07 ± 0.31)E+00
Four Mile Creek River Mouth				
Bass	3	(3.00 ± 0.52)E–01	(3.57 ± 2.74)E–01	(2.55 ± 2.69)E–01
Bream	3	(2.07 ± 1.43)E–01	(3.67 ± 2.42)E–01	(0.93 ± 2.58)E–01
Catfish	3	(2.01 ± 0.27)E+00	(2.31 ± 0.38)E+00	(1.78 ± 0.42)E+00
Hwy–301 Bridge Area				
Bass	3	(1.83 ± 0.66)E+00	(2.31 ± 0.42)E+00	(1.07 ± 0.34)E+00
Bream	3	(1.95 ± 0.43)E+00	(2.31 ± 0.41)E+00	(1.47 ± 0.20)E+00
Catfish	3	(2.47 ± 0.73)E+00	(2.89 ± 0.44)E+00	(1.62 ± 0.29)E+00
L3R Creek River Mouth				
Bass	3	(2.98 ± 0.43)E+00	(3.47 ± 0.47)E+00	(2.70 ± 0.44)E+00
Bream	3	(2.14 ± 0.90)E+00	(3.08 ± 0.46)E+00	(1.28 ± 0.27)E+00
Catfish	3	(2.30 ± 1.07)E+00	(3.45 ± 0.45)E+00	(1.34 ± 0.36)E+00
Steel Creek River Mouth				
Bass	3	(3.77 ± 1.05)E+00	(4.97 ± 0.55)E+00	(3.07 ± 0.44)E+00
Bream	3	(2.28 ± 0.64)E+00	(2.90 ± 0.47)E+00	(1.62 ± 0.29)E+00
Catfish	3	(2.18 ± 0.98)E+00	(3.26 ± 0.45)E+00	(1.36 ± 0.27)E+00
Stokes Bluff Landing				
Bass	3	(9.43 ± 5.82)E–01	(1.44 ± 0.32)E+00	(3.03 ± 2.37)E–01
Bream	2	(9.92 ± 7.06)E–01	(1.49 ± 0.24)E+00	(4.93 ± 2.84)E–01
Catfish	1	(1.31 ± 0.33)E+00		
U3R Creek River Mouth				
Bass	3	(2.32 ± 0.55)E+00	(2.88 ± 0.43)E+00	(1.77 ± 0.29)E+00
Bream	3	(2.07 ± 1.09)E+00	(3.31 ± 0.49)E+00	(1.28 ± 0.27)E+00
Catfish	3	(1.93 ± 0.71)E+00	(2.69 ± 0.42)E+00	(1.28 ± 0.27)E+00

Table 29
Radioactivity in Aquatic Food Products — Freshwater Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Onsite (Edible)				
L-Lake				
Bass	3	(1.06 ± 0.74)E+00	(1.59 ± 0.28)E+00	(2.16 ± 2.04)E–01
Bream	2	(1.48 ± 0.14)E+00	(1.59 ± 0.28)E+00	(1.38 ± 0.27)E+00
Crappie	1	(1.87 ± 0.29)E+00		
PAR Pond				
Bass	3	(4.30 ± 1.58)E+00	(6.12 ± 0.51)E+00	(3.26 ± 0.42)E+00
Bream	3	(1.18 ± 1.19)E+00	(2.45 ± 0.32)E+00	(1.04 ± 2.25)E–01
Catfish	1	(3.32 ± 0.35)E+00		
Pond B				
Bass	3	(8.50 ± 2.03)E+00	(1.08 ± 0.06)E+01	(7.31 ± 0.54)E+00
Bream	3	(1.15 ± 0.25)E+01	(1.44 ± 0.06)E+01	(9.95 ± 0.54)E+00
SC–4 Steel Creek at Road A				
Bass	3	(2.54 ± 0.14)E+00	(2.69 ± 0.23)E+00	(2.43 ± 0.34)E+00
Bream	3	(2.84 ± 0.75)E+00	(3.66 ± 0.51)E+00	(2.21 ± 0.28)E+00
Offsite (Nonedible)				
Augusta Lock and Dam				
Bass	3	(2.74 ± 0.52)E+00	(3.34 ± 1.05)E+00	(2.40 ± 0.69)E+00
Bream	3	(2.21 ± 0.65)E+00	(2.90 ± 0.96)E+00	(1.61 ± 0.68)E+00
Catfish	3	(1.55 ± 0.60)E+00	(2.22 ± 0.95)E+00	(1.06 ± 0.90)E+00
Beaver Dam Creek River Mouth				
Bass	3	(2.93 ± 0.71)E+00	(3.39 ± 1.02)E+00	(2.12 ± 0.99)E+00
Bream	3	(2.08 ± 1.09)E+00	(3.29 ± 1.09)E+00	(1.17 ± 0.92)E+00
Catfish	3	(1.56 ± 0.54)E+00	(1.96 ± 0.95)E+00	(9.45 ± 8.79)E–01
Four Mile Creek River Mouth				
Bass	3	(4.03 ± 1.82)E+00	(5.08 ± 0.69)E+00	(1.92 ± 0.82)E+00
Catfish	3	(8.33 ± 6.14)E–01	(1.49 ± 0.87)E+00	(2.69 ± 7.88)E–01
Hwy–301 Bridge Area				
Bass	3	(1.44 ± 0.01)E+00	(1.45 ± 0.93)E+00	(1.43 ± 0.96)E+00
Bream	3	(1.40 ± 0.70)E+00	(2.00 ± 0.96)E+00	(6.36 ± 8.87)E–01
Catfish	3	(1.69 ± 0.28)E+00	(2.00 ± 0.93)E+00	(1.46 ± 0.90)E+00
L3R Creek River Mouth				
Bass	3	(1.14 ± 0.25)E+00	(1.31 ± 0.62)E+00	(8.58 ± 8.29)E–01
Bream	3	(1.24 ± 0.96)E+00	(2.29 ± 0.96)E+00	(4.00 ± 8.48)E–01

Table 29
Radioactivity in Aquatic Food Products — Freshwater Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Catfish	3	(1.34 ± 0.45)E+00	(1.77 ± 0.89)E+00	(8.73 ± 6.17)E–01
Steel Creek River Mouth				
Bass	3	(2.85 ± 0.36)E+00	(3.23 ± 1.04)E+00	(2.50 ± 1.01)E+00
Bream	3	(2.20 ± 0.85)E+00	(3.07 ± 1.84)E+00	(1.37 ± 0.99)E+00
Catfish	3	(1.94 ± 1.09)E+00	(2.94 ± 1.07)E+00	(7.84 ± 9.24)E–01
U3R Creek River Mouth				
Bass	3	(2.93 ± 1.10)E+00	(4.03 ± 0.83)E+00	(1.83 ± 0.99)E+00
Bream	3	(2.04 ± 1.72)E+00	(3.73 ± 1.08)E+00	(2.92 ± 8.29)E–01
Catfish	3	(1.68 ± 0.10)E+00	(1.76 ± 0.99)E+00	(1.57 ± 0.97)E+00
Gross Alpha, pCi/g				
Offsite (Edible)				
Augusta Lock and Dam				
Bass	3	(0.36 ± 1.30)E–01	(1.48 ± 1.68)E–01	(–1.06 ± 0.97)E–01
Bream	3	(–0.40 ± 1.02)E–01	(0.77 ± 1.23)E–01	(–1.06 ± 0.97)E–01
Catfish	3	(9.18 ± 9.43)E–02	(1.55 ± 1.78)E–01	(–0.17 ± 1.23)E–01
Beaver Dam Creek River Mouth				
Bass	3	(–2.82 ± 8.55)E–02	(0.70 ± 1.59)E–01	(–0.83 ± 1.42)E–01
Bream	3	(4.04 ± 3.70)E–02	(0.72 ± 1.60)E–01	(0.00 ± 1.73)E–01
Catfish	3	(0.51 ± 3.78)E–02	(0.49 ± 1.10)E–01	(–0.17 ± 1.29)E–01
Four Mile Creek River Mouth				
Bass	3	(–0.46 ± 1.09)E–01	(0.73 ± 1.62)E–01	(–1.41 ± 1.01)E–01
Bream	3	(–0.55 ± 7.44)E–02	(0.73 ± 1.61)E–01	(–7.49 ± 6.95)E–02
Catfish	3	(–1.67 ± 0.08)E–02	(–0.16 ± 1.19)E–01	(–0.18 ± 1.31)E–01
Hwy–301 Bridge Area				
Bass	3	(–0.56 ± 1.14)E–01	(0.65 ± 1.48)E–01	(–1.61 ± 1.14)E–01
Bream	3	(–2.74 ± 8.73)E–02	(0.65 ± 1.48)E–01	(–1.08 ± 0.97)E–01
Catfish	3	(–4.28 ± 4.97)E–02	(–1.20 ± 8.86)E–02	(–1.00 ± 0.90)E–01
L3R Creek River Mouth				
Bass	3	(–2.68 ± 9.95)E–02	(0.67 ± 1.49)E–01	(–1.31 ± 0.89)E–01
Bream	3	(–1.44 ± 0.31)E–02	(–1.20 ± 8.86)E–02	(–0.18 ± 1.33)E–01
Catfish	3	(–1.04 ± 0.90)E–01	(0.00 ± 1.57)E–01	(–1.59 ± 1.12)E–01
Steel Creek River Mouth				
Bass	3	(–1.15 ± 0.41)E–01	(–0.79 ± 1.36)E–01	(–1.59 ± 1.14)E–01
Bream	3	(–9.25 ± 1.66)E–02	(–7.38 ± 6.77)E–02	(–1.06 ± 0.97)E–01

Table 29
Radioactivity in Aquatic Food Products — Freshwater Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Catfish	3	(–8.27 ± 7.71)E–02	(–1.23 ± 9.10)E–02	(–1.65 ± 1.17)E–01
Stokes Bluff Landing				
Bass	3	(1.27 ± 2.92)E–01	(4.62 ± 2.08)E–01	(–0.69 ± 1.20)E–01
Bream	2	(–9.96 ± 8.27)E–02	(–4.11 ± 9.54)E–02	(–1.58 ± 1.11)E–01
Catfish	1	(–1.50 ± 1.06)E–01		
U3R Creek River Mouth				
Bass	3	(4.90 ± 5.31)E–02	(0.81 ± 1.80)E–01	(–1.24 ± 9.22)E–02
Bream	3	(–4.38 ± 8.31)E–02	(0.50 ± 1.12)E–01	(–1.08 ± 0.97)E–01
Catfish	3	(–5.90 ± 4.07)E–02	(–1.20 ± 8.86)E–02	(–0.83 ± 1.44)E–01
Onsite (Edible)				
Beaver Dam Creek				
L-Lake				
Bass	3	(0.81 ± 3.42)E–02	(0.48 ± 1.08)E–01	(–1.25 ± 9.34)E–02
Bream	2	(–4.21 ± 4.24)E–02	(–1.21 ± 9.00)E–02	(–7.21 ± 6.45)E–02
Crappie	1	(–1.24 ± 9.23)E–02		
PAR Pond				
Bass	3	(–0.57 ± 1.01)E–01	(0.53 ± 1.17)E–01	(–1.46 ± 1.03)E–01
Bream	3	(2.94 ± 3.74)E–02	(0.54 ± 1.22)E–01	(–0.14 ± 1.02)E–01
Catfish	1	(–1.20 ± 8.89)E–02		
Pond B				
Bass	3	(–5.67 ± 7.45)E–02	(–0.14 ± 1.01)E–01	(–1.43 ± 1.01)E–01
Bream	3	(–3.22 ± 7.03)E–02	(0.49 ± 1.09)E–01	(–7.35 ± 6.76)E–02
SC–4 Steel Creek at Road A				
Bass	3	(–0.77 ± 2.74)E–02	(2.22 ± 6.30)E–02	(–3.15 ± 5.72)E–02
Bream	3	(–3.13 ± 5.31)E–02	(–0.06 ± 7.70)E–02	(–9.27 ± 9.14)E–02
Offsite (Nonedible)				
Augusta Lock and Dam				
Bass	3	(2.10 ± 6.03)E–01	(9.01 ± 7.30)E–01	(–2.12 ± 2.19)E–01
Bream	3	(2.78 ± 4.94)E–01	(7.95 ± 6.49)E–01	(–1.88 ± 4.25)E–01
Catfish	3	(–1.28 ± 1.21)E–01	(0.00 ± 4.61)E–01	(–2.39 ± 4.16)E–01
Beaver Dam Creek River Mouth				
Bass	3	(–0.35 ± 6.27)E–01	(6.89 ± 5.30)E–01	(–4.03 ± 3.71)E–01
Bream	3	(3.16 ± 5.44)E–01	(7.42 ± 8.71)E–01	(–2.97 ± 2.70)E–01
Catfish	3	(–0.10 ± 3.77)E–01	(2.28 ± 5.13)E–01	(–4.45 ± 3.15)E–01

Table 29
Radioactivity in Aquatic Food Products — Freshwater Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Four Mile Creek River Mouth				
Bass	3	(–3.66 ± 1.63)E–01	(–2.61 ± 4.49)E–01	(–5.54 ± 3.92)E–01
Catfish	3	(–0.43 ± 2.26)E–01	(1.83 ± 4.04)E–01	(–2.69 ± 2.49)E–01
Hwy–301 Bridge Area				
Bass	3	(–2.42 ± 4.10)E–01	(2.22 ± 4.94)E–01	(–5.56 ± 4.05)E–01
Bream	3	(–2.48 ± 1.46)E–01	(–0.80 ± 5.72)E–01	(–3.50 ± 6.09)E–01
Catfish	3	(–1.54 ± 3.43)E–01	(2.21 ± 4.93)E–01	(–4.50 ± 3.15)E–01
L3R Creek River Mouth				
Bass	3	(–2.84 ± 1.49)E–01	(–1.31 ± 2.64)E–01	(–4.29 ± 3.92)E–01
Bream	3	(–2.88 ± 1.90)E–01	(–0.69 ± 5.27)E–01	(–4.12 ± 3.75)E–01
Catfish	3	(0.39 ± 1.40)E–01	(2.00 ± 4.43)E–01	(–0.49 ± 3.62)E–01
Steel Creek River Mouth				
Bass	3	(–4.35 ± 1.62)E–01	(–2.95 ± 5.10)E–01	(–6.12 ± 4.24)E–01
Bream	3	(0.56 ± 4.54)E–01	(3.71 ± 8.41)E–01	(–4.64 ± 4.24)E–01
Catfish	3	(1.75 ± 6.57)E–01	(9.15 ± 7.45)E–01	(–3.40 ± 3.07)E–01
U3R Creek River Mouth				
Bass	3	(–1.18 ± 0.95)E–01	(–0.54 ± 4.03)E–01	(–2.28 ± 3.82)E–01
Bream	3	(–1.55 ± 1.55)E–01	(–0.63 ± 4.67)E–01	(–3.34 ± 5.83)E–01
Catfish	3	(–1.39 ± 1.51)E–01	(–0.52 ± 3.81)E–01	(–3.14 ± 2.85)E–01

Table 30
Radioactivity in Aquatic Food Products — Marine (Saltwater) Fish

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Co-60, pCi/g				
Offsite (Edible)				
Hwy–17A Bridge Area				
Bass	3	(0.23 ± 1.55)E–02	(1.69 ± 1.43)E–02	(–1.40 ± 1.01)E–02
Bream	3	(1.17 ± 0.78)E–02	(1.95 ± 1.44)E–02	(0.38 ± 1.81)E–02
Catfish	6	(–0.24 ± 1.06)E–02	(1.04 ± 1.35)E–02	(–1.35 ± 1.04)E–02
Mullet	3	(1.45 ± 2.31)E–02	(4.07 ± 1.94)E–02	(–0.29 ± 1.20)E–02
Sea Trout	3	(–0.53 ± 1.06)E–02	(0.64 ± 1.15)E–02	(–1.42 ± 1.33)E–02
Cs-137, pCi/g				
Offsite (Edible)				
Hwy–17A Bridge Area				
Bass	3	(3.65 ± 1.88)E–02	(5.16 ± 1.89)E–02	(1.54 ± 1.28)E–02
Bream	3	(5.98 ± 0.83)E–02	(6.71 ± 2.13)E–02	(5.07 ± 1.44)E–02
Catfish	6	(4.92 ± 4.36)E–02	(1.07 ± 0.21)E–01	(–0.64 ± 1.37)E–02
Mullet	3	(4.33 ± 3.84)E–02	(8.74 ± 1.93)E–02	(1.72 ± 1.16)E–02
Sea Trout	3	(2.53 ± 1.32)E–02	(3.99 ± 1.05)E–02	(1.42 ± 1.22)E–02
Gross Beta, pCi/g				
Offsite (Edible)				
Hwy–17A Bridge Area				
Bass	3	(1.73 ± 0.25)E ± 00	(1.94 ± 0.37)E ± 00	(1.46 ± 0.32)E ± 00
Bream	3	(2.00 ± 0.20)E ± 00	(2.12 ± 0.39)E ± 00	(1.77 ± 0.37)E ± 00
Catfish	6	(1.30 ± 0.81)E ± 00	(2.13 ± 0.35)E ± 00	(–1.29 ± 2.40)E–01
Mullet	3	(4.45 ± 3.12)E–01	(8.05 ± 1.89)E–01	(2.55 ± 2.63)E–01
Sea Trout	3	(3.71 ± 6.22)E–01	(1.07 ± 0.31)E ± 00	(–1.18 ± 2.14)E–01
Gross Alpha, pCi/g				
Offsite (Edible)				
Hwy–17A Bridge Area				
Bass	3	(–4.33 ± 7.45)E–02	(0.00 ± 1.38)E–01	(–1.29 ± 0.91)E–01
Bream	3	(2.37 ± 4.22)E–02	(0.72 ± 1.25)E–01	(–0.01 ± 1.07)E–01
Catfish	6	(–7.16 ± 7.73)E–02	(0.71 ± 1.24)E–01	(–1.43 ± 1.01)E–01
Mullet	3	(–3.62 ± 9.82)E–02	(0.67 ± 1.50)E–01	(–1.29 ± 0.92)E–01
Sea Trout	3	(–0.43 ± 7.97)E–02	(0.73 ± 1.64)E–01	(–8.61 ± 7.81)E–02

Table 31
Radioactivity in Aquatic Food Products — Marine Invertebrates (Shellfish)

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Co-60, pCi/g				
RM–0/8 Savannah River Mouth	2	(0.47±1.52)E–02	(1.55±1.25)E–02	(–0.60±1.07)E–02
Cs-137, pCi/g				
RM–0/8 Savannah River Mouth	2	(–0.70±3.34)E–03	(0.17±1.16)E–02	(–0.31±1.22)E–02
Sr-89,90, pCi/g				
RM–0/8 Savannah River Mouth	2	(2.22±0.17)E–02	(2.34±1.24)E–02	(2.10±0.73)E–02
Gross Beta, pCi/g				
RM–0/8 Savannah River Mouth	2	(1.37±0.53)E–01	(1.75±1.73)E–01	(1.00±1.43)E–01
Gross Alpha, pCi/g				
RM–0/8 Savannah River Mouth	2	(0.80±9.22)E–02	(0.73±1.01)E–01	(–0.57±1.12)E–01

Table 32
Comparison of Field and Laboratory Cesium-137 Measurements in Deer and Hog Muscle

			pCi/g	
Date	Sample Number	Animal Type	Field Cs-137	Lab Cs-137
10/30/96	1	Deer	1.6	1.08 ± 0.06
10/30/96	2	Deer	3.7	4.07 ± 0.19
10/30/96	3	Deer	4.1	4.51 ± 0.21
10/30/96	4	Deer	8.5	7.92 ± 0.35
10/30/96	5 (DUP)	Deer	6.7	7.51 ± 0.33
10/30/96	5 (DUP)	Deer	6.7	7.41 ± 0.33
10/30/96	6	Deer	7.1	7.84 ± 0.24
10/30/96	7	Deer	4.4	5.91 ± 0.27
10/30/96	8	Deer	5.1	6.55 ± 0.29
10/30/96	9	Deer	3.5	4.02 ± 0.19
10/30/96	10	Deer	2.5	3.04 ± 0.15
10/30/96	11	Deer	3.9	4.02 ± 0.19
10/30/96	12	Deer	4.8	6.94 ± 0.31
10/30/96	13 (DUP)	Hog	2.3	3.44 ± 0.12
10/30/96	13 (DUP)	Hog	2.3	2.77 ± 0.14
11/02/96	1	Deer	4.5	4.24 ± 0.23
11/02/96	2	Deer	5.0	5.05 ± 0.16
11/02/96	3	Deer	3.1	4.05 ± 0.19
11/02/96	4	Deer	4.5	5.22 ± 0.28
11/02/96	5 (DUP)	Deer	4.5	4.79 ± 0.22
11/02/96	5 (DUP)	Deer	4.5	5.32 ± 0.28
11/02/96	6	Deer	5.0	6.36 ± 0.23
11/02/96	7	Deer	8.7	8.05 ± 0.35
11/02/96	8	Deer	1.0	3.56 ± 0.17
11/02/96	9	Deer	3.7	4.24 ± 0.23
11/06/96	1	Deer	7.4	7.60 ± 0.25
11/06/96	2	Deer	5.3	5.04 ± 0.17
11/06/96	3	Deer	4.7	4.29 ± 0.20
11/06/96	4	Deer	3.7	4.36 ± 0.21
11/06/96	5 (DUP)	Deer	5.3	4.75 ± 0.22
11/06/96	5 (DUP)	Deer	5.3	4.79 ± 0.22
11/06/96	6	Hog	16.1	14.70 ± 0.62
11/06/96	7	Deer	5.2	5.80 ± 0.20
11/06/96	8	Deer	6.9	6.29 ± 0.21

Table 32
Comparison of Field and Laboratory Cesium-137 Measurements in Deer and Hog Muscle

Date	Sample Number	Animal Type	pCi/g	
			Field Cs-137	Lab Cs-137
11/06/96	9	Deer	3.4	5.00 ± 0.17
11/06/96	10	Deer	7.6	10.30 ± 0.44
11/06/96	11 (DUP)	Deer	3.8	5.13 ± 0.19
11/06/96	11 (DUP)	Deer	3.8	4.75 ± 0.22
11/06/96	12	Deer	2.4	3.14 ± 0.16
11/06/96	13	Deer	7.8	8.51 ± 0.28
11/06/96	14	Deer	5.5	6.01 ± 0.19
11/06/96	15	Deer	3.9	5.91 ± 0.27
11/06/96	16	Deer	3.5	3.71 ± 0.18
11/06/96	17	Deer	3.5	3.88 ± 0.19
11/09/96	1	Deer	1.9	2.34 ± 0.13
11/09/96	2	Deer	2.3	2.57 ± 0.14
11/09/96	3	Deer	1.8	2.61 ± 0.09
11/09/96	4	Deer	2.1	1.89 ± 0.11
11/09/96	5 (DUP)	Deer	2.4	3.07 ± 0.15
11/09/96	5 (DUP)	Deer	2.4	3.02 ± 0.15
11/09/96	6	Deer	6.7	4.70 ± 0.16
11/09/96	7	Deer	1.5	1.89 ± 0.11
11/09/96	8	Deer	9.3	9.73 ± 0.24
11/09/96	9	Deer	1.1	1.22 ± 0.08
11/09/96	10 (DUP)	Deer	1.3	1.26 ± 0.05
11/09/96	10 (DUP)	Deer	1.3	1.08 ± 0.07
11/09/96	11	Deer	4.6	5.65 ± 0.28
11/09/96	12	Deer	3.7	5.57 ± 0.28
11/09/96	13	Deer	2.7	4.06 ± 0.21
11/13/96	1	Deer	8.0	10.10 ± 0.33
11/13/96	2	Deer	3.9	4.93 ± 0.23
11/13/96	3	Deer	3.3	5.00 ± 0.25
11/13/96	4	Deer	3.5	4.76 ± 0.22
11/13/96	5 (DUP)	Deer	4.1	5.04 ± 0.23
11/13/96	5 (DUP)	Deer	4.1	5.12 ± 0.24
11/13/96	6	Deer	4.3	4.34 ± 0.21
11/13/96	7	Deer	4.8	5.25 ± 0.24
11/13/96	8	Deer	4.1	4.95 ± 0.23

Table 32
Comparison of Field and Laboratory Cesium-137 Measurements in Deer and Hog Muscle

			pCi/g	
Date	Sample Number	Animal Type	Field Cs-137	Lab Cs-137
11/13/96	9	Deer	4.3	4.85 ± 0.22
11/13/96	10	Deer	3.1	4.14 ± 0.21
11/13/96	11	Deer	3.2	3.06 ± 0.15
11/13/96	12 (DUP)	Deer	2.7	3.00 ± 0.15
11/13/96	12 (DUP)	Deer	2.7	3.00 ± 0.16
11/16/96	1	Deer	11.0	10.70 ± 0.38
11/16/96	2	Deer	4.7	6.03 ± 0.23
11/16/96	3	Deer	2.4	2.96 ± 0.17
11/16/96	4 (DUP)	Deer	6.0	5.73 ± 0.33
11/16/96	4 (DUP)	Deer	6.0	5.83 ± 0.22
11/16/96	5 (DUP)	Deer	1.2	1.09 ± 0.08
11/16/96	5 (DUP)	Deer	1.2	1.15 ± 0.08
11/16/96	6	Deer	3.1	4.35 ± 0.23
11/16/96	7	Deer	7.5	7.00 ± 0.25
11/16/96	8	Deer	3.1	3.10 ± 0.17
11/16/96	9	Deer	5.6	6.52 ± 0.25
11/16/96	10	Deer	3.9	3.94 ± 0.21
11/16/96	11 (DUP)	Deer	7.4	6.62 ± 0.26
11/16/96	11 (DUP)	Deer	7.4	6.48 ± 0.25
11/20/96	1	Deer	3.5	3.62 ± 0.13
11/20/96	2	Deer	4.1	5.52 ± 0.19
11/20/96	3	Deer	5.0	6.16 ± 0.28
11/20/96	4	Deer	3.5	4.46 ± 0.21
11/20/96	5 (DUP)	Deer	4.9	5.16 ± 0.13
11/20/96	5 (DUP)	Deer	4.9	5.27 ± 0.17
11/20/96	6	Deer	1.8	2.62 ± 0.14
11/20/96	7	Deer	3.3	3.20 ± 0.16
11/20/96	8	Deer	4.5	5.78 ± 0.20
11/20/96	9	Deer	5.9	9.49 ± 0.31
11/20/96	10	Deer	4.7	6.33 ± 0.20
11/20/96	11	Deer	3.2	4.30 ± 0.20
11/20/96	12	Deer	2.2	2.83 ± 0.14
11/20/96	13	Deer	3.5	4.15 ± 0.20
11/23/96	1	Deer	2.9	2.90 ± 0.16

Table 32
Comparison of Field and Laboratory Cesium-137 Measurements in Deer and Hog Muscle

			pCi/g	
Date	Sample Number	Animal Type	Field Cs-137	Lab Cs-137
11/23/96	2	Deer	3.0	4.33 ± 0.23
11/23/96	3	Deer	12.2	13.70 ± 0.46
11/23/96	4	Deer	3.4	5.10 ± 0.27
11/23/96	5	Deer	4.8	5.51 ± 0.29
11/23/96	6	Deer	5.0	5.90 ± 0.31
11/23/96	7	Deer	1.9	3.44 ± 0.19
11/23/96	8	Deer	4.2	5.41 ± 0.28
11/27/96	1	Deer	6.0	6.01 ± 0.31
11/27/96	2	Deer	6.4	5.67 ± 0.20
11/27/96	3	Deer	4.8	5.02 ± 0.18
11/27/96	4	Deer	2.1	2.26 ± 0.13
11/27/96	5 (DUP)	Deer	2.8	2.18 ± 0.13
11/27/96	5 (DUP)	Deer	2.8	2.10 ± 0.13
11/27/96	6	Deer	4.4	4.81 ± 0.26
11/27/96	7	Deer	1.5	1.16 ± 0.09
11/27/96	8	Deer	2.1	2.23 ± 0.14
11/27/96	9	Deer	3.0	2.87 ± 0.16
11/27/96	10 (DUP)	Deer	7.3	7.64 ± 0.26
11/27/96	10 (DUP)	Deer	7.3	7.79 ± 0.29
11/27/96	11	Deer	8.4	8.17 ± 0.30
11/27/96	12	Deer	2.3	2.68 ± 0.17
11/27/96	13	Deer	7.7	8.57 ± 0.31
11/27/96	14	Deer	2.7	2.18 ± 0.14
11/27/96	15	Deer	5.3	7.48 ± 0.28
11/27/96	16	Deer	3.4	5.35 ± 0.20
11/27/96	17 (DUP)	Deer	6.9	7.12 ± 0.26
11/27/96	17 (DUP)	Deer	6.9	7.46 ± 0.27
11/27/96	18	Deer	7.5	8.28 ± 0.30
11/30/96	1	Deer	9.3	11.20 ± 0.32
11/30/96	2	Deer	3.8	5.06 ± 0.18
11/30/96	3	Deer	1.0	6.33 ± 0.23
11/30/96	4	Deer	4.8	6.19 ± 0.22
11/30/96	5 (DUP)	Deer	6.0	6.76 ± 0.24
11/30/96	5 (DUP)	Deer	6.0	6.57 ± 0.23

Table 32
Comparison of Field and Laboratory Cesium-137 Measurements in Deer and Hog Muscle

			pCi/g	
Date	Sample Number	Animal Type	Field Cs-137	Lab Cs-137
11/30/96	6	Deer	2.1	1.96 ± 0.12
11/30/96	7	Deer	5.9	5.78 ± 0.21
11/30/96	8	Deer	3.4	3.58 ± 0.14
11/30/96	9	Deer	2.0	1.85 ± 0.12
12/04/96	1	Deer	1.0	5.00 ± 0.26
12/04/96	2	Deer	2.5	3.77 ± 0.21
12/04/96	3	Deer	4.6	4.01 ± 0.22
12/04/96	4	Deer	1.5	3.25 ± 0.18
12/04/96	5 (DUP)	Deer	4.4	5.64+/– 0.29
12/04/96	5 (DUP)	Deer	4.4	5.80 ± 0.30
12/04/96	6	Deer	3.7	4.57 ± 0.24
12/04/96	7	Deer	4.9	6.79 ± 0.35
12/04/96	8	Deer	7.7	9.73 ± 0.49
12/04/96	9	Deer	2.9	2.87 ± 0.16
12/04/96	10 (DUP)	Deer	7.0	7.85 ± 0.27
12/04/96	10 (DUP)	Deer	7.0	9.22 ± 0.46
12/04/96	11	Deer	3.2	4.04 ± 0.22
12/04/96	12	Deer	7.1	8.31 ± 0.42
12/04/96	13	Deer	5.1	7.23 ± 0.20
12/04/96	14	Deer	1.1	10.80 ± 0.54
12/07/96	1	Deer	166.4	149.00 ± 3.92
12/07/96	2	Deer	2.8	3.61 ± 0.20
12/07/96	3	Deer	7.5	9.99 ± 0.50
12/07/96	4	Deer	3.5	3.98 ± 0.21
12/07/96	5	Deer	1.0	3.69 ± 0.20
12/11/96	1	Deer	7.6	9.86 ± 0.34
12/11/96	2	Deer	7.1	7.52 ± 0.38
12/11/96	3	Deer	6.5	7.23 ± 0.37
12/11/96	4	Deer	6.6	9.58 ± 0.48
12/11/96	5 (DUP)	Deer	9.3	8.60 ± 0.44
12/11/96	5 (DUP)	Deer	9.3	8.39 ± 0.42
12/11/96	6 (DUP)	Deer	5.1	6.95 ± 0.36
12/11/96	6 (DUP)	Deer	4.2	4.62 ± 0.25
12/11/96	7	Deer	9.3	10.00 ± 0.34

Table 32
Comparison of Field and Laboratory Cesium-137 Measurements in Deer and Hog Muscle

Date	Sample Number	Animal Type	pCi/g	
			Field Cs-137	Lab Cs-137
12/11/96	8	Deer	7.2	8.03 ± 0.28
12/11/96	9 (DUP)	Deer	6.2	7.58 ± 0.26
12/11/96	9 (DUP)	Deer	6.2	7.67 ± 0.39
12/11/96	10	Deer	3.4	4.16 ± 0.22
12/11/96	11	Deer	1.0	7.42 ± 0.38
12/11/96	12	Deer	12.8	16.40 ± 0.80
12/11/96	13	Deer	5.6	6.61 ± 0.34
12/11/96	14	Deer	12.3	14.20 ± 0.48
12/14/96	1	Deer	1.0	1.1 ± 0.07
12/14/96	2	Deer	8.1	9.13 ± 0.46
12/14/96	3	Deer	5.8	6.82 ± 0.24
12/14/96	4	Deer	8.9	8.26 ± 0.29
12/14/96	5 (DUP)	Deer	6.1	6.60 ± 0.34
12/14/96	5 (DUP)	Deer	6.1	6.37 ± 0.24
12/14/96	6	Deer	1.2	0.46 ± 0.05
12/14/96	7	Deer	4.5	5.17 ± 0.27
12/14/96	8	Deer	9.1	10.50 ± 0.36
12/14/96	9	Deer	3.4	3.31 ± 0.18
12/14/96	10	Deer	4.6	6.81 ± 0.35
12/14/96	11	Deer	12.8	12.90 ± 0.64
12/14/96	12	Deer	2.9	4.28 ± 0.23
12/14/96	13 (DUP)	Deer	2.6	3.28 ± 0.18
12/14/96	13 (DUP)	Deer	2.6	3.52 ± 0.19

Table 33
Strontium-89,90 in Deer Muscle and Bone

Date	Sample Number	Animal Type	Media	Sr-89,90 (pCi/g)
Note: Blank spaces indicate activity was less than the lower limit of detection (.095 pCi/g).				
10/30/96	1	Deer	Muscle	
10/30/96	1	Deer	Muscle	
10/30/96	1	Deer	Bone	8.83 ± 0.91
10/30/96	2	Hog	Muscle	
10/30/96	2	Hog	Muscle	0.04 ± 0.01
10/30/96	2	Hog	Bone	6.78 ± 0.83
11/2/96	1	Deer	Muscle	
11/2/96	1	Deer	Muscle	
11/2/96	1	Deer	Bone	6.58 ± 0.82
11/6/96	1	Deer	Muscle	
11/6/96	1	Deer	Muscle	
11/6/96	1	Deer	Bone	9.03 ± 0.92
11/6/96	2	Hog	Muscle	
11/6/96	3	Deer	Muscle	
11/6/96	3	Deer	Muscle	
11/6/96	3	Deer	Bone	14.1 ± 1.09
11/9/96	1	Deer	Muscle	
11/9/96	1	Deer	Muscle	
11/9/96	1	Deer	Bone	6.64 ± 0.58
11/9/96	2	Deer	Muscle	
11/9/96	2	Deer	Muscle	
11/9/96	2	Deer	Bone	5.27 ± 0.77
11/13/96	1	Deer	Muscle	
11/13/96	1	Deer	Muscle	
11/13/96	1	Deer	Bone	7.78 ± 0.87
11/13/96	2	Deer	Muscle	
11/13/96	2	Deer	Muscle	
11/13/96	2	Deer	Bone	12.8 ± 1.05
11/16/96	1	Deer	Muscle	
11/16/96	1	Deer	Muscle	

Table 33
Strontium-89,90 in Deer Muscle and Bone

Date	Sample Number	Animal Type	Media	Sr-89,90 (pCi/g)
11/16/96	1	Deer	Bone	39.9 ± 1.33
11/16/96	2	Deer	Muscle	
11/16/96	2	Deer	Muscle	
11/16/96	2	Deer	Bone	6.64 ± 0.83
11/16/96	3	Deer	Muscle	0.05 ± 0.01
11/16/96	3	Deer	Muscle	
11/16/96	3	Deer	Bone	91.6 ± 1.63
11/20/96	1	Deer	Muscle	
11/20/96	1	Deer	Muscle	
11/20/96	1	Deer	Bone	9.42 ± 0.93
11/27/96	1	Deer	Muscle	
11/27/96	1	Deer	Muscle	
11/27/96	1	Deer	Bone	5.16 ± 0.77
11/27/96	2	Deer	Muscle	
11/27/96	2	Deer	Muscle	
11/27/96	2	Deer	Bone	6.48 ± 0.82
11/27/96	3	Deer	Muscle	
11/27/96	3	Deer	Muscle	
11/27/96	3	Deer	Bone	6.71 ± 0.83
11/30/96	1	Deer	Muscle	
11/30/96	1	Deer	Muscle	
11/30/96	1	Deer	Bone	6.69 ± 0.83
12/4/96	1	Deer	Muscle	
12/4/96	1	Deer	Muscle	
12/4/96	1	Deer	Bone	9.3 ± 0.93
12/4/96	2	Deer	Muscle	
12/4/96	2	Deer	Muscle	
12/4/96	2	Deer	Bone	6.55 ± 0.83
12/7/96	1	Deer	Muscle	
12/7/96	1	Deer	Bone	3.2 ± 0.63
12/11/96	1	Deer	Muscle	
12/11/96	1	Deer	Muscle	

Table 33
Strontium-89,90 in Deer Muscle and Bone

Date	Sample Number	Animal Type	Media	Sr-89,90 (pCi/g)
12/11/96	1	Deer	Bone	8.05 ± 0.62
12/11/96	2	Deer	Muscle	
12/11/96	2	Deer	Muscle	
12/11/96	2	Deer	Bone	12.5 ± 1.03
12/14/96	1	Deer	Muscle	
12/14/96	1	Deer	Muscle	
12/14/96	1	Deer	Bone	8.61 ± 0.9
12/14/96	2	Deer	Muscle	
12/14/96	2	Deer	Muscle	
12/14/96	2	Deer	Bone	6.17 ± 0.81

Table 34
Radioactivity in Soil

Location	pCi/g ± σ; dry weight; 0–8 cm depth				
	Co-60	Cs-137	Pu-238	Pu-239	Sr-89,90
F-Area					
2000 feet south	(–4.50 ± 7.69)E–03	(6.51 ± 1.26)E–02	(2.46 ± 0.89)E–03	(2.46 ± 0.98)E–03	(0.06 ± 1.52)E–02
H-Area					
2000 feet east	(0.94 ± 1.32)E–02	(3.18 ± 0.38)E–01	(6.96 ± 1.46)E–03	(1.24 ± 0.20)E–02	(1.39 ± 1.05)E–02
Z-Area					
#3	(0.14 ± 1.33)E–02	(1.24 ± 0.25)E–01	(–4.35 ± 5.27)E–04	(4.37 ± 1.63)E–03	(–0.06 ± 1.36)E–02
Burial Ground					
643–26E–2	(–0.05 ± 1.05)E–02	(–4.30 ± 1.34)E+01	(4.18 ± 4.59)E–04	(2.81 ± 4.82)E–04	(–1.46 ± 1.01)E–02
Site Perimeter					
NE quadrant	(–0.71 ± 1.35)E–02	(1.59 ± 0.26)E–01	(1.19 ± 5.14)E–04	(–9.23 ± 2.84)E–04	(–1.61 ± 1.57)E–02
NW quadrant	(–6.43 ± 9.02)E–03	(5.91 ± 0.40)E–01	(7.84 ± 1.60)E–03	(2.05 ± 0.26)E–02	(–0.23 ± 1.62)E–02
SE quadrant	(0.00 ± 1.28)E–02	(1.94 ± 0.25)E–01	(3.41 ± 1.26)E–03	(2.98 ± 1.13)E–03	(–0.80 ± 1.54)E–02
SW quadrant	(–0.61 ± 1.38)E–02	(4.07 ± 0.35)E–01	(0.42 ± 3.45)E–04	(7.89 ± 1.05)E–03	(–1.15 ± 1.66)E–02
100-Mile Radius					
Savannah, Ga.	(0.84 ± 7.97)E–03	(2.82 ± 0.23)E–01	(1.16 ± 0.43)E–03	(1.84 ± 0.60)E–03	(0.34 ± 1.46)E–02

Table 35
Radioactivity in River and Stream Sediment

Location	River Mile	1993	1994	1995	1996
Note: Blank space indicates activity was below the lower limit of detection.					
Co-60, pCi/g (dry weight)					
Savannah River					
Highway 301	118.7				(0.22 ± 2.16)E–02
Lower Three Runs mouth	129.0				(0.01 ± 2.53)E–02
Above Lower Three Runs	129.5				(4.46 ± 2.76)E–02
Below Little Hell Landing	134.0				(7.01 ± 2.24)E–02
Above Little Hell Landing	136.6				(1.07 ± 2.21)E–02
Steel Creek-Pen Branch mouth	141.0	(1.02 ± 0.05)E+00			(2.82 ± 0.69)E–02
Below Four Mile Creek	150.2				(–1.09 ± 2.72)E–02
Upper Three Runs mouth	157.2				(–0.74 ± 1.26)E–02
Demiere's Landing (control)	160.5				(4.37 ± 2.50)E–02
SRS Streams					
Four Mile A–7A (in a beaver pond)			(1.17 ± 0.06)E+00		(1.92 ± 0.12)E–01
Four Mile discharge at swamp			(6.27 ± 1.13)E–02		(2.11 ± 1.07)E–02
Four Mile at Road A–7		(8.74 ± 1.32)E–02	(2.49 ± 0.15)E–01		(1.57 ± 0.80)E–02
Pen Branch discharge at swamp		(2.61 ± 0.47)E–01			(8.43 ± 3.51)E–02
Steel Creek discharge at swamp			(3.17 ± 0.26)E–01	(2.10 ± 0.12)E–01	(9.12 ± 0.89)E–02
Steel Creek at Road B		(1.45 ± 0.19)E–01			(2.29 ± 1.16)E–02
Cs-137, pCi/g (dry weight)					
Savannah River					
Highway 301	118.7	(1.51 ± 0.29)E–01	(2.40 ± 0.38)E–01	(2.03 ± 0.36)E–01	(2.64 ± 0.43)E–01
Lower Three Runs Mouth	129.0	(1.17 ± 0.06)E+00	(3.80 ± 0.10)E–00	(1.43 ± 0.07)E+00	(2.94 ± 0.36)E–01
Above Lower Three Runs	129.5	(3.49 ± 0.31)E–01	(5.61 ± 0.59)E–01	(1.03 ± 0.05)E+00	(3.09 ± 0.43)E–01

Table 35
Radioactivity in River and Stream Sediment

Location	River Mile	1993	1994	1995	1996
Below Little Hell Landing	134.0	(1.17 ± 0.26)E–01	(2.71 ± 0.42)E–01	(1.49 ± 0.07)E+00	(9.34 ± 4.70)E–01
Above Little Hell Landing	136.6	(2.89 ± 0.24)E–01		(4.33 ± 0.41)E–01	(1.07 ± 0.28)E–01
Steel Creek-Pen Branch mouth	141.0	(3.68 ± 0.03)E+01	(2.37 ± 0.43)E–01	(5.36 ± 0.11)E+00	(2.09 ± 0.07)E+00
Below Four Mile Creek	150.2	(1.66 ± 0.35)E–01		(7.88 ± 0.53)E–01	(4.25 ± 0.45)E–01
Upper Three Runs Mouth	157.2	(6.45 ± 0.44)E–01	(1.55 ± 0.35)E–01	(2.87 ± 0.53)E–01	(–0.97 ± 1.66)E–02
Demiere's Landing (control)	160.5	(1.44 ± 0.34)E–01	(1.01 ± 0.29)E–01	(2.62 ± 0.36)E–01	(1.57 ± 0.52)E–01
SRS Streams					
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	(1.89 ± 0.04)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	(2.84 ± 0.25)E–01
Four Mile at Road A–7		(6.46 ± 0.06)E+00	(1.66 ± 0.01)E+01	(9.54 ± 0.75)E–01	(2.34 ± 0.08)E+00
Pen Branch discharge at swamp		(3.04 ± 0.10)E+00	(2.82 ± 0.22)E+00	(1.39 ± 0.09)E+00	(2.45 ± 0.15)E+00
Steel Creek discharge at swamp		(1.37 ± 0.04)E+00	(1.03 ± 0.02)E+01	(4.71 ± 0.06)E+00	(3.77 ± 0.12)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	(2.15 ± 0.27)E–01
Pu-238, pCi/g (dry weight)					
Savannah River					
Highway 301	118.7	(00.00 ± 5.65)E–04	(1.11 ± 0.26)E–03	(1.30 ± 0.52)E–03	(1.16 ± 0.53)E–03
Lower Three Runs Mouth	129.0	(00.00 ± 4.13)E–04	(8.86 ± 3.80)E–04	(–0.58 ± 1.75)E–04	(–0.72 ± 1.12)E–03
Above Lower Three Runs	129.5	(–4.97 ± 4.97)E–04	(1.96 ± 2.36)E–04	(3.44 ± 2.69)E–04	(7.18 ± 4.01)E–04
Below Little Hell Landing	134.0	(3.78 ± 1.89)E–04	(2.15 ± 1.14)E–04	(1.09 ± 0.27)E–03	(8.03 ± 5.91)E–04
Above Little Hell Landing	136.5	(2.02 ± 1.78)E–04	(1.59 ± 0.92)E–04	(2.93 ± 2.32)E–04	(0.63 ± 2.31)E–04
Steel Creek-Pen Branch mouth	141.0	(6.08 ± 0.30)E–02	(3.09 ± 1.89)E–04	(2.63 ± 0.54)E–03	(–0.17 ± 4.64)E–04
Below Four Mile Creek	150.2	(–2.15 ± 2.15)E–04	(3.06 ± 1.31)E–04	(6.12 ± 4.33)E–04	(4.90 ± 7.97)E–04
Upper Three Runs mouth	157.2	(3.24 ± 0.65)E–03	(1.97 ± 0.29)E–03	(2.82 ± 0.47)E–03	(2.13 ± 1.05)E–03
Demiere's Landing (control)	160.5	(2.00 ± 2.00)E–04	(1.51 ± 1.52)E–04	(1.21 ± 0.85)E–04	(–4.41 ± 3.52)E–04

Table 35
Radioactivity in River and Stream Sediment

Location	River Mile	1993	1994	1995	1996
SRS Streams					
Four Mile A–7A (in a beaver pond)		(3.08 ± 0.26)E–02	(1.23 ± 0.03)E+00	(3.08 ± 0.83)E–03	(2.09 ± 0.14)E–01
Four Mile discharge at swamp		(4.85 ± 0.86(E–03	(4.44 ± 0.51)E–03	(2.40 ± 0.43)E–03	(2.56 ± 1.06)E–03
Four Mile at Road A–7		(7.50 ± 0.41)E–02	(2.06 ±0.006)E–01	(5.58 ± 7.65)E–04	(1.26 ± 0.17)E–02
Pen Branch discharge at swamp		(4.76 ± 1.12)E–03	(5.94 ± 0.55)E–03	(1.45 ± 0.45)E–03	(3.66 ± 1.13)E–03
Steel Creek discharge at swamp		2.63 ± 0.44)E–03	(3.79 ± 0.18)E–02	(1.37 ± 0.14)E–02	(8.59 ± 1.43)E–03
Steel Creek at Road B		(5.09 ± 1.05)E–03	(6.61 ± 3.09)E–04	(1.36 ± 0.49)E–03	(4.46 ± 4.89)E–04
Pu-239, pCi/g (dry weight)					
Savannah River					
Highway 301	118.7	(00.00 ± 5.64)E–04	(3.88 ± 1.67)E–04	(8.23 ± 1.09)E–03	(9.51 ± 5.40)E–04
Lower Three Runs mouth	129.0	(1.75 ± 0.82)E–03	(4.04 ± 0.78)E–03	(1.92 ± 0.34)E–03	(2.27 ± 1.68)E–03
Above Lower Three Runs	129.5	(2.48 ± 5.55)E–04	(2.48 ± 0.43)E–03	(2.17 ± 0.41)E–03	(3.75 ± 4.27)E–04
Below Little Hell Landing	134.0	(7.54 ± 2.98)E–04	(1.00 ± 0.20)E–03	(5.86 ± 0.55)E–03	(3.88 ± 5.11)E–04
Above Little Hell Landing	136.5	(1.21 ± 0.32)E–03	(5.28 ± 1.84)E–04	(2.34 ± 0.44)E–03	(2.71 ± 3.11)E–04
Steel Creek-Pen Branch mouth	141.0	(8.15 ± 0.36)E–02	(4.10 ± 1.79)E–04	(5.24 ± 0.76)E–03	(–1.55 ± 4.83)E–04
Below Four Mile Creek	150.2	(4.29 ± 3.03)E–04	(1.25 ± 0.36)E–03	(2.89 ± 0.77)E–03	(3.46 ± 1.31)E–03
Upper Three Runs mouth	157.2	(1.52 ± 0.14)E–02	(2.69 ± 0.31)E–03	(5.05 ± 0.62)E–03	(2.31 ± 5.94)E–04
Demiere's Landing	160.5	(9.97 ± 3.46)E–04	(2.03 ± 0.44)E–03	(1.26 ± 0.29)E–03	(0.33 ± 4.62)E–04
SRS Streams					
Four Mile A–7A (in a beaver pond)		(1.55 ± 0.18)E–02	(5.25 ± 0.12)E–01	(1.30 ± 0.59)E–03	(7.18 ± 0.56)E–02
Four Mile discharge at swamp		(3.76 ± 0.76)E–03	(4.11 ± 0.46)E–03	(1.81 ± 0.37)E–03	(5.57 ± 6.41)E–04
Four Mile at Road A–7		(3.06 ± 0.25)E–02	(8.72 ± 0.31)E–02	(–7.78 ± 6.19)E–04	(5.29 ± 1.14)E–03
Pen Branch discharge at swamp		(2.15 ± 0.22)E–02	(1.43 ± 0.09)E–02	(1.41 ± 0.11)E–02	(1.97 ± 0.27)E–02
Steel Creek discharge at swamp		(2.62 ± 0.45)E–03	(2.90 ± 0.15)E–02	(1.21 ± 0.12)E–02	(8.65 ± 1.41)E–03
Steel Creek at Road B		(1.24 ± 0.16)E–02	(6.63 ± 0.75)E–03	(9.49 ± 0.99)E–03	(2.59 ± 0.77)E–03

Table 35
Radioactivity in River and Stream Sediment

Location	River Mile	1993	1994	1995	1996
Sr-89,90, pCi/g (dry weight)					
Savannah River					
Highway 301	118.7	(–1.45 ± 1.47)E–02	(0.62 ± 1.62)E–02	(–0.23 ± 1.27)E–02	(2.77 ± 1.51)E–02
Lower Three Runs mouth	129.0	(–0.96 ± 2.20)E–02	(2.91 ± 1.46)E–02	(0.68 ± 1.28)E–02	(2.36 ± 1.46)E–02
Above Lower Three Runs	129.5	(–2.43 ± 1.38)E–02	(0.15 ± 1.51)E–02	(0.90 ± 1.24)E–02	(2.40 ± 1.50)E–02
Below Little Hell Landing	134.0	(–0.18 ± 1.91)E–02	(0.74 ± 1.47)E–02	(0.94 ± 1.39)E–02	(1.97 ± 1.40)E–02
Above Little Hell Landing	136.5	(–2.49 ± 1.41)E–02	(1.23 ± 1.11)E–02	(–0.39 ± 1.30)E–02	(0.43 ± 1.38)E–02
Steel Creek-Pen Branch mouth	141.0	(8.22 ± 2.57)E–02	(1.89 ± 1.48)E–02	(–0.09 ± 1.53)E–02	(–0.30 ± 1.79)E–02
Below Four Mile Creek	150.2	(5.40 ± 3.17)E–02	(1.51 ± 1.40)E–02	(6.70 ± 1.56)E–02	(3.30 ± 1.16)E–02
Upper Three Runs mouth	157.2	(3.49 ± 3.10)E–02	(0.21 ± 1.31)E–02	(–1.17 ± 1.45)E–02	(1.18 ± 1.59)E–02
Demiere's Landing (control)	160.5	(6.68 ± 3.23)E–02	(1.28 ± 1.46)E–02	(0.83 ± 1.14)E–02	(0.87 ± 1.21)E–02
SRS Streams					
Four Mile A–7A (in a beaver pond)		(4.35 ± 1.71)E–02	(1.56 ± 0.04)E+00	(8.77 ± 0.31)E–01	(1.14 ± 0.24)E–01
Four Mile discharge at swamp		(1.15 ± 1.56)E–02	(3.03 ± 1.82)E–02	(4.36 ± 1.69)E–02	(–0.17 ± 1.77)E–02
Four Mile at Road A–7		(2.47 ± 0.26)E–01	(3.42 ± 0.20)E–01	(4.17 ± 0.27)E–01	(1.32 ± 0.24)E–01
Pen Branch discharge at swamp		(3.48 ± 2.38)E–02	(1.25 ± 0.23)E–01	(0.63 ± 1.01)E–02	(0.18 ± 1.17)E–02
Steel Creek discharge at swamp		(2.71 ± 1.62)E–02	(-0.82 ± 1.45)E–02	(1.55 ± 1.64)E–02	(1.42 ± 1.73)E–02
Steel Creek at Road B		(–0.16 ± 2.23)E–02	(0.00 ± 1.62)E–02	(0.77 ± 1.48)E–02	(3.55 ± 1.91)E–02

Table 36
Radioactivity in Grassy Vegetation — Quarterly Surveillance Samples: Solid Waste Disposal Facility Samples

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
H-3, pCi/g				
Onsite				
200–F #13	1	(6.22 ± 0.09)E+00		
200–F #21	2	(9.10 ± 7.02)E–01	(1.41 ± 0.05)E+00	(4.13 ± 0.29)E–01
200–H #10	2	(7.29 ± 0.98)E+00	(7.98 ± 0.10)E+00	(6.60 ± 0.08)E+00
200–H #22	1	(2.01 ± 0.02)E+01		
643–26E–1	2	(1.21 ± 0.64)E+01	(1.66 ± 0.02)E+01	(7.64 ± 0.07)E+00
643–26E–2	2	(3.23 ± 4.41)E+01	(6.35 ± 0.04)E+01	(1.09 ± 0.03)E+00
S-Area #1	1	(2.42 ± 0.04)E+00		
S-Area #2	1	(5.15 ± 0.07)E+00		
S-Area #3	1	(1.53 ± 0.03)E+00		
S-Area #4	1	(1.49 ± 0.03)E+00		
Z-Area #1	2	(6.51 ± 1.69)E–01	(7.71 ± 0.27)E–01	(5.32 ± 0.24)E–01
Z-Area #2	2	(9.42 ± 4.93)E–01	(1.29 ± 0.05)E+00	(5.93 ± 0.26)E–01
Z-Area #3	2	(6.13 ± 4.75)E–01	(9.49 ± 0.40)E–01	(2.77 ± 0.21)E–01
Z-Area #4	2	(1.09 ± 0.38)E+00	(1.36 ± 0.05)E+00	(8.18 ± 0.40)E–01
Z-Area #5	1	(1.88 ± 0.04)E+00		
Z-Area #6	2	(2.12 ± 0.35)E+00	(2.36 ± 0.06)E+00	(1.87 ± 0.04)E+00
Z-Area #7	2	(2.47 ± 0.44)E+00	(2.78 ± 0.06)E+00	(2.16 ± 0.04)E+00
Z-Area #8	1	(2.76 ± 0.06)E+00		
Site Perimeter				
Allendale Gate	3	(2.07 ± 0.48)E–01	(2.48 ± 0.42)E–01	(1.54 ± 0.26)E–01
Barnwell Gate	2	(3.20 ± 2.32)E–01	(4.84 ± 0.27)E–01	(1.55 ± 0.40)E–01
D-Area	3	(2.04 ± 0.42)E–01	(2.47 ± 0.42)E–01	(1.63 ± 0.26)E–01
Darkhorse @ Williston Gate	2	(1.40 ± 1.04)E–01	(2.14 ± 0.43)E–01	(6.70 ± 3.07)E–02
East Talatha	2	(9.42 ± 5.43)E–01	(1.33 ± 0.03)E+00	(5.58 ± 0.35)E–01
Green Pond	3	(1.71 ± 0.64)E–01	(2.42 ± 0.21)E–01	(1.18 ± 0.43)E–01
Highway 125 @ Road A–14	2	(3.74 ± 4.43)E–01	(6.87 ± 0.56)E–01	(6.01 ± 2.65)E–02
Highway 21/167	2	(2.26 ± 2.12)E–01	(3.76 ± 0.46)E–01	(7.64 ± 3.23)E–02
Highway 39 @ Williston Gate	2	(1.23 ± 0.72)E–01	(1.74 ± 0.41)E–01	(7.20 ± 2.88)E–02
Jackson	3	(1.17 ± 0.60)E–01	(1.84 ± 0.17)E–01	(6.59 ± 2.52)E–02

Table 36
Radioactivity in Grassy Vegetation — Quarterly Surveillance Samples: Solid Waste Disposal Facility Samples

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Patterson Mill Road	2	(8.13 ± 3.30)E–02	(1.05 ± 0.45)E–01	(5.80 ± 2.73)E–02
Talatha Gate	2	(5.20 ± 6.17)E–01	(9.56 ± 0.28)E–01	(8.41 ± 2.02)E–02
West Jackson	3	(1.48 ± 1.17)E–01	(2.24 ± 0.19)E–01	(1.33 ± 3.21)E–02
Windsor Road	3	(3.49 ± 3.74)E–01	(7.81 ± 0.48)E–01	(1.20 ± 0.16)E–01
100-Mile Radius				
Savannah, Ga.	4	(3.06 ± 2.34)E–02	(5.12 ± 3.44)E–02	(0.00 ± 3.08)E–02
Co-60, pCi/g				
Onsite				
643–26E–1	2	(6.03 ± 4.88)E–02	(9.48 ± 9.63)E–02	(2.58 ± 2.50)E–02
643–26E–2	2	(–1.04 ± 3.68)E–02	(1.57 ± 2.24)E–02	(–3.64 ± 9.30)E–02
F-Area	2	(–0.77 ± 1.81)E–02	(5.06 ± 8.25)E–03	(–2.05 ± 2.56)E–02
H-Area	2	(–2.43 ± 1.43)E–02	(–1.41 ± 3.00)E–02	(–3.44 ± 1.33)E–02
OBG–1 Outside Burial Ground	2	(–1.45 ± 0.77)E–02	(–0.90 ± 2.28)E–02	(–2.00 ± 3.12)E–02
OBG–10 Outside Burial Ground	2	(–1.34 ± 0.04)E–02	(–1.31 ± 2.42)E–02	(–1.37 ± 2.48)E–02
OBG–11 Outside Burial Ground	1	(–3.30 ± 2.62)E–02		
OBG–2 Outside Burial Ground	2	(5.28 ± 3.41)E–02	(7.70 ± 4.09)E–02	(2.87 ± 1.93)E–02
OBG–3 Outside Burial Ground	1	(1.74 ± 1.74)E–02		
OBG–4 Outside Burial Ground	1	(–0.32 ± 3.72)E–02		
OBG–5 Outside Burial Ground	2	(2.96 ± 3.45)E–02	(5.40 ± 2.78)E–02	(0.52 ± 1.57)E–02
OBG–6 Outside Burial Ground	2	(1.06 ± 1.90)E–02	(2.40 ± 3.20)E–02	(–0.29 ± 3.17)E–02
OBG–7 Outside Burial Ground	2	(–7.27 ± 3.03)E–02	(–5.13 ± 3.08)E–02	(–9.42 ± 3.77)E–02
OBG–8 Outside Burial Ground	2	(0.14 ± 1.85)E–02	(1.45 ± 2.85)E–02	(–1.17 ± 3.82)E–02
OBG–9 Outside Burial Ground	2	(1.76 ± 0.82)E–02	(2.34 ± 1.81)E–02	(1.18 ± 2.35)E–02
S-Area #1	1	(5.15 ± 3.71)E–02		
S-Area #2	1	(3.65 ± 3.57)E–02		
S-Area #3	1	(5.27 ± 4.18)E–02		

Table 36
Radioactivity in Grassy Vegetation — Quarterly Surveillance Samples: Solid Waste Disposal Facility Samples

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
S-Area #4	1	(2.09 ± 5.23)E–02		
Z-Area #1	2	(0.70 ± 4.40)E–02	(3.81 ± 1.51)E–02	(–2.41 ± 5.54)E–02
Z-Area #2	2	(4.08 ± 7.09)E–03	(0.91 ± 1.98)E–02	(–0.09 ± 2.79)E–02
Z-Area #3	2	(1.13 ± 0.86)E–02	(1.74 ± 2.82)E–02	(0.52 ± 1.33)E–02
Z-Area #4	2	(0.63 ± 8.57)E–03	(0.67 ± 2.42)E–02	(–0.54 ± 1.87)E–02
Z-Area #5	1	(–3.40 ± 3.00)E–02		
Z-Area #6	2	(2.72 ± 0.35)E–02	(2.97 ± 3.86)E–02	(2.47 ± 1.42)E–02
Z-Area #7	2	(–1.72 ± 4.70)E–02	(1.60 ± 0.96)E–02	(–5.04 ± 4.12)E–02
Z-Area #8	1	(2.85 ± 2.16)E–02		
Site Perimeter				
Site perimeter	4	(2.40 ± 3.37)E–02	(6.52 ± 2.72)E–02	(–1.15 ± 1.10)E–02
100-Mile Radius				
Savannah, Ga.	4	(–0.47 ± 13.3)E–03	(1.04 ± 2.37)E–02	(–1.97 ± 4.09)E–02
Cs-137, pCi/g				
Onsite				
643–26E–1	2	(3.61 ± 5.31)E–02	(7.37 ± 7.32)E–02	(–0.14 ± 1.97)E–02
643–26E–2	2	(4.02 ± 3.97)E–02	(6.82 ± 9.06)E–02	(1.21 ± 1.99)E–02
F-Area	2	(3.76 ± 2.42)E–01	(5.47 ± 0.31)E–01	(2.06 ± 0.35)E–01
H-Area	2	(2.57 ± 0.98)E–01	(3.27 ± 0.38)E–01	(1.88 ± 0.38)E–01
OBG–1 Outside Burial Ground	2	(3.31 ± 4.54)E–02	(6.52 ± 2.00)E–02	(0.10 ± 2.74)E–02
OBG–10 Outside Burial Ground	2	(1.43 ± 0.35)E–01	(1.67 ± 0.38)E–01	(1.18 ± 0.28)E–01
OBG–11 Outside Burial Ground	1	(2.13 ± 1.95)E–02		
OBG–2 Outside Burial Ground	2	(4.10 ± 1.73)E–02	(5.32 ± 2.07)E–02	(2.87 ± 3.00)E–02
OBG–3 Outside Burial Ground	1	(2.79 ± 1.69)E–02		
OBG–4 Outside Burial Ground	1	(2.97 ± 3.12)E–02		
OBG–5 Outside Burial Ground	2	(8.93 ± 8.56)E–02	(1.50 ± 0.23)E–01	(2.88 ± 2.22)E–02
OBG–6 Outside Burial Ground	2	(7.95 ± 3.21)E–02	(1.02 ± 0.26)E–01	(5.68 ± 2.88)E–02

Table 36
Radioactivity in Grassy Vegetation — Quarterly Surveillance Samples: Solid Waste Disposal Facility Samples

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
OBG–7 Outside Burial Ground	2	(1.21 ± 0.12)E–01	(1.30 ± 0.37)E–01	(1.12 ± 0.49)E–01
OBG–8 Outside Burial Ground	2	(5.20 ± 0.78)E–02	(5.75 ± 3.04)E–02	(4.65 ± 3.00)E–02
OBG–9 Outside Burial Ground	2	(1.17 ± 1.03)E–01	(1.90 ± 0.23)E–01	(4.44 ± 1.89)E–02
S-Area #1	1	(1.58 ± 0.52)E–01		
S-Area #2	1	(1.14 ± 2.81)E–02		
S-Area #3	1	(3.46 ± 3.06)E–02		
S-Area #4	1	(7.71 ± 3.92)E–02		
Z-Area #1	2	(1.37 ± 0.66)E–01	(1.84 ± 0.47)E–01	(9.00 ± 3.77)E–02
Z-Area #2	2	(4.70 ± 5.70)E–01	(8.73 ± 0.75)E–01	(6.66 ± 3.08)E–02
Z-Area #3	2	(2.77 ± 2.39)E–01	(4.46 ± 0.47)E–01	(1.08 ± 0.31)E–01
Z-Area #4	2	(3.72 ± 5.02)E–01	(7.26 ± 0.63)E–01	(1.69 ± 2.00)E–02
Z-Area #5	1	(6.64 ± 2.07)E–02		
Z-Area #6	2	(5.51 ± 7.67)E–01	(1.09 ± 0.09)E+00	(0.86 ± 2.48)E–02
Z-Area #7	2	(3.79 ± 5.01)E–01	(7.33 ± 0.40)E–01	(2.47 ± 2.64)E–02
Z-Area #8	1	(1.17 ± 1.49)E–02		
Site Perimeter				
Site perimeter	4	(2.78 ± 2.39)E–01	(6.31 ± 0.40)E–01	(1.03 ± 0.16)E–01
100-Mile Radius				
Savannah, Ga.	4	(9.06 ± 4.23)E–02	(1.26 ± 0.41)E–01	(3.05 ± 3.87)E–02
Sr-89,90, pCi/g				
Onsite				
643–26E–1	2	(1.39 ± 1.99)E–01	(2.79 ± 1.78)E–01	(–0.02 ± 1.30)E–01
643–26E–2	2	(1.57 ± 9.18)E–02	(0.81 ± 1.02)E–01	(–0.49 ± 1.24)E–01
F-Area	2	(1.32 ± 0.90)E+00	(1.95 ± 0.16)E+00	(6.84 ± 1.55)E–01
H-Area	2	(9.30 ± 1.34)E–01	(1.02 ± 0.17)E+00	(8.35 ± 1.56)E–01
S-Area #1	1	(–0.37 ± 1.33)E–01		
Z-Area #1	2	(4.76 ± 4.44)E–01	(7.89 ± 1.40)E–01	(1.62 ± 1.36)E–01
Site Perimeter				
Site perimeter	4	(5.70 ± 2.07)E–01	(7.95 ± 1.62)E–01	(3.48 ± 0.66)E–01

Table 36
Radioactivity in Grassy Vegetation — Quarterly Surveillance Samples: Solid Waste Disposal Facility Samples

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
100-Mile Radius				
Savannah, Ga.	4	(1.52 ± 2.32)E–01	(4.67 ± 1.55)E–01	(–0.52 ± 1.26)E–01
Gross Beta, pCi/g				
Onsite				
200–F #13	1	(8.24 ± 1.46)E+00		
200–F #21	2	(7.55 ± 2.41)E+00	(9.25 ± 1.16)E+00	(5.84 ± 1.11)E+00
200–H #10	2	(1.07 ± 0.20)E+01	(1.22 ± 0.13)E+01	(9.30 ± 1.73)E+00
200–H #22	1	(4.71 ± 1.42)E+00		
643–26E–1	2	(1.48 ± 0.71)E+01	(1.98 ± 0.12)E+01	(9.74 ± 2.04)E+00
643–26E–2	2	(1.29 ± 0.98)E+01	(1.98 ± 0.12)E+01	(6.02 ± 1.23)E+00
OBG–1 Outside Burial Ground	2	(1.18 ± 0.09)E+01	(1.25 ± 0.19)E+01	(1.12 ± 0.19)E+01
OBG–10 Outside Burial Ground	2	(1.35 ± 1.26)E+01	(2.24 ± 0.26)E+01	(4.58 ± 1.66)E+00
OBG–11 Outside Burial Ground	1	(1.36 ± 0.13)E+01		
OBG–2 Outside Burial Ground	1	(6.04 ± 1.77)E+00		
OBG–3 Outside Burial Ground	1	(1.07 ± 0.13)E+01		
OBG–4 Outside Burial Ground	1	(1.27 ± 0.13)E+01		
OBG–5 Outside Burial Ground	2	(1.17 ± 0.28)E+01	(1.36 ± 0.14)E+01	(9.74 ± 2.04)E+00
OBG–6 Outside Burial Ground	2	(1.50 ± 0.19)E+01	(1.64 ± 0.22)E+01	(1.36 ± 0.13)E+01
OBG–7 Outside Burial Ground	2	(2.00 ± 0.60)E+01	(2.43 ± 0.27)E+01	(1.58 ± 0.14)E+01
OBG–8 Outside Burial Ground	2	(1.03 ± 0.54)E+01	(1.41 ± 0.20)E+01	(6.53 ± 1.82)E+00
OBG–9 Outside Burial Ground	2	(1.29 ± 0.29)E+01	(1.49 ± 0.21)E+01	(1.08 ± 0.18)E+01
S-Area #1	1	(1.22 ± 0.13)E+01		
S-Area #2	1	(1.36 ± 0.13)E+01		
S-Area #3	1	(1.80 ± 0.15)E+01		
S-Area #4	1	(1.04 ± 0.12)E+01		
Z-Area #1	2	(1.28 ± 0.94)E+01	(1.95 ± 0.15)E+01	(6.20 ± 1.63)E+00

Table 36
Radioactivity in Grassy Vegetation — Quarterly Surveillance Samples: Solid Waste Disposal Facility Samples

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Z-Area #2	2	(1.07 ± 0.62)E+01	(1.51 ± 0.14)E+01	(6.32 ± 1.36)E+00
Z-Area #3	2	(7.23 ± 2.86)E+00	(9.25 ± 1.13)E+00	(5.21 ± 1.43)E+00
Z-Area #4	2	(8.16 ± 2.93)E+00	(1.02 ± 0.12)E+01	(6.09 ± 1.34)E+00
Z-Area #5	1	(2.37 ± 0.16)E+01		
Z-Area #6	2	(1.70 ± 1.64)E+01	(2.86 ± 0.12)E+01	(5.46 ± 1.35)E+00
Z-Area #7	2	(1.17 ± 0.96)E+01	(1.85 ± 0.15)E+01	(4.92 ± 1.26)E+00
Z-Area #8	1	(1.56 ± 0.10)E+01		
Site Perimeter				
Allendale Gate	3	(1.12 ± 0.22)E+01	(1.34 ± 0.14)E+01	(9.01 ± 0.86)E+00
Barnwell Gate	2	(9.46 ± 2.64)E+00	(1.13 ± 0.13)E+01	(7.59 ± 1.15)E+00
D-Area	3	(1.22 ± 0.17)E+01	(1.36 ± 0.14)E+01	(1.03 ± 0.13)E+01
Darkhorse @ Williston Gate	2	(1.11 ± 0.03)E+01	(1.13 ± 0.13)E+01	(1.08 ± 0.13)E+01
East Talatha	2	(1.02 ± 1.03)E+01	(1.75 ± 0.15)E+01	(2.99 ± 1.39)E+00
Green Pond	3	(1.26 ± 0.58)E+01	(1.73 ± 0.15)E+01	(6.08 ± 0.77)E+00
Highway 125 @ Road A–14	2	(1.02 ± 0.60)E+01	(1.44 ± 0.14)E+01	(5.96 ± 1.08)E+00
Highway 21/167	2	(1.35 ± 0.06)E+01	(1.39 ± 0.15)E+01	(1.30 ± 0.14)E+01
Highway 39 @ Williston Gate	2	(1.21 ± 0.76)E+01	(1.75 ± 0.21)E+01	(6.69 ± 1.09)E+00
Jackson	3	(1.45 ± 0.92)E+01	(2.35 ± 0.17)E+01	(4.99 ± 0.87)E+00
Patterson Mill Road	2	(1.41 ± 0.62)E+01	(1.85 ± 0.16)E+01	(9.76 ± 1.25)E+00
Talatha Gate	2	(9.73 ± 2.26)E+00	(1.13 ± 0.13)E+01	(8.13 ± 1.16)E+00
West Jackson	3	(1.02 ± 0.58)E+01	(1.49 ± 0.14)E+01	(3.70 ± 1.66)E+00
Windsor Road	3	(1.22 ± 0.51)E+01	(1.80 ± 0.16)E+01	(8.67 ± 1.22)E+00
100-Mile Radius				
Savannah, Ga.	4	(8.22 ± 2.57)E+00	(1.16 ± 0.14)E+01	(5.36 ± 0.70)E+00
Gross Alpha, pCi/g				
Onsite				
200–F #13	1	(3.16 ± 1.19)E+00		
200–F #21	2	(1.00 ± 0.99)E+00	(1.70 ± 0.97)E+00	(3.02 ± 6.71)E–01
200–H #10	2	(8.03 ± 3.79)E–01	(1.07 ± 0.87)E+00	(0.53 ± 1.20)E+00
200–H #22	1	(3.96 ± 8.84)E–01		
643–26E–1	2	(1.26 ± 1.11)E+00	(2.05 ± 2.00)E+00	(4.75 ± 8.51)E–01

Table 36
Radioactivity in Grassy Vegetation — Quarterly Surveillance Samples: Solid Waste Disposal Facility Samples

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
643–26E–2	2	(0.89 ± 5.25)E–01	(4.61 ± 7.52)E–01	(–2.82 ± 6.98)E–01
OBG–1 Outside Burial Ground	2	(1.88 ± 3.80)E+00	(4.57 ± 1.64)E+00	(–8.07 ± 5.70)E–01
OBG–10 Outside Burial Ground	2	(0.88 ± 5.37)E–01	(4.67 ± 8.21)E–01	(–2.92 ± 7.73)E–01
OBG–11 Outside Burial Ground	1	(1.66 ± 1.07)E+00		
OBG–2 Outside Burial Ground	1	(2.05 ± 9.64)E–01		
OBG–3 Outside Burial Ground	1	(8.28 ± 9.62)E–01		
OBG–4 Outside Burial Ground	1	(3.02 ± 6.71)E–01		
OBG–5 Outside Burial Ground	2	(1.21 ± 1.25)E+00	(2.09 ± 1.16)E+00	(0.33 ± 1.60)E+00
OBG–6 Outside Burial Ground	2	(9.29 ± 4.87)E–01	(1.27 ± 1.29)E+00	(5.84 ± 6.35)E–01
OBG–7 Outside Burial Ground	2	(4.44 ± 6.27)E–01	(0.89 ± 1.38)E+00	(0.00 ± 6.83)E–01
OBG–8 Outside Burial Ground	2	(1.52 ± 0.08)E+00	(1.58 ± 1.15)E+00	(1.46 ± 1.44)E+00
OBG–9 Outside Burial Ground	2	(4.93 ± 4.08)E–01	(7.82 ± 9.48)E–01	(2.05 ± 9.32)E–01
S-Area #1	1	(1.07 ± 0.87)E+00		
S-Area #2	1	(6.82 ± 7.70)E–01		
S-Area #3	1	(4.38 ± 9.74)E–01		
S-Area #4	1	(3.08 ± 6.83)E–01		
Z-Area #1	2	(0.99 ± 1.98)E+00	(2.38 ± 1.69)E+00	(–4.14 ± 3.80)E–01
Z-Area #2	2	(2.90 ± 8.99)E–01	(9.25 ± 7.70)E–01	(–3.46 ± 6.06)E–01
Z-Area #3	2	(3.41 ± 4.82)E–01	(6.82 ± 5.55)E–01	(0.00 ± 8.03)E–01
Z-Area #4	2	(2.68 ± 3.79)E–01	(5.36 ± 5.96)E–01	(0.00 ± 7.38)E–01
Z-Area #5	1	(–3.66 ± 6.31)E–01		
Z-Area #6	2	(–4.01 ± 0.52)E–01	(–3.64 ± 6.33)E–01	(–4.38 ± 3.85)E–01
Z-Area #7	2	(1.25 ± 2.81)E–01	(3.24 ± 7.09)E–01	(–0.73 ± 5.55)E–01
Z-Area #8	1	(2.89 ± 4.87)E–01		
Site Perimeter				
Allendale Gate	3	(0.32 ± 5.51)E–01	(6.63 ± 7.73)E–01	(–3.52 ± 2.28)E–01

Table 36
Radioactivity in Grassy Vegetation — Quarterly Surveillance Samples: Solid Waste Disposal Facility Samples

Location	No. of Samples	Arithmetic Mean ± σ	Maximum ± σ	Minimum ± σ
Barnwell Gate	2	(4.69 ± 3.56)E–01	(7.21 ± 7.10)E–01	(2.17 ± 4.82)E–01
D-Area	3	(–1.02 ± 2.99)E–01	(2.27 ± 3.59)E–01	(–3.58 ± 3.25)E–01
Darkhorse @ Williston Gate	2	(2.82 ± 4.75)E–01	(6.18 ± 6.30)E–01	(–0.54 ± 4.16)E–01
East Talatha	2	(–0.91 ± 7.77)E–01	(4.58 ± 7.10)E–01	(–6.40 ± 4.55)E–01
Green Pond	3	(1.48 ± 3.89)E–01	(5.42 ± 6.42)E–01	(–2.36 ± 1.67)E–01
Highway 125 @ Road A–14	2	(–1.36 ± 4.99)E–01	(2.17 ± 4.88)E–01	(–4.89 ± 3.89)E–01
Highway 21/167	2	(–0.06 ± 1.01)E+00	(6.51 ± 7.67)E–01	(–0.77 ± 2.12)E+00
Highway 39 @ Williston Gate	2	(–2.51 ± 1.51)E–01	(–1.44 ± 3.92)E–01	(–3.58 ± 6.28)E–01
Jackson	3	(3.90 ± 4.45)E–01	(8.75 ± 8.61)E–01	(0.00 ± 3.40)E–01
Patterson Mill Road	2	(–0.17 ± 3.54)E–01	(2.33 ± 5.14)E–01	(–2.68 ± 7.28)E–01
Talatha Gate	2	(6.26 ± 5.71)E–01	(1.03 ± 1.02)E+00	(2.22 ± 5.03)E–01
West Jackson	3	(0.85 ± 1.97)E+00	(3.12 ± 1.69)E+00	(–4.01 ± 3.68)E–01
Windsor Road	3	(1.39 ± 1.86)E+00	(3.41 ± 2.05)E+00	(–2.68 ± 7.28)E–01
100-Mile Radius				
Savannah, Ga.	4	(–2.77 ± 3.20)E–01	(1.33 ± 3.50)E–01	(–6.49 ± 5.27)E–01

Table 37
Radioactivity in Grassy Vegetation — Chemical, Retention, and Seepage Basin Composite Samples

Location	pCi/g (Dry Weight)				
	Co-60	Cs-137	Sr-89,90	Gross Beta	Gross Alpha
Note: The typical lower limit of detection for Cs-137 in vegetation was 1.00E–01 pCi/g.					
A-Area Seepage Basin[a]	(0.77 ± 1.80)E–02	(1.78 ± 0.28)E–01	(4.17 ± 0.28)E+00	(1.60 ± 0.15)E+01	(7.21 ± 6.09)E–01
C-Area Seepage Basin[b]	(–0.16 ± 1.71)E–02	(1.93 ± 0.31)E–01	(4.84 ± 0.21)E+00	(1.72 ± 0.11)E+01	(–3.52 ± 2.40)E–01
F-Area Retention Basin[c]	(1.79 ± 1.35)E–02	(3.87 ± 0.20)E+00	(3.79 ± 1.38)E–01	(1.44 ± 0.14)E+01	(–2.27 ± 3.95)E–01
F-Area Seepage Basin[b]	(–3.19 ± 1.71)E–02	(1.40 ± 0.26)E–01	(3.29 ± 1.35)E–01	(9.78 ± 1.26)E+00	(4.58 ± 5.64)E–01
H-Area Retention Basin[b]	(0.44 ± 1.10)E–02	(3.11 ± 0.16)E+00	(1.04 ± 0.04)E+01	(2.47 ± 0.18)E+01	(4.68 ± 5.64)E–01
H-Area Seepage Basin[b]	(–0.40 ± 1.17)E–02	(7.40 ± 0.64)E–01	(3.94 ± 1.16)E–01	(8.24 ± 1.17)E+00	(0.00 ± 4.34)E–01
K-Area Retention Basin[a]	(–0.06 ± 1.44)E–02	(3.00 ± 0.33)E–01	(4.75 ± 1.44)E–01	(8.75 ± 1.20)E+00	(–2.11 ± 3.68)E–01
K-Area Seepage Basin[a]	(2.97 ± 1.59)E–02	(3.11 ± 0.35)E–01	(4.25 ± 1.44)E–01	(1.54 ± 0.15)E+01	(0.00 ± 4.72)E–01
L-Area Chemical Basin[a]	(4.39 ± 1.71)E–02	(4.12 ± 1.19)E–02	(4.40 ± 1.42)E–01	(8.75 ± 1.21)E+00	(7.21 ± 6.51)E–01
L-Area Seepage Basin[a]	(2.51 ± 1.52)E–02	(1.99 ± 0.30)E–01	(5.39 ± 1.47)E–01	(7.21 ± 1.15)E+00	(4.58 ± 5.64)E–01
P-Area Seepage Basin[a]	(–0.68 ± 1.36)E–02	(8.47 ± 0.71)E–01	(2.96 ± 1.59)E–01	(1.24 ± 0.13)E+01	(2.21 ± 4.99)E–01
R-Area Seepage Basin[b]	(1.40 ± 1.62)E–02	(3.61 ± 0.41)E–01	(1.91 ± 0.21)E+00	(1.08 ± 0.13)E+01	(0.00 ± 4.34)E–01
TNX–SB Seepage Basin[d]	(2.46 ± 3.31)E–02	(0.70 ± 2.11)E–02	[e]	(6.65 ± 0.97)E+00	(–4.12 ± 2.91)E–01

a Four locations
b Eight locations
c Six locations
d One locations
e Not measured

Table 38
Meteorological Data

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

Joint Frequency Distribution of Wind Speed and Direction: 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 38
Meteorological Data

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

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

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

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

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

Table 38
Meteorological Data

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

Joint Frequency Distribution of Wind Speed and Direction: 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 38
Meteorological Data

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

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

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

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

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

Table 38
Meteorological Data

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

Joint Frequency Distribution of Wind Speed and Direction: Atmospheric Stability Class E
Slightly Stable Conditions

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

Joint Frequency Distribution of Wind Speed and Direction: Atmospheric Stability Class E
Slightly Stable Conditions

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

Table 38
Meteorological Data

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

Joint Frequency Distribution of Wind Speed and Direction: Atmospheric Stability Class F
Moderately Stable Conditions

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

Joint Frequency Distribution of Wind Speed and Direction: Atmospheric Stability Class F
Moderately Stable Conditions

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

Table 38
Meteorological Data

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

Joint Frequency Distribution of Wind Speed and Direction: 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 39
80-km-Radius (50-Mile) Population Distribution Around SRS (1990 Census)

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 40
80-km-Radius (50-Mile) Milk, Meat, and Vegetation Production Around SRS as of 1991

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+03	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 40
80-km-Radius (50-Mile) Milk, Meat, and Vegetation Production Around SRS as of 1991

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+03	1.476E+06
NE	0.0	0.0	3.600E+05	6.900E+05	1.000E+06	5.000E+05	2.550E+06
ENE	0.0	0.0	3.600E+05	6.600E+05	1.200E+06	1.500E+06	3.270E+06
E	0.0	0.0	3.600E+05	5.900E+05	8.500E+05	1.400E+06	3.200E+06
ESE	0.0	0.0	3.600E+05	2.200E+06	1.900E+06	1.100E+06	5.560E+06
SE	0.0	0.0	2.500E+06	4.500E+06	3.000E+06	1.100E+06	1.110E+07
SSE	0.0	0.0	1.700E+06	2.900E+06	3.600E+06	1.100E+06	9.300E+06
S	0.0	0.0	7.200E+04	5.400E+05	8.400E+05	9.700E+05	2.422E+06
SSW	0.0	0.0	3.500E+02	1.200E+05	2.500E+05	1.100E+05	4.804E+05
SW	0.0	0.0	3.500E+02	7.800E+02	2.200E+03	3.100E+05	3.133E+05
WSW	0.0	0.0	3.500E+02	5.800E+02	7.900E+03	2.900E+03	1.173E+04
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 41
Release Locations for Maximally Exposed Individual Dose

	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 42
Parameters Used for Adult Consumption Rates and for Atmospheric Dose Calculations[a]

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 43
Site-Specific Parameters Used with CAP88 Code Used for NESHAPS Calculations

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 44
Parameters Used for Adult Consumption Rates and for Liquid Dose Calculations[a]

Pathway	Maximally Exposed Individual	Population
Water consumption (L/yr)	730	370
Fish consumption (kg/yr)	19	9
Marine invertebrates (kg/yr)	Not applicable	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 45
Site-Specific Parameters Used in Liquid Dose Calculations

River flow rate at Highway 301 for 1995 (cu ft /sec)[a]	8,640
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 11,527 cfs.
b Values developed by SRTC for SRS
c Irrigation is considered a "special case" scenario.

Table 46
Committed Dose to the Maximally Exposed Individual from Atmospheric Releases (MAXIGASP Code — Using Consumption of Cow Milk Pathway)

By Pathway

Pathway	Maximally Exposed Individual Dose (mrem)[a]	Percent of Total Dose
Plume	1.72E–05	0.03
Ground	8.74E–04	1.6
Inhalation	2.06E–02	38.5
Vegetation	2.14E–02	40.0
Cow milk	6.22E–03	11.6
Meat	4.40E–03	8.2
Total	**5.35E–02**	

By Radionuclide

Radionuclide	Maximally Exposed Individual Dose (mrem)[a]	Percent of Total Dose[b]
Gases and Vapors		
H-3	3.64E–02	68.0
C-14	2.30E–03	4.3
Kr-85	1.72E–05	0.03
I-129	5.87E–03	11.0
Particulates		
Sr-90	3.39E–04	0.6
Ru-106	2.68E–03	5.0
Cs-137	7.82E–04	1.5
U-234	1.15E–04	0.2
U-235	5.62E–05	0.1
U-238	5.84E–04	1.1
Pu-238	1.25E–03	2.3
Pu-239	2.67E–03	5.0
Am-241	3.99E–05	0.1
Am-243	8.65E–05	0.2
Cm-244	3.30E–04	0.62
Total	**5.35E–02**	

a Committed effective dose equivalent
b Radionuclides contributing 0.01% or more of the total dose

Table 47
Committed Dose to the Maximally Exposed Individual from Atmospheric Releases (MAXIGASP Code — Using Consumption of Goat Milk Pathway)

By Pathway

Pathway	Maximally Exposed Individual Dose (mrem)[a]	Percent of Total Dose
Plume	1.72E–05	0.03
Ground	8.74E–04	1.5
Inhalation	2.06E–02	34.2
Vegetation	2.14E–02	35.6
Goat Milk	1.29E–02	21.4
Meat	4.40E–03	7.3
Total	**6.02E–02**	

By Radionuclide

Radionuclide	Maximally Exposed Individual Dose (mrem)[a]	Percent of Total Dose[b]
Gases and Vapors		
H-3	4.28E–02	71.1
C-14	2.37E–03	3.9
Kr-85	1.72E–05	0.03
I-129	6.03E–03	10.0
Particulates		
Sr-90	3.47E–04	0.6
Ru-106	2.68E–03	4.4
Cs-137	8.55E–04	1.4
U-234	1.14E–04	0.2
U-235	5.61E–05	0.1
U-238	5.83E–04	1.0
Pu-238	1.25E–03	2.1
Pu-239	2.67E–03	4.4
Am-241	3.99E–05	0.1
Am-243	8.65E–05	0.1
Cm-244	3.30E–04	0.55
Total	**6.02E–02**	

a Committed effective dose equivalent
b Radionuclides contributing 0.01% or more of the total dose

Table 48
80-km (50-Mile) Collective Dose from Atmospheric Releases (POPGASP Code)

By Pathway

Pathway	Population Dose (person-rem)[a]	Percent of Total Dose
Plume	1.60E–03	0.06
Ground	7.03E–02	2.5
Inhalation	1.86E+00	66.4
Vegetation	5.40E–01	19.3
Cow Milk	2.36E–01	8.4
Meat	9.21E–02	3.3
Total	**2.80E+00**	

By Radionuclide

Radionuclide	Population Dose (person-rem)[a]	Percent of Total Dose[b]
Gases and Vapors		
H-3	2.09E+00	74.6
C-14	8.53E–02	3.0
Kr-85	1.60E–03	0.1
I-129	1.94E–01	6.9
Particulates		
Sr-90	5.80E–03	0.2
Ru–106	6.25E–02	2.2
Cs-137	5.28E–02	1.9
U-234	1.15E–02	0.4
U-235	4.46E–03	0.2
U-238	5.80E–02	2.1
Pu-238	9.09E–02	3.2
Pu-239	1.17E–01	4.2
Am-241	2.82E–03	0.1
Am-243	3.82E–03	0.1
Cm-244	1.47E–02	0.5
Total	**2.80E+00**	

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

Table 49
Total Site Releases and Maximally Exposed Individual Effective Dose Equivalent by Radionuclide (CAP88 Dose Calculations for 1996 NESHAP Report to EPA)

Radionuclide	Releases (curies)	Maximally Exposed Individual EDE (mrem)	Percent of Dose
H-3 (oxide)	4.01E+04	5.42E–02	91.8
Ru-106	7.00E–02	1.36E–03	2.3
I-129	1.04E–02	6.89E–04	1.2
Pu-239[a]	5.57E–04	6.57E–04	1.1
C-14	8.11E+00	5.27E–04	0.9
U-238	1.37E–03	4.91E–04	0.8
Pu-238	4.84E–04	4.88E–04	0.8
Cs-137	4.83E–03	2.46E–04	0.4
Cm-244	1.32E–04	1.40E–04	0.2
U-234	2.51E–04	1.01E–04	0.2
Sr-89,90[b]	3.12E–03	3.92E–05	0.07
U-235	8.88E–05	3.77E–05	0.06
Am-243	1.76E–05	3.55E–05	0.06
Kr-85	5.47E+03	3.38E–05	0.06
Am-241	1.31E–05	2.18E–05	0.04
Sb-125	2.28E–04	1.16E–06	0.002
H-3 (elemental)	1.51E+04	8.20E–07	0.001
Co-60	9.41E–06	4.40E–07	0.0007
Xe-135	1.20E–03	4.17E–07	0.0007
Pu-240	2.11E–07	2.78E–07	0.0005
Eu-154	6.61E–06	2.47E–07	0.0004
I-131	8.72E–05	9.17E–08	0.0002
Np-237	4.66E–08	8.55E–08	0.0001
Pu-241	3.75E–06	7.81E–08	0.0001
Ce-144	8.04E–06	3.54E–08	0.00006
Zr-95	2.13E–05	3.06E–08	0.00005
U-236	5.79E–08	2.69E–08	0.00005
Th-232	1.28E–08	1.61E–08	0.00003
I-133	5.94E–04	9.11E–09	0.00002
U-233	1.62E–08	8.05E–09	0.00001
Eu-155	2.49E–06	3.67E–09	0.000006

a Includes unidentified alpha (assigned to Pu-239)
b Includes unidentified beta (assigned to Sr-90)

Table 49
Total Site Releases and Maximally Exposed Individual Effective Dose Equivalent by Radionuclide (CAP88 Dose Calculations for 1996 NESHAP Report to EPA)

Radionuclide	Releases (curies)	Maximally Exposed Individual EDE (mrem)	Percent of Dose
Cs-134	1.97E–07	3.02E–09	0.000005
Pa-231	1.00E–09	1.84E–09	0.000003
Pm-147	6.75E–06	1.15E–09	0.000002
Sn-126	6.79E–09	4.14E–11	0.00000007
Tc-99	2.65E–08	3.63E–11	0.00000006
Np-239	2.17E–07	3.27E–12	0.000000006
Co-57	5.76E–09	2.77E–12	0.000000005
Ni-59	2.51E–08	1.20E–12	0.000000002
Cm-242	2.03E–16	2.61E–16	0.0000000000004
Nb-95	1.55E–15	7.03E–19	0.000000000000001
Zn-65	1.46E–16	3.70E–19	0.0000000000000006
Total		**5.91E–02**	

Table 50
NESHAP Report Data — CAP88 Compared With MAXIGASP

	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	2.28E–05	0.04	1.72E–05	0.03
Ground	1.49E–03	2.5	8.74E–04	1.6
Inhalation	1.71E–02	29.0	2.06E–02	38.5
Food[b]	4.03E–02	68.2	3.20E–02	59.8
Total	**5.91E–02**		**5.35E–02**	
By Radionuclide				
Gases and Vapors				
H-3[c]	5.42E–02	91.7	3.64E–02	68.0
C-14	5.27E–04	0.9	2.30E–03	4.3
Kr-85	3.38E–05	0.1	1.72E–05	0.03
I-129	6.89E–04	1.2	5.87E–03	11.0
Particulates				
Sr-90	3.92E–05	0.1	3.39E–04	0.6
Ru-106	1.36E–03	2.3	2.68E–03	5.0
Cs-137	2.46E–04	0.4	7.82E–04	1.5
U-234	1.01E–04	0.2	1.15E–04	0.2
U-235	3.77E–05	0.1	5.62E–05	0.1
U-238	4.91E–04	0.8	5.84E–04	1.1
Pu-238	4.88E–04	0.8	1.25E–03	2.3
Pu-239	6.57E–04	1.1	2.67E–03	5.0
Am-241	2.18E–05	0.04	3.99E–05	0.1
Am-243	3.55E–05	0.06	8.65E–05	0.2
Cm-244	1.40E–04	0.24	3.30E–04	0.6
Total	**5.91E–02**		**5.35E–02**	

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 51
NESHAP Report Data — CAP88 Compared With POPGASP

	Collective Committed Dose from Atmospheric Releases			
	CAP88 Code		POPGASP Code	
	person-rem[a]	Percent of Dose	person-rem[a]	Percent of Dose
By Pathway				
Plume	2.95E–03	0.05	1.60E–03	0.06
Ground	1.95E–01	3.1	7.03E–02	2.5
Inhalation	2.18E+00	34.4	1.86E+00	66.4
Food[b]	3.98E+00	62.6	8.68E–01	31.0
Total	**6.36E+00**		**2.80E+00**	
By Radionuclide				
Gases and Vapors				
H-3[c]	5.85E+00	92.0	2.091E+00	74.6
C-14	5.37E–02	0.8	8.53E–02	3.0
K-85	4.38E–03	0.1	1.60E–03	0.1
I-129	3.11E–02	0.5	1.94E–01	6.9
Particulates				
Sr-90	3.68E–03	0.06	5.80E–03	0.2
Ru-106	1.75E–01	2.8	6.25E–02	2.2
Cs-137	3.28E–02	0.5	5.28E–02	1.9
U-234	1.11E–02	0.2	1.15E–02	0.4
U-235	4.06E–03	0.1	4.46E–03	0.2
U-238	5.38E–02	0.8	5.80E–02	2.1
Pu-238	5.31E–02	0.8	9.09E–02	3.2
Pu-239	6.98E–02	1.1	1.17E–01	4.2
Am-241	2.39E–03	0.04	2.82E–03	0.1
Am-243	3.69E–03	0.1	3.82E–03	0.1
Cm-244	1.46E–02	0.2	1.47E–02	0.5
Total	**6.36E+00**		**2.80E+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 52
Committed Dose to Maximally Exposed Individual from Liquid Releases

By Pathway

Pathway	Individual Dose (mrem)[a]	Percent of Total Dose
Fish	6.29E–02	46.7
Water	7.16E–02	53.2
Shoreline	1.97E–04	0.1
Swimming	1.28E–07	0.0001
Boating	1.51E–07	0.0001
Total	**1.35E–01**	

By Radionuclide

Radionuclide	Individual Dose (mrem)[a]	Percent of Total Dose
H-3 (oxide)	5.45E–02	40.5
Sr-90	5.71E–03	4.2
I-129	2.89E–03	2.1
Cs-137	5.82E–02	43.2
Pm-147	7.10E–08	0.0001
U-234	2.12E–04	0.2
U-235	5.76E–06	0.004
U-238	2.40E–04	0.2
Pu-238	1.09E–03	0.8
Pu-239	1.19E–02	8.8
Am-241	5.00E–05	0.04
Cm-244	4.48E–06	0.003
Total	**1.35E–01**	

a Committed effective dose equivalent

Table 53
Committed Dose to Maximally Exposed Individual from Public Water Supplies at Beaufort-Jasper Water Treatment Plant

Radionuclide	Individual Dose, mrem[a]	Percent of Total Dose
H-3 (oxide)	4.21E–02	74.4
Sr-90	2.54E–03	4.5
I-129	1.64E–03	2.9
Cs-137	5.77E–04	1.0
Pm-147	3.40E–08	0.0001
U-234	1.59E–04	0.3
U-235	4.26E–06	0.008
U-238	1.81E–04	0.3
Pu-238	7.92E–04	1.4
Pu-239	8.60E–03	15.2
Am-241	2.39E–05	0.04
Cm-244	2.20E–06	0.004
Total	**5.66E–02**	

a Committed effective dose equivalent

Table 54
Committed Dose to Maximally Exposed Individual from Public Water Supplies at the City of Savannah Industrial and Domestic Water Supply Plant (near Port Wentworth, Georgia)

Radionuclide	Individual Dose, mrem[a]	Percent of Total Dose
H-3 (oxide)	4.54E–02	74.4
Sr-90	2.73E–03	4.5
I-129	1.76E–03	2.9
Cs-137	6.22E–04	1.0
Pm-147	3.66E–08	0.0001
U-234	1.71E–04	0.3
U-235	4.59E–06	0.008
U-238	1.95E–04	0.3
Pu-238	8.54E–04	1.4
Pu-239	9.27E–03	15.2
Am-241	2.58E–05	0.04
Cm-244	2.37E–06	0.004
Total	**6.10E–02**	

a Committed effective dose equivalent

Table 55
Collective Dose from Liquid Releases

By Pathway

Pathway	Collective Dose (person-rem)[a]	Percent of Total Dose
Sport fish	1.14E–01	5.3
Commercial fish	1.11E–03	0.1
Beaufort-Jasper	1.72E+00	79.9
Port Wentworth	3.09E–01	14.4
Saltwater invertebrates	7.32E–04	0.03
Recreation–river	8.21E–03	0.4
Total	**2.15E+00**	

By Radionuclide

Radionuclide	Collective Dose (person-rem)[a]	Percent of Total Dose
H-3	1.51E+00	70.2
Sr-90	9.55E–02	4.4
I-129	6.03E–02	2.8
Cs-137	1.33E–01	6.2
Pm-147	1.28E–06	0.0001
U-234	5.72E–03	0.3
U-235	1.57E–04	0.007
U-238	6.50E–03	0.3
Pu-238	2.86E–02	1.3
Pu-239	3.11E–01	14.4
Am-241	9.03E–04	0.04
Cm-244	8.27E–05	0.004
Total	**2.15E+00**	

a Committed effective dose equivalent

Table 56
Potential Doses from Irrigation Pathways

Food Type[a]	Maximally Exposed Individual (mrem)[b]	Population (person-rem)[b]
Vegetation	6.78E–02	4.24E+00
Leafy vegetable	1.06E–02	2.73E–01
Milk	1.99E–02	2.70E+00
Meat	6.35E–03	3.40E–01
Total	**1.05E–01**	**7.55E+00**

a Irrigated acreage for each food type assumed to be 1,000 acres
b Committed effective dose equivalent

Table 57
Dose from Consumption of Fish from SRS Creek Mouths and River Mile 120

Number of Composites with Quantifiable Activity[a]

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

Average Concentration in Composites, pCi/g

Location	Species	H-3	Sr-90	Cs-137	Pu-238	Pu-239
BDC	Bass	8.93E–02	1.55E–03	2.11E–01	3.21E–05	1.05E–05
	Catfish	1.57E–01	7.80E–04	4.81E–02	1.29E–04	–1.01E–04
	Bream	4.99E–02	9.90E–04	4.98E–02	9.30E–05	5.56E–05
FMC	Bass	9.60E+00	4.42E–02	7.38E–01	–4.40E–06	–3.40E–06
	Catfish	6.22E–01	4.10E–03	8.56E–02	5.39E–05	–1.33E–05
	Bream	3.36E+00	1.10E–02	1.81E–01	–5.90E–06	–9.90E–06
L3R	Bass	4.27E–01	7.89E–03	1.20E–01	2.60E–05	–3.50E–05
	Catfish	3.61E–01	5.80E–03	2.90E–01	4.70E–06	8.90E–06
	Bream	6.00E–01	5.47E–03	5.59E–02	–9.70E–05	–9.60E–05
SC	Bass	3.67E+00	4.43E–03	1.82E+00	–5.21E–05	1.10E–06
	Catfish	2.24E+00	3.00E–03	2.42E–01	7.70E–06	–6.20E–06

a All composites were five fish.

Table 57
Dose from Consumption of Fish from SRS Creek Mouths and River Mile 120

Average Concentration in Composites, pCi/g (cont.)

Location	Species	H-3	Sr-90	Cs-137	Pu-238	Pu-239
	Bream	4.36E+00	1.04E–02	4.36E–01	–8.38E–05	–2.17E–05
U3R	Bass	1.20E–01	3.22E–03	3.43E–01	2.50E–05	4.89E–05
	Catfish	9.41E–02	1.65E–03	5.74E–02	3.44E–05	2.18E–05
	Bream	1.40E–01	3.19E–03	5.66E–02	7.60E–06	5.50E–06
RM 120	Bass	2.79E–01	2.87E–03	7.85E–02	3.86E–05	–4.51E–05
	Catfish	2.36E–01	3.51E–03	5.59E–02	3.03E–05	–7.00E–06
	Bream	2.95E–01	7.55E–03	4.65E–02	–1.69E–05	–1.19E–05

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	Bass	1.07E–04	3.83E–03	2.00E–01	2.32E–03	8.58E–04	2.08E–01
	Catfish	1.88E–04	1.93E–03	4.57E–02	9.31E–03	[b]	5.71E–02
	Bream	5.97E–05	2.45E–03	4.73E–02	6.71E–03	4.54E–03	6.11E–02
FMC	Bass	1.15E–02	1.09E–01	7.01E–01			8.22E–01
	Catfish	7.45E–04	1.01E–02	8.13E–02	3.89E–03		9.61E–02
	Bream	4.02E–03	2.72E–02	1.72E–01			2.03E–01
L3R	Bass	5.11E–04	1.95E–02	1.14E–01	1.88E–03		1.36E–01
	Catfish	4.32E–04	1.43E–02	2.76E–01	3.39E–04	7.27E–04	2.91E–01
	Bream	7.18E–04	1.35E–02	5.31E–02			6.73E–02
SC	Bass	4.39E–03	1.09E–02	1.73E+00		8.99E–05	1.74E+00
	Catfish	2.68E–03	7.41E–03	2.30E–01	5.56E–04		2.41E–01
	Bream	5.22E–03	2.57E–02	4.14E–01			4.45E–01
U3R	Bass	1.44E–04	7.95E–03	3.26E–01	1.81E–03	4.00E–03	3.40E–01
	Catfish	1.13E–04	4.08E–03	5.45E–02	2.48E–03	1.78E–03	6.30E–02
	Bream	1.68E–04	7.88E–03	5.38E–02	5.49E–04	4.49E–04	6.28E–02
RM 120	Bass	3.34E–04	7.09E–03	7.46E–02	2.79E–03		8.48E–02
	Catfish	2.82E–04	8.67E–03	5.31E–02	2.19E–03		6.42E–02
	Bream	3.53E–04	1.86E–02	4.42E–02			6.32E–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.

Table 58
Calculated Doses to Aquatic Biota from SRS Releases

Stream	Location	Flow, cfs	Dose to Biota, rad/d[a,b]		
			Fish	Invertebrate	Algae
U3R	Tim's Branch 5 (Road C)	6	5.86E–04	6.83E–04	2.14E–04
BDC	Below 400–D	69	9.18E–07	1.35E–06	3.40E–06
FMC	FM3 above Road E	5	1.62E–03	1.97E–03	1.46E–03
PB	K–018	34	2.44E–05	4.05E–05	1.12E–04
SC	Steel Creek 2A above Road B	8	2.86E–05	7.05E–05	2.84E–04
L3R	L3R1A above Road B	22	1.06E–04	1.18E–04	1.08E–05

Stream	Location	Flow, cfs	Dose to Biota, rad/d[a,b]	
			Raccoon	Duck
U3R	Tim's Branch 5 (Road C)	6	2.51E–04	2.59E–03
BDC	Below 400–D	69	1.48E–06	3.94E–05
FMC	FM3 above Road E	5	1.02E–03	1.87E–02
PB	K–018	34	5.10E–05	1.34E–03
SC	Steel Creek 2A above Road B	8	1.42E–04	4.08E–03
L3R	L3R1A above Road B	22	3.46E–05	2.00E–04

a Calculated with CRITR methodology incorporated in the LADTAPII computer program
b The DOE limit is 1 rad/d.

Table 59
Toxic/Hazardous Air Pollutant Emissions (1995)

Pollutant	Actual Tons/Year
Note: Emissions are calculated each year as part of an annual emissions inventory. In 1996, operating data were compiled and emissions calculated for 1995 operations for all site air emission sources. Because this process, which begins in January, requires up to 6 months to complete, this report provides 1995 emissions only. Actual emissions for 1996 will be compiled and reported in depth in the SRS Environmental Report for 1997 *and in* SRS Environmental Data for 1997.	
1,1,1–TRICHLOROETHANE	1.38E–01
1,1,2,2–TETRACHLOROETHANE	1.19E–04
1,1,2–TRICHLOROETHANE	2.55E–06
1,1–DICHLORETHYLENE	5.37E–07
1,1–DICHLOROETHANE	5.40E–07
1,2,4–TRICHLOROBENZENE	1.21E–04
1,3–BUTADIENE	8.80E–02
1,3–DICHLOROPROPENE	3.36E–05
2,2,4–TRIMETHYLPENTANE	2.04E–02
ACETALDEHYDE	3.17E–01
ACETONITRILE	1.11E+00
ACROLEIN	1.37E–02
AMMONIUM CHLORIDE	4.12E–03
ANILINE	1.08E–01
ANTIMONY	1.30E–03
ARSENIC	1.22E–02
BENZENE	6.25E+01
BERYLLIUM	1.62E–03
BIS–(2–ETHYLHEXYL)PHTHALATE	5.15E–06
BROMOFORM	3.03E+00
CADMIUM	2.21E–03
CARBON DISULFIDE	1.39E–02
CARBON TETRACHLORIDE	2.56E–02
CHLORDANE	7.63E–03
CHLORINE	1.07E–02
CHLOROBENZENE	1.06E–04
CHLOROFORM	2.54E+00
CHROMIUM (+6) COMPOUNDS	8.10E–05
COBALT	1.27E–04
CRESOL	5.47E–02
CUMENE	2.40E–01

Table 59
Toxic/Hazardous Air Pollutant Emissions (1995)

Pollutant	Actual Tons/Year
CYANIDE	2.01E–03
DIBUTYL PHTHALATE	5.20E–05
DIISODECYL PHTHALATE	6.67E–04
DIPHENYL	3.27E–02
DIPHENYLMERCURY	7.92E–04
ETHANOLAMINE	1.03E–03
ETHYL BENZENE	5.01E–01
ETHYLENE DIBROMIDE	8.04E–06
ETHYLENE GLYCOL	4.66E+02
FORMALDEHYDE	2.36E+00
FORMIC ACID	8.70E–01
FURFURYL ALCOHOL	6.60E–04
GLYCOL ETHERS	5.70E–03
HEPTACHLOR	4.02E–05
HEXACHLOROBENZENE	1.19E–04
HEXACHLOROCYLOPENTADIENE	1.01E–03
HEXACHLOROETHANE	1.60E–07
HEXANE	1.33E+00
HYDROCHLORIC ACID (HYDROGEN CHLORIDE)	2.25E+01
HYDROGEN SULFIDE	1.37E+01
HYDROQUINONE	4.60E–02
ISOPHORONE	1.39E–03
M–XYLENE	8.14E–03
MALATHION	1.88E–04
MANGANESE	2.64E–02
MANGANESE OXIDE	0.00E+00
MERCURY	4.01E–01
METHOXYCHLOR	1.52E–01
METHYL ALCOHOL	1.62E–01
METHYL ETHYL KETONE (2–BUTANONE)	9.39E–02
METHYL ISOBUTYL KETONE	6.01E–02
METHYLENE CHLORIDE	4.33E–01
MINERAL OIL	3.19E–03
NAPHTHALENE	8.32E–01
NICKEL	2.53E–02

Table 59
Toxic/Hazardous Air Pollutant Emissions (1995)

Pollutant	Actual Tons/Year
NITRIC ACID	6.12E+01
NITROBENZENE	8.40E–04
O–XYLENE	2.36E–02
OXALIC ACID	4.76E–03
P–XYLENE	2.45E–03
PHENOL	6.83E–02
PHOSPHORIC ACID	2.58E+00
POLYCHLORINATED BIPHENYLS (PCB)	7.63E–03
POLYCYCLIC ORGANIC MATTER	2.42E–02
POTASSIUM PERMANGANATE	4.67E–10
PROPOXUR	6.98E–06
PYRETHRINS	1.06E–03
QUINONE	8.40E–03
SELENIUM	1.93E–03
SODIUM HYDROXIDE	9.08E+05
STYRENE	1.11E–01
SULFURIC ACID	3.86E–01
TETRACHLOROETHYLENE (CL2C=CCL)	2.70E+00
TOLUENE	8.74E–01
TOXAPHENE	4.55E–01
TRICHLOROETHYLENE (TCE)	3.80E+00
VINYL ACETATE	2.68E–06
VINYL CHLORIDE	2.37E–04
XYLENE (MIXED ISOMERS)	3.13E+00

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	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	13	1.80E+01	<1.00E+00	5	8.88E+00
FLO	MGD	9	6.91E–01	1.43E–01	9	2.65E–01
O&G	mg/L	9	2.80E+00	<1.00E+00	2	2.70E+00
PH	pH	11	7.5	6.2		
TMP	Deg C	10	25	17	10	21.9
TSS	mg/L	9	1.20E+01	<1.00E+00	5	3.40E+00
Outfall A–003						
Effluent consists of the following types of wastewater: cooling water and steam condensate.						
CR	mg/L	18	<1.00E–02	<5.00E–03		
FLO	MGD	47	5.04E–01	2.88E–03	47	6.16E–02
O&G	mg/L	10	2.30E+00	<1.00E+00	4	1.83E+00
PH	pH	13	7.2	6.3		
TMP	Deg C	13	25	15	13	20.62
TSS	mg/L	10	5.00E+00	<1.00E+00	6	2.17E+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	9	1.70E+01	<1.00E+00	7	6.84E+00
FEC	#/100mL	9	28	<2.	2	15
FLO	MGD	9	2.88E–01	1.01E–01	9	1.46E–01
O&G	mg/L	9	1.20E+00	<1.00E+00	2	1.20E+00
PERCL	ug/L	8	<2.00E+00	<2.00E+00		
PH	pH	9	7.5	6.6		
TMP	Deg C	9	25	17	9	21.44

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
TRICL	ug/L	8	<2.00E+00	<2.00E+00		
TSS	mg/L	9	4.50E+01	<1.00E+00	4	1.25E+01
Outfall A–011						
Effluent consists of the following types of wastewater: cooling water.						
BOD	mg/L	9	4.60E+00	<1.00E+00	3	3.37E+00
FLO	MGD	43	3.60E–01	1.44E–03	43	2.43E–02
O&G	mg/L	9	2.40E+00	<1.00E+00	2	1.75E+00
PH	pH	9	7.4	6.6		
TMP	Deg C	9	28	11	9	23.67
TSS	mg/L	11	5.00E+00	<1.00E+00	9	2.67E+00
Outfall A–014						
Effluent consists of the following types of wastewater: air stripper wastewater and noncontact cooling water.						
BOD	mg/L	9	2.10E+00	<1.00E+00	4	1.70E+00
FLO	MGD	9	2.84E+00	9.88E–01	9	1.75E+00
O&G	mg/L	9	2.50E+00	<1.00E+00	5	2.32E+00
PERCL	ug/L	9	<2.00E+00	<2.00E+00		
PH	pH	18	7.35	6.3		
TCE	ug/L	9	<2.00E+00	<2.00E+00		
TMP	Deg C	16	27	13	16	20.35
TRICL	ug/L	9	<2.00E+00	<2.00E+00		
TSS	mg/L	9	9.00E+00	<1.00E+00	7	4.29E+00
Outfall A–015						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	0				
FEC	mg/L	0				
FLO	mg/L	0				
PH	mg/L	0				
TSS	mg/L	0				
TRICL	ug/L	31	<2.00E+00	<2.00E+00		

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall C–001						
Effluent consists of the following types of wastewater: cooling water.						
FLO	MGD	274	1.49E–01	0.00E+00	274	1.42E–02
O&G	mg/L	9	2.80E+00	<1.00E+00	2	2.05E+00
PH	pH	14	6.9	5.6		
TMP	Deg C	11	26	12	11	20.09
TSS	mg/L	9	1.00E+01	<1.00E+00	8	4.75E+00
Outfall C–003						
Effluent consists of the following types of wastewater: cooling water.						
FLO	MGD	274	1.29E+00	1.87E–01	274	3.81E–01
O&G	mg/L	9	2.40E+00	<1.00E+00	3	1.97E+00
PH	pH	9	7.1	6.6		
TMP	Deg C	9	26	18	9	21.44
TSS	mg/L	9	8.00E+00	<1.00E+00	7	5.57E+00
Outfall C–004						
Effluent consists of the following types of wastewater: neutralization water, service wastewater, and C-Reactor cooling water.						
FLO	MGD	274	1.16E+01	2.52E+00	274	3.91E+00
O&G	mg/L	9	3.30E+00	<1.00E+00	6	2.03E+00
PH	pH	9	6.8	6.3		
TMP	Deg C	274	27.1	6.6	274	18.71
TSS	mg/L	9	1.40E+01	1.00E+00	9	5.00E+00
Outfall C–004A						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	0				
FEC	mg/L	0				
FLO	mg/L	0				
PH	mg/L	0				
TSS	mg/L	0				

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall D–001						
Effluent consists of the following types of wastewater: cooling water, neutralization water, and heavy water.						
FLO	mg/L	0				
O&G	mg/L	0				
PH	mg/L	0				
TMP	mg/L	0				
TSS	mg/L	0				
Outfall D–001A						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	9	6.70E+00	1.10E+00	9	4.09E+00
FEC	#/100mL	9	12	<2.	2	11
FLO	MGD	274	3.50E–02	2.55E–03	274	9.20E–03
PH	pH	9	7.5	7		
TSS	mg/L	9	1.20E+01	<1.00E+00	8	8.13E+00
Outfall D–001B						
Effluent consists of the following types of wastewater: coal pile runoff.						
AL	mg/L	0				
FE	mg/L	0				
FLO	mg/L	0				
MG	mg/L	0				
MN	mg/L	0				
PH	mg/L	0				
SO4	mg/L	0				
TSS	mg/L	0				
ZN	mg/L	0				
Outfall D–001C						
Effluent consists of the following types of wastewater: ash basin discharge.						
FLO	mg/L	0				
O&G	mg/L	0				

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
PH	mg/L	0				
TSS	mg/L	0				
Outfall D–003						
Effluent consists of the following types of wastewater: powerhouse washdown water and water treatment plant wastewater.						
FLO	mg/L	0				
O&G	mg/L	0				
PH	mg/L	0				
TSS	mg/L	0				
Outfall D–005						
Effluent consists of the following types of wastewater: water filter backwash overflow.						
FLO	mg/L	0				
PH	mg/L	0				
TSS	mg/L	0				
Outfall D–006						
Effluent consists of the following types of wastewater: cooling water, powerhouse washdown water, and heavy water process water.						
FEC	mg/L	0				
FLO	mg/L	0				
O&G	mg/L	0				
PH	mg/L	0				
TMP	mg/L	0				
TSS	mg/L	0				
Outfall DW–001						
Effluent consists of the following types of wastewater: washdown water from concrete transit mixer trucks.						
FLO	MGD	1		0.00E+00	1	
PH	MGD	0				
TSS	MGD	0				

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall DW–002						
Effluent consists of the following types of wastewater: steam cleaning wastewater, stormwater runoff, and equipment wash water.						
FLO	MGD	38		0.00E+00	38	0.00E+00
O&G	MGD	0				
PH	MGD	0				
Outfall DW–003						
Effluent consists of the following types of wastewater: sanitary wastewater from DWPF (S-Area).						
BOD	MGD	0				
FEC	MGD	0				
FLO	MGD	0				
PH	MGD	0				
TSS	MGD	0				
Outfall DW–004						
Effluent consists of the following types of wastewater: neutralization, cooling water, and steam condensate.						
BOD	mg/L	19	5.20E+00	<1.00E+00	15	2.49E+00
CHL	mg/L	20	2.00E+00	<1.00E–01	16	3.87E–01
FLO	MGD	39	2.16E–01	0.00E+00	39	4.73E–02
O&G	mg/L	20	4.90E+00	<1.00E+00	8	2.96E+00
PH	pH	21	8.1	6.7		
TMP	Deg C	21	28	13	21	21.61
TSS	mg/L	20	6.00E+00	<1.00E+00	15	3.13E+00
Outfall F–001						
Effluent consists of the following types of wastewater: nonprocess cooling water.						
FLO	MGD	9	2.16E–01	5.76E–02	9	1.18E–01
O&G	mg/L	9	3.70E+00	<1.00E+00	3	2.00E+00
PH	pH	9	7.9	6.9		
TMP	Deg C	9	28	20	9	23.89
TSS	mg/L	9	4.00E+00	<1.00E+00	5	2.20E+00

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall F–002						
Effluent consists of the following types of wastewater: nonprocess cooling water.						
FLO	MGD	9	5.76E–02	2.16E–02	9	3.97E–02
O&G	mg/L	9	3.00E+00	<1.00E+00	4	1.70E+00
PH	pH	9	7.7	6.4		
TMP	Deg C	9	24	11	9	19.44
TSS	mg/L	9	6.00E+00	<1.00E+00	6	3.00E+00
Outfall F–003						
Effluent consists of the following types of wastewater: cooling water and steam condensate.						
BOD	mg/L	9	1.70E+00	<1.00E+00	1	1.70E+00
FLO	MGD	9	3.60E–02	4.32E–03	9	1.49E–02
O&G	mg/L	9	2.00E+00	<1.00E+00	1	2.00E+00
PH	pH	9	7.8	6.6		
TMP	Deg C	9	28	15	9	22.22
TSS	mg/L	9	9.00E+00	<1.00E+00	5	4.40E+00
Outfall F–003A						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	0				
FEC	mg/L	0				
FLO	mg/L	0				
PH	mg/L	0				
TSS	mg/L	0				
Outfall F–005						
Effluent consists of the following types of wastewater: cooling water and steam condensate.						
FLO	MGD	9	5.76E–02	2.88E–02	9	4.06E–02
O&G	mg/L	9	1.50E+00	<1.00E+00	2	1.35E+00
PH	pH	9	7.4	6.7		
TMP	Deg C	9	26	18	9	22.67
TSS	mg/L	9	3.00E+00	<1.00E+00	6	2.00E+00

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall F–007 (facility in service but did not discharge)						
Effluent consists of the following types of wastewater: ash basin discharge.						
FLO	MGD	9		0.00E+00	9	0.00E+00
O&G	MGD	0				
PH	MGD	0				
TSS	MGD	0				
Outfall F–008						
Effluent consists of the following types of wastewater: neutralization, cooling water, steam condensate, process wastewater, and Outfall F-012 and Outfall F-013.						
AL	mg/L	5	3.84E–01	<5.00E–02	3	2.97E–01
AN	mg/L	4	2.25E–01	<1.00E–01	2	1.70E–01
CR	mg/L	5	<1.00E–02	<1.00E–02		
CU	mg/L	5	2.90E–02	<5.00E–03	3	1.73E–02
FLO	MGD	274	6.08E+00	7.11E–01	274	1.40E+00
HG	mg/L	5	1.00E–04	<1.00E–04	1	1.00E–04
MN	mg/L	5	9.00E–03	9.00E–03	1	9.00E–03
NI	mg/L	5	1.10E–02	<1.00E–02	1	1.10E–02
NO3	mg/L	4	<2.00E–02	<2.00E–02		
O&G	mg/L	9	2.50E+00	<1.00E+00	1	2.50E+00
PB	mg/L	5	<2.00E–02	<2.00E–02		
PH	pH	10	6.8	6.4		
TMP	Deg C	9	28	18	9	24.78
TSS	mg/L	9	8.00E+00	<1.00E+00	7	3.43E+00
U	mg/L	5	<5.00E–01	<5.00E–01		
ZN	mg/L	5	1.45E–01	<5.00E–03	3	6.73E–02
Outfall F–008A						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	0				
FEC	mg/L	0				
FLO	mg/L	0				

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
PH	mg/L	0				
TSS	mg/L	0				
Outfall F–012						
Effluent consists of the following types of wastewater: stormwater runoff retention basin effluent.						
AL	mg/L	17	3.20E–01	<5.00E–02	10	1.59E–01
AN	mg/L	17	5.33E–01	<1.00E–01	9	2.15E–01
CR	mg/L	17	2.20E–02	<5.00E–03	1	2.20E–02
CU	mg/L	17	2.50E–02	<5.00E–03	11	1.56E–02
FLO	MGD	17	8.96E–01	6.26E–01	17	7.82E–01
HG	mg/L	17	1.00E–04	<1.00E–04	2	<1.00E–04
MN	mg/L	17	4.10E–02	<1.00E–02	9	2.94E–02
NI	mg/L	17	4.70E–02	<1.00E–02	1	4.70E–02
NO3	mg/L	17	2.20E–01	<2.00E–02	6	7.22E–02
PB	mg/L	17	<2.00E–02	<3.00E–03		
PH	pH	17	8.9	6.2		
TSS	mg/L	17	2.10E+01	2.00E+00	17	8.59E+00
U	mg/L	17	<5.00E–01	<5.00E–01		
ZN	mg/L	17	3.42E–01	1.80E–02	17	1.71E–01
Outfall F–013						
Effluent consists of the following types of wastewater: cooling water retention basin effluent.						
AL	mg/L	4	3.40E–01	<5.00E–02	2	2.06E–01
AN	mg/L	4	1.80E–01	1.17E–01	4	1.45E–01
CR	mg/L	4	<1.00E–02	<1.00E–02		
CU	mg/L	4	2.70E–02	1.30E–02	4	1.80E–02
FLO	MGD	5	3.30E–01	0.00E+00	5	1.74E–01
HG	mg/L	4	1.00E–04	<1.00E–04	1	1.00E–04
MN	mg/L	4	4.80E–02	<1.00E–02	3	2.63E–02
NI	mg/L	4	<1.00E–02	<5.00E–03		
NO3	mg/L	4	2.50E–02	<2.00E–02	1	2.50E–02
PB	mg/L	4	<2.00E–02	<3.00E–03		
PH	pH	4	9.8	6.7		

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
TSS	mg/L	4	1.20E+01	4.00E+00	4	8.00E+00
U	mg/L	4	5.00E–01	<5.00E–01	1	5.00E–01
ZN	mg/L	4	1.30E–01	2.00E–02	4	5.45E–02
Outfall FS–001						
Effluent consists of the following types of wastewater: cooling water and greenhouse wastewater.						
FEC	#/100mL	2	500	2	2	251
FLO	MGD	9	4.32E–02	0.00E+00	9	8.00E–03
Outfall FS–002						
Effluent consists of the following types of wastewater: cooling water and greenhouse wastewater.						
FEC	MGD	0				
FLO	MGD	9		0.00E+00	9	0.00E+00
Outfall H–002						
Effluent consists of the following types of wastewater: nonprocess cooling water and stormwater.						
C	mg/L	3	2.10E+00	<1.00E+00	2	1.55E+00
COD	mg/L	3	1.16E+01	<1.00E+01	1	1.16E+01
FLO	MGD	9	7.20E–02	3.60E–02	9	6.32E–02
O&G	mg/L	9	2.80E+00	<1.00E+00	4	2.10E+00
PH	pH	9	7	6		
TMP	Deg C	9	26	9	9	19.11
TSS	mg/L	9	1.70E+01	<1.00E+00	7	4.57E+00
Outfall H–004						
Effluent consists of the following types of wastewater: nonprocess cooling water.						
FLO	MGD	9	1.44E–02	2.88E–03	9	7.70E–03
O&G	mg/L	9	2.50E+00	<1.00E+00	4	2.00E+00
PH	pH	9	7.2	6.5		
TMP	Deg C	9	26	11	9	19.67
TSS	mg/L	9	1.20E+01	1.00E+00	9	4.33E+00

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National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall H–006						
Effluent consists of the following types of wastewater: stormwater.						
C	mg/L	0				
COD	mg/L	0				
FLO	MGD	1		0.00E+00	1	
O&G	MGD	0				
PH	MGD	0				
Outfall H–007						
Effluent consists of the following types of wastewater: cooling tower blowdown, air compressor cooling water, and freeze protection purge from a water tank filling line.						
CHL	mg/L	4	<1.00E–01	<1.00E–01		
FLO	MGD	9	1.44E–02	0.00E+00	8	3.60E–03
O&G	mg/L	4	2.00E+00	<1.00E+00	3	1.70E+00
PH	pH	4	7	6.1		
TMP	Deg C	4	26	12	4	17.75
TSS	mg/L	5	3.10E+01	4.00E+00	5	1.60E+01
Outfall H–008						
Effluent consists of the following types of wastewater: cooling water, steam condensate, neutralization wastewater, and powerhouse wastewater.						
FLO	MGD	274	2.46E+00	1.55E–01	274	8.40E–01
O&G	mg/L	9	1.20E+00	<1.00E+00	2	1.10E+00
PH	pH	9	7	6.3		
TMP	Deg C	9	26	10	9	19.78
TSS	mg/L	12	4.60E+01	<1.00E+00	11	7.77E+00
Outfall H–008A						
Effluent consists of the following types of wastewater: ash basin discharge.						
FLO	MGD	9	7.20E–03	0.00E+00	9	8.00E–04
O&G	mg/L	1	<1.00E+00	<1.00E+00		
PH	pH	1	6.6	6.6		
TSS	mg/L	1	4.00E+00	4.00E+00	1	4.00E+00

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National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall H–012						
Effluent consists of the following types of wastewater: cooling and steam condensate, Replacement Tritium Facility's decontamination showers, floor drains, Outfall H-017, and Outfall H-018.						
AL	mg/L	5	1.58E+00	<5.00E–02	4	6.84E–01
AN	mg/L	5	3.60E–01	<1.00E–01	3	2.66E–01
CR	mg/L	5	<1.00E–02	<1.00E–02		
CU	mg/L	6	3.70E–02	1.20E–02	6	2.30E–02
FLO	MGD	11	2.88E–01	3.02E–02	11	1.76E–01
HG	mg/L	5	2.00E–04	<1.00E–04	1	2.00E–04
MN	mg/L	5	3.20E–02	<1.00E–02	2	2.20E–02
NI	mg/L	5	<1.00E–02	<1.00E–02		
NO3	mg/L	5	2.08E–01	<2.00E–02	3	8.70E–02
O&G	mg/L	9	4.40E+00	<1.00E+00	3	3.57E+00
PB	mg/L	6	<2.00E–02	<3.00E–03		
PH	pH	11	9	6.4		
SO4	mg/L	5	1.44E+01	<5.00E+00	4	1.14E+01
TMP	Deg C	9	27	2	9	18.11
TSS	mg/L	9	1.30E+01	<1.00E+00	8	4.88E+00
U	mg/L	5	<5.00E–01	<5.00E–01		
ZN	mg/L	5	1.22E–01	<2.40E–02	4	7.65E–02
Outfall H–013						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	0				
FEC	mg/L	0				
FLO	mg/L	0				
PH	mg/L	0				
TSS	mg/L	0				

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Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall H-015 (facility not in service)						
Effluent consists of the following types of wastewater: noncontact cooling water, steam condensate, and cooling tower blowdown.						
FLO	mg/L	0				
O&G	mg/L	0				
PH	mg/L	0				
TMP	mg/L	0				
TMPD	mg/L	0				
TSS	mg/L	0				
Outfall H–016						
Effluent consists of the following types of wastewater: process water, cooling water, and stormwater.						
AL	mg/L	11	1.06E–01	<5.00E–02	1	1.06E–01
AN	mg/L	40	1.15E+00	<1.00E–01	16	2.52E–01
BOD	mg/L	40	1.30E+01	<1.00E+00	17	3.62E+00
CHL	mg/L	9	<1.00E–01	<1.00E–02		
CR	mg/L	40	<1.00E–02	<1.00E–02		
CU	mg/L	40	1.60E–02	<5.00E–03	5	1.04E–02
FLO	MGD	274	2.41E–01	0.00E+00	274	5.20E–02
HG	mg/L	40	2.00E–04	<1.00E–04	1	2.00E–04
MN	mg/L	40	6.60E–01	<5.00E–03	1	6.60E–01
NI	mg/L	11	<1.00E–02	<5.00E–03		
NO3	mg/L	40	5.77E+01	1.35E–01	40	1.38E+01
O&G	mg/L	40	4.50E+00	<1.00E+00	12	2.55E+00
PB	mg/L	40	3.40E–02	<3.00E–03	1	3.40E–02
PH	pH	18	8.8	6.5		
TMP	Deg C	40	30	14	40	21.75
TSS	mg/L	40	6.00E+00	<1.00E+00	21	2.24E+00
U	mg/L	11	<5.00E–01	<5.00E–01		
ZN	mg/L	40	8.20E–02	<5.00E–03	21	2.64E–02

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National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall H–017						
Effluent consists of the following types of wastewater: stormwater runoff retention basin effluent.						
AL	mg/L	22	4.62E–01	<5.00E–02	14	2.24E–01
AN	mg/L	22	3.58E–01	<1.00E–01	12	1.96E–01
CR	mg/L	22	1.60E–02	<5.00E–03	1	1.60E–02
CU	mg/L	22	2.10E–02	<5.00E–03	11	1.39E–02
FLO	MGD	22	9.50E–01	6.49E–01	22	8.08E–01
HG	mg/L	22	4.00E–04	<1.00E–04	5	2.00E–04
MN	mg/L	22	5.50E–02	6.00E–03	12	3.23E–02
NI	mg/L	22	2.40E–02	<5.00E–03	1	2.40E–02
NO3	mg/L	22	2.39E–01	<2.00E–02	12	8.22E–02
PB	mg/L	22	<2.00E–02	<3.00E–03		
PH	pH	22	7.5	6.2		
TSS	mg/L	22	1.60E+01	<1.00E+00	21	9.67E+00
U	mg/L	22	<5.00E–01	<5.00E–01		
ZN	mg/L	22	2.79E–01	3.00E–02	22	1.28E–01
Outfall H–018						
Effluent consists of the following types of wastewater: cooling water retention basin effluent.						
AL	mg/L	4	3.96E–01	<5.00E–02	3	2.12E–01
AN	mg/L	4	2.67E–01	<1.00E–01	3	1.93E–01
CR	mg/L	4	<1.00E–02	<1.00E–02		
CU	mg/L	4	2.10E–02	<1.00E–02	3	1.57E–02
FLO	MGD	4	7.70E–01	6.11E–01	4	6.76E–01
HG	mg/L	4	<1.00E–04	<1.00E–04		
MN	mg/L	4	2.60E–02	<1.00E–02	2	2.00E–02
NI	mg/L	4	1.85E–01	<1.00E–02	1	1.85E–01
NO3	mg/L	4	<2.00E–02	<2.00E–02		
PB	mg/L	4	4.00E–03	4.00E–03	1	4.00E–03
PH	pH	4	9.5	6.5		
TSS	mg/L	4	7.00E+00	4.00E+00	4	5.75E+00

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
U	mg/L	4	<5.00E–01	<5.00E–01		
ZN	mg/L	4	2.76E–01	1.06E–01	4	1.60E–01
Outfall K–001						
Effluent consists of the following types of wastewater: cooling water.						
FLO	MGD	9		0.00E+00	9	0.00E+00
O&G	MGD	0				
PH	MGD	0				
SO4	MGD	0				
TMP	MGD	0				
TSS	MGD	0				
Outfall K–006						
Effluent consists of the following types of wastewater: nonprocess cooling water, ash sluice leakage, and powerhouse wastewater.						
FLO	MGD	9	5.76E–02	0.00E+00	9	4.00E–02
O&G	mg/L	9	2.70E+00	<1.00E+00	4	1.70E+00
PH	pH	8	7	6.4		
TMP	Deg C	8	25	9.5	8	19.06
TSS	mg/L	8	6.00E+00	<1.00E+00	7	2.29E+00
Outfall K–008						
Effluent consists of the following types of wastewater: nonprocess cooling water.						
FLO	MGD	9		0.00E+00	9	0.00E+00
O&G	MGD	0				
PH	MGD	0				
TMP	MGD	0				
TSS	MGD	0				
Outfall K–010						
Effluent consists of the following types of wastewater: nonprocess cooling water.						
FLO	MGD	9	1.44E–03	0.00E+00	9	2.00E–04
O&G	mg/L	1	<1.00E+00	<1.00E+00		
PH	pH	1	8.3	8.3		

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
TMP	Deg C	1	18	18	1	18
TSS	mg/L	1	1.00E+00	1.00E+00	1	1.00E+00
Outfall K–011 (facility not in service)						
Effluent consists of the following types of wastewater: neutralization, K-Reactor cooling tower blowdown, and reservoir wastewater.						
FLO	mg/L	0				
O&G	mg/L	0				
PH	mg/L	0				
TMP	mg/L	0				
TMPD	mg/L	0				
TSS	mg/L	0				
Outfall K–012						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	9	1.70E+01	<1.00E+00	8	5.35E+00
FEC	#/100mL	9	155	<2.	4	44
FLO	MGD	274	3.32E–02	0.00E+00	274	5.60E–03
PH	pH	9	7.37	7		
TSS	mg/L	9	2.10E+01	3.00E+00	9	6.44E+00
Outfall L–007						
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.						
FLO	MGD	274	3.10E+01	2.78E+01	274	2.87E+01
O&G	mg/L	11	1.70E+00	<1.00E+00	1	1.70E+00
PH	pH	10	6.9	6.3		
TMP	Deg C	274	26	6.6	274	17.77
TMP1	Deg C	0				
TMP2	Deg C	0				
TSS	mg/L	11	1.80E+01	<1.00E+00	9	6.56E+00

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall L–007A						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	9	5.20E+00	1.70E+00	9	3.12E+00
FEC	#/100mL	10	290	<2.	2	148
FLO	MGD	305	1.85E–02	0.00E+00	305	2.70E–03
PH	pH	9	7.7	7		
TSS	mg/L	10	3.40E+01	3.00E+00	10	1.19E+01
Outfall L–008						
Effluent consists of the following types of wastewater: nonprocess cooling water and water reservoir sump wastewater.						
FLO	MGD	10	1.15E–01	1.44E–02	10	6.48E–02
O&G	mg/L	11	3.60E+00	<1.00E+00	4	2.67E+00
PH	pH	10	7.1	6.4		
TMP	Deg C	10	26	10	10	19.9
TSS	mg/L	13	1.00E+02	<1.00E+00	12	1.12E+01
Outfall L–010						
Effluent consists of the following types of wastewater: stormwater.						
C	mg/L	0				
COD	mg/L	0				
FLO	MGD	1		0.00E+00	1	
O&G	MGD	0				
PH	MGD	0				
Outfall M–004						
Effluent consists of the following types of wastewater: Liquid Effluent Treatment Facility wastewater.						
AG	mg/L	1	<5.00E–03	<5.00E–03		
AL	mg/L	18	4.83E–01	<5.00E–02	6	3.61E–01
CD	mg/L	1	<5.00E–03	<5.00E–03		
CN	mg/L	1	<2.00E–02	<2.00E–02		
CR	mg/L	1	<1.00E–02	<1.00E–02		
CU	mg/L	18	1.47E–01	<1.00E–02	10	3.26E–02

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
FLO	MGD	36	2.93E–02	0.00E+00	36	2.70E–03
NI	mg/L	18	3.60E–02	<1.00E–02	2	3.35E–02
NO3	mg/L	8	1.42E+02	3.26E–01	8	7.08E+01
O&G	mg/L	19	6.10E+00	<1.00E+00	12	3.53E+00
PB	mg/L	18	<2.00E–01	<2.00E–02		
PH	pH	17	6.9	6.6		
PHOS	mg/L	8	2.30E–01	<1.00E–02	6	1.08E–01
TSS	mg/L	18	3.00E+01	<1.00E+00	12	9.33E+00
U	mg/L	18	<1.00E+01	<5.00E–01		
ZN	mg/L	1	9.50E–02	9.50E–02	1	9.50E–02
Outfall M–005						
Effluent consists of the following types of wastewater: air stripper.						
FLO	MGD	41	7.34E–01	5.47E–01	41	6.75E–01
PERCL	ug/L	42	<2.00E+00	<2.00E+00		
PH	pH	25	7.2	5.7		
TRICL	ug/L	42	<2.00E+00	<2.00E+00		
Outfall P–005						
Effluent consists of the following types of wastewater: ash basin discharge.						
FLO	MGD	9		0.00E+00	9	0.00E+00
O&G	MGD	0				
PH	MGD	0				
TSS	MGD	0				
Outfall P–007						
Effluent consists of the following types of wastewater: powerhouse wastewater and nonprocess cooling water.						
AL	mg/L	1	1.07E+00	1.07E+00	1	1.07E+00
FE	mg/L	1	7.82E–01	7.82E–01	1	7.82E–01
FLO	MGD	275	3.62E–01	0.00E+00	275	4.60E–03
O&G	mg/L	1	1.50E+00	1.50E+00	1	1.50E+00
PH	pH	1	7	7		
TMP	Deg C	1	28	28	1	28

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
TMPD	Deg C	0				
TSS	mg/L	1	1.00E+00	1.00E+00	1	1.00E+00
Outfall P–013						
Effluent consists of the following types of wastewater: neutralization, reactor process, and cooling water.						
FLO	MGD	274	8.40E+00	1.03E+00	274	4.62E+00
O&G	mg/L	18	5.80E+01	<1.00E+00	4	1.59E+01
PH	pH	10	6.9	6.4		
TMP	Deg C	273	26.4	6.6	273	18.25
TSS	mg/L	10	1.10E+01	<1.00E+00	9	4.33E+00
Outfall P–014						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	9	7.20E+00	<1.00E+00	7	3.86E+00
FEC	#/100mL	9	18	<2.	2	11
FLO	MGD	274	3.19E–02	0.00E+00	274	5.50E–03
PH	pH	9	8.2	6.7		
TSS	mg/L	9	1.30E+01	5.00E+00	9	8.67E+00
Outfall P–019						
Effluent consists of the following types of wastewater: P-Reactor cooling water.						
FLO	MGD	274	4.72E+00	6.46E–03	274	1.00E+00
O&G	mg/L	7	1.40E+00	<1.00E+00	1	1.40E+00
PH	pH	7	6.9	6.2		
TMP	Deg C	274	26.7	6.6	274	17.98
TSS	mg/L	7	9.00E+00	<1.00E+00	5	4.60E+00
Outfall PP–001						
Effluent consists of the following types of wastewater: stormwater.						
FLO	mg/L	0				
O&G	mg/L	0				
PH	mg/L	0				

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall S–002						
Effluent consists of the following types of wastewater: automotive shop and cooling wastewater.						
AL	mg/L	0				
BOD	mg/L	0				
FE	mg/L	0				
FLO	MGD	41		0.00E+00	41	0.00E+00
O&G	MGD	0				
PH	MGD	0				
TMP	MGD	0				
TSS	MGD	0				
Outfall S–008 (facility not in service)						
Effluent consists of the following types of wastewater: stormwater runoff and cooling wastewater.						
BOD	MGD	0				
FLO	MGD	9		0.00E+00	9	0.00E+00
O&G	MGD	0				
PH	MGD	0				
TMP	MGD	0				
TSS	MGD	0				
Outfall S–011						
Effluent consists of the following types of wastewater: sanitary wastewater from Central Shops wastewater treatment plant.						
BOD	MGD	0				
FEC	MGD	0				
FLO	MGD	0				
PH	MGD	0				
TSS	MGD	0				
Outfall S–014						
Effluent consists of the following types of wastewater: stormwater.						
C	MGD	0				
COD	MGD	0				

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
FLO	MGD	6		0.00E+00	6	0.00E+00
O&G	MGD	0				
PH	MGD	0				
Outfall SC–004						
Effluent consists of the following types of wastewater: Steel Creek water monitoring below the dam at Road A.						
AG	mg/L	9	<1.00E–02	<5.00E–03		
AS	mg/L	9	<2.00E–02	<2.00E–02		
BA	mg/L	9	3.00E–02	1.10E–02	9	1.62E–02
CD	mg/L	9	<5.00E–03	<5.00E–03		
CR	mg/L	9	<1.00E–02	<1.00E–02		
DO	mg/L	273	1.22E+01	2.80E+00	273	8.55E+00
FLO	MGD	274	1.48E+02	1.42E+01	274	3.61E+01
HG	mg/L	9	3.00E–04	<1.00E–04	1	3.00E–04
NO3	mg/L	9	1.37E–01	<2.00E–02	6	7.35E–02
PB	mg/L	9	<2.00E–02	<3.00E–03		
PH	pH	9	6.9	6.4		
PHOS	mg/L	9	2.10E–02	<1.00E–02	3	1.77E–02
SE	mg/L	9	<2.00E–02	<2.00E–02		
TMP	Deg C	273	29.7	7.5	273	19.21
Outfall T–001						
Effluent consists of the following types of wastewater: artificial stream water.						
FLO	MGD	9		0.00E+00	9	0.00E+00
Outfall T–005						
Effluent consists of the following types of wastewater: cooling water, boiler blowdown, and neutralized acid solutions.						
BOD	MGD	0				
FLO	MGD	9		0.00E+00	9	0.00E+00
O&G	MGD	0				
PH	MGD	0				

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
TMP	MGD	0				
TSS	MGD	0				
Outfall T–007 (facility not in service)						
Effluent consists of the following types of wastewater: sanitary wastewater from B-Area.						
BOD	MGD	0				
CHL	MGD	0				
FEC	MGD	0				
FLO	MGD	0				
PH	MGD	0				
TSS	MGD	0				
Outfall X–004						
Effluent consists of the following types of wastewater: cooling water.						
FLO	MGD	274	1.29E–02	0.00E+00	274	1.30E–03
O&G	mg/L	9	2.90E+00	<1.00E+00	2	2.50E+00
PH	pH	9	7.1	6		
TMP	Deg C	9	26	14	9	20.89
TSS	mg/L	9	7.00E+00	<1.00E+00	8	4.00E+00
Outfall X–008						
Effluent consists of the following types of wastewater: cooling water, cooling tower blowdown, and domestic water overflow.						
AL	mg/L	9	1.54E–01	<5.00E–02	3	1.29E–01
FE	mg/L	9	1.32E+00	5.83E–01	9	1.00E+00
FLO	MGD	19	2.43E–01	7.19E–02	19	2.11E–01
O&G	mg/L	9	2.30E+00	<1.00E+00	5	1.56E+00
PH	pH	9	7	6		
TMP	Deg C	9	27	18	9	22.89
TSS	mg/L	9	8.00E+00	1.00E+00	9	4.56E+00

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall X–011						
Effluent consists of the following types of wastewater: cooling water, cooling tower blowdown, and domestic water overflow.						
FLO	MGD	10	2.88E–03	0.00E+00	10	1.40E–03
Outfall X–013 (facility not in service)						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	MGD	0				
FEC	MGD	0				
FLO	MGD	0				
PH	MGD	0				
TSS	MGD	0				
Outfall X–014						
Effluent consists of the following types of wastewater: treated wastewater from TNX–ETP.						
BEN	ug/L	35	<5.00E–01	<5.00E–01		
BOD	mg/L	35	1.10E+01	<1.00E+00	19	4.47E+00
C	mg/L	35	5.90E+00	<1.00E+00	33	3.58E+00
FLO	MGD	274	2.60E–02	0.00E+00	274	3.20E–03
HG	ug/L	35	5.00E–01	<1.00E–04	8	1.38E–01
O&G	mg/L	35	4.70E+00	<1.00E+00	8	2.60E+00
PH	pH	54	7.95	7.1		
PHE	mg/L	35	1.26E–01	<6.00E–03	10	3.25E–02
TSS	mg/L	35	3.50E+01	<1.00E+00	33	7.30E+00
Outfall Y–001						
Effluent consists of the following types of wastewater: cooling water and locomotive wash water.						
BOD	mg/L	1	4.40E+00	4.40E+00	1	4.40E+00
FLO	MGD	9	2.88E–03	0.00E+00	9	3.00E–04
O&G	mg/L	1	2.20E+00	2.20E+00	1	2.20E+00
PH	pH	1	6.1	6.1		

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
TMP	Deg C	1	11	11	1	11
TMPD	Deg C	0				
TSS	mg/L	1	1.40E+01	1.40E+01	1	1.40E+01

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0044903						
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–1A						
Effluent consists of the following types of wastewater: air stripper effluent.						
FLO	MGD	274	3.61E–01	0.00E+00	274	1.06E–01
PERCL	ug/L	31	<2.00E+00	<2.00E+00		
PH	pH	30	7.2	4.3		
Outfall A–28 (facility not in service)						
Effluent consists of the following types of wastewater: powerhouse wastewater, water from floor drains, cooling water, and well flush water.						
AL	ug/L	0				
AS	ug/L	0				
BOD	ug/L	0				
CHL	ug/L	0				
FLO	ug/L	0				
O&G	ug/L	0				
PH	ug/L	0				
TSS	ug/L	0				
Outfall A–29 (facility not in service)						
Effluent consists of the following types of wastewater: well flush water and tank overflow.						
FLO	ug/L	0				
PH	ug/L	0				
TRICL	ug/L	0				
Outfall G–010 (facility not in service)						
Effluent consists of the following types of wastewater: treated sanitary wastewater.						
AN–S	mg/L	8	3.18E–01	<1.00E–01	4	1.72E–01
AN–W	mg/L	4	1.35E+00	<1.00E–01	3	6.34E–01
BOD	mg/L	18	2.40E+01	1.80E+00	18	6.72E+00
DO	mg/L	18	1.13E+01	5.80E+00	18	8.40E+00
FEC	#/100mL	18	1960	<2.	11	357

Table 60
National Pollutant Discharge Elimination System Monitoring Data (January 1 through September 30)

Measurement	Units	No. of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0044903						
FLO	MGD	274	3.61E–01	1.00E–04	274	1.98E–01
PH	pH	18	7.5	6.7		
TSS	mg/L	19	3.80E+01	4.00E+00	19	1.53E+01
Outfall K–18						
Effluent consists of the following types of wastewater: sanitary wastewater.						
AL	mg/L	21	1.62E+00	<5.00E–02	16	4.11E–01
BOD	mg/L	19	9.40E+00	<1.00E+00	13	3.03E+00
CHL	mg/L	80	1.00E–01	<1.00E–01	8	<1.00E–01
FEC	#/100mL	20	353	2	18	49
FLO	MGD	274	6.27E+01	2.07E+00	274	2.54E+01
O&G	mg/L	21	2.70E+00	<1.00E+00	9	1.96E+00
PH	pH	277	7.3	6		
TMP	Deg C	303	29.7	7	303	19.28
TMPD	Deg C	0				
TSS	mg/L	21	1.00E+01	<1.00E+00	19	5.74E+00
Outfall PP–04						
Effluent consists of the following type of wastewater: filter backwash wastewater						
FE	mg/L	9	2.64E–01	<2.00E–02	7	1.89E–01
FLO	MGD	9	6.64E–03	3.16E–03	9	4.80E–03
MN	mg/L	9	9.69E+00	<1.00E–02	8	3.80E+00
PH	pH	9	6.5	5.7		
TSS	mg/L	9	5.00E+00	<1.00E+00	8	2.50E+00
Outfall X–8A						
Effluent consists of the following types of wastewater: sanitary wastewater.						
BOD	mg/L	18	2.60E+01	<1.00E+00	17	6.96E+00
FEC	#/100mL	18	164	<2.	4	47
FLO	MGD	274	5.14E–02	0.00E+00	274	4.90E–03
PH	pH	18	7.6	6.6		
TSS	mg/L	18	3.40E+01	<1.00E+00	16	7.13E+00

Table 61
National Pollutant Discharge Elimination System Monitoring Data (October 1 through December 31)

Measurement	Units	No of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Note: A new permit—also named SC0000175—was issued August 6, 1996, and became effective October 1, 1996. 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–01						
Effluent consists of the following types of wastewater: noncontact cooling water, steam condensate, laboratory drain water, cooling tower overflow, steam-cleaning-rack wastewater, well flush water, groundwater air stripper effluent from outfall A–1A, and stormwater.						
BOD	mg/L	3	6.00E+00	<2.00E+00	3	3.33E+00
CHL	mg/L	12	1.40E–01	<5.00E–02	12	6.33E–02
CU	mg/L	3	3.08E–01	3.40E–02	3	1.35E–01
FLO	MGD	3	2.30E+00	8.64E–01	3	1.44E+00
HG	mg/L	3	<1.00E–01	<1.00E–01	3	<1.00E–01
O&G	mg/L	3	2.80E+00	<1.00E+00	3	1.60E+00
PB	mg/L	3	<3.00E–03	<3.00E–03	3	<3.00E–03
PERCL	ug/L	4	<2.00E+00	<2.00E+00	4	<2.00E+00
PH	SU	4	7.80E+00	7.10E+00	4	
TMP	DEG C	4	2.15E+01	2.00E+01	4	2.05E+01
TRICL	ug/L	2	<2.00E+00	<2.00E+00	2	<2.00E+00
TSS	mg/L	3	1.00E+00	<1.00E+00	3	1.00E+00
Outfall A–1A						
Effluent consists of the following type of wastewater: groundwater air stripper effluent.						
FLO	MGD	4	4.51E–01	3.63E–01	4	4.07E–01
PERCL	ug/L	4	<2.00E+00	<2.00E+00	4	<2.00E+00
TRICL	ug/L	4	<2.00E+00	<2.00E+00	4	<2.00E+00
Outfall A–11						
Effluent consists of the following types of wastewater: fire station building drains, air conditioner condensate, well flush water,noncontact cooling water, steam condensate, liquid effluent treatment facility process effluent from Outfall M–04, air stripper effluent from outfall M–05,and stormwater.						
BOD	mg/L	3	5.50E+00	<2.00E+00	3	3.17E+00
CHL	mg/L	12	<5.00E–02	<5.00E–02	12	<5.00E–02
CU	mg/L	3	<5.00E–03	<5.00E–03	3	<5.00E–03
FLO	MGD	12	1.55E+00	5.43E–01	12	1.01E+00

Table 61
National Pollutant Discharge Elimination System Monitoring Data (October 1 through December 31)

Measurement	Units	No of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
HG	mg/L	3	6.00E–01	<1.00E–01	3	2.67E–01
TRICL	ug/L	2	<2.00E+00	<2.00E+00	2	<2.00E+00
TSS	mg/L	3	2.10E+01	1.00E+00	3	1.43E+01
Outfall C–04						
Effluent consists of the following types of wastewater: 186 basin overflow, water plant wastewater, process sewer/reactor building drains, nonprocess cooling water, and stormwater.						
CHL	mg/L	12	<5.00E–02	<5.00E–02	12	<5.00E–02
FLO	MGD	62	5.82E+00	4.01E+00	62	4.70E+00
PH	SU	3	7.20E+00	6.90E+00	3	
TSS	mg/L	3	1.00E+00	<1.00E+00	3	1.00E+00
Outfall D–1A						
Effluent consists of the following type of wastewater: sanitary wastewater.						
BOD	mg/L	3	3.70E+00	2.40E+00	3	2.87E+00
DO	mg/L	4	8.60E+00	3.00E+00	4	4.90E+00
FEC	#/100 mL	3	8.00E+03	<2.00E+00	3	3.27E+03
FLO	MGD	92	2.17E–02	1.07E–03	92	4.04E–03
PH	SU	3	7.11E+00	6.90E+00	3	
TSS	mg/L	3	1.10E+01	<1.00E+00	3	4.67E+00
Outfall F–01						
Effluent consists of the following types of wastewater: nonprocess cooling water, cooling tower blowdown, and stormwater.						
CHL	mg/L	12	2.00E+00	8.50E–01	12	1.70E+00
FLO	MGD	3	3.02E+02	9.20E+01	3	1.65E+02
PH	SU	3	8.40E+00	7.90E+00	3	
TMP	DEG C	3	2.17E+01	1.80E+01	3	1.95E+01
TSS	mg/L	3	1.00E+00	1.00E+00	3	1.00E+00
Outfall F–02						
Effluent consists of the following types of wastewater: nonprocess cooling water, cooling tower blowdown, and stormwater.						
FLO	MGD	3	2.45E–01	<1.00E+00	3	1.10E–01
PH	SU	3	8.10E+00	7.80E+00	3	

Table 61
National Pollutant Discharge Elimination System Monitoring Data (October 1 through December 31)

Measurement	Units	No of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
TMP	DEG C	3	2.18E+01	1.60E+01	3	1.89E+01
TSS	mg/L	3	3.00E+00	<1.00E+00	3	1.67E+00
Outfall F–03						
Effluent consists of the following types of wastewater: nonprocess cooling water, steam condensate, cooling tower blowdown, process water, and stormwater.						
FLO	MGD	3	3.31E–02	1.87E–02	3	2.59E–02
PB	mg/L	3	6.47E–01	<3.00E–03	3	4.08E–01
PH	SU	3	7.80E+00	7.30E+00	3	
TMP	DEG C	3	1.88E+01	1.80E+01	3	1.85E+01
TSS	mg/L	3	8.00E+00	<1.00E+00	3	3.33E+00
Outfall F–05						
Effluent consists of the following types of wastewater: nonprocess cooling water and steam condensate from the plutonium fabrication facility, well flush water, and stormwater.						
FLO	MGD	3	5.72E–02	2.17E–02	3	3.60E–02
O&G	mg/L	3	4.30E+00	<1	3	2.10E+00
PH	SU	3	7.90E+00	7.70E+00	3	
TMP	DEG C	3	2.25E+01	1.88E+01	3	2.10E+01
TSS	mg/L	3	2.00E+00	1.00E+00	3	1.33E+00
Outfall F–08						
Effluent consists of the following types of wastewater: water from power operations and waste management cooling towers, separations cooling water, steam condensate, process wastewater, laundry effluent, water tank overflow, stormwater, and radiological retention basin cooling water.						
CU	mg/L	3	<5.00E–03	<5.00E–03	3	<5.00E–03
FLO	MGD	92	3.62E+00	6.46E–01	92	1.61E+00
PB	mg/L	3	<3.00E–03	<3.00E–03	3	<3.00E–03
PH	SU	4	8.00E+00	7.90E+00	4	
TMP	DEG C	4	2.29E+01	1.22E+01	4	1.80E+01
TSS	mg/L	5	1.00E+02	1.00E+00	5	2.16E+01

Table 61
National Pollutant Discharge Elimination System Monitoring Data (October 1 through December 31)

Measurement	Units	No of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall G–10						
Effluent consists of the following type of wastewater: centralized sanitary wastewater treatment facility wastewater.						
AN–S	mg/L	4	4.12E–01	<1.00E–01	4	1.89E–01
AN–W	mg/L	2	2.03E–01	1.25E–01	2	3.34E+02
BOD	mg/L	6	9.00E+00	<2.00E+00	6	4.57E+00
DO	mg/L	7	8.30E+00	6.90E+00	7	7.50E+00
FEC	#/100 mL	7	4.00E+01	<2.00E+00	7	1.23E+01
FLO	MGD	92	3.01E–01	6.11E–02	92	1.89E–01
PH	SU	7	7.69E+00	6.78E+00	7	
TSS	mg/L	6	3.20E+01	<1.00E+00	6	1.43E+01
Outfall H–02						
Effluent consists of the following types of wastewater: nonprocess cooling water and stormwater.						
CHL	mg/L	12	<5.00E–02	<5.00E–02	12	5.00E–02
FLO	MGD	3	7.62E–02	5.33E–02	3	6.61E–02
O&G	mg/L	3	2.80E+00	1.00E+00	3	1.90E+00
PH	SU	3	7.00E+00	7.00E+00	3	
TMP	DEG C	3	2.00E+01	1.34E+01	3	1.77E+01
TSS	mg/L	3	2.00E+00	<1.00E+00	3	1.33E+00
Outfall H–04						
Effluent consists of the following types of wastewater: nonprocess cooling water, CIF nonprocess wastewater, steam condensate, and stormwater.						
FLO	MGD	3	6.52E–03	1.30E–04	3	2.30E–03
PH	SU	3	7.10E+00	6.70E+00	3	
TMP	DEG C	3	2.10E+01	1.44E+01	3	1.83E+01
TSS	mg/L	3	5.00E+00	<1.00E+00	3	2.33E+00
Outfall H–07						
Effluent consists of the following types of wastewater: air compressor cooling water, cooling water blowdown, and stormwater.						
CHL	mg/L	3	3.50E–01	<5.00E–02	3	1.70E–01
FLO	MGD	11	1.24E–02	0.00E+00	11	1.13E–03

Table 61
National Pollutant Discharge Elimination System Monitoring Data (October 1 through December 31)

Measurement	Units	No of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
O&G	mg/L	1	1.20E+00	1.20E+00	1	1.20E+00
PH	SU	1	6.70E+00	6.70E+00	1	
TSS	mg/L	1	9.00E+00	9.00E+00	1	9.00E+00
Outfall H–08						
Effluent consists of the following types of wastewater: water from power operations and waste management cooling towers, steam condensate, ash basin overflow, water tank overflow, neutralization system discharge, water laboratory discharge, well-flush water, powerhouse drains, and stormwater.						
CHL	mg/L	14	1.00E–01	5.00E–02	14	5.36E–02
FLO	MGD	65	1.62E+00	2.16E–01	65	6.78E–01
PB	mg/L	3	8.00E–03	3.00E–03	3	5.67E–03
PH	SU	3	6.80E+00	6.60E+00	3	6.73E+00
TSS	mg/L	3	9.00E+00	1.00E+00	3	4.33E+00
Outfall H–12						
Effluent consists of the following types of wastewater: nonprocess cooling water, cooling tower and air compressor blowdown, stormwater, in-tank precipitation facility neutralized flush water, and radiological retention basin cooling water.						
CU	mg/L	3	0.00E+00	1.10E–02	3	1.70E–02
FLO	MGD	3	1.58E+00	1.06E+00	3	1.31E+00
PB	mg/L	3	2.30E–02	3.00E–03	3	4.67E–03
PH	SU	4	7.50E+00	7.40E+00	4	
TMP	DEG C	4	2.30E+01	2.20E+01	4	2.26E+01
TSS	mg/L	3	2.00E+00	1.00E+00	3	1.33E+00
Outfall H–16						
Effluent consists of the following type of wastewater: F/H effluent treatment facility process wastewater.						
AG	mg/L	12	1.00E–02	<5.00E–03	12	5.42E–03
BOD	mg/L	12	3.80E+00	<2.00E+00	12	2.15E+00
CD	mg/L	12	<5.00E–03	<5.00E–03	12	<5.00E–03
CR	mg/L	12	<1.00E–02	<1.00E–02	12	<1.00E–02
CU	mg/L	12	<5.00E–03	<5.00E–03	12	<5.00E–03
FLO	MGD	12	3.46E–01	1.58E–01	12	2.50E–01
HG	mg/L	12	4.00E–04	<1.00E–04	12	1.33E–04
NI	mg/L	12	3.00E–02	<1.00E–02	12	1.17E–02

Table 61
National Pollutant Discharge Elimination System Monitoring Data (October 1 through December 31)

Measurement	Units	No of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
O&G	mg/L	12	8.20E+00	<1.00E+00	12	3.13E+00
PB	mg/L	12	<3.00E–03	<3.00E–03	12	<3.00E–03
PH	SU	12	7.90E+00	6.70E+00	12	
TSS	mg/L	11	4.00E+00	<1.00E+00	11	1.73E+00
ZN	mg/L	12	2.06E–01	<5.00E–03	12	3.71E–02
Outfall K–06						
Effluent consists of the following types of wastewater: powerhouse wastewater, package boiler blowdown, cooling tower overflow, and stormwater.						
CHL	mg/L	3	5.00E–02	<5.00E–02	3	5.00E–02
FLO	MGD	3	9.60E–02	1.01E–04	3	3.90E–02
O&G	mg/L	3	2.90E+00	<1.00E+00	3	1.63E+00
PH	SU	5	9.30E+00	7.40E+00	5	
TSS	mg/L	3	2.00E+00	<1.00E+00	3	1.33E+00
Outfall K–08						
Effluent consists of the following type of wastewater: Infrequent diversion from outfall K–18.						
FLO	MGD	3	0.00E+00	0.00E+00	3	0.00E+00
Outfall K–10						
Effluent consists of the following type of wastewater: Infrequent diversion from outfall K–18.						
FLO	MGD	3	0.00E+00	0.00E+00	3	0.00E+00
Outfall K–12						
Effluent consists of the following type of wastewater: sanitary wastewater.						
BOD	mg/L	3	5.50E+00	<2.00E+00	3	3.73E+00
DO	mg/L	3	7.40E+00	4.00E+00	3	5.97E+00
FEC	#/100 mL	6	1.10E+03	<2.00E+00	6	6.85E+01
FLO	MGD	92	2.50E–02	1.00E–03	92	6.96E–03
PH	SU	3	7.42E+00	7.05E+00	3	
TSS	mg/L	3	1.10E+01	3.00E+00	3	7.00E+00

Table 61
National Pollutant Discharge Elimination System Monitoring Data (October 1 through December 31)

Measurement	Units	No of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall K–18						
Effluent consists of the following types of wastewater: building 105–K noncontact cooling water and process sewer flow, 186–K basin overflow, and water plant wastewater and treated sanitary wastewater from outfall K–12.						
AL	mg/L	4	3.98E–01	7.10E–02	4	2.25E–01
FLO	MGD	4	3.71E+01	7.99E–02	4	2.49E+01
O&G	mg/L	4	3.90E+00	<1.00E+00	4	1.95E+00
PH	SU	5	7.60E+00	7.10E+00	5	
TSS	mg/L	4	4.00E+00	1.00E+00	4	3.25E+00
Outfall L–07						
Effluent consists of the following types of wastewater: 186–L basin overflow, treated sanitary wastewater from outfall L–7A, and process sewer/reactor building drains.						
FLO	MGD	92	3.04E+01	2.91E+01	92	2.99E+01
O&G	mg/L	2	3.00E+00	<1.00E+00	2	2.00E+00
PH	SU	2	7.50E+00	7.30E+00	2	
TSS	mg/L	2	4.00E+00	1.00E+00	2	2.50E+00
Outfall L–7A						
Effluent consists of the following type of wastewater: sanitary wastewater.						
BOD	mg/L	3	4.20E+00	2.00E+00	3	2.73E+00
DO	mg/L	3	7.90E+00	7.60E+00	3	7.77E+00
FEC	#/100 mL	5	2.00E+00	2.00E+00	5	2.00E+00
FLO	MGD	92	1.39E–02	0.00E+00	92	2.45E–03
PH	SU	3	7.80E+00	7.07E+00	3	
TSS	mg/L	3	2.50E+01	1.20E+01	3	1.73E+01
Outfall L–08						
Effluent consists of the following types of wastewater: building 105–L, 108L, and 108–2L drains, engine house cooling water, and stormwater.						
FLO	MGD	2	1.31E+00	3.25E–01	2	8.20E–01
O&G	mg/L	2	1.00E+00	<1.00E+00	2	1.00E+00
PH	SU	2	7.50E+00	7.50E+00	2	
TSS	mg/L	2	3.00E+00	<1.00E+00	2	2.00E+00

Table 61
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Measurement	Units	No of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall M–04						
Effluent consists of the following types of wastewater: liquid effluent treatment facility process wastewater.						
AL	mg/L	7	3.69E–01	<5.00E–02	7	2.06E–01
AN	mg/L	7	1.40E+00	<1.00E–02	7	5.61E–01
CN	mg/L	7	<2.00E–02	<2.00E–02	7	<0.02
CR	mg/L	7	<1.00E–01	<1.00E–01	7	<1.00E–01
FLO	MGD	6	6.62E–03	2.88E–03	6	4.99E–03
NI	mg/L	7	1.70E–02	<1.00E–02	7	1.10E–02
PB	mg/L	7	<3.00E–03	<3.00E–03	7	<3.00E–03
PH	SU	7	7.90E+00	6.50E+00	7	
TSS	mg/L	6	3.00E+00	1.00E+00	6	1.83E+00
Outfall M–05						
Effluent consists of the following type of wastewater: groundwater air stripper effluent.						
FLO	MGD	5	7.49E–01	7.20E–01	5	7.34E–01
PERCL	ug/L	5	<2.00E+00	<2.00E+00	5	<2.00E+00
TRICL	ug/L	5	<2.00E+00	<2.00E+00	5	<2.00E+00
Outfall P–13						
Effluent consists of the following types of wastewater: treated sanitary wastewater from outfall P–14, stormwater, and flow diversion from outfall P–19 when necessary.						
FLO	MGD	1	6.49E+00	6.49E+00	1	6.49E+00
O&G	mg/L	1	<1.00E+00	<1.00E+00	1	<1.00E+00
PB	mg/L	3	<3.00E–03	<3.00E–03	3	<3.00E–03
PH	SU	1	7.30E+00	7.30E+00	1	
TSS	mg/L	1	4.00E+00	4.00E+00	1	4.00E+00
Outfall P–14 (taken out of service November 16, 1996)						
Effluent consists of the following type of wastewater: sanitary wastewater.						
BOD	mg/L	2	4.00E+00	<2.00E+00	2	3.00E+00
DO	mg/L	2	9.20E+00	8.10E+00	2	8.65E+00
FEC	#/100 mL	3	1.00E+01	<2.00E+00	3	4.67E+00
FLO	MGD	62	1.40E–02	0.00E+00	62	4.39E–03

Table 61
National Pollutant Discharge Elimination System Monitoring Data (October 1 through December 31)

Measurement	Units	No of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
PH	SU	2	7.20E+00	7.20E+00	2	
TSS	mg/L	2	2.70E+01	1.40E+01	2	2.05E+01
Outfall P–19						
Effluent consists of the following types of wastewater: 186–P basin overflow, nonprocess cooling water, building drains, and stormwater.						
FLO	MGD	3	0.00E+00	0.00E+00	3	0.00E+00
Outfall PP–1						
Effluent consists of the following type of wastewater: manganese greensand filter backwash/rinse water.						
FE	mg/L	2	4.06E+00	4.03E+00	2	4.05E+00
FLO	MGD	1	1.35E+00	1.35E+00	1	1.35E+00
MN	mg/L	2	1.82E–01	6.60E–02	2	1.24E–01
PH	SU	2	6.60E+00	6.50E+00	2	
TSS	mg/L	2	1.00E+01	9.00E+00	2	9.50E+00
Outfall S–04						
Effluent consists of the following types of wastewater: DWPF nonprocess wastewater—including cooling tower blowdown, neutralization wastewater, and infrequent flushing/rinsing activities—and stormwater.						
CHL	mg/L	11	1.44E+00	3.10E–01	11	5.56E–01
FLO	MGD	3	1.08E–01	7.20E–02	3	8.40E–02
PH	SU	3	7.90E+00	7.30E+00	3	
TSS	mg/L	3	6.00E+00	2.00E+00	3	3.67E+00
ZN	mg/L	3	5.83E–01	1.45E–01	3	3.03E–01
Outfall X–04						
Effluent consists of the following types of wastewater: nonprocess cooling water, steam condensate, and stormwater.						
FLO	MGD	3	1.30E–03	0.00E+00	3	4.32E–04
PH	SU	3	6.10E+00	4.60E+00	3	
TSS	mg/L	1	<1.00E+00	<1.00E+00	1	<1.00E+00

Table 61
National Pollutant Discharge Elimination System Monitoring Data (October 1 through December 31)

Measurement	Units	No of Samples	Maximum	Minimum	No. in Average	Average
Permit SC0000175						
Outfall X–08						
Effluent consists of the following types of wastewater: noncontact cooling water, domestic well overflow, treated sanitary wastewater from outfall X–8A, treated process water from outfall X–8B, treated groundwater from outfall X–8C, and stormwater.						
FLO	MGD	3	2.40E–01	2.39E–01	3	2.40E–01
PH	SU	3	7.10E+00	6.50E+00	3	
TSS	mg/L	3	6.00E+00	2.00E+00	3	4.00E+00
Outfall X–8A						
Effluent consists of the following type of wastewater: sanitary wastewater.						
BOD	mg/L	3	5.60E+00	<2.00E+00	3	3.67E+00
DO	mg/L	4	9.90E+00	7.20E+00	4	7.90E+00
FEC	#/100 mL	4	7.00E+00	<2.00E+00	4	3.25E+00
FLO	MGD	92	5.70E–03	0.00E+00	92	1.49E–03
PH	SU	3	7.33E+00	7.10E+00	3	
TSS	mg/L	3	1.30E+01	1.00E+00	3	6.00E+00
Outfall X–8B						
Effluent consists of the following type of wastewater: treated process water from the TNX effluent treatment plant.						
BEN	ug/L	6	<5.00E–01	<5.00E–01	6	<5.00E–01
BOD	mg/L	6	2.50E+00	<2.00E+00	6	2.08E+00
C	mg/L	6	7.20E+00	1.20E+00	6	4.73E+00
FLO	MGD	6	2.00E–02	3.80E–02	6	8.17E+00
HG	ug/L	6	7.00E–01	<1.00E–01	6	2.67E–01
PH	SU	6	7.90E+00	7.11E+00	6	
PHE	mg/L	6	1.81E–01	<0.006	6	5.20E–02
TSS	mg/L	6	2.20E+01	4.00E+00	6	1.15E+01
Outfall X–8C						
Effluent consists of the following type of wastewater: treated groundwater air stripper effluent.						
FLO	MGD	3	1.52E–01	5.18E–02	3	9.10E–02
PERCL	ug/L	3	<2.00E+00	<2.00E+00	3	<2.00E+00
TRICL	ug/L	3	<2.00E+00	<2.00E+00	3	<2.00E+00

Table 62
National Pollutant Discharge Elimination System Toxicity Monitoring Data

Measurement	Number of Samples	Pass	Fail
Permit SC0044903 (January 1, 1996, through September 30, 1996)			
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 G–10 (facility not in service)			
Effluent consists of the following types of wastewater: treated sanitary wastewater.			
Acute Toxicity	13	11	2
Chronic Toxicity	10	8	2
Permit SC0000175 (effective October 1, 1996)			
Note: A new permit—also named SC0000175—was issued August 6, 1996, and became effective October 1, 1996. 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–01			
Effluent consists of the following types of wastewater: noncontact cooling water, steam condensate, laboratory drain water, cooling tower overflow, steam cleaning oil/water separation, well-flushing operations, air conditioning condensate, A–1A air stripper, and stormwater.			
Chronic Toxicity	4	0	4
Outfall A–11			
Effluent consists of the following types of wastewater: fire station floor drains, air conditioning condensate, well flushing operations, cooling water, steam condensate, LETF, M-Area air stripper,and stormwater.			
Chronic Toxicity	3	1	2
Outfall G–10			
Effluent consists of the following types of wastewater: sanitary treatment facility.			
Acute Toxicity	3	3	0
Chronic Toxicity	3	3	0

Table 63
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Measurement	Units	Type Sample/Concentration		
Permit SCR000000				
Outfall B–008		**Background Grab**	**Composite**	**Grab**
O&G	mg/L	No Flow		<1
TSS	mg/L	No Flow	50	260
BOD	mg/L	No Flow	7.4	22.7
NO2,NO3	mg/L	No Flow	0.134	0.595
PO4–P	mg/L	No Flow	0.128	1.02
COD	mg/L	No Flow	23.8	51.5
TOC	mg/L	No Flow	7.6	30
TKN	mg/L	No Flow	0.69	0.782
pH	pH	No Flow		6.07
AIR TEMP	oC	No Flow		24.5
WATER TEMP	oC	No Flow		26
RAIN GUAGE				0.11
TOTAL RAIN	in.		2.08	1.28
RAIN DATE	in.		3/6/96	9/10/96
LAST .01 RAIN			2/28/96	9/5/96
BACKGROUND DATE		12/18/96		

Table 63
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall CS–006		**Background Grab**	**Composite**	**Composite**	**Grab**	**Grab**
O&G	mg/L	No Flow			3.8	5.1
TSS	mg/L	No Flow	<1	14	35	7
BOD	mg/L	No Flow	4.7	2.4	3.6	8
NO2,NO3	mg/L	No Flow	<0.02	0.107	0.072	0.048
PO4–P	mg/L	No Flow	0.154	0.064	0.055	0.054
COD	mg/L	No Flow	31	<10	<10	<10
TOC	mg/L	No Flow	7.4	4.7	1.9	14
TKN	mg/L	No Flow	0.398	1.02	0.309	2.39
PHENOL	mg/L	No Flow			<0.006	<0.006
Tetrachloroethylene	ug/L	No Flow			<2	<2
Trichloroethylene	ug/L	No Flow			<2	<2
1,1,1–Trichloroethylene	ug/L	No Flow			<2	<2
Benzene	mg/L	No Flow			<0.5	<0.5
AL	mg/L	No Flow	2.47	<0.05	1.04	<0.05
CR	mg/L	No Flow	<0.01	<0.01	<0.01	<0.01
CU	mg/L	No Flow	<0.01	<0.005	<0.01	<0.005
FE	mg/L	No Flow	2.56	<0.05	3.71	<0.05

Table 63
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
PB	mg/L	No Flow	<0.02	<0.003	<0.02	<0.003
MG	mg/L	No Flow	1	0.811	0.996	0.81
NI	mg/L	No Flow	<0.01	<0.01	<0.01	<0.01
AG	mg/L	No Flow	<0.005	<0.005	<0.005	<0.005
ZN	mg/L	No Flow	0.042	<0.005	0.095	<0.005
pH	pH	No Flow			6	6.6
AIR TEMP	oC	No Flow			18	9.4
WATER TEMP	oC	No Flow			16	9.4
RAIN GUAGE	in.				0.17	0.24
TOTAL RAIN	in.		1.63	0.63		
RAIN DATE			3/6/96	12/19/96	3/6/96	12/18/96
LAST .01 RAIN			2/28/96	12/8/96	2/28/96	12/8/96
BACKGROUND DATE		12/18/96				
Outfall CS–12A		**Background Grab**	**Composite**	**Composite**	**Grab**	**Grab**
O&G	mg/L	No Flow			2.1	<1
TSS	mg/L	No Flow	96	40	233	1280
BOD	mg/L	No Flow	2.6	7.3	50	9.2
NO2,NO3	mg/L	No Flow		0.064	1.13	0.801

Table 63
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
PO4–P	mg/L	No Flow	0.024	0.083	0.761	0.661
COD	mg/L	No Flow	21.6	15.8	191	24.6
TOC	mg/L	No Flow	9.2	7.3	8.1	18
TKN	mg/L	No Flow	<0.1	0.416	2.93	1.33
PHENOL	mg/L	No Flow			<0.006	<0.006
AL	mg/L	No Flow	7.88	5.58	11.4	19.1
CR	mg/L	No Flow	0.014	<0.01	0.037	0.038
CU	mg/L	No Flow	0.059	0.012	0.173	0.358
FE	mg/L	No Flow	7.57	5.47	17.8	23.6
PB	mg/L	No Flow	<0.02	<0.02	0.073	0.216
MG	mg/L	No Flow	1.68	1.35	3.69	3.48
NI	mg/L	No Flow	<0.01	<0.01	0.045	0.045
AG	mg/L	No Flow	<0.005	<0.005	<0.005	<0.005
ZN	mg/L	No Flow	0.293	0.126	0.452	3.47
MN	mg/L	No Flow	0.266	<0.01	0.425	0.973
B	mg/L	No Flow	0.097	<0.05	<0.05	0.147
pH	pH	No Flow			5.8	6.4
AIR TEMP	oC	No Flow			18	29
WATER TEMP	oC	No Flow			16	29
RAIN GUAGE	in.				0.15	0.31
TOTAL RAIN	in.		0.54	1.81		

Table 63
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Measurement	Units	Type Sample/Concentration			
Permit SCR000000					
RAIN DATE			6/19/96	3/6/96	3/6/96	6/19/96
LAST 0.1 RAIN			6/16/96	2/28/96	2/28/96	6/16/96
BACKGROUND DATE		12/18/96				
Outfall E–001		**Background Grab**	**Grab**	**Grab**	**Grab**	
O&G	mg/L	No Flow	<1		<1	
TSS	mg/L	No Flow	<1		<1	
BOD	mg/L	No Flow	4		6.4	
TDS	mg/L	No Flow	36		80	
NH3–N	mg/L	No Flow	0.308		0.265	
NO2/NO3	mg/L	No Flow	0.026		0.108	
PO4–P	mg/L	No Flow	0.043		0.262	
COD	mg/L	No Flow	21.4		19.8	
TOC	mg/L	No Flow	6.8		6.6	
TKN	mg/L	No Flow	0.385		0.745	
PHENOL	mg/L	No Flow	<0.006		0.14	
SO4	mg/L	No Flow	7.38		6.18	
BROMIDE	mg/L	No Flow	<2		<1	
CN	mg/L	No Flow	<0.02		<0.02	
AG	mg/L	No Flow	<0.005		<0.005	

Table 63
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Measurement	Units		Type Sample/Concentration		
Permit SCR000000					
AL	mg/L	No Flow	0.25		9.74
AS	mg/L	No Flow	<0.02		<0.02
B	mg/L	No Flow	<0.05		<0.05
BA	mg/L	No Flow	0.023		0.03
CD	mg/L	No Flow	<0.005		<0.005
CR	mg/L	No Flow	<0.01		<0.01
CU	mg/L	No Flow	<0.01		0.018
FE	mg/L	No Flow	0.232		4.63
HG	mg/L	No Flow	<0.0001		<0.0001
MG	mg/L	No Flow	1.51		1.48
MN	mg/L	No Flow	0.028		<0.01
NI	mg/L	No Flow	<0.01		<0.01
PB	mg/L	No Flow	<0.02		<0.02
SB	mg/L	No Flow	<0.02		<0.02
SE	mg/L	No Flow	<0.02		<0.02
SN	mg/L	No Flow	<0.5		<0.5
U	mg/L	No Flow	<0.5		<0.5
ZN	mg/L	No Flow	0.05		0.065
MG (DISSOLVED)	mg/L	No Flow	1.24	1.04	
Tetrachloroethylene	ug/L	No Flow	<2		<2
Trichloroethylene	ug/L	No Flow	<2		<2

Table 63
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Measurement	Units	Type Sample/Concentration						
Permit SCR000000								
1,1,1–Trichloroethylene	ug/L	No Flow	<2		<2			
pH	pH	No Flow	7		6.4			
AIR TEMP	oC	No Flow	24		11			
WATER TEMP	oC	No Flow	24		12			
RAIN GUAGE	in.		0.13		0.14			
TOTAL RAIN	in.		1.84	1.31				
RAIN DATE			7/5/96	9/10/96	1/17/96			
LAST 0.1 RAIN			6/24/96	9/5/96	1/11/96			
BACKGROUND DATE		12/18/96						
Outfall GS–002		**Background Grab**	**Composite**	**Composite**	**Composite**	**Grab**	**Grab**	**Grab**
O&G	mg/L	No Flow				<1	<1	
BOD	mg/L	No Flow	5.2	3.1		20		2.9
TSS	mg/L	No Flow	116	63		22	10	
SO4	mg/L	No Flow	22.6	4.73		11.9	<1	
NH3–N	mg/L	No Flow	0.401		0.143	0.181	0.13	
NO2,NO3	mg/L	No Flow	0.421		0.079	0.508	0.205	
PO4–P	mg/L	No Flow	1.09		0.244	0.283	0.052	
COD	mg/L	No Flow	29.6		<10	<10	11.3	
TOC	mg/L	No Flow	11		2.8	4.7	6.6	

Table 63
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Measurement	Units	Type Sample/Concentration						
Permit SCR000000								
TKN	mg/L	No Flow	0.416		0.446	1.57	0.164	
SB	mg/L	No Flow	<0.02		<0.05	<0.02	<0.02	
CR	mg/L	No Flow	<0.01		<0.01	<0.01	<0.01	
CU	mg/L	No Flow	0.036		<0.005	0.014	<0.005	
HG	mg/L	No Flow	<0.0001		<0.0001	<0.0001	<0.0001	
NI	mg/L	No Flow	<0.01		<0.01	<0.01	<0.01	
PB	mg/L	No Flow	0.49		0.013	0.208	0.345	
SN	mg/L	No Flow	<0.5		<0.5	<0.5	<0.5	
pH	pH	No Flow				7.3	6.1	
AIR TEMP	oC	No Flow				15	17.2	
WATER TEMP	oC	No Flow				12	17.3	
RAIN GUAGE	in.					0.17	0.13	
TOTAL RAIN	in.		0.55	0.5	1.29		0.35	
RAIN DATE			1/18/96	1/24/96	10/7/96	1/24/96	11/2/96	11/8/96
LAST 0.1 RAIN			1/11/96	1/17/96	10/2/96	1/17/96	9/30/96	10/2/96
BACKGROUND DATE		12/17/96						
Outfall H–007A		**Background Grab**	**Composite**	**Composite**	**Grab**	**Grab**		
O&G	mg/L	No Flow			<5	<1		
BOD	mg/L	No Flow	3.6	3.3	13	8.6		

Table 63
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
TSS	mg/L	No Flow	52	79	8	129
NO2,NO3	mg/L	No Flow	1.53	0.219	0.717	0.865
PO4–P	mg/L	No Flow	0.74	0.206	0.091	0.156
COD	mg/L	No Flow	22.1	12.9	49.7	32.7
TOC	mg/L	No Flow	7	4.7	23	13
TKN	mg/L	No Flow	0.623	0.206	2.12	<0.1
SO4	mg/L	No Flow	12.9	7.75	10.8	7.96
AL	mg/L	No Flow	2.64	7.13	0.877	2.52
FE	mg/L	No Flow	4.18	10.6	0.37	2.75
pH	pH	No Flow			6.5	6.6
AIR TEMP	oC	No Flow			21	29
WATER TEMP	oC	No Flow			21	28
RAIN GUAGE	in.				0.11	0.16
TOTAL RAIN	in.		0.44	0.46		
RAIN DATE			1/17/96	1/24/96	4/26/96	6/19/96
LAST 0.1 RAIN			1/11/96	1/17/96	4/19/96	6/16/96
BACKGROUND DATE		12/17/96				

Table 63
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
Outfall G–020		**Background Grab**	**Composite**	**Grab**	**Composite**	**Grab**
O&G	mg/L	No Flow		<1		3.2
BOD	mg/L	No Flow	2.7	45	7.9	6.1
TSS	mg/L	No Flow	96	10800	470	1300
NO2,NO3	mg/L	No Flow	0.347	0.996	0.074	0.224
PO4–P	mg/L	No Flow	0.115	0.74	0.113	0.272
TKN	mg/L	No Flow	1	1.28	1.99	1.15
COD	mg/L	No Flow	28.7	462	151	67.3
TOC	mg/L	No Flow	12	140	27	49
PHENOL	mg/L	No Flow		0.01		<0.006
pH	pH	No Flow		6		6.1
AIR TEMP	oC	No Flow		19.2		8.7
WATER TEMP	oC	No Flow		21		8.7
RAIN GUAGE	in.			0.14		0.28
TOTAL RAIN	in.		0.98			
RAIN DATE			12/18/96	11/8/96	12/1/96	12/18/96
LAST 0.1 RAIN			12/8/96	11/3/96	11/9/96	12/8/96
BACKGROUND DATE		12/18/96				

Table 63
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Measurement	Units	Type Sample/Concentration		
Permit SCR000000				
Outfall K–002		**Background Grab**	**Composite**	**Grab**
O&G	mg/L	No Flow		<1
BOD	mg/L	No Flow	2.5	6.5
TSS	mg/L	No Flow	6	34
NO2,NO3	mg/L	No Flow	0.011	0.146
PO4–P	mg/L	No Flow	0.221	0.173
TKN	mg/L	No Flow	1.5	0.711
COD	mg/L	No Flow	29.3	16.2
TOC	mg/L	No Flow	7	5.3
pH	pH	No Flow		6.8
AIR TEMP	oC	No Flow		24
WATER TEMP	oC	No Flow		24
RAIN GUAGE	in.			0.21
TOTAL RAIN	in.			1.33
RAIN DATE			12/1/96	9/10/96
LAST 0.1 RAIN			11/19/96	9/5/96
BACKGROUND DATE		12/17/96		

Table 63
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Measurement	Units	Type Sample/Concentration		
Permit SCR000000				
Outfall K–004		**Background Grab**	**Composite**	**Grab**
O&G	mg/L	No Flow		<1
BOD	mg/L	No Flow	4.5	1.8
TSS	mg/L	No Flow	31	1
NO2,NO3	mg/L	No Flow	0.229	<0.02
PO4–P	mg/L	No Flow	0.047	<0.01
TKN	mg/L	No Flow	0.119	<0.1
COD	mg/L	No Flow	20.7	<10
TOC	mg/L	No Flow	110	2.9
pH	pH	No Flow		7
AIR TEMP	oC	No Flow		17
WATER TEMP	oC	No Flow		19
RAIN GUAGE	in.			0.16
TOTAL RAIN	in.		1.06	
RAIN DATE			11/10/96	1/18/96
LAST 0.1 RAIN			11/3/96	1/7/96
BACKGROUND DATE		12/17/96		

Table 63
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Measurement	Units	Type Sample/Concentration		
Permit SCR000000				
Outfall S–005		**Background Grab**	**Grab**	**Grab**
O&G	mg/L	7.5	<1	<1
BOD	mg/L	2.9	11	3.5
TSS	mg/L	14	10	15
NO2,NO3	mg/L	0.133	0.022	0.056
PO4–P	mg/L	0.08	0.031	0.081
COD	mg/L	<10	31.3	15.8
TOC	mg/L	4.3	9.1	4.2
TKN	mg/L	0.563	0.45	0.834
SO4	mg/L	4	8.8	3.6
NH3–N	mg/L		0.356	<0.1
PHENOL	mg/L	<0.006	<0.006	<0.006
BENZENE	mg/L	<0.5	<0.5	<0.5
B	mg/L	<0.02	<0.05	0.247
CR	mg/L	<0.01	<0.01	<0.01
CU	mg/L	<0	<0.01	<0.005
HG	mg/L	0.005	<0.0001	<0.0001
PB	mg/L	0.008	<0.02	0.006
ZN	mg/L	0.169	0.036	0.022
pH	pH	6.1	6.6	6.94

Table 63
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
AIR TEMP	oC	9.6	24	24.5		
WATER TEMP	oC	9.6	24	26.6		
RAIN GUAGE	in.		0.12	0.32		
TOTAL RAIN	in.					
RAIN DATE			7/5/96	9/10/96		
LAST 0.1 RAIN			6/25/96	9/5/96		
BACKGROUND DATE		12/18/96				
Outfall X–001		**Background Grab**	**Composite**	**Composite**	**Grab**	**Grab**
O&G	mg/L	No Flow			2.2	<1
BOD	mg/L	No Flow	5.8	3.8	6.4	11
TSS	mg/L	No Flow	22	30	120	81
NO2,NO3	mg/L	No Flow	0.093	0.061	0.381	0.786
PO4–P	mg/L	No Flow	0.154	0.092		0.39
TKN	mg/L	No Flow	<0.1	0.564		0.786
COD	mg/L	No Flow	12.8	11.8	<10	16.3
TOC	mg/L	No Flow	6.2	10		7.8
PHENOL	mg/L	No Flow			<0.006	<0.006
BENZENE	mg/L	No Flow			<0.5	<0.5
CD	mg/L	No Flow	<0.005	<0.005	<0.005	<0.005

Table 63
National Pollutant Discharge Elimination System Stormwater Monitoring Data

Measurement	Units	Type Sample/Concentration				
Permit SCR000000						
CR	mg/L	No Flow	<0.01	<0.01	<0.01	<0.01
CU	mg/L	No Flow	0.01	<0.005	0.011	<0.01
HG	mg/L	No Flow	0.0002	0.0004	0.0002	<0.0001
pH	pH	No Flow			6.2	6.6
AIR TEMP	oC	No Flow			18	23
WATER TEMP	oC	No Flow			17	24
RAIN GUAGE	in.					0.11
TOTAL RAIN	in.		0.72	1.32		3.19
RAIN DATE			11/8/96	10/7/96	3/6/96	7/5/96
LAST 0.1 RAIN			11/3/96	10/3/96	2/28/96	6/24/96
BACKGROUND DATE		12/18/96				

Table 64
Surface Water Surveillance — Inorganic Contaminants

Tims Branch–5 (EMS and SCDHEC Sampling Location)							
Parameter	Units	Jan	Feb	Mar	April	May	June
Attention:	*Please see page 237 for notes about this table.*						
Sample date		1/3/96	2/8/96	3/7/96	4/10/96	5/8/96	6/13/96
Temperature	°C	12.2	6.6	17	10.7	21	21
pH		6.9	6.5	6.2	6.6	6.1	6.7
Dissolved oxygen	mg/L	10.2	12.3	9	10.7	7.2	7
Conductivity	µmhos/cm	38.1	33	27	32.7	46	54.7
Alkalinity	mg/L	11	9	7	11	13	15
Chemical oxygen demand	mg/L	ND	ND	26	ND	ND	28
Volatile solids	mg/L	3	2	9	1	3	8
Fixed residue	mg/L	8	2	14	4	7	19
Suspended solids	mg/L	11	4	23	4	10	27
Total dissolved solids	mg/L	35	29	33	42	52	62
Total solids	mg/L	46	33	56	46	62	89
Turbidity	NTU	10	7	16	5	7.6	16
Chloride	mg/L	3	3	2	3	3	2
Nitrogen-nitrate	mg/L	0.41	0.47	0.39	0.29	0.29	0.22
Nitrogen total keldahl	mg/L	0.333	0.127	0.517	ND	0.356	0.808
Nitrogen Ammonia	mg/L	0.195	ND	0.170	ND	0.195	ND
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	2	2	2	1	1	7
Total organic carbon	mg/L	3.6	2.3	ND	3	6.2	6.6
Aluminum	mg/L			0.342			0.366
Cadmium	mg/L			ND			ND
Calcium	mg/L			1.18			1.19
Chromium	mg/L			ND			ND
Copper	mg/L			ND			ND
Iron	mg/L			1.62			2.58
Lead	mg/L			ND			ND
Magnesium	mg/L			0.47			0.559
Manganese	mg/L			0.168			0.083
Mercury	mg/L	ND	ND	ND	ND	ND	ND
Nickel	mg/L			0.015			ND
Sodium	mg/L			3.66			6.16
Zinc	mg/L			ND			ND

Table 64
Surface Water Surveillance — Inorganic Contaminants

Tims Branch–5 (EMS and SCDHEC Sampling Location)							
Parameter	Units	July	Aug	Sept	Oct	Nov	Dec
Sample date		7/10/96	8/8/96	9/10/96	10/8/96	11/14/96	12/10/96
Temperature	°C	22.9	23	22	20	10	10.2
pH		6.8	6.6	6	6	6	6.2
Dissolved oxygen	mg/L	7.3	7.5	7.5	7.7	7.7	7.6
Conductivity	µmhos/cm	49.4	38.1				
Alkalinity	mg/L	18	13				
Chemical oxygen demand	mg/L	20	ND	ND	32	ND	ND
Volatile solids	mg/L	7	5				
Fixed residue	mg/L	11	7				
Suspended solids	mg/L	18	12	9	16	7	2
Total dissolved solids	mg/L	60	43				
Total solids	mg/L	78	55				
Turbidity	NTU	14	11				
Chloride	mg/L	2	2				
Nitrogen-nitrate	mg/L	0.22	0.1	0.27	0.3	0.48	0.45
Nitrogen total keldahl	mg/L	1.12	0.379				
Nitrogen Ammonia	mg/L	ND	ND				
Phosphate P	mg/L	ND	ND	ND	ND	ND	ND
Sulfate	mg/L	3	2				
Total organic carbon	mg/L	6	5.4	2.2	6.1	3	4.1
Aluminum	mg/L		0.27	0.247	0.488	0.146	0.27
Cadmium	mg/L		ND	ND	ND	ND	ND
Calcium	mg/L		1.22				
Chromium	mg/L		ND	0.014	ND	ND	ND
Copper	mg/L		ND	0.02	ND	ND	ND
Iron	mg/L		2.18	1.7	1.9	1.54	1.05
Lead	mg/L		ND	ND	ND	ND	ND
Magnesium	mg/L		0.471				
Manganese	mg/L		0.068	0.042	0.081	0.034	0.031
Mercury	mg/L	ND	ND	ND	ND	ND	0.0001
Nickel	mg/L		ND	ND	ND	ND	ND
Sodium	mg/L		9.25				
Zinc	mg/L		0.024	0.039	0.045	ND	0.038