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Carolina Power & Light Company

Brunswick Nuclear Plant
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BRUNSWICK STEAM ELECTRIC PLANT UNITS 1 AND 2
DOCKET NOS. 50-325 AND 50-324
LICENSE NOS. DPR-71 AND DPR-62

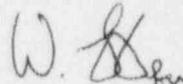
ANNUAL RADILOGICAL ENVIRONMENTAL MONITORING REPORT

Gentlemen:

Enclosed is the Annual Radiological Environmental Monitoring Report for the Brunswick Steam Electric Plant, Units 1 and 2, covering the period from January 1 through December 31, 1993.

This report is submitted in accordance with the Brunswick Technical Specifications 6.9.1.6 and 6.9.1.7.

Very truly yours,



J. P. Cowan, Director -
Site Operations
Brunswick Nuclear Plant

GB/dk

Enclosure

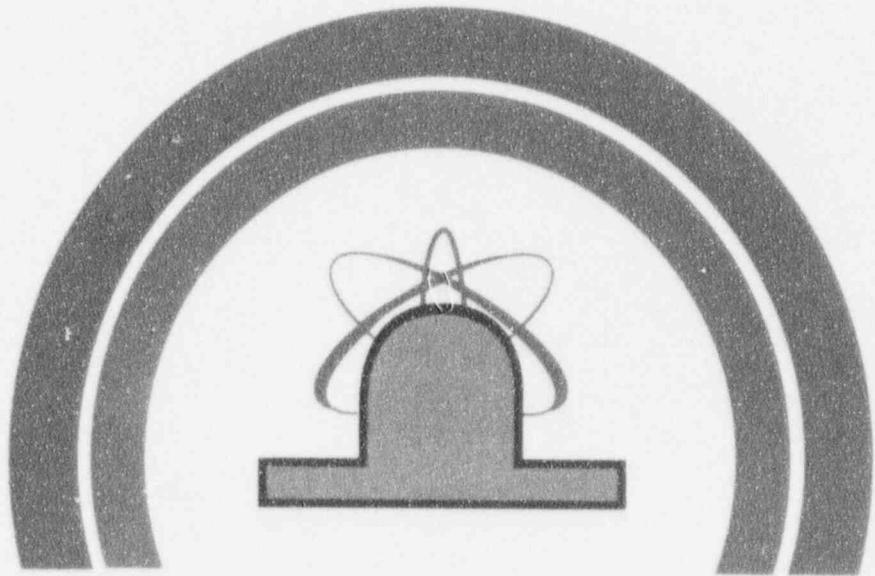
cc: Mr. S. D. Ebneter
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BNP NRC Resident Office

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Radiological Environmental Operating Report

1993



BRUNSWICK NUCLEAR PROJECT
CAROLINA POWER & LIGHT

SHEARON HARRIS ENERGY & ENVIRONMENTAL CENTER

Carolina Power & Light Company

New Hill, North Carolina

RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

FOR

BRUNSWICK STEAM ELECTRIC PLANT

JANUARY 1 THROUGH DECEMBER 31, 1993

Prepared by:

Katherine Crimick

Reviewed by:

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1.0 SUMMARY

This report presents the results of the Radiological Environmental Monitoring Program conducted during 1993 for the Brunswick Nuclear Project (BNP). The program was conducted in accordance with Technical Specification 4.12.1, the Off-site Dose Calculation Manual, and applicable procedures.

The 1993 Annual Radiological Environmental Operating Report has been prepared in accordance with Technical Specification 6.9.1.7 and is being submitted in accordance with Technical Specification 6.9.1.6. The report applies to both BNP Units 1 and 2 (License Nos. DPR-071 and DPR-062, respectively).

Nearly 1,000 samples from six environmental media types were analyzed during the year. BNP Unit 1 was taken out of service on April 22, 1992, and remained off line throughout 1993. Unit 2 returned to service in May 1993 and operated continuously thereafter. No detectable radioactivity (or radioactivity which did not differ significantly from the corresponding control) was observed in any of the 816 measurements taken at indicator locations. All samples analyzed met the LLD requirements as established by Technical Specification 6.9.1.7.h and Table 4.12.1-1.

A statistical summary of all the data gathered in 1993 has been compiled in Table 1-1.

The radiological environmental data indicates that BNP operations in 1993 had no significant impact on the environment or public health and safety. No radiation exposure is attributed to any off-site member of the public due to the operations of BNP.

Comparison of the current data with preoperational (1973, 1974) information (Tables 3-1, 3-2) indicate that air particulate filter gross beta activity and ambient gamma radiation levels were lower in 1993.

TABLE 1-1
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY

Brunswick Steam Electric Plant
 Brunswick County, North Carolina

Docket Numbers - 50-324 and 325
 Calendar Year 1993

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations ⁽²⁾ Mean Range	Location w/Highest Annual Mean			Control Locations Mean Range ⁽²⁾
				Name, Distance, and Direction	Mean Range ⁽²⁾		
Air Cartridge (pCi/m ³)	I-131 ⁽³⁾ 310	3.7E-2	All less than LLD		All less than LLD		All less than LLD
Air Particulate (pCi/m ³)	Gross Beta 310 ⁽³⁾	3.0E-3	1.70E-2 (257/258) 5.43E-3 - 3.09E-2	Visitors Center 1.0 mile SW	1.75E-2 (52/52) 8.81E-3 - 3.09E-2	1.70E-2 (52/52) 3.95E-3 - 2.81E-2	
	Gamma ⁽⁴⁾ 24	See Table 6-1	All less than LLD		All less than LLD		All less than LLD
Broadleaf Vegetation (pCi/g, wet)	Gamma ⁽⁴⁾ 144 Cs-137	1.7E-2	1.86E-1 (4/108) 2.32E-2 - 6.21E-1	Spoil Pond 0.6 mile SSE	3.22E-1 (2/36) 2.32E-2 - 6.21E-1	1.59E-1 (7/36) 3.41E-2 - 3.96E-1	
Fish and Invertebrates (pCi/g, wet)	Gamma ⁽⁴⁾ 12	See Table 6-1	All less than LLD		All less than LLD		All less than LLD
Sediments--Shoreline (pCi/g, dry)	Gamma ⁽⁴⁾ 2	See Table 6-1	All less than LLD		All less than LLD		No control
Surface Water (pCi/l)	Gamma ⁽⁴⁾ 24	See Table 6-1	All less than LLD		All less than LLD		All less than LLD
	Tritium 24	1.2E+3	All less than LLD		All less than LLD		All less than LLD
TLD (mR per week)	TLD Readout 171 ⁽³⁾	1 mR	7.82E-1 (167/167) 6.00E-1 - 1.30E+0	Intake Canal 0.5 mile NE	1.03E+0 (4/4) 8.00E-1 - 1.30E+0	9.0E-1 (4/4) 7.00E-1 - 1.10E+0	

FOOTNOTES TO TABLE 1-1

1. Lower limit of detection (LLD) is calculated based on 4.66 standard deviations above background using typical sample sizes and counting times. Due to counting statistics and varying volumes, occasionally lower LLDs are achieved. See Table 6-1.
2. Mean and range are based on detectable measurements only. The fractions of detectable measurements at specific locations are indicated in parentheses.
3. Missing samples are discussed in Section 4.0.
4. Summary of gamma analysis results in this report does not include the following naturally occurring isotopes since most environmental samples contained some or all of these: Be-7, K-40, Tl-208, Pb-212, Bi-212, Bi-214, Pb-214, Ra-226, Ac-228, and Th-234.

2.0 GENERAL INFORMATION

The Brunswick Nuclear Project (BNP) consists of two boiling water reactors with a design rating of 821 MWe net each. Commercial production was initiated by Unit 2 on November 3, 1975, and by Unit 1 on March 18, 1977.

The BNP is located approximately 2.5 miles north of Southport, North Carolina. This location is near the mouth of the Cape Fear River, which is the source of condenser cooling water. The cooling water is then discharged into the Atlantic Ocean.

The plant site lies at sea level to 30 feet (MSL) surrounded by extensive swamps and marshes. Recreational beaches are located within 20 miles of the plant. Fishing and boating are popular activities in the area. Within 50 miles of the plant, less than half of the land is used for agriculture. The agricultural activities include small truck farms, cattle, and poultry farms as well as farms producing corn, soybeans, and tobacco. Most of the industrial activity is in the Wilmington area approximately 16 miles north of BNP. Sunny Point Military Ocean Terminal is located approximately 4.5 miles north of BNP. Archer-Daniels-Midland Chemical Company, located 1.5 miles southeast of BNP, manufactures citric acid. This plant is supplied with steam from two 55-megawatt coal-fired boilers operated by Cogentrix, Inc., which is located 1.0 mile south of BNP. A shipping channel in the Cape Fear River intercepts the Atlantic Intracoastal Waterway near Southport.

The sampling program developed during preoperational surveillance provided the basis for the environmental monitoring program required by the BNP Technical Specifications. Details of this sampling program--including sampling type, distance, and direction from the plant site--are listed in Table 2-1. Maps, including the sampling locations with respect to the plant, are shown in Figures 2-1 through 2-5. Types of samples collected include air cartridge (iodine), air particulate, fish and invertebrates, broadleaf vegetation, shoreline sediment, surface water, and direct radiation monitoring.

The following is a tabulation of the specific methods used in monitoring the gaseous effluent and liquid effluent pathways of exposure to man:

<u>Pathway of Exposure to Man</u>	<u>Media Sampled</u>
External Dose	TLD
Ingestion	Shoreline Sediment Broadleaf Vegetation Fish and Invertebrates Samples
Inhalation	Surface Water Air Samples

TABLE 2-1
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM
BRUNSWICK NUCLEAR PROJECT

<u>Sample Type</u>	<u>Sampling Point and Description</u>	<u>Sampling Frequency</u>	<u>Typical Sample Size</u>	<u>Sample Analysis</u>
Air Cartridge (AC)	200-1.0 mile SW Visitors Center 201-0.6 mile NE PMAC 202-1.0 mile S substation-construction road 203-2.3 miles SSW Southport substation 204-23 miles NNE Sutton Plant* 205-0.6 mile SSE Spoil Pond	Weekly	10,000 cu ft (300 cu m)	Iodine
Air Particulate (AP)	200-1.0 mile SW Visitors Center 201-0.6 mile NE PMAC 202-1.0 mile S substation-construction road 203-2.3 miles SSW Southport substation 204-23 miles NNE Sutton Plant* 205-0.6 mile SSE Spoil Pond	Weekly	10,000 cu ft (300 cu m)	Gross Beta-Weekly Composite Gamma-Quarterly
Fish (FI)	700-5.5 miles SSW Atlantic Ocean @ discharge (free-swimmers) 701-5.5 miles SSW Atlantic Ocean @ discharge (bottom-feeders) 702-5.5 miles SSW Atlantic Ocean @ discharge (invertebrates) 703-Atlantic Ocean; location not specified* (free-swimmers) 704-Atlantic Ocean; location not specified* (bottom-feeders) 705-Atlantic Ocean; location not specified* (invertebrates)	Semiannually when in season	500 grams (wet)	Gamma
Broadleaf Vegetation (BL)	800-0.7 mile NE intake canal 801-0.6 mile SW discharge canal 802-10 miles; location not specified* 803-0.6 mile SSE Spoil Pond	Monthly when available	500 grams (wet)	I-131, Gamma
Shoreline Sediment (SS)	500-4.9 miles SSW; beach near OD pumps	Semiannually	500 grams	Gamma
Surface Water (SW)	400-0.7 mile NE intake canal* 401-4.9 miles SSW discharge canal at OD pumps	Monthly composite	4 liters	Gamma Tritium

*Control Station

TABLE 2-1 (continued)
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM
BRUNSWICK NUCLEAR PROJECT

<u>Sample Type</u>	<u>Sampling Point and Description</u>	<u>Sampling Frequency</u>	<u>Typical Sample Size</u>	<u>Sample Analysis</u>
Thermoluminescent Dosimeters (TLD)	1 1.1 miles E Moore St. extension 2 1.0 mile ESE Moore St. extension 3 0.9 mile SE Moore St. extension 4 1.1 miles SSE Moore St. extension 5 1.1 miles S Leonard St. 6 1.0 mile SSW pine tree on right-of-way BEMCO power line 7 1.0 mile SW Hwy 87 at right-of-way 8 1.2 miles W Hwy 87 9 1.0 mile WNW Bethel Church Rd. 10 0.9 mile NW Bethel Church Rd. 11 0.9 mile NNW Bethel Church Rd. 12 1.0 mile N Bethel Church Rd. 13 1.2 miles NNE Bethel Church Rd. 14 0.5 mile NE intake canal 15 0.9 mile ENE intake canal 16 1.0 mile WSW discharge canal 17 1.5 miles ESE Pfizer property 18 1.7 miles SE Pfizer property 20 2.0 miles S by the church on Stewart St. 21 2.9 miles SSW West St. at Sea Captain 22 5.3 miles SW Caswell Beach Rd. 23 4.6 miles WSW near airport 24 3.0 miles W Hwy 211 25 8.7 miles WNW Antioch Baptist Church 26 5.9 miles NW W. Boiling Springs Rd. 27 5.0 miles NNW Hwy 133 28 4.2 miles NW at South Brunswick HS 29 2.6 miles SSW Southport Elementary School 30 2.0 miles NE Sunny Point MOT 31 2.6 miles ENE Sunny Point MOT 32 5.7 miles ENE at Ft. Fisher AFB 33 4.0 miles E at Ferry Slip N.H. Co. 34 5.5 miles ENE at Ft. Fisher Museum 35 7.5 miles SSE Bald Head Island 36 9.3 miles NE at Carolina Beach 37 5.5 miles NW at Boiling Springs Lakes 38 11.0 miles W at Sunset Harbor 39 5.3 miles SW at Yaupon Beach City Hall 40 6.9 miles WSW at Long Beach City Hall 75 4.5 miles S at Ft. Caswell Bapt. Assy. 76 4.8 miles SSW at Caswell Beach 77 5.3 miles S at Bald Head Island 78 10.0 miles NNE Hwy. 133 at SR 1521 79 9.5 miles N SR 1539 at SR 1521 81 10.0 miles WNW Midway Road at SR 1508*	Quarterly	Not Applicable	TLD Readout

*Control Station

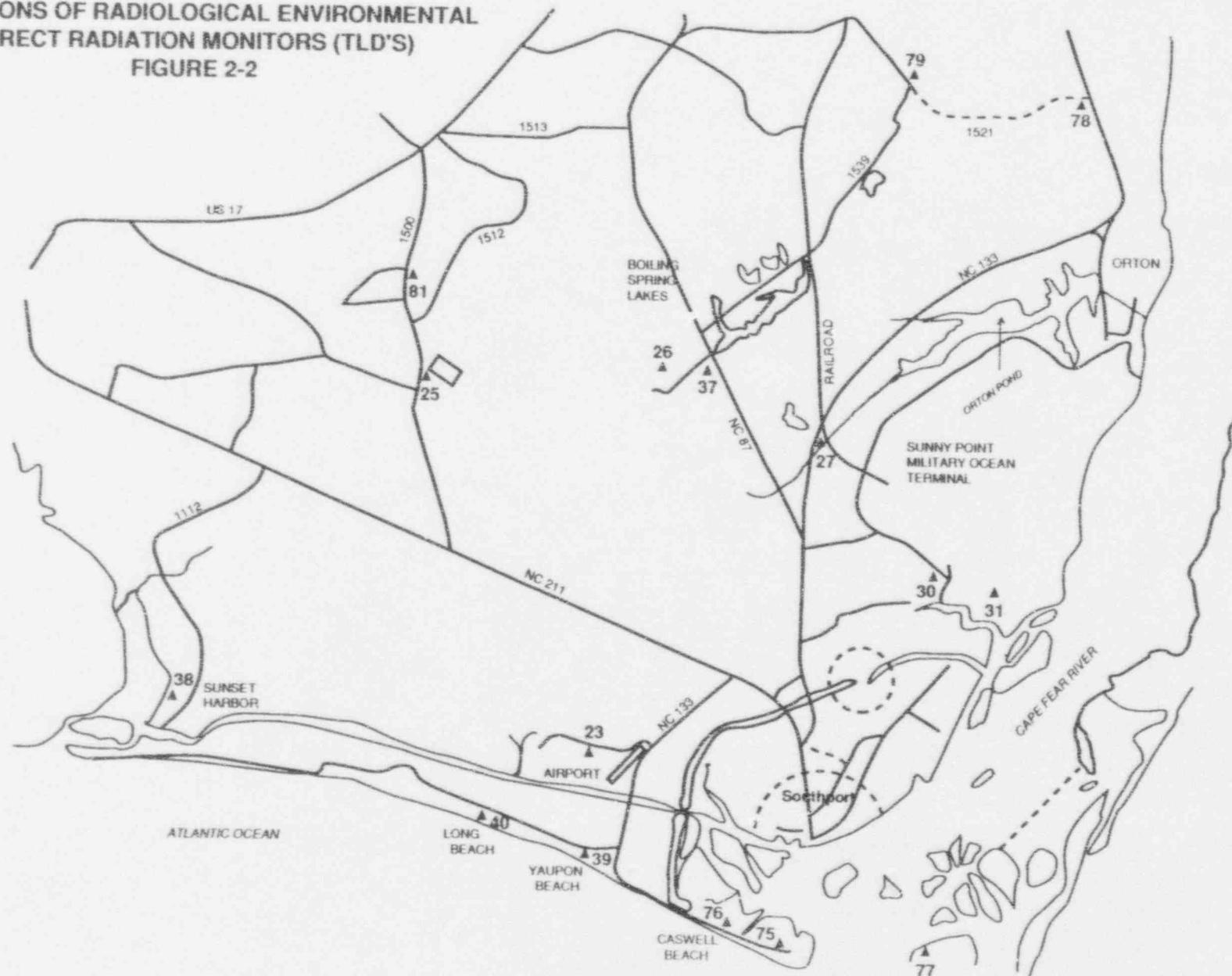
Refer to Figures 2-1, 2-2, 2-3, 2-4, and 2-5

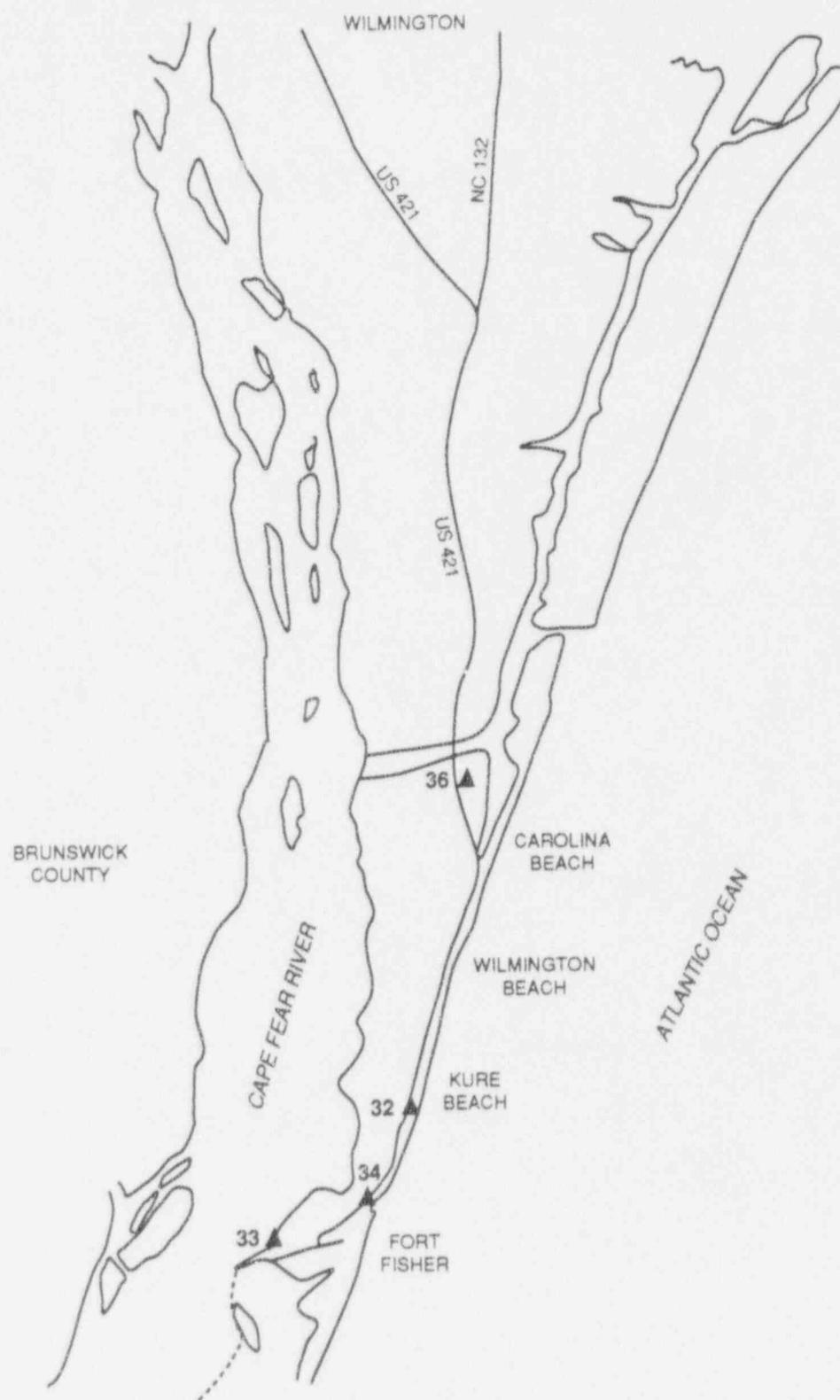


LOCATIONS OF RADIOPHYSICAL ENVIRONMENTAL
DIRECT RADIATION MONITORS (TLD's)
FIGURE 2-1

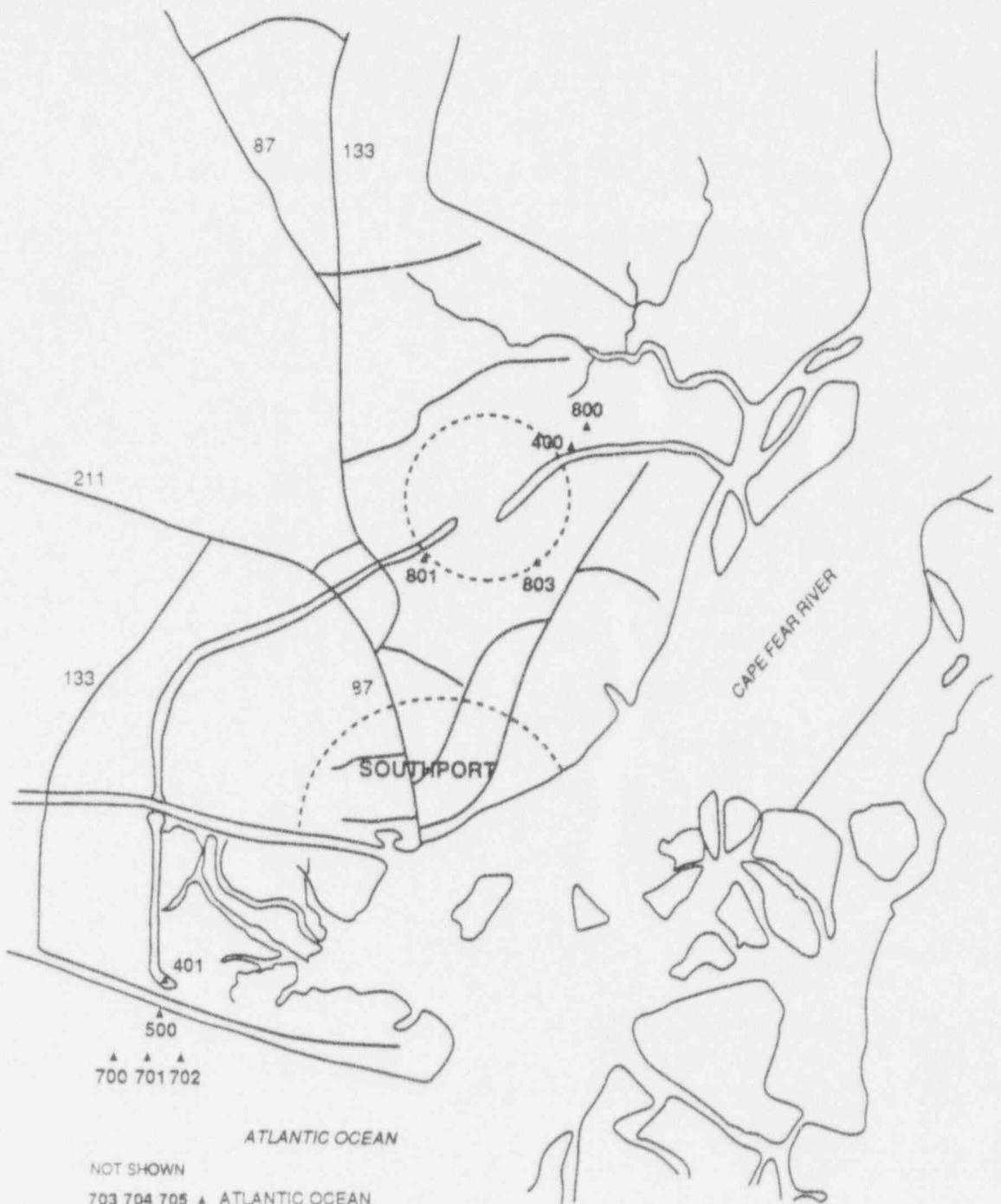
LOCATIONS OF RADIOPHYSICAL ENVIRONMENTAL
DIRECT RADIATION MONITORS (TLD'S)
FIGURE 2-2

2-5

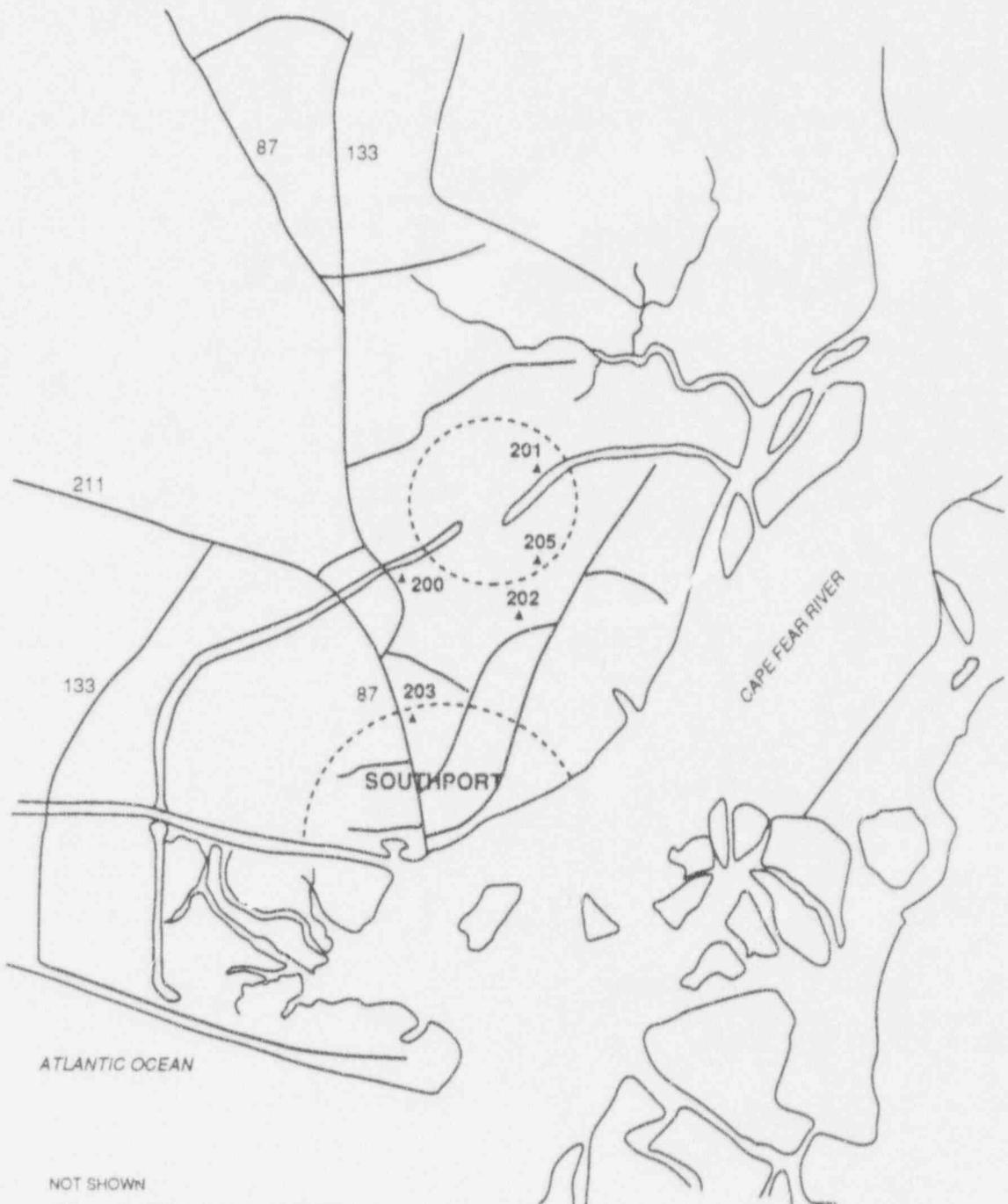




LOCATIONS OF RADIOLOGICAL ENVIRONMENTAL
DIRECT RADIATION MONITORS (TLD's)
FIGURE 2-3



LOCATIONS OF RADIOLOGICAL ENVIRONMENTAL
WATERBORNE AND INGESTION PATHWAY STATIONS
SW SS FI FC
FIGURE 2-4



LOCATIONS OF RADIOPHYSICAL ENVIRONMENTAL
AIR MONITORING STATIONS (AC, AP)
FIGURE 2-5

3.0 INTERPRETATIONS AND CONCLUSIONS

3.1 Air Samples

The average gross beta concentration measured in 257 air particulate samples collected at indicator stations during 1993 was 1.7 E-2 picocuries per cubic meter (pCi/m^3). The preoperational (1973-1974) average concentration was 8.2 E-2 pCi/m^3 , while the average activity in the recent past (1989-1992) was 1.6 E-2 pCi/m^3 (Table 3-1). The airborne concentrations of gross beta activity in 1993 are indicative of natural background and do not indicate any abnormal activities originating from the nuclear operations at the Brunswick Nuclear Project (BNP). Figures 3-1 through 3-5 depict the monthly variations of these values.

Gamma analyses of the composited air particulate filters indicated that all of the radionuclides indicative of plant effluents were at concentrations less than their respective LLDs. All radionuclides positively identified by the radionuclide analyses were typical of naturally occurring materials.

Analyses of 258 indicator location air cartridges for the collection of radioiodines indicated that concentrations of those radionuclides, and particularly I-131, were less than the LLD.

3.2 Milk Samples

No milk sampling locations are currently identified in the BNP environs, and therefore no sampling of this media was available.

3.3 Vegetation

Food crops were not grown in the vicinity of the plant in 1993 and this media was represented by indigenous vegetation samples consisting primarily of wild cherry, wax myrtle, and sweetgum leaves along with magnolia and sweet bay. One hundred eight samples were collected from indicator locations and thirty-six from the control location. Fallout Cs-137 was detected in four indicator samples and seven control samples at an average activity of 1.9E-1 and 1.6E-1 pCi/g , respectively.

3.4 Fish and Invertebrates

Fish and invertebrate samples are collected semiannually from two locations: (1) near the Atlantic Ocean discharge pipe at Caswell Beach and (2) a control location in the Atlantic Ocean not influenced by plant operations. In all 12 samples, the radionuclide content was determined to be less than the respective LLDs for the gamma-emitting radionuclides.

3.5 Sediments-Shoreline

Two shoreline sediments are drawn from the beach area near the pumping station location at Caswell Beach. No detectable activities relating to plant effluents were detected in this sampling media.

3.6 Surface Water

Surface water is sampled monthly from the intake and discharge canal. These samples are analyzed for gamma-emitting radionuclides and for tritium. Neither of these analyses indicated any detectable concentrations of radionuclides in the 12 indicator samples. Figure 3-6 depicts the observed tritium concentrations for 1993.

3.7 External Radiation Dose (TLD)

The environmental data on external radiation dose for 1993 was essentially unchanged from 1989-1992 with an average dose rate for all indicator locations of 0.78 mrem per week. The average dose rate observed over the preoperational period was 1.02 mrem per week observed from the fourth quarter of 1972 through the second quarter of 1975. Table 3-2 provides a comparison of recent data with the preoperational data. The highest average dose rate occurred at the plant boundary 0.5 mile NE. That dose rate was 1.03 mrem per week. Figure 3-7 depicts average inner and outer ring TLD data for each quarter of 1993. This depiction does not indicate a significant higher dose rate for the inner versus the outer ring. This is interpreted as demonstrating that no discernible off-site exposure dose rate arises from plant operations.

TABLE 3-1

GROSS BETA AIR PARTICULATE ACTIVITY AVERAGES (pCi/m³)**Comparison of Preoperational (1973, 1974) and Recent Operational (1989-1993) Data**

<u>Location</u>	<u>1973</u>	<u>1974</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
AP-200	2.2 E-2	1.4 E-1	1.4 E-2	1.6 E-2	1.5 E-2	1.7 E-2	1.8 E-2
AP-201	3.1 E-2	1.4 E-1	1.5 E-2	1.7 E-2	1.6 E-2	1.6 E-2	1.7 E-2
AP-202	3.4 E-2	1.4 E-1	1.6 E-2	1.7 E-2	1.5 E-2	1.4 E-2	1.7 E-2
AP-203	2.4 E-2	1.3 E-1	1.6 E-2	1.8 E-2	1.5 E-2	1.3 E-2	1.7 E-2
AP-204*	2.5 E-2	1.3 E-1	1.6 E-2	1.7 E-2	1.5 E-2	1.6 E-2	1.7 E-2
AP-205	_____	_____	1.6 E-2	1.7 E-2	1.6 E-2	1.5 E-2	1.7 E-2

*Control location

TABLE 3-2
HISTORICAL TLD RESULTS (1972-1993)

Year	Average Dose of All TLD Monitoring Locations (mrem per week)
1972 (4th Qtr.)	0.80
1973	1.25
1974	0.97
1975 (1st, 2nd Qtr)	0.80
1976	0.98
1977	1.32
1978	1.24
1979	0.93
1980	0.90
1981	0.96
1982	1.18
1983	1.21
1984	0.98
1985	1.03
1986	0.89
1987	0.92
1988	0.86
1989	0.75
1990	0.76
1991	0.76
1992	0.75
1993	0.78

CP&L ENVIRONMENTAL SURVEILLANCE
GROSS BETA ACTIVITY FOR
AIR PARTICULATE SAMPLES
PLANT=BSEP SAMPLE POINT=0200

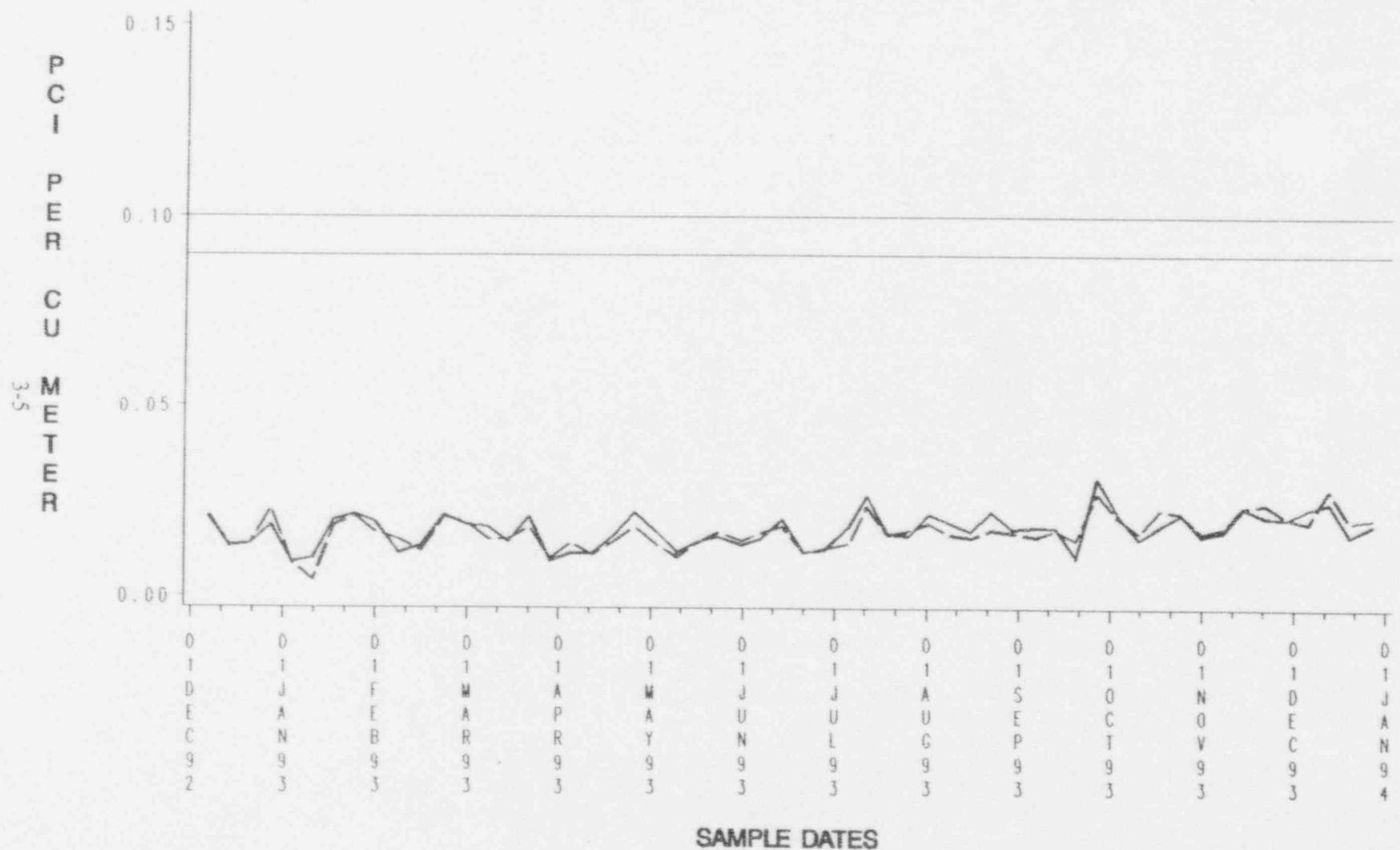


Figure 3-1

PRE-OP AVERAGE=0.09
ISOTOPIC ANALYSIS REQUIRED ABOVE 0.10

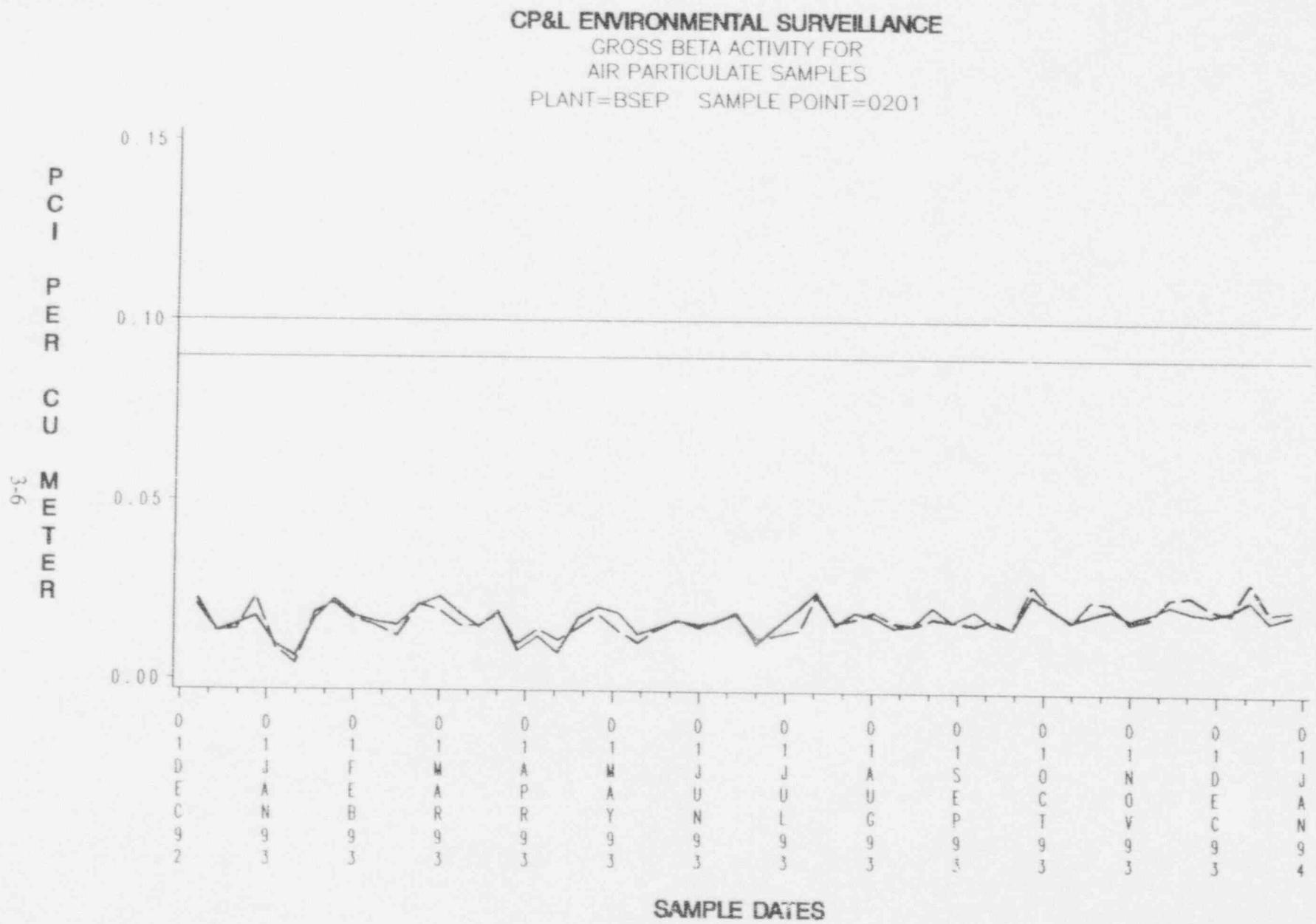


Figure 3-2

SOLID LINE FOR SAMPLE STATION
 BROKEN LINE FOR CONTROL STATION

PRE-OP AVERAGE=0.09
 ISOTOPIC ANALYSIS REQUIRED ABOVE 0.10

CP&L ENVIRONMENTAL SURVEILLANCE
GROSS BETA ACTIVITY FOR
AIR PARTICULATE SAMPLES
PLANT=BSEP SAMPLE POINT=0202

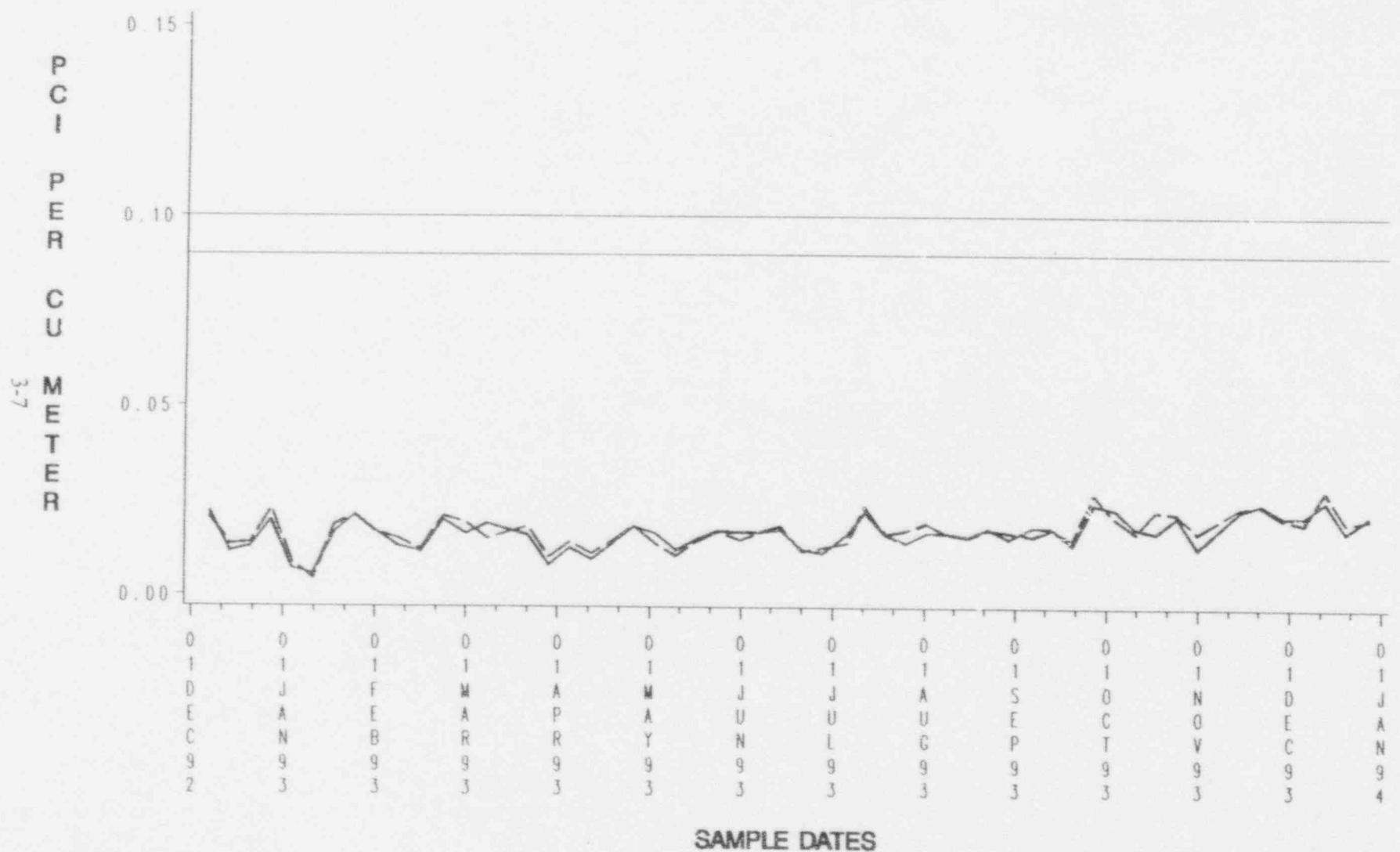


Figure 3-5

CP&L ENVIRONMENTAL SURVEILLANCE
GROSS BETA ACTIVITY FOR
AIR PARTICULATE SAMPLES
PLANT=BSEP SAMPLE POINT=0203

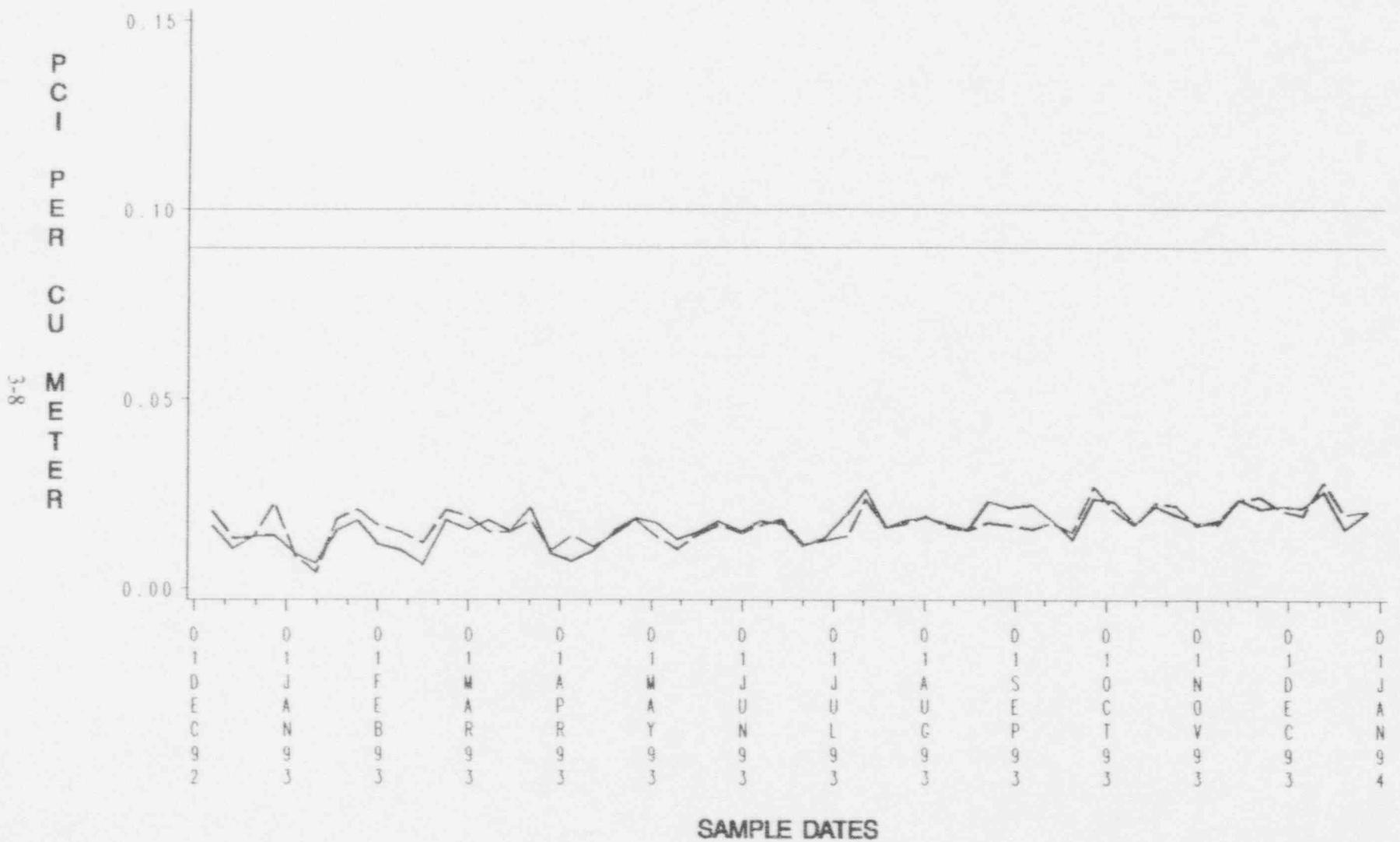
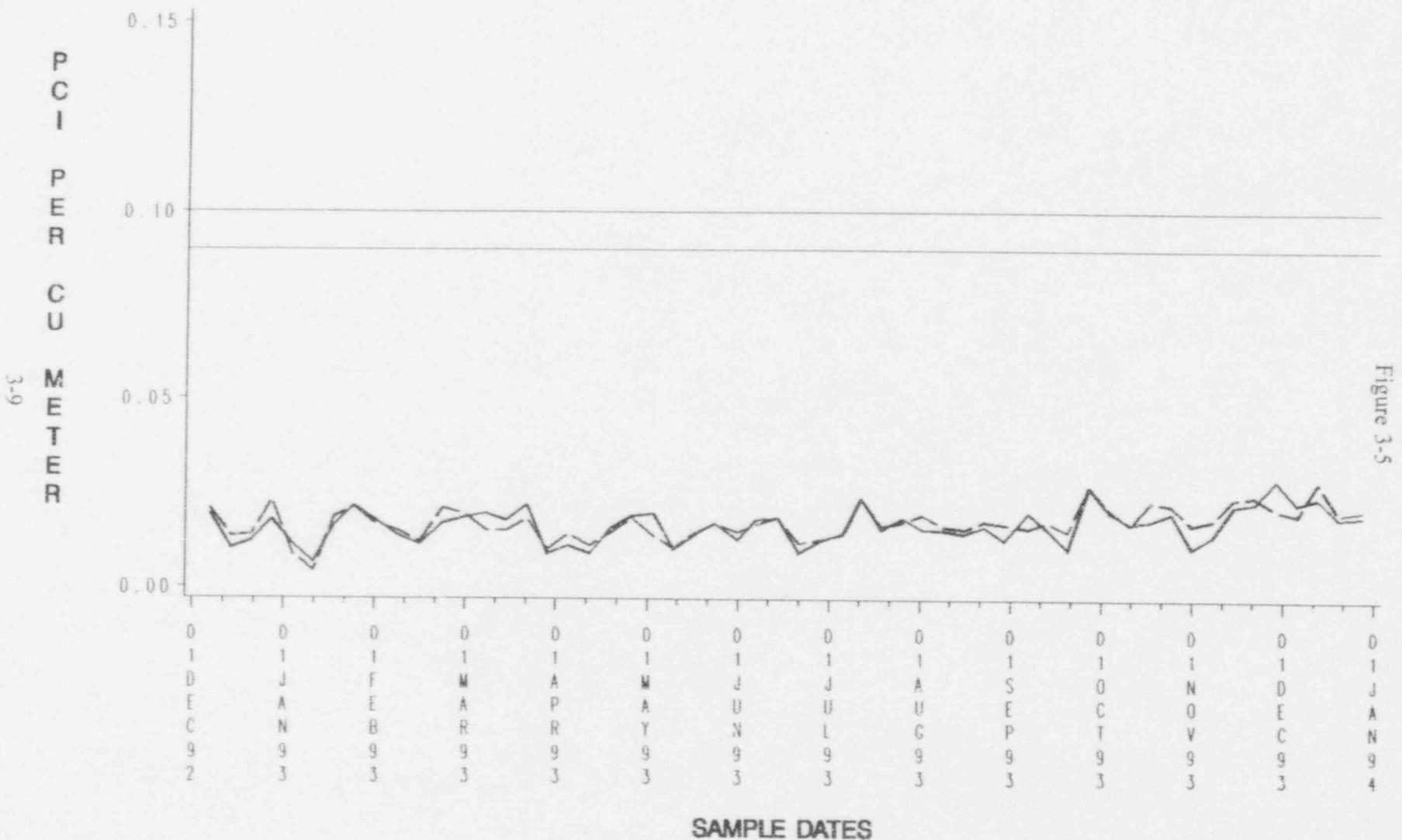


Figure 3-4

PRE-OP AVERAGE=0.09
ISOTOPIC ANALYSIS REQUIRED ABOVE 0.10

CP&L ENVIRONMENTAL SURVEILLANCE
GROSS BETA ACTIVITY FOR
AIR PARTICULATE SAMPLES
PLANT=BSEP SAMPLE POINT=0205

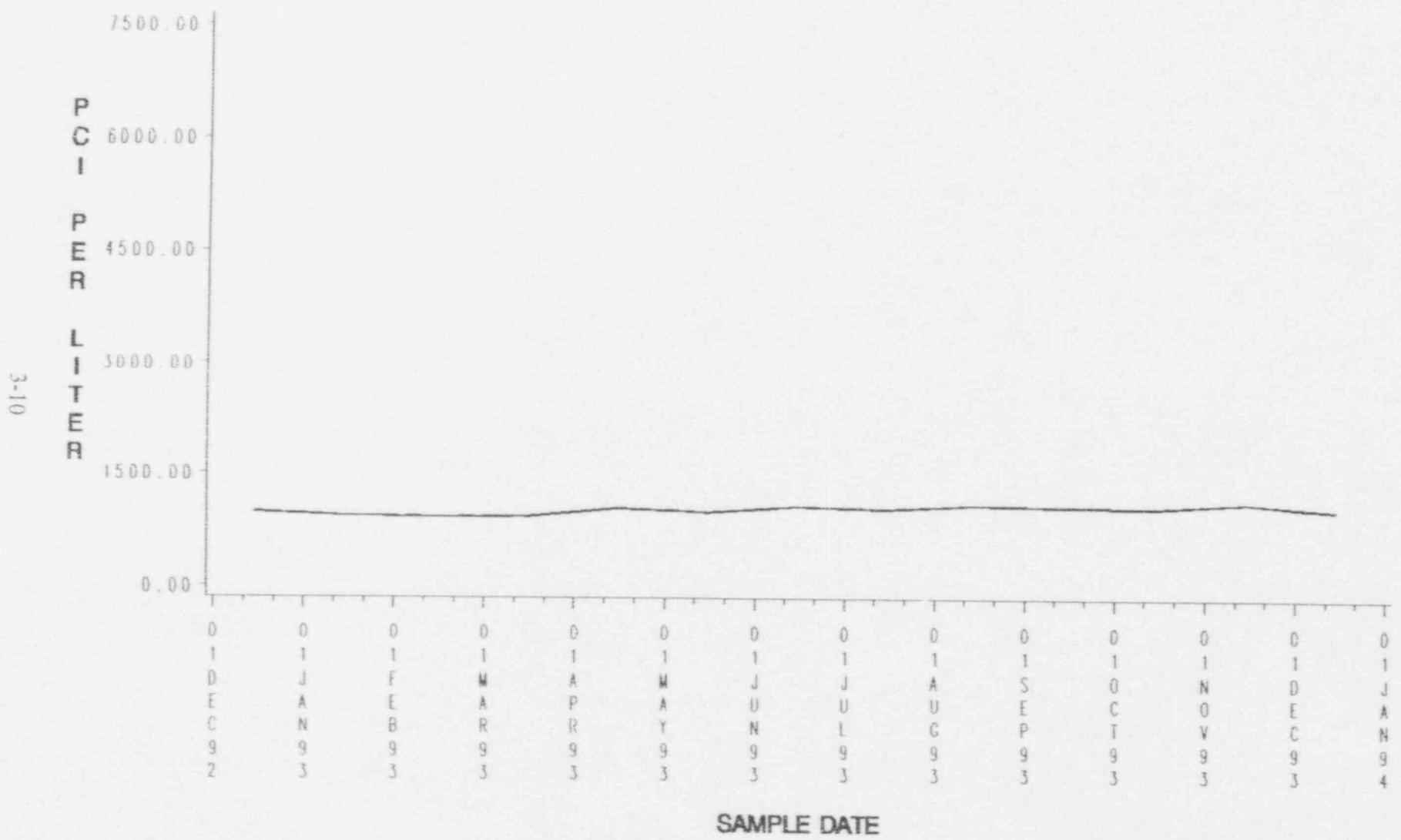


SOLID LINE FOR SAMPLE STATION
BROKEN LINE FOR CONTROL STATION

PRE-OP AVERAGE=0.09
ISOTOPIC ANALYSIS REQUIRED ABOVE 0.10

CP&L ENVIRONMENTAL SURVEILLANCE

TRITIUM ACTIVITY FOR
SURFACE WATER SAMPLES
PLANT=BSEP SAMPLE POINT=0401



SOLID LINE FOR SAMPLE STATION
BROKEN LINE FOR CONTROL STATION

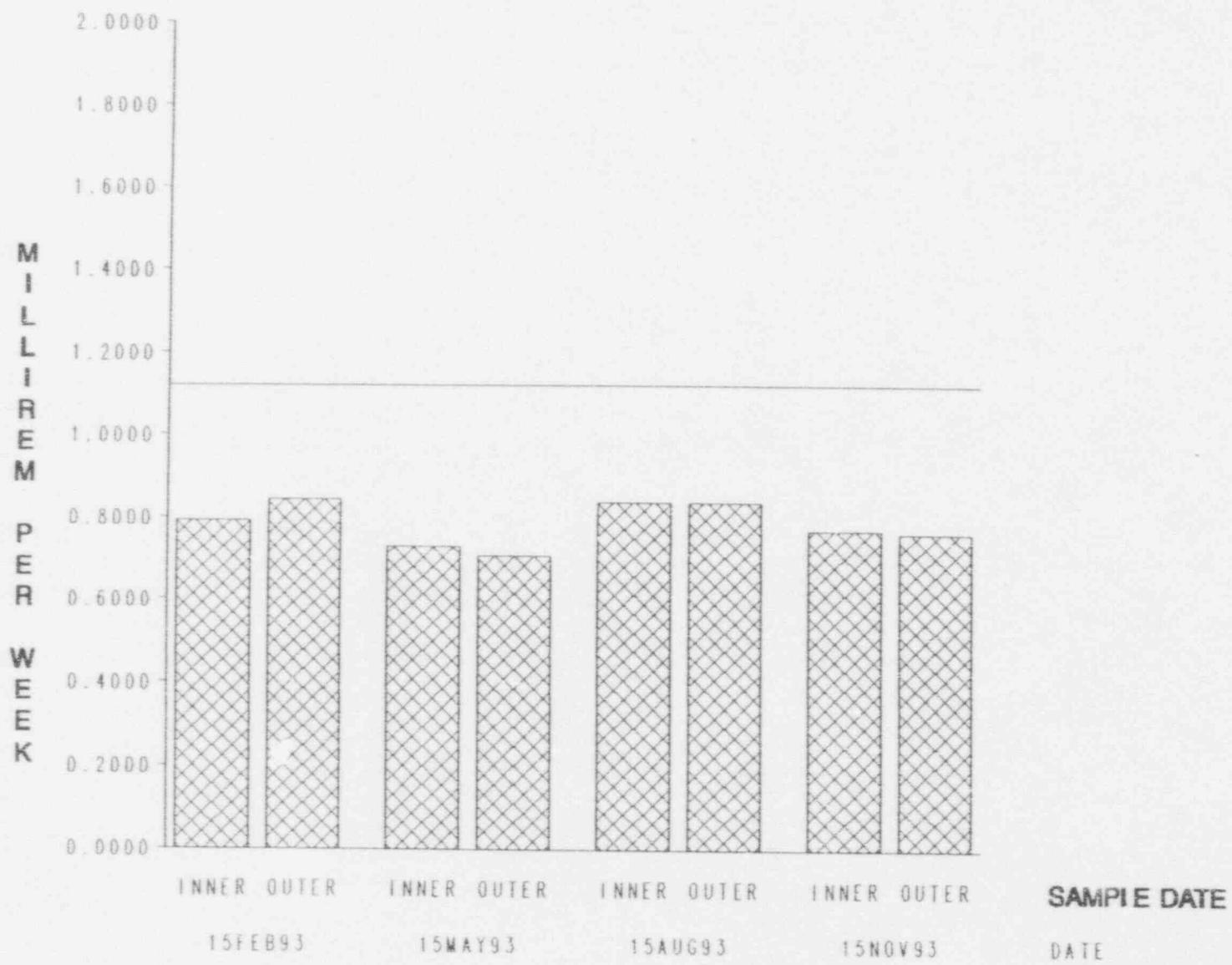
SAMPLE DATA MAY OVERLAY CONTROL DATA

Figure 3-6

CP&L ENVIRONMENTAL SURVEILLANCE
TLD AVERAGES FOR
INNER AND OUTER RING LOCATIONS
PLANT=BSEP

3-11

Figure 3-7



AVERAGE(1983-1987)=1.1191

4.0 MISSED SAMPLES AND ANALYSES

4.1 Air Samples

AC/AP 202 did not have sufficient volumes for analysis on March 15 and November 8 due to a blown fuse and a bad switch, respectively.

4.2 TLD

These TLDs were missing in the field at time of collection during 1993:

First Quarter:	TLDs 22, 33, 79, and 81 (control)
Second Quarter:	TLDs 22 and 77
Third Quarter:	TLDs 2 and 38
Fourth Quarter:	TLDs 30 and 79

5.0 ANNUAL LAND-USE CENSUS

Technical Specifications require that a land-use census shall be conducted and identify, within a distance of 8 km (5 miles) in each of the 16 meteorological sectors, the location of the nearest resident, garden of greater than 50 square meters (500 square feet) producing broadleaf vegetation, and milk animal.

Sampling of at least three different kinds of broadleaf vegetation may be performed at the site boundary in each of two different direction sectors with the highest D/Qs in lieu of the garden census.

The land-use census shall be conducted during the growing season at least once per 12 months using techniques such as door-to-door survey, aerial survey, or consulting local agricultural authorities.

The 1993 BNP land-use census was performed using aerial photographs and by performing a visual inspection from roads within a 5-mile radius excluding those within the Sunny Point Military Ocean Terminal. Additional information was obtained from residents, the county extension agents, and farm supply businesses. The census was performed by the BNP environmental staff during the period June 9-10, 1993.

Table 5-1 summarizes the locations of the nearest residence, meat animal, and garden in each of the 16 compass sectors. Meat animals were found approximately 1.0 mile from the plant in the SE and SSE sectors. No milk animals were found within the 5-mile radius.

TABLE 5-1
DISTANCE TO THE NEAREST SPECIAL LOCATIONS FOR THE
BRUNSWICK NUCLEAR PROJECT (MILES)

<u>Sector</u>	<u>Residence (Miles)</u>	<u>Milk Animal</u>	<u>Garden</u>
N	0.9	—	—
NNE	1.0	—	1.2
NE	—	—	—
ENE	—	—	—
E	—	—	—
ESE	1.5	—	—
SE	0.9	—	—
SSE	1.0	—	—
S	1.5	—	1.5
SSW	1.2	—	1.5
SW	1.0	—	1.0
WSW	1.1	—	1.1
W	0.8	—	0.8
WNW	0.9	—	0.9
NW	0.9	—	0.9
NNW	0.8	—	4.3

Area surveyed is within 5 miles of the plant. Distances are estimates from composite map-- approximate error \pm 0.1 mile.

6.0 ANALYTICAL PROCEDURES

6.1 Gross Beta

Gross beta radioactivity measurements are made utilizing a Tennelec Low-Background Alpha/Beta Counting System. The LLD for air particulates is approximately 3.0 E-3 pCi/m³.

Air particulate samples are mounted in 2-inch stainless steel planchets and counted directly for 50 minutes.

6.2 Tritium

Liquid samples requiring tritium analysis are first distilled. Five milliliters of the distillate are mixed with ten milliliters of liquid scintillation cocktail and counted in a liquid scintillation counter for 50 minutes. The LLD is approximately 1.2E+3 pCi/l.

6.3 Iodine-131

Iodine-131 airborne concentrations are analyzed by the intrinsic germanium (Ge) gamma spectrometry systems. The cartridges are placed on the detector and each charcoal cartridge is counted individually with an approximate LLD of 3.7E-2 pCi/m³.

6.4 Gamma Spectrometry

Gamma spectrum analysis utilizes intrinsic germanium detectors with thin aluminum windows housed in steel and lead shields. The analyzer system is the Nuclear Data 6685. Table 6-1 summarizes LLD values derived from instrument sensitivity based upon a blank sample background.

Air particulate filter quarterly composites are placed in a Petri dish and analyzed directly for 3,000 seconds.

Liquid samples are boiled down to reduce the volume, transferred to 500-ml Marinelli beaker, and analyzed for 40,000 seconds.

Shoreline sediments are dried, ground, weighed, and then analyzed in a Marinelli beaker for 5,000 seconds.

Broadleaf vegetation is weighed wet and analyzed in a Marinelli beaker for 20,000 seconds.

Fish samples and edible portions of intervebrate organisms are cleaned, dressed, and placed in a Marinelli beaker for analysis for 5,000 seconds.

6.5 Thermoluminescent Dosimetry

Each area monitoring station includes a TLD packet, which is a polyethylene bag containing three calcium sulfate phosphors contained in a Panasonic UD-814 badge. The TLD is lighttight and the bag is weather-resistant.

Dosimeters are machine annealed before field placement. Following exposure in the field, each dosimeter is read utilizing a Panasonic TLD reader. This instrument integrates the light photons emitted from traps as the dosimeter is heated above 150°C. The photons from the lower-energy traps are automatically eliminated through a preheat cycle. Calibration is checked regularly using dosimeters irradiated to known doses. Prior to the measurement of each dosimeter, the instrument is checked through use of an internal constant light source as a secondary standard. The minimum sensitivity of the dosimeters used is approximately 1 mR.

The exposure reported is corrected for exposure received in transit and during storage through the use of control dosimeters.

6.6 EPA Laboratory Intercomparison Program

The Radiochemistry Laboratory at the Harris Energy & Environmental Center in New Hill, North Carolina, provides radioanalytical services for CP&L's nuclear plant environmental surveillance programs. In fulfillment of Technical Specification 3/4.12.3, the laboratory is a participant in the EPA cross-check program and uses its performance in this program as a major determinant of the accuracy and precision of its analytical results.

During 1993, 46 analyses were completed on 17 samples representing three major environmental media (water, milk, and air filters). Data on the known activities and the normalized standard deviations for the 46 analyses have been received from EPA. A comparison of the average of our reported values with the EPA known activity and its normalized standard deviation is provided below:

<u>Standard Deviation From Known Activity</u>	<u>Percent of Analyses</u>
≤ 1 standard deviation	70
≤ 2 standard deviation	91
≤ 3 standard deviation	98

One of 46 analyses exceeded the 3 sigma action level. This was a potassium value for milk. The error was due to reporting the value for pCi of K-40 per liter rather than converting the value to the reporting units of milligrams of potassium per liter. When the conversion factor was applied, the result was within one standard deviation.

6.7 Lower Limits of Detection

All samples analyzed met the LLD required by Technical Specification 6.9.1.7 and Table 4.12.1-1. Typical "a priori" LLD values for the samples analyzed are listed in Table 6-1.

TABLE 6-1
TYPICAL LOWER LIMITS OF DETECTION (A PRIORI)
GAMMA SPECTROMETRY

<u>Surface Water Samples</u> (Saline Water)	
<u>Isotope</u>	<u>(LLD)</u>
Mn-54	3 pCi/l
Fe-59	5
Co-58	3
Co-60	3
Zn-65	7
Zr-Nb-95	7
Cs-134	3
Cs-137	3
Ba-La-140	3
Other Expected Gamma Emitters	2 to 62

<u>Air Particulates</u> (Quarterly Composite)	
<u>Isotope</u>	<u>(LLD)</u>
I-131	0.059 pCi/m ³
Cs-134	0.002
Cs-137	0.002
Other Expected Gamma Emitters	0.001 to 0.050

<u>Shoreline Sediment</u>	
<u>Isotope</u>	<u>(LLD)</u>
Cs-134	37
Cs-137	26
Other Expected Gamma Emitters	23 to 1361

TABLE 6-1
TYPICAL LOWER LIMITS OF DETECTION (A PRIORI)
GAMMA SPECTROMETRY

<u>Fish</u>	
<u>Isotope</u>	<u>(LLD)</u>
Mn-54	24 pCi/kg (wet weight)
Fe-59	57
Co-58	23
Co-60	26
Zn-65	45
Cs-134	31
Cs-137	28
Other Expected Gamma Emitters	19 to 711

<u>Food Products and Vegetation</u>	
<u>Isotope</u>	<u>(LLD)</u>
I-131	22 pCi/kg (wet weight)
Cs-134	19
Cs-137	17
Other Expected Gamma Emitters	14 to 383

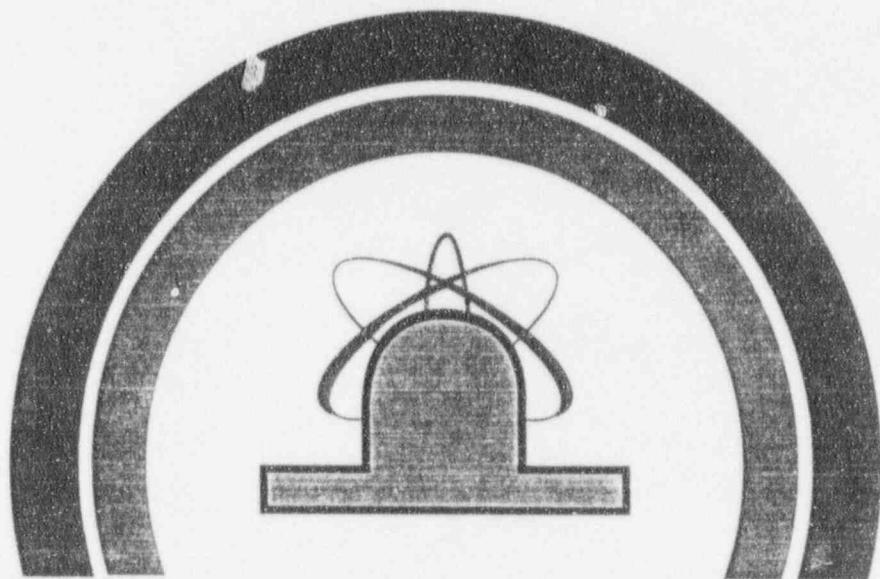
7.0 INDEX TO TECHNICAL SPECIFICATION REQUIREMENTS

This page provides correlation between this report and the Brunswick Technical Specifications.

SPECIFICATION	REPORT SECTION
6.9.1.7 a	3.0 INTERPRETATIONS AND CONCLUSIONS
6.9.1.7 b	5.0 ANNUAL LAND-USE CENSUS
6.9.1.7 c	Table 1-1 (Results of Analysis of Env. Samples)
6.9.1.7 d	2.0 PROGRAM SUMMARY
6.9.1.7 e	Figures 2-1, 2-2, 2-3, 2-4, and 2-5
6.9.1.7 f	6.6 EPA Laboratory Intercomparison Program
6.9.1.7 g	4.0 MISSING SAMPLES AND ANALYSES
6.9.1.7 h	6.1 Gross Beta 6.2 Tritium 6.3 Iodine-131 6.7 Lower Limits of Detection Table 6-1 Typical Lower Limits of Detection Gamma Spectrometry

Radiological Environmental Operating Report

**VOLUME II
JANUARY 1, 1993 - JUNE 30, 1993
SAMPLE ANALYSIS DATA**



**BRUNSWICK NUCLEAR PROJECT
CAROLINA POWER & LIGHT**

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 1

FIRST QUARTER, 1993

1.0 MI SW - VISITOR'S CENTER (AC-200)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
01/04/93	314.5	< 1.87E-02	(< 3.29E-02)
01/11/93	299.9	< 2.86E-02	(< 2.91E-02)
01/18/93	313.7	< 2.64E-02	(< 4.53E-02)
01/25/93	321.8	< 2.58E-02	(< 3.27E-02)
02/01/93	277.3	< 3.01E-02	(< 2.34E-02)
02/08/93	334.9	< 1.23E-02	(< 2.73E-02)
02/15/93	303.5	< 1.41E-02	(< 3.54E-02)
02/22/93	304.2	< 2.36E-02	(< 2.61E-02)
03/01/93	305.7	< 1.63E-02	(< 2.45E-02)
03/08/93	286.2	< 3.02E-02	(< 2.74E-02)
03/15/93	275.8	< 2.35E-02	(< 2.50E-02)
03/22/93	265.1	< 2.24E-02	(< 2.32E-02)
03/29/93	290.6	< 3.71E-02	(< 3.53E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 2

FIRST QUARTER, 1993

0.6 MI NE - PMAC (AC-201)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
01/04/93	262.0	< 3.00E-02	(< 3.29E-02)
01/11/93	249.5	< 3.58E-02	(< 2.91E-02)
01/18/93	252.6	< 3.23E-02	(< 4.53E-02)
01/25/93	241.2	< 2.44E-02	(< 3.27E-02)
02/01/93	235.5	< 3.83E-02	(< 2.34E-02)
02/08/93	268.5	< 2.88E-02	(< 2.73E-02)
02/15/93	241.4	< 3.58E-02	(< 3.54E-02)
02/22/93	281.9	< 3.05E-02	(< 2.61E-02)
03/01/93	281.9	< 3.31E-02	(< 2.45E-02)
03/08/93	284.1	< 3.06E-02	(< 2.74E-02)
03/15/93	278.6	< 3.25E-02	(< 2.50E-02)
03/22/93	280.1	< 2.97E-02	(< 2.32E-02)
03/29/93	282.9	< 2.89E-02	(< 3.53E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 3

FIRST QUARTER, 1993

1.0 MI S - SUBSTATION ON CONSTRUCTION RD (AC-202)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
01/04/93	292.5	< 2.74E-02	(< 3.29E-02)
01/11/93	280.9	< 2.85E-02	(< 2.91E-02)
01/18/93	296.2	< 2.37E-02	(< 4.53E-02)
01/25/93	283.0	< 1.94E-02	(< 3.27E-02)
02/01/93	281.1	< 2.21E-02	(< 2.34E-02)
02/08/93	306.8	< 2.80E-02	(< 2.73E-02)
02/15/93	289.9	< 3.35E-02	(< 3.54E-02)
02/22/93	327.9	< 3.26E-02	(< 2.61E-02)
03/01/93	332.5	< 2.72E-02	(< 2.45E-02)
03/08/93	283.9	< 3.65E-02	(< 2.74E-02)
03/22/93	259.8	< 2.93E-02	(< 2.32E-02)
03/29/93	273.5	< 3.36E-02	(< 3.53E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 4

FIRST QUARTER, 1993

2.3 MI SSW - SOUTHPORT SUBSTATION (AC-203)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
01/04/93	238.0	< 3.14E-02	(< 3.29E-02)
01/11/93	220.1	< 3.60E-02	(< 2.91E-02)
01/18/93	222.5	< 3.23E-02	(< 4.53E-02)
01/25/93	211.1	< 3.34E-02	(< 3.27E-02)
02/01/93	118.8	< 5.79E-02	(< 2.34E-02)
02/08/93	195.5	< 2.87E-02	(< 2.73E-02)
02/15/93	203.8	< 3.79E-02	(< 3.54E-02)
02/22/93	262.7	< 1.82E-02	(< 2.61E-02)
03/01/93	255.1	< 2.46E-02	(< 2.45E-02)
03/08/93	280.7	< 2.74E-02	(< 2.74E-02)
03/15/93	271.3	< 4.06E-02	(< 2.50E-02)
03/22/93	166.8	< 6.09E-02	(< 2.32E-02)
03/29/93	277.3	< 4.08E-02	(< 3.53E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 5

FIRST QUARTER, 1993

23.0 MI NNE - SUTTON PLANT (CONTROL) (AC-204)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>CONTROL ACTIVITY</u>
01/04/93	262.2	(< 3.29E-02)
01/11/93	251.7	(< 2.91E-02)
01/18/93	262.2	(< 4.53E-02)
01/25/93	255.5	(< 3.27E-02)
02/01/93	252.8	(< 2.34E-02)
02/08/93	261.1	(< 2.73E-02)
02/15/93	253.6	(< 3.54E-02)
02/22/93	319.0	(< 2.61E-02)
03/01/93	340.3	(< 2.45E-02)
03/08/93	261.7	(< 2.74E-02)
03/15/93	286.8	(< 2.50E-02)
03/22/93	284.5	(< 2.32E-02)
03/29/93	287.9	(< 3.53E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 6

FIRST QUARTER, 1993

0.6 MI SSE - SPOIL POND (AC-205)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
01/04/93	292.0	< 2.56E-02	(< 3.29E-02)
01/11/93	264.2	< 3.03E-02	(< 2.91E-02)
01/18/93	276.0	< 2.28E-02	(< 4.53E-02)
01/25/93	263.4	< 3.05E-02	(< 3.27E-02)
02/01/93	259.4	< 3.36E-02	(< 2.34E-02)
02/08/93	278.0	< 2.41E-02	(< 2.73E-02)
02/15/93	269.2	< 2.90E-02	(< 3.54E-02)
02/22/93	326.0	< 1.74E-02	(< 2.61E-02)
03/01/93	299.7	< 1.33E-02	(< 2.45E-02)
03/08/93	290.5	< 3.36E-02	(< 2.74E-02)
03/15/93	273.5	< 3.07E-02	(< 2.50E-02)
03/22/93	210.6	< 4.50E-02	(< 2.32E-02)
03/29/93	292.0	< 1.80E-02	(< 3.53E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 7

SECOND QUARTER, 1993

1.0 MI SW - VISITOR'S CENTER (AC-200)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
04/05/93	279.9	< 2.23E-02	(< 2.20E-02)
04/12/93	288.8	< 2.35E-02	(< 3.59E-02)
04/19/93	306.3	< 2.72E-02	(< 3.52E-02)
04/26/93	282.6	< 2.56E-02	(< 3.74E-02)
05/03/93	291.3	< 2.97E-02	(< 4.61E-02)
05/10/93	303.1	< 2.37E-02	(< 2.67E-02)
05/17/93	304.4	< 2.70E-02	(< 2.82E-02)
05/24/93	293.0	< 3.23E-02	(< 3.60E-02)
06/01/93	333.4	< 2.67E-02	(< 2.44E-02)
06/07/93	251.2	< 2.88E-02	(< 3.41E-02)
06/14/93	287.0	< 3.06E-02	(< 5.08E-02)
06/21/93	296.5	< 3.27E-02	(< 2.31E-02)
06/28/93	295.6	< 1.99E-02	(< 2.29E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 8

SECOND QUARTER, 1993

0.6 MI NE - PMAC (AC-201)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
04/05/93	273.2	< 3.81E-02	(< 2.20E-02)
04/12/93	278.4	< 3.24E-02	(< 3.59E-02)
04/19/93	296.7	< 3.62E-02	(< 3.52E-02)
04/26/93	272.2	< 3.32E-02	(< 3.74E-02)
05/03/93	285.6	< 2.68E-02	(< 4.61E-02)
05/10/93	290.4	< 3.14E-02	(< 2.67E-02)
05/17/93	293.6	< 2.05E-02	(< 2.82E-02)
05/24/93	277.0	< 3.03E-02	(< 3.60E-02)
06/01/93	298.9	< 2.34E-02	(< 2.44E-02)
06/07/93	220.2	< 5.00E-02	(< 3.41E-02)
06/14/93	251.7	< 2.20E-02	(< 5.08E-02)
06/21/93	261.5	< 2.90E-02	(< 2.31E-02)
06/28/93	261.3	< 3.46E-02	(< 2.29E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 9

SECOND QUARTER, 1993

1.0 MI S - SUBSTATION ON CONSTRUCTION RD (AC-202)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
04/05/93	260.9	< 3.78E-02	(< 2.20E-02)
04/12/93	271.1	< 4.04E-02	(< 3.59E-02)
04/19/93	284.2	< 2.09E-02	(< 3.52E-02)
04/26/93	265.1	< 2.80E-02	(< 3.74E-02)
05/03/93	278.4	< 3.81E-02	(< 4.61E-02)
05/10/93	290.0	< 2.40E-02	(< 2.67E-02)
05/17/93	295.7	< 2.49E-02	(< 2.82E-02)
05/24/93	301.5	< 3.65E-02	(< 3.60E-02)
06/01/93	374.1	< 2.92E-02	(< 2.44E-02)
06/07/93	292.7	< 4.62E-02	(< 3.41E-02)
06/14/93	353.8	< 2.78E-02	(< 5.08E-02)
06/21/93	363.7	< 1.74E-02	(< 2.31E-02)
06/28/93	364.9	< 2.57E-02	(< 2.29E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 10

SECOND QUARTER, 1993

2.3 MI SSW - SOUTHPORT SUBSTATION (AC-203)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
04/05/93	260.4	< 2.39E-02	(< 2.20E-02)
04/12/93	306.4	< 3.15E-02	(< 3.59E-02)
04/19/93	292.8	< 3.14E-02	(< 3.52E-02)
04/26/93	266.4	< 2.86E-02	(< 3.74E-02)
05/03/93	273.9	< 1.92E-02	(< 4.61E-02)
05/10/93	278.6	< 3.64E-02	(< 2.67E-02)
05/17/93	269.0	< 3.07E-02	(< 2.82E-02)
05/24/93	251.6	< 2.81E-02	(< 3.60E-02)
06/01/93	277.9	< 3.1 E-02	(< 2.44E-02)
06/07/93	207.6	< 3.58E-02	(< 3.41E-02)
06/14/93	235.0	< 4.32E-02	(< 5.08E-02)
06/21/93	245.0	< 3.60E-02	(< 2.31E-02)
06/28/93	248.7	< 3.83E-02	(< 2.29E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 11

SECOND QUARTER, 1993

23.0 MI NNE - SUTTON PLANT (CONTROL) (AC-204)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>CONTROL ACTIVITY</u>
04/05/93	284.5	(< 2.20E-02)
04/12/93	291.8	(< 3.59E-02)
04/19/93	288.3	(< 3.52E-02)
04/26/93	288.4	(< 3.74E-02)
05/03/93	279.0	(< 4.61E-02)
05/10/93	289.5	(< 2.67E-02)
05/17/93	293.0	(< 2.82E-02)
05/24/93	285.6	(< 3.60E-02)
06/01/93	321.8	(< 2.44E-02)
06/07/93	245.1	(< 3.41E-02)
06/14/93	274.7	(< 5.08E-02)
06/21/93	290.9	(< 2.31E-02)
06/28/93	285.5	(< 2.29E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 12

SECOND QUARTER, 1993

0.6 MI SSE - SPOIL POND (AC-205)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
04/05/93	277.9	< 2.88E-02	(< 2.20E-02)
04/12/93	285.2	< 4.18E-02	(< 3.59E-02)
04/19/93	301.6	< 2.37E-02	(< 3.52E-02)
04/26/93	277.0	< 1.90E-02	(< 3.74E-02)
05/03/93	290.7	< 2.28E-02	(< 4.61E-02)
05/10/93	296.1	< 2.96E-02	(< 2.67E-02)
05/17/93	299.8	< 2.67E-02	(< 2.82E-02)
05/24/93	286.0	< 3.64E-02	(< 3.60E-02)
06/01/93	332.0	< 1.65E-02	(< 2.44E-02)
06/07/93	247.8	< 3.24E-02	(< 3.41E-02)
06/14/93	281.8	< 2.23E-02	(< 5.08E-02)
06/21/93	293.1	< 3.71E-02	(< 2.31E-02)
06/28/93	291.1	< 1.85E-02	(< 2.29E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 13

FIRST QUARTER, 1993

1.0 MI SW - VISITOR'S CENTER (AP-200)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
01/04/93	314.5	8.81 \pm 2.41 E-03	(8.55 \pm 2.77 E-03)
01/11/93	299.9	9.94 \pm 2.49 E-03	(3.95 \pm 2.43 E-03)
01/18/93	313.7	1.98 \pm 0.30 E-02	(1.84 \pm 0.33 E-02)
01/25/93	321.8	2.13 \pm 0.30 E-02	(2.08 \pm 0.34 E-02)
02/01/93	277.3	1.93 \pm 0.33 E-02	(1.67 \pm 0.34 E-02)
02/08/93	334.9	1.13 \pm 0.26 E-02	(1.49 \pm 0.33 E-02)
02/15/93	303.5	1.33 \pm 0.29 E-02	(1.20 \pm 0.33 E-02)
02/22/93	304.2	2.10 \pm 0.31 E-02	(2.07 \pm 0.30 E-02)
03/01/93	305.7	1.87 \pm 0.30 E-02	(1.91 \pm 0.28 E-02)
03/08/93	286.2	1.82 \pm 0.32 E-02	(1.49 \pm 0.33 E-02)
03/15/93	275.8	1.42 \pm 0.31 E-02	(1.49 \pm 0.30 E-02)
03/22/93	265.1	2.07 \pm 0.34 E-02	(1.81 \pm 0.31 E-02)
03/29/93	290.6	9.39 \pm 2.59 E-03	(9.97 \pm 2.64 E-03)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 14

FIRST QUARTER, 1993

0.6 MI NE - PMAC (AP-201)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
01/04/93	262.0	9.43 \pm 2.83 E-03	(8.55 \pm 2.77 E-03)
01/11/93	249.5	6.11 \pm 2.61 E-03	(3.95 \pm 2.43 E-03)
01/18/93	252.6	1.66 \pm 0.33 E-02	(1.84 \pm 0.33 E-02)
01/25/93	241.2	2.19 \pm 0.36 E-02	(2.08 \pm 0.34 E-02)
02/01/93	235.5	1.76 \pm 0.37 E-02	(1.67 \pm 0.34 E-02)
02/08/93	268.5	1.58 \pm 0.33 E-02	(1.49 \pm 0.33 E-02)
02/15/93	241.4	1.50 \pm 0.36 E-02	(1.20 \pm 0.33 E-02)
02/22/93	281.9	2.04 \pm 0.32 E-02	(2.07 \pm 0.30 E-02)
03/01/93	281.9	2.29 \pm 0.34 E-02	(1.91 \pm 0.28 E-02)
03/08/93	284.1	1.84 \pm 0.32 E-02	(1.49 \pm 0.33 E-02)
03/15/93	278.6	1.46 \pm 0.31 E-02	(1.49 \pm 0.30 E-02)
03/22/93	280.1	1.87 \pm 0.32 E-02	(1.81 \pm 0.31 E-02)
03/29/93	282.9	7.98 \pm 2.55 E-03	(9.97 \pm 2.64 E-03)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 15

FIRST QUARTER, 1993

1.0 MI S - SUBSTATION ON CONSTRUCTION RD (AP 202)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
01/04/93	292.5	6.71 \pm 2.42 E-03	(8.55 \pm 2.77 E-03)
01/11/93	280.9	5.43 \pm 2.31 E-03	(3.95 \pm 2.43 E-03)
01/18/93	296.2	1.65 \pm 0.30 E-02	(1.84 \pm 0.33 E-02)
01/25/93	283.0	2.10 \pm 0.32 E-02	(2.08 \pm 0.34 E-02)
02/01/93	281.8	1.70 \pm 0.32 E-02	(1.67 \pm 0.34 E-02)
02/08/93	306.8	1.28 \pm 0.28 E-02	(1.49 \pm 0.33 E-02)
02/15/93	289.9	1.15 \pm 0.29 E-02	(1.20 \pm 0.33 E-02)
02/22/93	327.9	1.98 \pm 0.29 E-02	(2.07 \pm 0.30 E-02)
03/01/93	332.5	1.62 \pm 0.27 E-02	(1.91 \pm 0.28 E-02)
03/08/93	283.9	1.88 \pm 0.33 E-02	(1.49 \pm 0.33 E-02)
03/22/93	259.8	1.58 \pm 0.32 E-02	(1.81 \pm 0.31 E-02)
03/29/93	273.5	7.91 \pm 2.62 E-03	(9.97 \pm 2.64 E-03)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 16

FIRST QUARTER, 1993

2.3 MI SSW - SOUTHPORT SUBSTATION (AP-203)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
01/04/93	238.0	9.12 \pm 3.03 E-03	(8.55 \pm 2.77 E-03)
01/11/93	220.1	6.51 \pm 2.92 E-03	(3.95 \pm 2.43 E-03)
01/18/93	222.5	1.53 \pm 0.36 E-02	(1.84 \pm 0.33 E-02)
01/25/93	211.1	1.79 \pm 0.37 E-02	(2.08 \pm 0.34 E-02)
02/01/93	118.8	1.17 \pm 0.59 E-02	(1.67 \pm 0.34 E-02)
02/08/93	195.5	1.00 \pm 0.38 E-02	(1.49 \pm 0.33 E-02)
02/15/93	203.8	6.12 \pm 3.56 E-03	(1.20 \pm 0.33 E-02)
02/22/93	262.7	1.80 \pm 0.33 E-02	(2.07 \pm 0.30 E-02)
03/01/93	255.1	1.57 \pm 0.33 E-02	(1.91 \pm 0.28 E-02)
03/08/93	280.7	1.81 \pm 0.33 E-02	(1.49 \pm 0.33 E-02)
03/15/93	271.3	1.53 \pm 0.32 E-02	(1.49 \pm 0.30 E-02)
03/22/93	166.8	2.13 \pm 0.48 E-02	(1.81 \pm 0.31 E-02)
03/29/93	277.3	9.16 \pm 2.67 E-03	(9.97 \pm 2.64 E-03)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 17

FIRST QUARTER, 1993

23.0 MI NNE - SUTTON PLANT (CONTROL) (AP-204)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>CONTROL ACTIVITY</u>
01/04/93	262.2	(8.55 ± 2.77 E-03)
01/11/93	251.7	(3.95 ± 2.43 E-03)
01/18/93	262.2	(1.84 ± 0.33 E-02)
01/25/93	255.5	(2.08 ± 0.34 E-02)
02/01/93	252.8	(1.67 ± 0.34 E-02)
02/08/93	261.1	(1.49 ± 0.33 E-02)
02/15/93	253.6	(1.20 ± 0.33 E-02)
02/22/93	319.0	(2.07 ± 0.30 E-02)
03/01/93	340.3	(1.91 ± 0.28 E-02)
03/08/93	261.7	(1.49 ± 0.33 E-02)
03/15/93	286.8	(1.49 ± 0.30 E-02)
03/22/93	284.5	(1.81 ± 0.31 E-02)
03/29/93	287.9	(9.97 ± 2.64 E-03)

AIR PARTICULATE SAMPLES - BETA
 (PICOCURIES PER CUBIC METER)

BSEP - 18

FIRST QUARTER, 1993

0.6 MI SSE - SPOIL POND (AP-205)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
01/04/93	292.0	1.12 \pm 0.27 E-02	(8.55 \pm 2.77 E-03)
01/11/93	264.2	6.30 \pm 2.50 E-03	(3.95 \pm 2.43 E-03)
01/18/93	276.0	1.62 \pm 0.31 E-02	(1.84 \pm 0.33 E-02)
01/25/93	263.4	2.13 \pm 0.34 E-02	(2.08 \pm 0.34 E-02)
02/01/93	259.4	1.77 \pm 0.34 E-02	(1.67 \pm 0.34 E-02)
02/08/93	278.0	1.36 \pm 0.31 E-02	(1.49 \pm 0.33 E-02)
02/15/93	269.2	1.12 \pm 0.31 E-02	(1.20 \pm 0.33 E-02)
02/22/93	326.0	1.69 \pm 0.28 E-02	(2.07 \pm 0.30 E-02)
03/01/93	299.7	1.84 \pm 0.31 E-02	(1.91 \pm 0.28 E-02)
03/08/93	290.5	1.94 \pm 0.32 E-02	(1.49 \pm 0.33 E-02)
03/15/93	273.5	1.75 \pm 0.33 E-02	(1.49 \pm 0.30 E-02)
03/22/93	210.6	2.16 \pm 0.41 E-02	(1.81 \pm 0.31 E-02)
03/29/93	292.0	8.78 \pm 2.54 E-03	(9.97 \pm 2.64 E-03)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 19

SECOND QUARTER, 1993

1.0 MI SW - VISITOR'S CENTER (AP-200)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
04/05/93	279.9	1.13 \pm 0.28 E-02	(1.40 \pm 0.29 E-02)
04/12/93	288.8	1.13 \pm 0.29 E-02	(1.09 \pm 0.28 E-02)
04/19/93	306.3	1.58 \pm 0.29 E-02	(1.44 \pm 0.29 E-02)
04/26/93	282.6	2.18 \pm 0.34 E-02	(1.82 \pm 0.32 E-02)
05/03/93	291.3	1.70 \pm 0.31 E-02	(1.37 \pm 0.30 E-02)
05/10/93	303.1	1.16 \pm 0.27 E-02	(1.03 \pm 0.27 E-02)
05/17/93	304.4	1.45 \pm 0.29 E-02	(1.42 \pm 0.29 E-02)
05/24/93	293.0	1.57 \pm 0.30 E-02	(1.68 \pm 0.32 E-02)
06/01/93	333.4	1.35 \pm 0.26 E-02	(1.47 \pm 0.27 E-02)
06/07/93	251.2	1.52 \pm 0.32 E-02	(1.66 \pm 0.34 E-02)
06/14/93	287.0	2.02 \pm 0.32 E-02	(1.83 \pm 0.32 E-02)
06/21/93	296.5	1.17 \pm 0.28 E-02	(1.16 \pm 0.28 E-02)
06/28/93	295.6	1.23 \pm 0.28 E-02	(1.26 \pm 0.29 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 20

SECOND QUARTER, 1993

0.6 MI NE - PMAC (AP-201)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
04/05/93	273.2	1.20 \pm 0.29 E-02	(1.40 \pm 0.29 E-02)
04/12/93	278.4	7.27 \pm 2.69 E-03	(1.09 \pm 0.28 E-02)
04/19/93	296.7	1.71 \pm 0.30 E-02	(1.44 \pm 0.29 E-02)
04/26/93	272.2	2.01 \pm 0.34 E-02	(1.82 \pm 0.32 E-02)
05/03/93	285.6	1.86 \pm 0.32 E-02	(1.37 \pm 0.30 E-02)
05/10/93	290.4	1.28 \pm 0.28 E-02	(1.03 \pm 0.27 E-02)
05/17/93	293.6	1.47 \pm 0.30 E-02	(1.42 \pm 0.29 E-02)
05/24/93	277.0	1.66 \pm 0.32 E-02	(1.68 \pm 0.32 E-02)
06/01/93	298.9	1.55 \pm 0.29 E-02	(1.47 \pm 0.27 E-02)
06/07/93	220.2	1.62 \pm 0.36 E-02	(1.66 \pm 0.34 E-02)
06/14/93	251.7	1.88 \pm 0.34 E-02	(1.83 \pm 0.32 E-02)
06/21/93	261.5	1.01 \pm 0.30 E-02	(1.16 \pm 0.28 E-02)
06/28/93	261.3	1.50 \pm 0.32 E-02	(1.26 \pm 0.29 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 21

SECOND QUARTER, 1993

1.0 MI S - SUBSTATION ON CONSTRUCTION RD (AP-202)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
04/05/93	260.9	1.24 \pm 0.30 E-02	(1.40 \pm 0.29 E-02)
04/12/93	271.1	9.37 \pm 2.88 E-03	(1.09 \pm 0.28 E-02)
04/19/93	284.2	1.37 \pm 0.29 E-02	(1.44 \pm 0.29 E-02)
04/26/93	265.1	1.81 \pm 0.33 E-02	(1.82 \pm 0.32 E-02)
05/03/93	278.4	1.64 \pm 0.32 E-02	(1.37 \pm 0.30 E-02)
05/10/93	290.0	1.18 \pm 0.28 E-02	(1.03 \pm 0.27 E-02)
05/17/93	295.7	1.48 \pm 0.30 E-02	(1.42 \pm 0.29 E-02)
05/24/93	301.5	1.70 \pm 0.30 E-02	(1.68 \pm 0.32 E-02)
06/01/93	374.1	1.68 \pm 0.26 E-02	(1.47 \pm 0.27 E-02)
06/07/93	292.7	1.67 \pm 0.30 E-02	(1.66 \pm 0.34 E-02)
06/14/93	353.8	1.74 \pm 0.26 E-02	(1.83 \pm 0.32 E-02)
06/21/93	363.7	1.21 \pm 0.24 E-02	(1.16 \pm 0.28 E-02)
06/28/93	364.9	1.13 \pm 0.23 E-02	(1.26 \pm 0.29 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 22

SECOND QUARTER, 1993

2.3 MI SSW - SOUTHPORT SUBSTATION (AP-203)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
04/05/93	260.4	7.05 \pm 2.69 E-03	(1.40 \pm 0.29 E-02)
04/12/93	306.4	9.90 \pm 2.65 E-03	(1.09 \pm 0.28 E-02)
04/19/93	292.8	1.53 \pm 0.29 E-02	(1.44 \pm 0.29 E-02)
04/26/93	266.4	1.85 \pm 0.34 E-02	(1.82 \pm 0.32 E-02)
05/03/93	273.9	1.73 \pm 0.33 E-02	(1.37 \pm 0.30 E-02)
05/10/93	278.6	1.30 \pm 0.29 E-02	(1.03 \pm 0.27 E-02)
05/17/93	269.0	1.50 \pm 0.32 E-02	(1.42 \pm 0.29 E-02)
05/24/93	251.6	1.79 \pm 0.35 E-02	(1.68 \pm 0.32 E-02)
06/01/93	277.9	1.51 \pm 0.31 E-02	(1.47 \pm 0.27 E-02)
06/07/93	207.6	1.79 \pm 0.39 E-02	(1.66 \pm 0.34 E-02)
06/14/93	235.0	1.73 \pm 0.35 E-02	(1.83 \pm 0.32 E-02)
06/21/93	245.0	1.12 \pm 0.32 E-02	(1.16 \pm 0.28 E-02)
06/28/93	248.7	1.32 \pm 0.32 E-02	(1.26 \pm 0.29 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 23

SECOND QUARTER, 1993

23.0 MI NNE - SUTTON PLANT (CONTROL) (AP-204)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>CONTROL ACTIVITY</u>
04/05/93	284.5	(1.40 ± 0.29 E-02)
04/12/93	291.8	(1.09 ± 0.28 E-02)
04/19/93	288.3	(1.44 ± 0.29 E-02)
04/26/93	288.4	(1.82 ± 0.32 E-02)
05/03/93	279.0	(1.37 ± 0.30 E-02)
05/10/93	289.5	(1.03 ± 0.27 E-02)
05/17/93	293.0	(1.42 ± 0.29 E-02)
05/24/93	285.6	(1.68 ± 0.32 E-02)
06/01/93	321.8	(1.47 ± 0.27 E-02)
06/07/93	245.1	(1.66 ± 0.34 E-02)
06/14/93	274.7	(1.83 ± 0.32 E-02)
06/21/93	290.9	(1.16 ± 0.28 E-02)
06/28/93	285.5	(1.26 ± 0.29 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 24

SECOND QUARTER, 1993

0.6 MI SSE - SPOIL POND (AP-205)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
04/05/93	277.9	1.09 \pm 0.28 E-02	(1.40 \pm 0.29 E-02)
04/12/93	285.2	8.82 \pm 2.74 E-03	(1.09 \pm 0.28 E-02)
04/19/93	301.6	1.56 \pm 0.29 E-02	(1.44 \pm 0.29 E-02)
04/26/93	277.0	1.88 \pm 0.33 E-02	(1.82 \pm 0.32 E-02)
05/03/93	290.7	1.94 \pm 0.32 E-02	(1.37 \pm 0.30 E-02)
05/10/93	296.1	1.01 \pm 0.26 E-02	(1.03 \pm 0.27 E-02)
05/17/93	299.8	1.37 \pm 0.29 E-02	(1.42 \pm 0.29 E-02)
05/24/93	286.0	1.69 \pm 0.32 E-02	(1.68 \pm 0.32 E-02)
06/01/93	332.0	1.27 \pm 0.26 E-02	(1.47 \pm 0.27 E-02)
06/07/93	247.8	1.78 \pm 0.34 E-02	(1.66 \pm 0.34 E-02)
06/14/93	281.8	1.84 \pm 0.31 E-02	(1.83 \pm 0.32 E-02)
06/21/93	293.1	9.15 \pm 2.66 E-03	(1.16 \pm 0.28 E-02)
06/28/93	291.1	1.23 \pm 0.28 E-02	(1.26 \pm 0.29 E-02)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 25

FIRST QUARTER, 1993

1.0 MI SW - VISITOR'S CENTER (AP-200)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 3893.2 CUBIC METERS

ISOTOPE

SAMPLE ACTIVITY

CONTROL ACTIVITY

BE-7

1.28 \pm 0.14 E-01

(1.28 \pm 0.15 E-01)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 26

FIRST QUARTER, 1993

0.6 MI NE - PMAC (AP-201)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 3439.4 CUBIC METERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.27 ± 0.14 E-01	(1.28 ± 0.15 E-01)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 27

FIRST QUARTER, 1993

1.0 MI S - SUBSTATION ON CONSTRUCTION RD (AP-202)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 3586.4 CUBIC METERS

ISOTOPE

SAMPLE ACTIVITY

CONTROL ACTIVITY

BE-7

1.16 \pm 0.15 E-01

(1.28 \pm 0.15 E-01)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 28

FIRST QUARTER, 1993

2.3 MI SSW - SOUTHPORT SUBSTATION (AP-203)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 2923.7 CUBIC METERS

ISOTOPE

SAMPLE ACTIVITY

CONTROL ACTIVITY

BE-7

8.31 \pm 2.13 E-02

(1.28 \pm 0.15 E-01)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 29

FIRST QUARTER, 1993

23.0 MI NNE - SUTTON PLANT (CONTROL) (AP-204)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 3579.3 CUBIC METERS

ISOTOPE

CONTROL ACTIVITY

BE-7

(1.28 ± 0.15 E-01)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 30

FIRST QUARTER, 1993

0.6 MI SSE - SPOIL POND (AP-205)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 3624.5 CUBIC METERS

ISOTOPE

SAMPLE ACTIVITY

CONTROL ACTIVITY

BE-7

1.20 \pm 0.12 E-01

(1.28 \pm 0.15 E-01)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 31

SECOND QUARTER, 1993

1.0 MI SW - VISITOR'S CENTER (AP-200)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 3813.1 CUBIC METERS

ISOTOPE

SAMPLE ACTIVITY

CONTROL ACTIVITY

BE-7

1.52 \pm 0.17 E-01

(2.03 \pm 0.23 E-01)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 32

SECOND QUARTER, 1993

0.6 MI NE - PMAC (AP-201)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 3560.7 CUBIC METERS

ISOTOPE

SAMPLE ACTIVITY

CONTROL ACTIVITY

BE-7

1.90 \pm 0.21 E-01

(2.03 \pm 0.23 E-01)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 33

SECOND QUARTER, 1993

1.0 MI S - SUBSTATION ON CONSTRUCTION RD (AP-202)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 3996.1 CUBIC METERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	9.30 \pm 0.97 E-02	(2.03 \pm 0.23 E-01)
BI-214	1.82 \pm 1.13 E-03	(LESS THAN LLD)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 34

SECOND QUARTER, 1993

2.3 MI SSW - SOUTHPORT SUBSTATION (AP-203)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 3413.3 CUBIC METERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.47 \pm 0.17 E-01	(2.03 \pm 0.23 E-01)
RA-226	1.39 \pm 0.83 E-02	(LESS THAN LLD)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 35

SECOND QUARTER, 1993

23.0 MI NNE - SUTTON PLANT (CONTROL) (AP-204)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 3118.1 CUBIC METERS

ISOTOPE

BE-7

CONTROL ACTIVITY

(2.03 ± 0.23 E-01)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 36

SECOND QUARTER, 1993

0.6 MI SSE - SPOIL POND (AP-205)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 3760.1 CUBIC METERS

ISOTOPE

SAMPLE ACTIVITY

CONTROL ACTIVITY

BE-7

1.30 \pm 0.12 E-01

(2.03 \pm 0.23 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 37

JANUARY, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 01/05/93)

HOLLY

GAMMA SPECTROMETRY

MASS: 331.8 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.30 \pm 0.10 E+00	(NOT REQUIRED)
K-40	1.94 \pm 0.19 E+00	(NOT REQUIRED)
I-131	< 1.92E-02	(NOT REQUIRED)
CS-134	< 1.99E-02	(NOT REQUIRED)
CS-137	< 2.16E-02	(NOT REQUIRED)
TL-208	1.47 \pm 0.93 E-02	(NOT REQUIRED)
PB-212	2.67 \pm 1.35 E-02	(NOT REQUIRED)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 38

JANUARY, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 01/05/93)

HOLLY

GAMMA SPECTROMETRY

MASS: 278.4 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
K-40	1.63 \pm 0.24 E+00	(NOT REQUIRED)
I-131	< 3.49E-02	(NOT REQUIRED)
CS-134	< 2.24E-02	(NOT REQUIRED)
CS-137	< 2.19E-02	(NOT REQUIRED)
PB-212	3.51 \pm 1.66 E-02	(NOT REQUIRED)
BI-214	3.59 \pm 2.04 E-02	(NOT REQUIRED)
RA-226	3.10 \pm 2.23 E-01	(NOT REQUIRED)
AC-228	4.93 \pm 3.76 E-02	(NOT REQUIRED)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 39

JANUARY, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 01/05/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 479.4 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	9.92 \pm 0.69 E-01	(4.63 \pm 0.13 E+00)
K-40	1.40 \pm 0.14 E+00	(1.47 \pm 0.16 E+00)
I-131	< 2.08E-02	(< 2.02E-02)
CS-134	< 1.47E-02	(< 2.16E-02)
CS-137	< 1.32E-02	(< 1.81E-02)
PB-212	1.76 \pm 1.01 E-02	(LESS THAN LLD)
PB-214	LESS THAN LLD	(4.73 \pm 1.77 E-02)
BI-214	LESS THAN LLD	(6.46 \pm 2.31 E-02)
RA-226	LESS THAN LLD	(2.89 \pm 1.77 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 40

JANUARY, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 01/05/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 482.7 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.23 \pm 0.09 E+00	(4.63 \pm 0.13 E+00)
K-40	1.35 \pm 0.15 E+00	(1.47 \pm 0.16 E+00)
I-131	< 1.65E-02	(< 2.02E-02)
CS-134	< 1.65E-02	(< 2.16E-02)
CS-137	< 1.64E-02	(< 1.81E-02)
PB-214	LESS THAN LLD	(4.73 \pm 1.77 E-02)
BI-214	LESS THAN LLD	(6.46 \pm 2.31 E-02)
RA-226	LESS THAN LLD	(2.89 \pm 1.77 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 41

JANUARY, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 01/05/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 378.3 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(4.63 ± 0.13 E+00)
K-40	(1.47 ± 0.16 E+00)
I-131	(< 2.02E-02)
CS-134	(< 2.16E-02)
CS-137	(< 1.81E-02)
PB-214	(4.73 ± 1.77 E-02)
BI-214	(6.46 ± 2.31 E-02)
RA-226	(2.89 ± 1.77 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 42

JANUARY, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 01/05/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 441.6 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.23 \pm 0.09 E+00	(4.63 \pm 0.13 E+00)
K-40	1.74 \pm 0.18 E+00	(1.47 \pm 0.16 E+00)
I-131	< 2.02E-02	(< 2.02E-02)
CS-134	< 1.79E-02	(< 2.16E-02)
CS-137	< 1.97E-02	(< 1.81E-02)
PB-214	LESS THAN LLD	(4.73 \pm 1.77 E-02)
BI-214	LESS THAN LLD	(6.46 \pm 2.31 E-02)
RA-226	LESS THAN LLD	(2.89 \pm 1.77 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 43

JANUARY, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 01/05/93)

SWEET BAY

GAMMA SPECTROMETRY

MASS: 329.2 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	5.19 \pm 0.87 E-01	(NOT REQUIRED)
K-40	1.74 \pm 0.22 E+00	(NOT REQUIRED)
I-131	< 2.13E-02	(NOT REQUIRED)
CS-134	< 2.11E-02	(NOT REQUIRED)
CS-137	< 2.03E-02	(NOT REQUIRED)
PB-212	4.28 \pm 1.51 E-02	(NOT REQUIRED)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 44

JANUARY, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 01/05/93)

SWEET BAY

GAMMA SPECTROMETRY

MASS: 409.5 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.90 ± 0.10 E+00	(NOT REQUIRED)
K-40	1.85 ± 0.14 E+00	(NOT REQUIRED)
I-131	< 1.67E-02	(NOT REQUIRED)
CS-134	< 1.71E-02	(NOT REQUIRED)
CS-137	< 1.70E-02	(NOT REQUIRED)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 45

JANUARY, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 01/05/93)

WATER OAK

GAMMA SPECTROMETRY

MASS: 350.4 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	4.31 \pm 0.87 E-01	(2.99 \pm 0.13 E+00)
K-40	2.87 \pm 0.20 E+00	(1.87 \pm 0.19 E+00)
I-131	< 2.17E-02	(< 1.98E-02)
CS-134	< 1.82E-02	(< 1.71E-02)
CS-137	3.14 \pm 0.90 E-02	(1.13 \pm 0.12 E-01)
RA-226	LESS THAN LLD	(2.85 \pm 2.06 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 46

JANUARY, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 01/05/93)

WATER OAK

GAMMA SPECTROMETRY

MASS: 375.5 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(2.99 ± 0.13 E+00)
K-40	(1.87 ± 0.19 E+00)
I-131	(< 1.98E-02)
CS-134	(< 1.71E-02)
CS-137	(1.13 ± 0.12 E-01)
RA-226	(2.85 ± 2.06 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 47

JANUARY, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 01/05/93)

LAUREL OAK

GAMMA SPECTROMETRY

MASS: 385.1 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	3.72 ± 0.78 E-01	(NOT REQUIRED)
K-40	1.67 ± 0.20 E+00	(NOT REQUIRED)
I-131	< 2.94E-02	(NOT REQUIRED)
CS-134	< 2.18E-02	(NOT REQUIRED)
CS-137	< 1.96E-02	(NOT REQUIRED)
BI-214	2.37 ± 2.27 E-02	(NOT REQUIRED)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 48

JANUARY, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 01/05/93)

VIBURNUM

GAMMA SPECTROMETRY

MASS: 522.3 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(2.80 \pm 0.09 E+00)
K-40	(3.92 \pm 0.17 E+00)
I-131	(< 1.72E-02)
CS-134	(< 1.28E-02)
CS-137	(< 1.34E-02)
TL-208	(1.24 \pm 0.68 E-02)
PB-212	(9.41 \pm 8.24 E-03)
AC-228	(4.65 \pm 2.24 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 49

FEBRUARY, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 02/02/93)

HOLLY

GAMMA SPECTROMETRY

MASS: 333.5 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	4.86 \pm 0.78 E-01	(1.35 \pm 0.10 E+00)
K-40	1.95 \pm 0.22 E+00	(1.71 \pm 0.20 E+00)
I-131	< 2.26E-02	(< 1.89E-02)
CS-134	< 2.19E-02	(< 2.44E-02)
CS-137	< 2.49E-02	(2.99 \pm 0.15 E-01)
PB-212	2.78 \pm 1.96 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 50

FEBRUARY, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 02/02/93)

HOLLY

GAMMA SPECTROMETRY

MASS: 428.2 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.04 \pm 0.08 E+00	(1.35 \pm 0.10 E+00)
K-40	1.62 \pm 0.18 E+00	(1.71 \pm 0.20 E+00)
I-131	< 1.89E-02	(< 1.89E-02)
CS-134	< 1.81E-02	(< 2.44E-02)
CS-137	< 2.03E-02	(2.99 \pm 0.15 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 51

FEBRUARY, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 02/02/93)

HOLLY

GAMMA SPECTROMETRY

MASS: 308.4 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7 (1.35 ± 0.10 E+00)

K-40 (1.71 ± 0.20 E+00)

I-131 (< 1.89E-02)

CS-134 (< 2.44E-02)

CS-137 (2.99 ± 0.15 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 52

FEBRUARY, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 02/02/93)

HOLLY

GAMMA SPECTROMETRY

MASS: 377.8 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	6.10 \pm 0.80 E-01	(1.35 \pm 0.10 E+00)
K-40	2.53 \pm 0.19 E+00	(1.71 \pm 0.20 E+00)
I-131	< 2.96E-02	(< 1.89E-02)
CS-134	< 1.94E-02	(< 2.44E-02)
CS-137	6.21 \pm 0.19 E-01	(2.99 \pm 0.15 E-01)
PB-212	3.34 \pm 1.41 E-02	(LESS THAN LLD)
RA-226	3.93 \pm 2.00 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 53

FEBRUARY, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 02/02/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 467.3 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	2.04 \pm 0.08 E+00	(4.34 \pm 0.12 E+00)
K-40	1.61 \pm 0.15 E+00	(1.56 \pm 0.17 E+00)
I-131	< 1.31E-02	(< 2.03E-02)
CS-134	< 1.43E-02	(< 1.98E-02)
CS-137	< 1.39E-02	(< 1.85E-02)
TL-208	1.30 \pm 0.71 E-02	(3.59 \pm 0.83 E-02)
PB-212	LESS THAN LLD	(4.78 \pm 1.32 E-02)
BI-214	1.83 \pm 1.21 E-02	(8.90 \pm 2.02 E-02)
AC-228	LESS THAN LLD	(2.84 \pm 0.46 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 54

FEBRUARY, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 02/02/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 379.3 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.64 \pm 0.08 E+00	(4.34 \pm 0.12 E+00)
K-40	1.80 \pm 0.17 E+00	(1.56 \pm 0.17 E+00)
I-131	< 1.72E-02	(< 2.03E-02)
CS-134	< 1.71E-02	(< 1.98E-02)
CS-137	< 1.83E-02	(< 1.85E-02)
TL-208	LESS THAN LLD	(3.59 \pm 0.83 E-02)
PB-212	2.60 \pm 1.30 E-02	(4.78 \pm 1.32 E-02)
BI-214	LESS THAN LLD	(8.90 \pm 2.02 E-02)
AC-228	LESS THAN LLD	(2.84 \pm 0.46 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 55

FEBRUARY, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 02/02/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 417.3 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(4.34 \pm 0.12 E+00)
K-40	(1.56 \pm 0.17 E+00)
I-131	(< 2.03E-02)
CS-134	(< 1.98E-02)
CS-137	(< 1.85E-02)
TL-208	(3.59 \pm 0.83 E-02)
PB-212	(4.78 \pm 1.32 E-02)
BI-214	(8.90 \pm 2.02 E-02)
AC-228	(2.84 \pm 0.46 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 56

FEBRUARY, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 02/02/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 442.3 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.27 \pm 0.08 E+00	(4.34 \pm 0.12 E+00)
K-40	1.67 \pm 0.13 E+00	(1.56 \pm 0.17 E+00)
I-131	< 1.60E-02	(< 2.03E-02)
CS-134	< 1.62E-02	(< 1.98E-02)
CS-137	< 1.58E-02	(< 1.85E-02)
TL-208	2.35 \pm 0.12 E-02	(3.59 \pm 0.83 E-02)
PB-212	LESS THAN LLD	(4.78 \pm 1.32 E-02)
BI-214	LESS THAN LLD	(8.90 \pm 2.02 E-02)
AC-228	LESS THAN LLD	(2.84 \pm 0.46 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 57

FEBRUARY, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 02/02/93)

SWEET BAY

GAMMA SPECTROMETRY

MASS: 448.6 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.14 \pm 0.09 E+00	(1.28 \pm 0.10 E+00)
K-40	1.89 \pm 0.16 E+00	(2.46 \pm 0.17 E+00)
I-131	< 1.74E-02	(< 2.04E-02)
CS-134	< 1.85E-02	(< 2.05E-02)
CS-137	7.00 \pm 1.15 E-02	(1.77 \pm 0.14 E-01)
PB-212	3.54 \pm 1.68 E-02	(1.57 \pm 1.34 E-02)
BI-214	2.07 \pm 1.92 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 58

FEBRUARY, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 02/02/93)

SWEET BAY

GAMMA SPECTROMETRY

MASS: 431.3 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	2.08 \pm 0.10 E+00	(1.28 \pm 0.10 E+00)
K-40	2.42 \pm 0.17 E+00	(2.46 \pm 0.17 E+00)
I-131	< 1.76E-02	(< 2.04E-02)
CS-134	< 1.62E-02	(< 2.05E-02)
CS-137	< 1.82E-02	(1.77 \pm 0.14 E-01)
PB-212	1.34 \pm 1.08 E-02	(1.57 \pm 1.34 E-02)
BI-214	1.47 \pm 1.43 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 59

FEBRUARY, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 02/02/93)

SWEET BAY

GAMMA SPECTROMETRY

MASS: 433.8 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(1.28 ± 0.10 E+00)
K-40	(2.46 ± 0.17 E+00)
I-131	(< 2.04E-02)
CS-134	(< 2.05E-02)
CS-137	(1.77 ± 0.14 E-01)
PB-212	(1.57 ± 1.34 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 60

FEBRUARY, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 02/02/93)

SWEET BAY

GAMMA SPECTROMETRY

MASS: 356.7 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	4.57 \pm 0.92 E-01	(1.28 \pm 0.10 E+00)
K-40	4.04 \pm 0.22 E+00	(2.46 \pm 0.17 E+00)
I-131	< 2.04E-02	(< 2.04E-02)
CS-134	< 1.98E-02	(< 2.05E-02)
CS-137	< 2.00E-02	(1.77 \pm 0.14 E-01)
PB-212	3.76 \pm 1.20 E-02	(1.57 \pm 1.34 E-02)
RA-226	3.05 \pm 1.96 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 61

MARCH, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 03/09/93)

MAGNOLIA

GAMMA SPECTROMETRY

MASS: 406.3 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
K-40	7.66 ± 1.49 E-01	(NOT REQUIRED)
I-131	< 2.19E-02	(NOT REQUIRED)
CS-134	< 1.92E-02	(NOT REQUIRED)
CS-137	< 2.37E-02	(NOT REQUIRED)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 62

MARCH, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 03/09/93)

MAGNOLIA

GAMMA SPECTROMETRY

MASS: 387.7 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	3.79 \pm 0.63 E-01	(NOT REQUIRED)
K-40	2.58 \pm 0.19 E+00	(NOT REQUIRED)
I-131	< 1.64E-02	(NOT REQUIRED)
CS-134	< 1.80E-02	(NOT REQUIRED)
CS-137	< 1.66E-02	(NOT REQUIRED)
PB-212	1.91 \pm 1.26 E-02	(NOT REQUIRED)
BI-214	1.56 \pm 1.42 E-02	(NOT REQUIRED)
RA-226	2.13 \pm 1.27 E-01	(NOT REQUIRED)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 63

MARCH, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 03/09/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 445.6 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.32 \pm 0.07 E+00	(2.90 \pm 0.09 E+00)
K-40	1.27 \pm 0.15 E+00	(1.72 \pm 0.17 E+00)
I-131	< 1.43E-02	(< 1.46E-02)
CS-134	< 1.52E-02	(< 1.52E-02)
CS-137	< 1.59E-02	(< 1.70E-02)
TL-208	8.64 \pm 7.20 E-03	(7.22 \pm 6.86 E-03)
PB-212	2.92 \pm 1.03 E-02	(3.25 \pm 1.12 E-02)
PB-214	2.78 \pm 1.40 E-02	(LESS THAN LLD)
BI-214	2.59 \pm 1.56 E-02	(3.58 \pm 1.45 E-02)
RA-226	LESS THAN LLD	(3.70 \pm 1.51 E-01)
AC-228	7.59 \pm 2.67 E-02	(6.41 \pm 2.75 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 64

MARCH, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 03/09/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 359.4 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.44 \pm 0.10 E+00	(2.90 \pm 0.09 E+00)
K-40	9.36 \pm 1.38 E-01	(1.72 \pm 0.17 E+00)
I-131	< 2.72E-02	(< 1.46E-02)
CS-134	< 2.33E-02	(< 1.52E-02)
CS-137	< 2.56E-02	(< 1.70E-02)
TL-208	LESS THAN LLD	(7.22 \pm 6.86 E-03)
PB-212	LESS THAN LLD	(3.25 \pm 1.12 E-02)
BI-214	LESS THAN LLD	(3.58 \pm 1.45 E-02)
RA-226	LESS THAN LLD	(3.70 \pm 1.51 E-01)
AC-228	LESS THAN LLD	(6.41 \pm 2.75 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 65

MARCH, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 03/09/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 439.3 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(2.90 \pm 0.09 E+00)
K-40	(1.72 \pm 0.17 E+00)
I-131	(< 1.46E-02)
CS-134	(< 1.52E-02)
CS-137	(< 1.70E-02)
TL-208	(7.22 \pm 6.86 E-03)
PB-212	(3.25 \pm 1.12 E-02)
BI-214	(3.58 \pm 1.45 E-02)
RA-226	(3.70 \pm 1.51 E-01)
AC-228	(6.41 \pm 2.75 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 66

MARCH, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 03/09/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 433.9 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	1.17 \pm 0.09 E+00	(2.90 \pm 0.09 E+00)
K-40	1.39 \pm 0.15 E+00	(1.72 \pm 0.17 E+00)
I-131	< 2.59E-02	(< 1.46E-02)
CS-134	< 2.19E-02	(< 1.52E-02)
CS-137	< 2.01E-02	(< 1.70E-02)
TL-208	LESS THAN LLD	(7.22 \pm 6.86 E-03)
PB-212	LESS THAN LLD	(3.25 \pm 1.12 E-02)
BI-214	LESS THAN LLD	(3.58 \pm 1.45 E-02)
RA-226	LESS THAN LLD	(3.70 \pm 1.51 E-01)
AC-228	LESS THAN LLD	(6.41 \pm 2.75 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 67

MARCH, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 03/09/93)

YAUPON

GAMMA SPECTROMETRY

MASS: 438.3 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	9.63 \pm 0.96 E-01	(6.63 \pm 0.71 E-01)
K-40	2.83 \pm 0.19 E+00	(1.65 \pm 0.13 E+00)
I-131	< 2.21E-02	(< 2.33E-02)
CS-134	< 2.08E-02	(< 1.99E-02)
CS-137	< 2.15E-02	(5.01 \pm 1.00 E-02)
PB-212	4.10 \pm 1.78 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 68

MARCH, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 03/09/93)

YAUPON

GAMMA SPECTROMETRY

MASS: 476.1 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	8.17 \pm 0.77 E-01	(6.63 \pm 0.71 E-01)
K-40	1.99 \pm 0.17 E+00	(1.65 \pm 0.13 E+00)
I-131	< 1.88E-02	(< 2.33E-02)
CS-134	< 1.83E-02	(< 1.99E-02)
CS-137	< 1.76E-02	(5.01 \pm 1.00 E-02)
TL-208	2.03 \pm 0.83 E-02	(LESS THAN LLD)
PB-212	4.94 \pm 1.43 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 69

MARCH, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 03/09/93)

YAUPON

GAMMA SPECTROMETRY

MASS: 457.5 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(6.63 ± 0.71 E-01)
K-40	(1.65 ± 0.13 E+00)
I-131	(< 2.33E-02)
CS-134	(< 1.99E-02)
CS-137	(5.01 ± 1.00 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 70

MARCH, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 03/09/93)

YAUPON

GAMMA SPECTROMETRY

MASS: 436.7 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	6.61 \pm 0.77 E-01	(6.63 \pm 0.71 E-01)
K-40	3.96 \pm 0.20 E+00	(1.65 \pm 0.13 E+00)
I-131	< 1.83E-02	(< 2.33E-02)
CS-134	< 1.85E-02	(< 1.99E-02)
CS-137	< 1.65E-02	(5.01 \pm 1.00 E-02)
TL-208	2.69 \pm 0.75 E-02	(LESS THAN LLD)
PB-212	2.57 \pm 1.30 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 71

MARCH, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 03/09/93)

SWEET BAY

GAMMA SPECTROMETRY

MASS: 338.5 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	4.48 \pm 0.83 E-01	(2.12 \pm 0.14 E+00)
K-40	2.25 \pm 0.22 E+00	(1.83 \pm 0.18 E+00)
I-131	< 2.11E-02	(< 2.58E-02)
CS-134	< 2.12E-02	(< 2.28E-02)
CS-137	< 2.19E-02	(3.96 \pm 0.20 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 72

MARCH, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 03/09/93)

SWEET BAY

GAMMA SPECTROMETRY MASS: 392.9 GRAMS WET

<u>ISOTOPE</u>	<u>CONTROL ACTIVITY</u>
BE-7	(2.12 \pm 0.14 E+00)
K-40	(1.83 \pm 0.18 E+00)
I-131	(< 2.58E-02)
CS-134	(< 2.28E-02)
CS-137	(3.96 \pm 0.20 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 73

APRIL, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 04/06/93)

MAGNOLIA

GAMMA SPECTROMETRY MASS: 344.5 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.14 \pm 0.08 E+00	(4.54 \pm 0.77 E-01)
K-40	1.20 \pm 0.19 E+00	(2.04 \pm 0.20 E+00)
I-131	< 1.61E-02	(< 1.62E-02)
CS-134	< 1.98E-02	(< 1.75E-02)
CS-137	< 1.97E-02	(< 1.66E-02)
PB-212	LESS THAN LLD	(2.70 \pm 1.69 E-02)
RA-226	8.11 \pm 2.27 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 74

APRIL, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 04/06/93)

MAGNOLIA

GAMMA SPECTROMETRY

MASS: 371.9 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.71 \pm 0.10 E+00	(4.54 \pm 0.77 E-01)
K-40	2.30 \pm 0.18 E+00	(2.04 \pm 0.20 E+00)
I-131	< 1.73E-02	(< 1.62E-02)
CS-134	< 1.75E-02	(< 1.75E-02)
CS-137	< 1.96E-02	(< 1.66E-02)
PB-212	LESS THAN LLD	(2.70 \pm 1.69 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 75

APRIL, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 04/06/93)

MAGNOLIA

GAMMA SPECTROMETRY

MASS: 407.9 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(4.54 ± 0.77 E-01)
K-40	(2.04 ± 0.20 E+00)
I-131	(< 1.62E-02)
CS-134	(< 1.75E-02)
CS-137	(< 1.66E-02)
PB-212	(2.70 ± 1.69 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 76

APRIL, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 04/06/93)

MAGNOLIA

GAMMA SPECTROMETRY

MASS: 392 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	LESS THAN LLD	(4.54 \pm 0.77 E-01)
K-40	1.83 \pm 0.18 E+00	(2.04 \pm 0.20 E+00)
I-131	< 2.2E-02	(< 1.62E-02)
CS-134	< 1.52E-02	(< 1.75E-02)
CS-137	< 1.68E-02	(< 1.66E-02)
PB-212	LESS THAN LLD	(2.70 \pm 1.69 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 77

APRIL, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 04/06/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 456 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.17 \pm 0.10 E+00	(2.93 \pm 0.10 E+00)
K-40	3.80 \pm 1.13 E-01	(1.35 \pm 0.16 E+00)
I-131	< 2.02E-02	(< 1.56E-02)
CS-134	< 1.96E-02	(< 1.76E-02)
CS-137	< 1.97E-02	(3.41 \pm 0.78 E-02)
TL-208	LESS THAN LLD	(1.69 \pm 0.99 E-02)
PB-214	LESS THAN LLD	(5.72 \pm 1.95 E-02)
BI-214	LESS THAN LLD	(4.90 \pm 1.49 E-02)
RA-226	LESS THAN LLD	(2.08 \pm 1.40 E-01)
AC-228	LESS THAN LLD	(4.77 \pm 2.80 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 78

APRIL, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 04/06/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 394.3 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.74 \pm 0.10 E+00	(2.93 \pm 0.10 E+00)
K-40	9.52 \pm 1.11 E-01	(1.35 \pm 0.16 E+00)
I-131	< 2.00E-02	(< 1.56E-02)
CS-134	< 1.75E-02	(< 1.76E-02)
CS-137	< 1.84E-02	(3.41 \pm 0.78 E-02)
TL-208	LESS THAN LLD	(1.69 \pm 0.99 E-02)
PB-214	LESS THAN LLD	(5.72 \pm 1.95 E-02)
BI-214	LESS THAN LLD	(4.90 \pm 1.49 E-02)
RA-226	LESS THAN LLD	(2.08 \pm 1.40 E-01)
AC-228	LESS THAN LLD	(4.77 \pm 2.80 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 79

APRIL, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 04/06/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 426.3 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(2.93 ± 0.10 E+00)
K-40	(1.35 ± 0.16 E+00)
I-131	(< 1.56E-02)
CS-134	(< 1.76E-02)
CS-137	(3.41 ± 0.78 E-02)
TL-208	(1.69 ± 0.99 E-02)
PB-214	(5.72 ± 1.95 E-02)
BI-214	(4.90 ± 1.49 E-02)
RA-226	(2.08 ± 1.40 E-01)
AC-228	(4.77 ± 2.80 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 80

APRIL, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 04/06/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 399.5 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.72 \pm 0.13 E+00	(2.93 \pm 0.10 E+00)
K-40	9.76 \pm 1.25 E-01	(1.35 \pm 0.16 E+00)
I-131	< 3.12E-02	(< 1.56E-02)
CS-134	< 2.14E-02	(< 1.76E-02)
CS-137	< 2.18E-02	(3.41 \pm 0.78 E-02)
TL-208	LESS THAN LLD	(1.69 \pm 0.99 E-02)
PB-214	LESS THAN LLD	(5.72 \pm 1.95 E-02)
BI-214	LESS THAN LLD	(4.90 \pm 1.49 E-02)
RA-226	LESS THAN LLD	(2.08 \pm 1.40 E-01)
AC-228	LESS THAN LLD	(4.77 \pm 2.80 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 81

APRIL, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 04/06/93)

YAUPON

GAMMA SPECTROMETRY

MASS: 427.2 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	6.14 \pm 0.90 E-01	(9.86 \pm 0.83 E-01)
K-40	3.24 \pm 0.19 E+00	(9.98 \pm 1.10 E-01)
I-131	< 1.65E-02	(< 2.09E-02)
CS-134	< 1.73E-02	(< 1.74E-02)
CS-137	< 1.58E-02	(< 2.04E-02)
TL-208	4.51 \pm 0.83 E-02	(LESS THAN LLD)
PB-212	4.78 \pm 1.49 E-02	(LESS THAN LLD)
RA-226	2.42 \pm 1.93 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 82

APRIL, 1993

0.6 MI SW - DISCHARGE CAN'L (BL-801)
(DATE COLLECTED: 04/06/93)

YAUPON

GAMMA SPECTROMETRY

MASS: 410.2 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.09 ± 0.11 E+00	(9.86 ± 0.83 E-01)
K-40	8.10 ± 1.77 E-01	(9.98 ± 1.10 E-01)
I-131	< 2.26E-02	(< 2.09E-02)
CS-134	< 2.18E-02	(< 1.74E-02)
CS-137	< 2.23E-02	(< 2.04E-02)
PB-212	3.67 ± 1.64 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 83

APRIL, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 04/06/93)

YAUPON

GAMMA SPECTROMETRY MASS: 489.1 GRAMS WET

<u>ISOTOPE</u>	<u>CONTROL ACTIVITY</u>
BE-7	(9.86 ± 0.83 E-01)
K-40	(9.98 ± 1.10 E-01)
I-131	(< 2.09E-02)
CS-134	(< 1.74E-02)
CS-137	(< 2.04E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 84

APRIL, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 04/06/93)

YAUPON

GAMMA SPECTROMETRY

MASS: 475.7 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.29 \pm 0.08 E+00	(9.86 \pm 0.83 E-01)
K-40	3.91 \pm 0.18 E+00	(9.98 \pm 1.10 E-01)
I-131	< 1.69E-02	(< 2.09E-02)
CS-134	< 1.48E-02	(< 1.74E-02)
CS-137	< 1.52E-02	(< 2.04E-02)
PB-212	2.13 \pm 1.07 E-02	(LESS THAN LLD)
RA-226	2.05 \pm 1.47 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 85

MAY, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 05/11/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 489.5 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	3.02 \pm 0.64 E-01	(2.67 \pm 0.52 E-01)
K-40	2.26 \pm 0.16 E+00	(3.75 \pm 0.20 E+00)
I-131	< 1.45E-02	(< 1.77E-02)
CS-134	< 1.48E-02	(< 1.86E-02)
CS-137	< 1.44E-02	(< 1.74E-02)
TL-208	1.91 \pm 0.65 E-02	(2.58 \pm 0.79 E-02)
PB-212	2.45 \pm 0.96 E-02	(1.77 \pm 1.24 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 86

MAY, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 05/11/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 475.9 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	2.94 \pm 0.82 E-01	(2.67 \pm 0.52 E-01)
K-40	2.88 \pm 0.17 E+00	(3.75 \pm 0.20 E+00)
I-131	< 1.80E-02	(< 1.77E-02)
CS-134	< 2.02E-02	(< 1.86E-02)
CS-137	< 1.81E-02	(< 1.74E-02)
TL-208	LESS THAN LLD	(2.58 \pm 0.79 E-02)
PB-212	4.32 \pm 1.41 E-02	(1.77 \pm 1.24 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 87

MAY, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 05/11/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 428.9 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(2.67 ± 0.52 E-01)
K-40	(3.75 ± 0.20 E+00)
I-131	(< 1.77E-02)
CS-134	(< 1.86E-02)
CS-137	(< 1.74E-02)
TL-208	(2.58 ± 0.79 E-02)
PB-212	(1.77 ± 1.24 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 88

MAY, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 05/11/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 430.2 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	3.04 \pm 0.47 E-01	(2.67 \pm 0.52 E-01)
K-40	2.88 \pm 0.20 E+00	(3.75 \pm 0.20 E+00)
I-131	< 1.49E-02	(< 1.77E-02)
CS-134	< 1.46E-02	(< 1.86E-02)
CS-137	< 1.68E-02	(< 1.74E-02)
TL-208	LESS THAN LLD	(2.58 \pm 0.79 E-02)
PB-212	LESS THAN LLD	(1.77 \pm 1.24 E-02)
RA-226	2.36 \pm 1.32 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 89

MAY, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 05/11/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 559.5 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	3.43 \pm 0.72 E-01	(4.31 \pm 0.82 E-01)
K-40	1.16 \pm 0.10 E+00	(1.31 \pm 0.13 E+00)
I-131	< 1.62E-02	(< 1.34E-02)
CS-134	< 1.51E-02	(< 1.99E-02)
CS-137	< 1.56E-02	(< 1.77E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 90

MAY, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 05/11/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 442.8 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	7.68 \pm 0.66 E-01	(4.31 \pm 0.82 E-01)
K-40	2.82 \pm 0.17 E+00	(1.31 \pm 0.13 E+00)
I-131	< 1.46E-02	(< 1.34E-02)
CS-134	< 1.66E-02	(< 1.99E-02)
CS-137	< 1.46E-02	(< 1.77E-02)
TL-208	1.12 \pm 0.95 E-02	(LESS THAN LLD)
PB-212	1.63 \pm 1.10 E-02	(LESS THAN LLD)
BI-214	2.33 \pm 1.42 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 91

MAY, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 05/11/93)

WAX MYRTLE

GAMMA SPECTROMETRY MASS: 478 GRAMS WET

<u>ISOTOPE</u>	<u>CONTROL ACTIVITY</u>
BE-7	(4.31 ± 0.82 E-01)
K-40	(1.31 ± 0.13 E+00)
I-131	(< 1.34E-02)
CS-134	(< 1.99E-02)
CS-137	(< 1.77E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 92

MAY, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 05/11/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 499.9 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	6.81 \pm 0.81 E-01	(4.31 \pm 0.82 E-01)
K-40	2.05 \pm 0.16 E+00	(1.31 \pm 0.13 E+00)
I-131	< 1.47E-02	(< 1.34E-02)
CS-134	< 1.34E-02	(< 1.99E-02)
CS-137	< 1.40E-02	(< 1.77E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 93

MAY, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 05/11/93)

SWEET BAY

GAMMA SPECTROMETRY

MASS: 496.2 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	5.32 \pm 0.76 E-01	(LESS THAN LLD)
K-40	2.15 \pm 0.15 E+00	(1.85 \pm 0.14 E+00)
I-131	< 1.54E-02	(< 2.08E-02)
CS-134	< 1.66E-02	(< 1.96E-02)
CS-137	< 1.98E-02	(< 2.02E-02)
RA-226	1.80 \pm 1.61 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 94

MAY, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 05/11/93)

SWEET BAY

GAMMA SPECTROMETRY

MASS: 473.4 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	7.94 \pm 0.68 E-01	(LESS THAN LLD)
K-40	2.39 \pm 0.17 E+00	(1.85 \pm 0.14 E+00)
I-131	< 1.23E-02	(< 2.08E-02)
CS-134	< 1.29E-02	(< 1.96E-02)
CS-137	< 1.45E-02	(< 2.02E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 95

MAY, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 05/11/93)

SWEET BAY

GAMMA SPECTROMETRY

MASS: 465 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

K-40	(1.85 ± 0.14 E+00)
I-131	(< 2.08E-02)
CS-134	(< 1.96E-02)
CS-137	(< 2.02E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 96

MAY, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 05/11/93)

SWEET BAY

GAMMA SPECTROMETRY

MASS: 440.1 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.77 \pm 0.60 E-01	(LESS THAN LLD)
K-40	1.73 \pm 0.16 E+00	(1.85 \pm 0.14 E+00)
I-131	< 2.12E-02	(< 2.08E-02)
CS-134	< 2.04E-02	(< 1.96E-02)
CS-137	< 1.93E-02	(< 2.02E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 97

JUNE, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 06/08/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 389.7 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	9.19 \pm 0.83 E-01	(4.59 \pm 0.71 E-01)
K-40	2.90 \pm 0.19 E+00	(2.04 \pm 0.17 E+00)
I-131	< 1.66E-02	(< 1.63E-02)
CS-134	< 1.74E-02	(< 1.60E-02)
CS-137	< 1.91E-02	(< 1.46E-02)
BI-214	3.27 \pm 1.53 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 98

JUNE, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 06/08/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 380.5 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	3.22 \pm 0.74 E-01	(4.59 \pm 0.71 E-01)
K-40	2.87 \pm 0.20 E+00	(2.04 \pm 0.17 E+00)
I-131	< 1.96E-02	(< 1.63E-02)
CS-134	< 1.89E-02	(< 1.60E-02)
CS-137	< 1.63E-02	(< 1.46E-02)
BI-214	1.67 \pm 1.57 E-02	(LESS THAN LLD)
RA-226	2.39 \pm 1.54 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 99

JUNE, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 06/08/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 422.5 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(4.59 ± 0.71 E-01)
K-40	(2.04 ± 0.17 E+00)
I-131	(< 1.63E-02)
CS-134	(< 1.60E-02)
CS-137	(< 1.46E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 100

JUNE, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 06/08/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 387.9 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	2.86 \pm 0.71 E-01	(4.59 \pm 0.71 E-01)
K-40	2.43 \pm 0.19 E+00	(2.04 \pm 0.17 E+00)
I-131	< 2.37E-02	(< 1.63E-02)
CS-134	< 1.90E-02	(< 1.60E-02)
CS-137	< 1.74E-02	(< 1.46E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 101

JUNE, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 06/08/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 429.3 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	5.49 ± 0.58 E-01	(2.15 ± 0.64 E-01)
K-40	2.14 ± 0.18 E+00	(3.58 ± 0.19 E+00)
I-131	< 1.67E-02	(< 2.05E-02)
CS-134	< 1.59E-02	(< 2.04E-02)
CS-137	< 1.68E-02	(< 1.79E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 102

JUNE, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 06/08/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 447.7 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	4.22 \pm 0.66 E-01	(2.15 \pm 0.64 E-01)
K-40	1.36 \pm 0.15 E+00	(3.58 \pm 0.19 E+00)
I-131	< 1.47E-02	(< 2.05E-02)
CS-134	< 1.57E-02	(< 2.04E-02)
CS-137	< 1.40E-02	(< 1.79E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 103

JUNE, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 06/08/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 459 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7 (2.15 ± 0.64 E-01)

K-40 (3.58 ± 0.19 E+00)

I-131 (< 2.05E-02)

CS-134 (< 2.04E-02)

CS-137 (< 1.79E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 104

JUNE, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 06/08/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 446.2 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	3.65 \pm 0.60 E-01	(2.15 \pm 0.64 E-01)
K-40	2.05 \pm 0.16 E+00	(3.58 \pm 0.19 E+00)
I-131	< 1.62E-02	(< 2.05E-02)
CS-134	< 1.38E-02	(< 2.04E-02)
CS-137	< 1.46E-02	(< 1.79E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 105

JUNE, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 06/08/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 435.9 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	9.09 \pm 1.03 E-01	(5.67 \pm 0.83 E-01)
K-40	2.61 \pm 0.20 E+00	(1.17 \pm 0.14 E+00)
I-131	< 1.94E-02	(< 2.57E-02)
CS-134	< 2.15E-02	(< 2.18E-02)
CS-137	< 1.85E-02	(< 2.20E-02)
PB-212	1.44 \pm 1.31 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 106

JUNE, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 06/08/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 449 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	4.47 \pm 0.75 E-01	(5.67 \pm 0.83 E-01)
K-40	2.40 \pm 0.18 E+00	(1.17 \pm 0.14 E+00)
I-131	< 1.68E-02	(< 2.57E-02)
CS-134	< 1.69E-02	(< 2.18E-02)
CS-137	< 1.50E-02	(< 2.20E-02)
PB-212	3.09 \pm 1.59 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 107

JUNE, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 06/08/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 423.8 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(5.67 ± 0.83 E-01)
K-40	(1.17 ± 0.14 E+00)
I-131	(< 2.57E-02)
CS-134	(< 2.18E-02)
CS-137	(< 2.20E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 108

JUNE, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 06/08/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 379.9 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	5.97 ± 0.74 E-01	(5.67 ± 0.83 E-01)
K-40	1.77 ± 0.21 E+00	(1.17 ± 0.14 E+00)
I-131	< 2.62E-02	(< 2.57E-02)
CS-134	< 2.36E-02	(< 2.18E-02)
CS-137	< 2.25E-02	(< 2.20E-02)

FISH AND INVERTEBRATES SAMPLES
(PICOCURIES PER GRAM)

BSEP - 109

FIRST SEMI-ANNUAL, 1993

5.5 MI SSW - FREE SWIMMERS AT DISCHARGE (FI-700)
(DATE COLLECTED: 06/16/93)

FREE SWIMMERS, EDIBLE PORTION

GAMMA SPECTROMETRY

MASS: 701.9 GRAMS FRESH

ISOTOPE

SAMPLE ACTIVITY

CONTROL ACTIVITY

K-40

3.88 \pm 0.27 E+00

(NOT REQUIRED)

FISH AND INVERTEBRATES SAMPLES
(PICOCURIES PER GRAM)

BSEP - 110

FIRST SEMI-ANNUAL, 1993

FREE SWIMMERS - ATLANTIC OCEAN (CONTROL) (FI-703)
(DATE COLLECTED: 06/16/93)

FREE SWIMMERS, EDIBLE PORTION

GAMMA SPECTROMETRY

MASS: 525.7 GRAMS FRESH

ISOTOPE

SAMPLE ACTIVITY

CONTROL ACTIVITY

K-40

4.70 \pm 0.33 E+00

(NOT REQUIRED)

FISH AND INVERTEBRATES SAMPLES
(PICOCURIES PER GRAM)

BSEP - 111

FIRST SEMI-ANNUAL, 1993

5.5 MI SSW - BOTTOM FEEDER AT DISCHARGE (FI-701)
(DATE COLLECTED: 06/16/93)

BOTTOM FEEDERS, EDIBLE PORTION

GAMMA SPECTROMETRY

MASS: 699.1 GRAMS FRESH

ISOTOPE

SAMPLE ACTIVITY

CONTROL ACTIVITY

K-40

2.65 ± 0.30 E+00

(NOT REQUIRED)

FISH AND INVERTEBRATES SAMPLES
(PICOCURIES PER GRAM)

BSEP - 112

FIRST SEMI-ANNUAL, 1993

BOTTOM FEEDER - ATLANTIC OCEAN (CONTROL) (FI-704)
(DATE COLLECTED: 06/16/93)

BOTTOM FEEDERS, EDIBLE PORTION

GAMMA SPECTROMETRY

MASS: 482.1 GRAMS FRESH

ISOTOPE

SAMPLE ACTIVITY

CONTROL ACTIVITY

K-40

4.84 ± 0.35 E+00

(NOT REQUIRED)

INVERTEBRATES SAMPLES
(PICOCURIES PER GRAM)

BSEP - 113

FIRST SEMI-ANNUAL, 1993

5.5 MI SSW - SH/BO AT DISCHARGE (IN-702)
(DATE COLLECTED: 06/16/93)

INVERTEBRATES, EDIBLE PORTION

GAMMA SPECTROMETRY MASS: 426.7 GRAMS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
K-40	2.66 ± 0.34 E+00	(1.48 ± 0.27 E+00)

INVERTEBRATES SAMPLES
(PICOCURIES PER GRAM)

BSEP - 114

FIRST SEMI-ANNUAL, 1993

SH/BO - ATLANTIC OCEAN (CONTROL) (IN-705)
(DATE COLLECTED: 06/16/93)

INVERTEBRATES, EDIBLE PORTION

GAMMA SPECTROMETRY MASS: 490.9 GRAMS

ISOTOPE CONTROL ACTIVITY
K-40 (1.48 ± 0.27 E+00)

SHORELINE SEDIMENT SAMPLES
(PICOCURIES PER GRAM)

BSEP - 115

FIRST SEMI-ANNUAL, 1993

4.9 MI SSW - DISCHARGE, BEACH (SS-500)
(DATE COLLECTED: 06/08/93)

GAMMA SPECTROMETRY MASS: 965.6 GRAMS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
K-40	8.26 \pm 1.00 E-01	(NOT REQUIRED)
TL-208	2.84 \pm 0.66 E-02	(NOT REQUIRED)
PB-212	1.04 \pm 0.14 E-01	(NOT REQUIRED)
PB-214	1.14 \pm 0.18 E-01	(NOT REQUIRED)
BI-214	1.28 \pm 0.16 E-01	(NOT REQUIRED)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 116

JANUARY, 1993

0.7 MI NE - INTAKE CANAL (CONTROL) (SW-400)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	(< 9.33E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>CONTROL ACTIVITY</u>
K-40	(5.90 ± 3.98 E+01)
BI-214	(8.92 ± 5.88 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 117

JANUARY, 1993

4.9 MI SSW - DISCHARGE CANAL, STILL POND (SW-401)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	< 9.33E+02	(< 9.33E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
K-40	1.13 ± 0.47 E+02	(5.90 ± 3.98 E+01)
TL-208	4.96 ± 2.51 E+00	(LESS THAN LLD)
PB-212	5.49 ± 3.80 E+00	(LESS THAN LLD)
BI-214	LESS THAN LLD	(8.92 ± 5.88 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 118

FEBRUARY, 1993

0.7 MI NE - INTAKE CANAL (CONTROL) (SW-400)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	(< 9.20E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>CONTROL ACTIVITY</u>
K-40	(1.21 ± 0.32 E+02)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 119

FEBRUARY, 1993

4.9 MI SSW - DISCHARGE CANAL, STILL POND (SW-401)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	< 9.20E+02	(< 9.20E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
K-40	1.62 ± 0.33 E+02	(1.21 ± 0.32 E+02)
TL-208	4.40 ± 1.41 E+00	(LESS THAN LLD)
RA-226	4.96 ± 3.50 E+01	(LESS THAN LLD)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 120

MARCH, 1993

0.7 MI NE - INTAKE CANAL (CONTROL) (SW-400)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	(< 9.29E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>CONTROL ACTIVITY</u>
K-40	(5.14 ± 2.58 E+01)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 121

MARCH, 1993

4.9 MI SSW - DISCHARGE CANAL, STILL POND (SW-401)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	< 9.29E+02	(< 9.29E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
K-40	4.37 ± 3.08 E+01	(5.14 ± 2.58 E+01)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 122

APRIL, 1993

0.7 MI NE - INTAKE CANAL (CONTROL) (SW-400)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	(< 1.04E+03)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>CONTROL ACTIVITY</u>
K-40	(8.96 ± 3.36 E+01)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 123

APRIL, 1993

4.9 MI SSW - DISCHARGE CANAL, STILL POND (SW-401)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	< 1.04E+03	(< 1.04E+03)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
K-40	1.34 ± 0.34 E+02	(8.96 ± 3.36 E+01)
PB-212	3.30 ± 2.82 E+00	(LESS THAN LLD)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 124

MAY, 1993

0.7 MI NE - INTAKE CANAL (CONTROL) (SW-400)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	(< 9.91E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>CONTROL ACTIVITY</u>
K-40	(2.16 ± 0.40 E+02)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 125

MAY, 1993

4.9 MI SSW - DISCHARGE CANAL, STILL POND (SW-401)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	< 9.91E+02	(< 9.91E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
K-40	2.79 ± 0.36 E+02	(2.16 ± 0.40 E+02)
TL-208	5.03 ± 1.34 E+00	(LESS THAN LLD)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 126

JUNE, 1993

0.7 MI NE - INTAKE CANAL (CONTROL) (SW-400)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	(< 1.07E+03)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>CONTROL ACTIVITY</u>
K-40	(3.32 ± 0.43 E+02)
TL-208	(4.30 ± 1.56 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 127

JUNE, 1993

4.9 MI SSW - DISCHARGE CANAL, STILL POND (SW-401)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	< 1.07E+03	(< 1.07E+03)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
K-40	3.39 ± 0.45 E+02	(3.32 ± 0.43 E+02)
TL-208	LESS THAN LLD	(4.30 ± 1.56 E+00)

ENVIRONMENTAL TLD
(MILLIROENTGEN PER WEEK)

BSEP - 128

FIRST QUARTER, 1993

	<u>STATION</u>	<u> MILLIROENTGEN PER WEEK</u>
	CONTROL	(1.00 ± 0.40 E+00)
1	1.1 MI E - MOORE ST EXTENSION	7.00 ± 3.00 E-01
2	1.0 MI ESE - MOORE ST EXTENSION	7.00 ± 3.00 E-01
3	0.9 MI SE - MOORE ST EXTENSION	7.00 ± 3.00 E-01
4	1.1 MI SSE - MOORE ST EXTENTION	8.00 ± 3.00 E-01
5	1.1 MI S - LEONARD ST	8.00 ± 3.00 E-01
6	1.0 MI S - BEMCO POWER LINE	7.00 ± 3.00 E-01
7	1.0 MI SW - HWY 87 AT RIGHT-OF-WAY	8.00 ± 3.00 E-01
8	1.2 MI W - HWY 87	7.00 ± 3.00 E-01
9	1.0 MI WNW - BETHEL CHURCH RD	1.00 ± 0.30 E+00
10	0.9 MI NW - BETHEL CHURCH RD	6.00 ± 3.00 E-01
11	0.9 MI NNW - BETHEL CHURCH RD	1.00 ± 0.30 E+00
12	1.0 MI N - BETHEL CHURCH RD	7.00 ± 3.00 E-01
13	1.2 MI NNE - BETHEL CHURCH RD	7.00 ± 3.00 E-01
14	0.5 MI NE - INTAKE CANAL	1.10 ± 0.40 E+00
15	0.9 MI ENE - INTAKE CANAL	9.00 ± 3.00 E-01
16	1.0 MI WSW - DISCHARGE CANAL	8.00 ± 3.00 E-01
17	1.5 MI ESE - PFIZER PROPERTY	6.00 ± 3.00 E-01
18	1.7 MI SE - PFIZER PROPERTY	9.00 ± 3.00 E-01
20	2.0 MI S - MOORE ST	7.00 ± 3.00 E-01
21	2.9 MI SSW - WEST ST AT SEA CAPTAIN	7.00 ± 3.00 E-01
23	4.6 MI WSW - NEAR AIRPORT	7.00 ± 3.00 E-01

ENVIRONMENTAL TLD
(MILLIROENTGEN PER WEEK)

BSEP - 129

FIRST QUARTER, 1993

	<u>STATION</u>	<u>MILLIROENTGEN PER WEEK</u>
	CONTROL	(1.00 ± 0.40 E+00)
24	3.0 MI W - HWY 211	8.00 ± 3.00 E-01
25	8.7 MI WNW - ANTIOCH BAPTIST CHURCH	1.00 ± 0.30 E+00
26	5.9 MI NW - W BOILING SPRINGS RD	1.10 ± 0.30 E+00
27	5.0 MI NNW - HWY 133	7.00 ± 3.00 E-01
28	4.2 MI NW - AT SOUTH BRUNSWICK HS	8.00 ± 3.00 E-01
29	2.6 MI SSW - SOUTHPORT ELEMENTARY SCHOOL	7.00 ± 3.00 E-01
30	2.0 MI NE - SUNNY POINT MOT	1.10 ± 0.30 E+00
31	2.6 MI ENE - SUNNY POINT MOT	8.00 ± 3.00 E-01
32	5.7 MI ENE - FT FISHER AFB HOUSING	8.00 ± 3.00 E-01
34	5.5 MI ENE - FT FISHER MUSEUM	8.00 ± 3.00 E-01
35	7.5 MI SSE - BALD HEAD ISLAND	6.00 ± 3.00 E-01
36	9.3 MI NE - CAROLINA BEACH	1.20 ± 1.60 E+00
37	5.5 MI NW - BOILING SPRINGS LAKES	7.00 ± 3.00 E-01
38	11.0 MI W - SUNSET HARBOR	7.00 ± 3.00 E-01
39	5.3 MI SW - YAUPON BEACH CITY HALL	7.00 ± 3.00 E-01
40	6.9 MI WSW - LONG BEACH CITY HALL	8.00 ± 3.00 E-01
75	4.5 MI S - FT CASWELL BAPTIST ASSEMBLY	9.00 ± 3.00 E-01
76	4.8 MI SSW - CASWELL BEACH	1.10 ± 0.30 E+00
77	5.3 MI SSE - BALDHEAD ISLAND	7.00 ± 3.00 E-01
78	10.0 MI NNE - HWY 133 AT SR 1521	8.00 ± 3.00 E-01
81	10.0 MI WNW - MIDWAY RD AT SR 1508	1.00 ± 0.40 E+00

ENVIRONMENTAL TLD
(MILLIROENTGEN PER WEEK)

BSEP - 130

SECOND QUARTER, 1993

	<u>STATION</u>	<u>MILLIROENTGEN PER WEEK</u>
	CONTROL	(7.00 ± 1.00 E-01)
1	1.1 MI E - MOORE ST EXTENSION	7.00 ± 1.00 E-01
2	1.0 MI ESE - MOORE ST EXTENSION	8.00 ± 1.00 E-01
3	0.9 MI SE - MOORE ST EXTENSION	7.00 ± 1.00 E-01
4	1.1 MI SSE - MOORE ST EXTENTION	7.00 ± 1.00 E-01
5	1.1 MI S - LEONARD ST	7.00 ± 2.00 E-01
6	1.0 MI S - BEMCO POWER LINE	7.00 ± 1.00 E-01
7	1.0 MI SW - HWY 87 AT RIGHT-OF-WAY	9.00 ± 1.00 E-01
8	1.2 MI W - HWY 87	7.00 ± 1.00 E-01
9	1.0 MI WNW - BETHEL CHURCH RD	7.00 ± 1.00 E-01
10	0.9 MI NW - BETHEL CHURCH RD	7.00 ± 1.00 E-01
11	0.9 MI NNW - BETHEL CHURCH RD	7.00 ± 1.00 E-01
12	1.0 MI N - BETHEL CHURCH RD	7.00 ± 1.00 E-01
13	1.2 MI NNE - BETHEL CHURCH RD	7.00 ± 1.00 E-01
14	0.5 MI NE - INTAKE CANAL	8.00 ± 1.00 E-01
15	0.9 MI ENE - INTAKE CANAL	8.00 ± 1.00 E-01
16	1.0 MI WSW - DISCHARGE CANAL	7.00 ± 1.00 E-01
17	1.5 MI ESE - PFIZER PROPERTY	7.00 ± 1.00 E-01
18	1.7 MI SE - PFIZER PROPERTY	7.00 ± 1.00 E-01
20	2.0 MI S - MOORE ST	7.00 ± 1.00 E-01
21	2.9 MI SSW - WEST ST AT SEA CAPTAIN	7.00 ± 1.00 E-01
23	4.6 MI WSW - NEAR AIRPORT	6.00 ± 1.00 E-01

ENVIRONMENTAL TLD
(MILLIROENTGEN PER WEEK)

BSEP - 131

SECOND QUARTER, 1993

	<u>STATION</u>	<u>MILLIROENTGEN PER WEEK</u>
	CONTROL	(7.00 ± 1.00 E-01)
24	3.0 MI W - HWY 211	7.00 ± 1.00 E-01
25	8.7 MI WNW - ANTIOCH BAPTIST CHURCH	8.00 ± 1.00 E-01
26	5.9 MI NW - W BOILING SPRINGS RD	8.00 ± 1.00 E-01
27	5.0 MI NNW - HWY 133	6.00 ± 1.00 E-01
28	4.2 MI NW - AT SOUTH BRUNSWICK HS	7.00 ± 1.00 E-01
29	2.6 MI SSW - SOUTHPORT ELEMENTARY SCHOOL	6.00 ± 1.00 E-01
30	2.0 MI NE - SUNNY POINT MOT	8.00 ± 1.00 E-01
31	2.6 MI ENE - SUNNY POINT MOT	9.00 ± 1.00 E-01
32	5.7 MI ENE - FT FISHER AFB HOUSING	8.00 ± 1.00 E-01
33	4.0 MI E - FERRY SLIP IN NEW HANOVER CO	7.00 ± 1.00 E-01
34	5.5 MI ENE - FT FISHER MUSEUM	7.00 ± 1.00 E-01
35	7.5 MI SSE - BALD HEAD ISLAND	6.00 ± 1.00 E-01
36	9.3 MI NE - CAROLINA BEACH	7.00 ± 1.00 E-01
37	5.5 MI NW - BOILING SPRINGS LAKES	6.00 ± 1.00 E-01
38	11.0 MI W - SUNSET HARBOR	7.00 ± 1.00 E-01
39	5.3 MI SW - YAUPON BEACH CITY HALL	7.00 ± 1.00 E-01
40	6.9 MI WSW - LONG BEACH CITY HALL	7.00 ± 1.00 E-01
75	4.5 MI S - FT CASWELL BAPTIST ASSEMBLY	8.00 ± 1.00 E-01
76	4.8 MI SSW - CASWELL BEACH	8.00 ± 1.00 E-01
78	10.0 MI NNE - HWY 133 AT SR 1521	7.00 ± 1.00 E-01
79	9.5 MI N - SR 1539 AT SR 1521	7.00 ± 1.00 E-01

ENVIRONMENTAL TLD
(MILLIROENTGEN PER WEEK)

BSEP - 132

SECOND QUARTER, 1993

<u>STATION</u>	<u>MILLIROENTGEN PER WEEK</u>
CONTROL	(7.00 ± 1.00 E-01)
81 10.0 MI WNW - MIDWAY RD AT SR 1508	7.00 ± 1.00 E-01

Radiological Environmental Operating Report

VOLUME III

JULY 1, 1993 - DECEMBER 31, 1993

SAMPLE ANALYSIS DATA



BRUNSWICK NUCLEAR PROJECTTM
CAROLINA POWER & LIGHT

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 1

THIRD QUARTER, 1993

1.0 MI SW - VISITOR'S CENTER (AC-200)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
07/06/93	333.8	< 1.52E-02	(< 1.78E-02)
07/12/93	253.2	< 2.98E-02	(< 2.48E-02)
07/19/93	302.1	< 2.92E-02	(< 2.98E-02)
07/26/93	290.1	< 1.91E-02	(< 3.76E-02)
08/02/93	299.1	< 2.73E-02	(< 2.76E-02)
08/09/93	299.2	< 2.53E-02	(< 2.83E-02)
08/16/93	283.6	< 3.17E-02	(< 2.69E-02)
08/23/93	302.0	< 2.80E-02	(< 3.26E-02)
08/30/93	290.4	< 1.79E-02	(< 2.53E-02)
09/07/93	311.2	< 2.49E-02	(< 2.55E-02)
09/13/93	249.1	< 3.50E-02	(< 3.40E-02)
09/20/93	283.3	< 2.56E-02	(< 1.84E-02)
09/27/93	284.7	< 1.95E-02	(< 3.3 .2)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 2

THIRD QUARTER, 1993

0.6 MI NE - PMAC (AC-201)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
07/06/93	295.2	< 2.41E-02	(< 1.78E-02)
07/12/93	226.9	< 4.24E-02	(< 2.48E-02)
07/19/93	268.9	< 3.49E-02	(< 2.98E-02)
07/26/93	257.4	< 3.51E-02	(< 3.76E-02)
08/02/93	266.1	< 3.00E-02	(< 2.76E-02)
08/09/93	259.1	< 2.63E-02	(< 2.83E-02)
08/16/93	242.3	< 4.09E-02	(< 2.69E-02)
08/23/93	260.6	< 3.34E-02	(< 3.26E-02)
08/30/93	246.7	< 3.20E-02	(< 2.53E-02)
09/07/93	303.9	< 2.41E-02	(< 2.55E-02)
09/13/93	245.2	< 1.93E-02	(< 3.40E-02)
09/20/93	280.4	< 2.98E-02	(< 1.84E-02)
09/27/93	281.6	< 2.97E-02	(< 3.37E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 3

THIRD QUARTER, 1993

1.0 MI S - SUBSTATION ON CONSTRUCTION RD (AC-202)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
07/06/93	438.2	< 1.84E-02	(< 1.78E-02)
07/12/93	332.4	< 2.58E-02	(< 2.48E-02)
07/19/93	387.5	< 2.73E-02	(< 2.98E-02)
07/26/93	287.7	< 2.34E-02	(< 3.76E-02)
08/02/93	136.1	< 4.27E-02	(< 2.76E-02)
08/09/93	286.3	< 2.62E-02	(< 2.83E-02)
08/16/93	299.0	< 2.24E-02	(< 2.69E-02)
08/23/93	369.6	< 2.03E-02	(< 3.26E-02)
08/30/93	343.8	< 2.63E-02	(< 2.53E-02)
09/07/93	296.7	< 2.43E-02	(< 2.55E-02)
09/13/93	224.1	< 2.90E-02	(< 3.40E-02)
09/20/93	262.1	< 2.86E-02	(< 1.84E-02)
09/27/93	262.7	< 2.86E-02	(< 3.37E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 4

THIRD QUARTER, 1993

2.3 MI SSW - SOUTHPORT SUBSTATION (AC-203)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
07/06/93	281.7	< 2.02E-02	(< 1.78E-02)
07/12/93	214.3	< 3.93E-02	(< 2.48E-02)
07/19/93	249.6	< 3.30E-02	(< 2.98E-02)
07/26/93	237.0	< 2.62E-02	(< 3.76E-02)
08/02/93	241.1	< 2.56E-02	(< 2.76E-02)
08/09/93	246.8	< 1.37E-02	(< 2.83E-02)
08/16/93	229.1	< 2.41E-02	(< 2.69E-02)
08/23/93	241.1	< 4.06E-02	(< 3.26E-02)
08/30/93	192.0	< 2.71E-02	(< 2.53E-02)
09/07/93	241.4	< 2.04E-02	(< 2.55E-02)
09/13/93	247.4	< 3.85E-02	(< 3.40E-02)
09/20/93	284.5	< 2.38E-02	(< 1.84E-02)
09/27/93	285.7	< 1.82E-02	(< 3.37E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 5

THIRD QUARTER, 1993

23.0 MI NNE - SUTTON PLANT (CONTROL) (AC-204)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>CONTROL ACTIVITY</u>
07/06/93	324.6	(< 1.78E-02)
07/12/93	239.0	(< 2.48E-02)
07/19/93	278.5	(< 2.98E-02)
07/26/93	273.7	(< 3.76E-02)
08/02/93	276.6	(< 2.76E-02)
08/09/93	276.9	(< 2.83E-02)
08/16/93	272.3	(< 2.69E-02)
08/23/93	277.4	(< 3.26E-02)
08/30/93	273.9	(< 2.53E-02)
09/07/93	313.2	(< 2.55E-02)
09/13/93	242.4	(< 3.40E-02)
09/20/93	281.8	(< 1.84E-02)
09/27/93	278.5	(< 3.37E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 6

THIRD QUARTER, 1993

0.6 MI SSE - SPOIL POND (AC-205)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
07/06/93	327.3	< 2.04E-02	(< 1.78E-02)
07/12/93	248.2	< 3.65E-02	(< 2.48E-02)
07/19/93	295.3	< 3.15E-02	(< 2.98E-02)
07/26/93	281.6	< 3.05E-02	(< 3.76E-02)
08/02/93	290.2	< 3.28E-02	(< 2.76E-02)
08/09/93	289.3	< 2.72E-02	(< 2.83E-02)
08/16/93	272.4	< 3.68E-02	(< 2.69E-02)
08/23/93	281.4	< 2.54E-02	(< 3.26E-02)
08/30/93	262.6	< 3.14E-02	(< 2.53E-02)
09/07/93	304.3	< 2.38E-02	(< 2.55E-02)
09/13/93	256.2	< 1.33E-02	(< 3.40E-02)
09/20/93	289.1	< 2.73E-02	(< 1.84E-02)
09/27/93	289.7	< 2.73E-02	(< 3.37E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 7

FOURTH QUARTER, 1993

1.0 MI SW - VISITOR'S CENTER (AC-200)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
10/04/93	282.2	< 3.38E-02	(< 3.27E-02)
10/11/93	280.3	< 2.81E-02	(< 3.25E-02)
10/18/93	283.8	< 2.02E-02	(< 2.62E-02)
10/25/93	285.0	< 2.17E-02	(< 3.28E-02)
11/01/93	290.1	< 3.01E-02	(< 3.25E-02)
11/08/93	281.3	< 3.09E-02	(< 3.76E-02)
11/15/93	270.3	< 3.47E-02	(< 3.35E-02)
11/22/93	286.9	< 2.29E-02	(< 3.09E-02)
11/29/93	282.7	< 2.70E-02	(< 3.83E-02)
12/06/93	274.5	< 3.64E-02	(< 3.25E-02)
12/13/93	276.4	< 2.80E-02	(< 3.83E-02)
12/20/93	273.3	< 2.74E-02	(< 3.37E-02)
12/28/93	307.6	< 2.04E-02	(< 2.73E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 8

FOURTH QUARTER, 1993

0.6 MI NE - PMAC (AC-201)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
10/04/93	277.4	< 3.26E-02	(< 3.27E-02)
10/11/93	275.3	< 2.44E-02	(< 3.25E-02)
10/18/93	276.6	< 2.96E-02	(< 2.62E-02)
10/25/93	279.6	< 1.98E-02	(< 3.28E-02)
11/01/93	281.5	< 2.57E-02	(< 3.25E-02)
11/08/93	271.9	< 3.30E-02	(< 3.76E-02)
11/15/93	263.2	< 3.94E-02	(< 3.35E-02)
11/22/93	278.9	< 3.24E-02	(< 3.09E-02)
11/29/93	267.8	< 2.94E-02	(< 3.83E-02)
12/06/93	262.3	< 3.75E-02	(< 3.25E-02)
12/13/93	284.7	< 2.96E-02	(< 3.83E-02)
12/20/93	291.2	< 2.00E-02	(< 3.37E-02)
12/28/93	328.4	< 2.74E-02	(< 2.73E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 9

FOURTH QUARTER, 1993

1.0 MI S - SUBSTATION ON CONSTRUCTION RD (AC-202)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
10/04/93	261.5	< 3.01E-02	(< 3.27E-02)
10/11/93	257.7	< 2.95E-02	(< 3.25E-02)
10/18/93	263.4	< 2.37E-02	(< 2.62E-02)
10/25/93	270.6	< 3.08E-02	(< 3.28E-02)
11/01/93	232.5	< 3.22E-02	(< 3.25E-02)
11/15/93	244.3	< 3.13E-02	(< 3.35E-02)
11/22/93	257.8	< 3.11E-02	(< 3.09E-02)
11/29/93	261.3	< 2.12E-02	(< 3.83E-02)
12/06/93	259.5	< 3.73E-02	(< 3.25E-02)
12/13/93	262.1	< 3.82E-02	(< 3.83E-02)
12/20/93	262.4	< 3.00E-02	(< 3.37E-02)
12/28/93	303.5	< 3.11E-02	(< 2.73E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 10

FOURTH QUARTER, 1993

2.3 MI SSW - SOUTHPORT SUBSTATION (AC-203)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
10/04/93	284.8	< 1.95E-02	(< 3.27E-02)
10/11/93	278.8	< 1.73E-02	(< 3.25E-02)
10/18/93	279.3	< 2.50E-02	(< 2.62E-02)
10/25/93	284.4	< 2.67E-02	(< 3.28E-02)
11/01/93	288.9	< 2.14E-02	(< 3.25E-02)
11/08/93	279.2	< 2.31E-02	(< 3.76E-02)
11/15/93	268.7	< 2.60E-02	(< 3.35E-02)
11/22/93	284.7	< 2.18E-02	(< 3.09E-02)
11/29/93	282.4	< 2.31E-02	(< 3.83E-02)
12/06/93	275.6	< 3.46E-02	(< 3.25E-02)
12/13/93	276.5	< 3.44E-02	(< 3.83E-02)
12/20/93	272.9	< 2.94E-02	(< 3.37E-02)
12/28/93	311.4	< 2.63E-02	(< 2.73E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 11

FOURTH QUARTER, 1993

23.0 MI NNE - SUTTON PLANT (CONTROL) (AC-204)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>CONTROL ACTIVITY</u>
10/04/93	275.8	(< 3.27E-02)
10/11/93	277.6	(< 3.25E-02)
10/18/93	268.6	(< 2.62E-02)
10/25/93	271.2	(< 3.28E-02)
11/01/93	269.1	(< 3.25E-02)
11/08/93	266.0	(< 3.76E-02)
11/15/93	263.4	(< 3.35E-02)
11/22/93	255.6	(< 3.09E-02)
11/29/93	261.8	(< 3.83E-02)
12/06/93	264.4	(< 3.25E-02)
12/13/93	261.8	(< 3.83E-02)
12/20/93	264.5	(< 3.37E-02)
12/28/93	293.7	(< 2.73E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

BSEP - 12

FOURTH QUARTER, 1993

0.6 MI SSE - SPOIL POND (AC-205)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
10/04/93	292.5	< 2.42E-02	(< 3.27E-02)
10/11/93	283.4	< 2.37E-02	(< 3.25E-02)
10/18/93	289.6	< 3.35E-02	(< 2.62E-02)
10/25/93	289.7	< 1.66E-02	(< 3.28E-02)
11/01/93	92.4	< 7.94E-02	(< 3.25E-02)
11/08/93	287.7	< 2.15E-02	(< 3.76E-02)
11/15/93	277.5	< 3.54E-02	(< 3.35E-02)
11/22/93	292.7	< 1.98E-02	(< 3.09E-02)
11/29/93	157.6	< 2.97E-02	(< 3.83E-02)
12/06/93	159.2	< 5.31E-02	(< 3.25E-02)
12/13/93	279.1	< 2.74E-02	(< 3.83E-02)
12/20/93	281.9	< 3.21E-02	(< 3.37E-02)
12/28/93	318.8	< 2.48E-02	(< 2.73E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 13

THIRD QUARTER, 1993

1.0 MI SW - VISITOR'S CENTER (AP-200)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
07/06/93	333.8	1.83 \pm 0.28 E-02	(1.39 \pm 0.27 E-02)
07/12/93	253.2	2.64 \pm 0.39 E-02	(2.36 \pm 0.40 E-02)
07/19/93	302.1	1.65 \pm 0.29 E-02	(1.63 \pm 0.31 E-02)
07/26/93	290.1	1.60 \pm 0.30 E-02	(1.73 \pm 0.32 E-02)
08/02/93	299.1	2.16 \pm 0.33 E-02	(1.92 \pm 0.33 E-02)
08/09/93	299.2	1.94 \pm 0.32 E-02	(1.62 \pm 0.32 E-02)
08/16/93	283.6	1.72 \pm 0.30 E-02	(1.55 \pm 0.30 E-02)
08/23/93	302.0	2.22 \pm 0.33 E-02	(1.76 \pm 0.32 E-02)
08/30/93	290.4	1.78 \pm 0.30 E-02	(1.67 \pm 0.31 E-02)
09/07/93	311.2	1.82 \pm 0.30 E-02	(1.58 \pm 0.29 E-02)
09/13/93	249.1	1.81 \pm 0.35 E-02	(1.75 \pm 0.35 E-02)
09/20/93	283.3	1.04 \pm 0.28 E-02	(1.49 \pm 0.31 E-02)
09/27/93	284.7	3.09 \pm 0.38 E-02	(2.69 \pm 0.37 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 14

THIRD QUARTER, 1993

0.6 MI NE - PMAC (AP-201)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
07/06/93	295.2	2.01 \pm 0.32 E-02	(1.39 \pm 0.27 E-02)
07/12/93	226.9	2.47 \pm 0.42 E-02	(2.36 \pm 0.40 E-02)
07/19/93	268.9	1.57 \pm 0.31 E-02	(1.63 \pm 0.31 E-02)
07/26/93	257.4	1.91 \pm 0.35 E-02	(1.73 \pm 0.32 E-02)
08/02/93	266.1	1.78 \pm 0.33 E-02	(1.92 \pm 0.33 E-02)
08/09/93	259.1	1.49 \pm 0.33 E-02	(1.62 \pm 0.32 E-02)
08/16/93	242.3	1.58 \pm 0.33 E-02	(1.55 \pm 0.30 E-02)
08/23/93	260.6	2.07 \pm 0.36 E-02	(1.76 \pm 0.32 E-02)
08/30/93	246.7	1.67 \pm 0.34 E-02	(1.67 \pm 0.31 E-02)
09/07/93	303.9	1.96 \pm 0.32 E-02	(1.58 \pm 0.29 E-02)
09/13/93	245.2	1.61 \pm 0.34 E-02	(1.75 \pm 0.35 E-02)
09/20/93	280.4	1.48 \pm 0.31 E-02	(1.49 \pm 0.31 E-02)
09/27/93	281.6	2.40 \pm 0.35 E-02	(2.69 \pm 0.37 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 15

THIRD QUARTER, 1993

1.0 MI S - SUBSTATION ON CONSTRUCTION RD (AP-202)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
07/06/93	438.2	1.62 \pm 0.23 E-02	(1.39 \pm 0.27 E-02)
07/12/93	332.4	2.22 \pm 0.31 E-02	(2.36 \pm 0.40 E-02)
07/19/93	387.5	1.62 \pm 0.25 E-02	(1.63 \pm 0.31 E-02)
07/26/93	287.7	1.40 \pm 0.30 E-02	(1.73 \pm 0.32 E-02)
08/02/93	136.1	1.66 \pm 0.55 E-02	(1.92 \pm 0.33 E-02)
08/09/93	286.3	1.65 \pm 0.32 E-02	(1.62 \pm 0.32 E-02)
08/16/93	299.0	1.56 \pm 0.28 E-02	(1.55 \pm 0.30 E-02)
08/23/93	369.6	1.79 \pm 0.27 E-02	(1.76 \pm 0.32 E-02)
08/30/93	343.8	1.51 \pm 0.26 E-02	(1.67 \pm 0.31 E-02)
09/07/93	296.7	1.82 \pm 0.31 E-02	(1.58 \pm 0.29 E-02)
09/13/93	224.1	1.81 \pm 0.38 E-02	(1.75 \pm 0.35 E-02)
09/20/93	262.1	1.36 \pm 0.32 E-02	(1.49 \pm 0.31 E-02)
09/27/93	262.7	2.44 \pm 0.37 E-02	(2.69 \pm 0.37 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 16

THIRD QUARTER, 1993

2.3 MI SSW - SOUTHPORT SUBSTATION (AP-203)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
07/06/93	281.7	1.98 \pm 0.33 E-02	(1.39 \pm 0.27 E-02)
07/12/93	214.3	2.61 \pm 0.44 E-02	(2.36 \pm 0.40 E-02)
07/19/93	249.6	1.62 \pm 0.33 E-02	(1.63 \pm 0.31 E-02)
07/26/93	237.0	1.82 \pm 0.37 E-02	(1.73 \pm 0.32 E-02)
08/02/93	241.1	1.88 \pm 0.36 E-02	(1.92 \pm 0.33 E-02)
08/09/93	246.8	1.71 \pm 0.36 E-02	(1.62 \pm 0.32 E-02)
08/16/93	229.1	1.56 \pm 0.34 E-02	(1.55 \pm 0.30 E-02)
08/23/93	241.1	2.31 \pm 0.39 E-02	(1.76 \pm 0.32 E-02)
08/30/93	192.0	2.16 \pm 0.43 E-02	(1.67 \pm 0.31 E-02)
09/07/93	241.4	2.22 \pm 0.39 E-02	(1.58 \pm 0.29 E-02)
09/13/93	247.4	1.84 \pm 0.35 E-02	(1.75 \pm 0.35 E-02)
09/20/93	284.5	1.30 \pm 0.30 E-02	(1.49 \pm 0.31 E-02)
09/27/93	285.7	2.38 \pm 0.35 E-02	(2.69 \pm 0.37 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 17

THIRD QUARTER, 1993

23.0 MI NNE - SUTTON PLANT (CONTROL) (AP-204)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>CONTROL ACTIVITY</u>
07/06/93	324.6	(1.39 ± 0.27 E-02)
07/12/93	239.0	(2.36 ± 0.40 E-02)
07/19/93	278.6	(1.63 ± 0.31 E-02)
07/26/93	273.7	(1.73 ± 0.32 E-02)
08/02/93	276.6	(1.92 ± 0.33 E-02)
08/09/93	276.9	(1.62 ± 0.32 E-02)
08/16/93	272.3	(1.55 ± 0.30 E-02)
08/23/93	277.4	(1.76 ± 0.32 E-02)
08/30/93	273.9	(1.67 ± 0.31 E-02)
09/07/93	313.2	(1.58 ± 0.29 E-02)
09/13/93	242.4	(1.75 ± 0.35 E-02)
09/20/93	281.8	(1.49 ± 0.31 E-02)
09/27/93	278.5	(2.69 ± 0.37 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 18

THIRD QUARTER, 1993

0.6 MI SSE - SPOIL POND (AP-205)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
07/06/93	327.3	1.44 \pm 0.27 E-02	(1.39 \pm 0.27 E-02)
07/12/93	248.2	2.37 \pm 0.39 E-02	(2.36 \pm 0.40 E-02)
07/19/93	295.3	1.54 \pm 0.29 E-02	(1.63 \pm 0.31 E-02)
07/26/93	281.6	1.85 \pm 0.32 E-02	(1.73 \pm 0.32 E-02)
08/02/93	290.2	1.54 \pm 0.30 E-02	(1.92 \pm 0.33 E-02)
08/09/93	289.3	1.53 \pm 0.31 E-02	(1.62 \pm 0.32 E-02)
08/16/93	272.4	1.42 \pm 0.29 E-02	(1.55 \pm 0.30 E-02)
08/23/93	281.4	1.62 \pm 0.31 E-02	(1.76 \pm 0.32 E-02)
08/30/93	262.6	1.26 \pm 0.30 E-02	(1.67 \pm 0.31 E-02)
09/07/93	304.3	1.99 \pm 0.32 E-02	(1.58 \pm 0.29 E-02)
09/13/93	256.2	1.58 \pm 0.33 E-02	(1.75 \pm 0.35 E-02)
09/20/93	289.1	1.02 \pm 0.28 E-02	(1.49 \pm 0.31 E-02)
09/27/93	289.7	2.66 \pm 0.36 E-02	(2.69 \pm 0.37 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 19

FOURTH QUARTER, 1993

1.0 MI SW - VISITOR'S CENTER (AP-200)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
10/04/93	282.2	2.13 \pm 0.33 E-02	(2.06 \pm 0.33 E-02)
10/11/93	280.3	1.52 \pm 0.30 E-02	(1.68 \pm 0.31 E-02)
10/18/93	283.8	1.85 \pm 0.32 E-02	(2.27 \pm 0.35 E-02)
10/25/93	285.0	2.16 \pm 0.31 E-02	(2.19 \pm 0.33 E-02)
11/01/93	290.1	1.61 \pm 0.31 E-02	(1.68 \pm 0.33 E-02)
11/08/93	281.3	1.71 \pm 0.31 E-02	(1.80 \pm 0.33 E-02)
11/15/93	270.3	2.33 \pm 0.37 E-02	(2.36 \pm 0.38 E-02)
11/22/93	286.9	2.10 \pm 0.32 E-02	(2.42 \pm 0.36 E-02)
11/29/93	282.7	2.06 \pm 0.33 E-02	(2.08 \pm 0.35 E-02)
12/06/93	274.5	2.31 \pm 0.36 E-02	(1.95 \pm 0.35 E-02)
12/13/93	276.4	2.48 \pm 0.36 E-02	(2.81 \pm 0.39 E-02)
12/20/93	273.3	1.62 \pm 0.32 E-02	(1.97 \pm 0.34 E-02)
12/28/93	307.6	1.90 \pm 0.31 E-02	(2.07 \pm 0.33 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 20

FOURTH QUARTER, 1993

0.6 MI NE - PMAC (AP-201)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
10/04/93	277.4	2.04 \pm 0.33 E-02	(2.06 \pm 0.33 E-02)
10/11/93	275.3	1.71 \pm 0.32 E-02	(1.68 \pm 0.31 E-02)
10/18/93	276.6	1.88 \pm 0.32 E-02	(2.27 \pm 0.35 E-02)
10/25/93	279.6	2.03 \pm 0.31 E-02	(2.19 \pm 0.33 E-02)
11/01/93	281.5	1.76 \pm 0.32 E-02	(1.68 \pm 0.33 E-02)
11/08/93	271.9	1.92 \pm 0.33 E-02	(1.80 \pm 0.33 E-02)
11/15/93	263.2	2.15 \pm 0.37 E-02	(2.36 \pm 0.38 E-02)
11/22/93	278.9	1.99 \pm 0.32 E-02	(2.42 \pm 0.36 E-02)
11/29/93	267.8	1.91 \pm 0.34 E-02	(2.08 \pm 0.35 E-02)
12/06/93	262.3	2.03 \pm 0.36 E-02	(1.95 \pm 0.35 E-02)
12/13/93	284.7	2.32 \pm 0.35 E-02	(2.81 \pm 0.39 E-02)
12/20/93	291.2	1.74 \pm 0.31 E-02	(1.97 \pm 0.34 E-02)
12/28/93	328.4	1.93 \pm 0.30 E-02	(2.07 \pm 0.33 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 21

FOURTH QUARTER, 1993

1.0 MI S - SUBSTATION ON CONSTRUCTION RD (AP-202)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
10/04/93	261.5	2.30 \pm 0.36 E-02	(2.06 \pm 0.33 E-02)
10/11/93	257.7	1.80 \pm 0.34 E-02	(1.68 \pm 0.31 E-02)
10/18/93	263.4	1.68 \pm 0.32 E-02	(2.27 \pm 0.35 E-02)
10/25/93	270.6	2.12 \pm 0.32 E-02	(2.19 \pm 0.33 E-02)
11/01/93	232.5	1.26 \pm 0.34 E-02	(1.68 \pm 0.33 E-02)
11/15/93	244.3	2.28 \pm 0.40 E-02	(2.36 \pm 0.38 E-02)
11/22/93	257.8	2.45 \pm 0.36 E-02	(2.42 \pm 0.36 E-02)
11/29/93	261.3	2.12 \pm 0.36 E-02	(2.08 \pm 0.35 E-02)
12/06/93	259.5	2.13 \pm 0.37 E-02	(1.95 \pm 0.35 E-02)
12/13/93	262.1	2.53 \pm 0.38 E-02	(2.81 \pm 0.39 E-02)
12/20/93	262.4	1.73 \pm 0.33 E-02	(1.97 \pm 0.34 E-02)
12/28/93	303.5	2.15 \pm 0.32 E-02	(2.07 \pm 0.33 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 22

FOURTH QUARTER, 1993

2.3 MI SSW - SOUTHPORT SUBSTATION (AP-203)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
10/04/93	284.8	2.30 \pm 0.34 E-02	(2.06 \pm .33 E-02)
10/11/93	278.8	1.70 \pm 0.31 E-02	(1.68 \pm 0.31 E-02)
10/18/93	279.3	2.18 \pm 0.34 E-02	(2.27 \pm 0.35 E-02)
10/25/93	284.4	1.95 \pm 0.30 E-02	(2.19 \pm 0.33 E-02)
11/01/93	288.9	1.73 \pm 0.32 E-02	(1.68 \pm 0.33 E-02)
11/08/93	279.2	1.71 \pm 0.31 E-02	(1.80 \pm 0.33 E-02)
11/15/93	268.7	2.36 \pm 0.38 E-02	(2.36 \pm 0.38 E-02)
11/22/93	284.7	2.12 \pm 0.32 E-02	(2.42 \pm 0.36 E-02)
11/29/93	282.4	2.18 \pm 0.34 E-02	(2.08 \pm 0.35 E-02)
12/06/93	275.6	2.15 \pm 0.35 E-02	(1.95 \pm 0.35 E-02)
12/13/93	276.5	2.57 \pm 0.36 E-02	(2.81 \pm 0.39 E-02)
12/20/93	272.9	1.59 \pm 0.31 E-02	(1.97 \pm 0.34 E-02)
12/28/93	311.4	2.04 \pm 0.31 E-02	(2.07 \pm 0.33 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 23

FOURTH QUARTER, 1993

23.0 MI NNE - SUTTON PLANT (CONTROL) (AP-204)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>CONTROL ACTIVITY</u>
10/04/93	275.8	(2.06 ± 0.33 E-02)
10/11/93	277.6	(1.68 ± 0.31 E-02)
10/18/93	268.6	(2.27 ± 0.35 E-02)
10/25/93	271.2	(2.19 ± 0.33 E-02)
11/01/93	269.1	(1.68 ± 0.33 E-02)
11/08/93	266.0	(1.80 ± 0.33 E-02)
11/15/93	263.4	(2.36 ± 0.38 E-02)
11/22/93	255.6	(2.42 ± 0.36 E-02)
11/29/93	261.8	(2.08 ± 0.35 E-02)
12/06/93	264.4	(1.95 ± 0.35 E-02)
12/13/93	261.8	(2.81 ± 0.39 E-02)
12/20/93	264.5	(1.97 ± 0.34 E-02)
12/28/93	293.7	(2.07 ± 0.33 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

BSEP - 24

FOURTH QUARTER, 1993

0.6 MI SSE - SPOIL POND (AP-205)

<u>DATE COLLECTED</u>	<u>CUBIC METERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
10/04/93	292.5	1.99 \pm 0.31 E-02	(2.06 \pm 0.33 E-02)
10/11/93	283.4	1.71 \pm 0.31 E-02	(1.68 \pm 0.31 E-02)
10/18/93	289.6	1.79 \pm 0.31 E-02	(2.27 \pm 0.35 E-02)
10/25/93	289.7	1.98 \pm 0.30 E-02	(2.19 \pm 0.33 E-02)
11/01/93	92.4	< 1.07E-02	(1.68 \pm 0.33 E-02)
11/08/93	287.7	1.39 \pm 0.29 E-02	(1.80 \pm 0.33 E-02)
11/15/93	277.5	2.17 \pm 0.36 E-02	(2.36 \pm 0.38 E-02)
11/22/93	292.7	2.26 \pm 0.32 E-02	(2.42 \pm 0.36 E-02)
11/29/93	157.6	2.85 \pm 0.56 E-02	(2.08 \pm 0.35 E-02)
12/06/93	159.2	2.25 \pm 0.53 E-02	(1.95 \pm 0.35 E-02)
12/13/93	279.1	2.39 \pm 0.35 E-02	(2.81 \pm 0.39 E-02)
12/20/93	281.9	1.86 \pm 0.32 E-02	(1.97 \pm 0.34 E-02)
12/28/93	318.8	1.91 \pm 0.30 E-02	(2.07 \pm 0.33 E-02)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 25

THIRD QUARTER, 1993

1.0 MI SW - VISITOR'S CENTER (AP-200)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 3781.8 CUBIC METERS

ISOTOPE

SAMPLE ACTIVITY

CONTROL ACTIVITY

BE-7

1.65 ± 0.19 E-01

(1.53 ± 0.17 E-01)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 26

THIRD QUARTER, 1993

0.6 MI NE - PMAC (AP-201)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 3434.3 CUBIC METERS

ISOTOPE

SAMPLE ACTIVITY

CONTROL ACTIVITY

BE-7

1.41 ± 0.13 E-01

(1.53 ± 0.17 E-01)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 27

THIRD QUARTER, 1993

1.0 MI S - SUBSTATION ON CONSTRUCTION RD (AP-202)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 3926.2 CUBIC METERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.51 \pm 0.18 E-01	(1.53 \pm 0.17 E-01)
BI-214	2.40 \pm 1.70 E-03	(LESS THAN LLD)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 28

THIRD QUARTER, 1993

2.3 MI SSW - SOUTHPORT SUBSTATION (AP-203)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 3191.7 CUBIC METERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.84 \pm 0.18 E-01	(1.53 \pm 0.17 E-01)
PB-214	3.65 \pm 1.26 E-03	(LESS THAN LLD)
BI-214	5.14 \pm 1.31 E-03	(LESS THAN LLD)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 29

THIRD QUARTER, 1993

23.0 MI NNE - SUTTON PLANT (CONTROL) (AP-204)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 3608.9 CUBIC METERS

ISOTOPE

CONTROL ACTIVITY

BE-7

(1.53 + 0.17 E-01)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 30

THIRD QUARTER, 1993

0.6 MI SSE - SPOIL POND (AP-205)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 3687.6 CUBIC METERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.31 ± 0.11 E-01	(1.53 ± 0.17 E-01)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 31

FOURTH QUARTER, 1993

1.0 MI SW - VISITOR'S CENTER (AP-200)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 3674.4 CUBIC METERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.85 ± 0.17 E-01	(1.94 ± 0.19 E-01)
BI-214	LESS THAN LLD	(2.73 ± 1.58 E-03)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 32

FOURTH QUARTER, 1993

0.6 MI NE - PMAC (AP-201)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 3638.8 CUBIC METERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.11 \pm 0.13 E-03	(1.94 \pm 0.19 E-01)
BI-214	LESS THAN LLD	(2.73 \pm 1.58 E-03)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 33

FOURTH QUARTER, 1993

1.0 MI S - SUBSTATION ON CONSTRUCTION RD (AP-202)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 3185.5 CUBIC METERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.72 \pm 0.19 E-01	(1.94 \pm 0.19 E-01)
BI-214	LESS THAN LLD	(2.73 \pm 1.58 E-03)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 34

FOURTH QUARTER, 1993

2.3 MI SSW - SOUTHPORT SUBSTATION (AP-203)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 3667.6 CUBIC METERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.13 \pm 0.14 E-03	(1.94 \pm 0.19 E-01)
BI-214	LESS THAN LLD	(2.73 \pm 1.58 E-03)
RA-226	1.77 \pm 0.92 E-02	(LESS THAN LLD)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 35

FOURTH QUARTER, 1993

23.0 MI NNE - SUTTON PLANT (CONTROL) (AP-204)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY

VOLUME: 3483.5 CUBIC METERS

ISOTOPE

CONTROL ACTIVITY

BE-7

(1.94 ± 0.19 E-01)

BI-214

(2.73 ± 1.58 E-03)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

BSEP - 36

FOURTH QUARTER, 1993

0.6 MI SSE - SPOIL POND (AP-205)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 3302 CUBIC METERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.14 \pm 0.16 E-03	(1.94 \pm 0.19 E-01)
BI-214	LESS THAN LLD	(2.73 \pm 1.58 E-03)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 37

JULY, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 07/06/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 428.1 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.17 \pm 0.10 E+00	(2.45 \pm 0.69 E-01)
K-40	2.19 \pm 0.17 E+00	(5.91 \pm 0.26 E+00)
I-131	< 1.65E-02	(< 1.80E-02)
CS-134	< 1.67E-02	(< 2.36E-02)
CS-137	< 1.61E-02	(< 1.96E-02)
PB-212	LESS THAN LLD	(6.30 \pm 1.67 E-02)
BI-214	LESS THAN LLD	(2.35 \pm 2.21 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 38

JULY, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 07/06/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 436.3 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	6.23 \pm 0.64 E-01	(2.45 \pm 0.69 E-01)
K-40	2.44 \pm 0.17 E+00	(5.91 \pm 0.26 E+00)
I-131	< 1.47E-02	(< 1.80E-02)
CS-134	< 1.48E-02	(< 2.36E-02)
CS-137	< 1.38E-02	(< 1.96E-02)
TL-208	8.25 \pm 7.09 E-03	(LESS THAN LLD)
PB-212	4.20 \pm 1.24 E-02	(6.30 \pm 1.67 E-02)
BI-214	LESS THAN LLD	(2.35 \pm 2.21 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 39

JULY, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 07/05/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 464.9 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(2.45 ± 0.69 E-01)
K-40	(5.91 ± 0.26 E+00)
I-131	(< 1.80E-02)
CS-134	(< 2.36E-02)
CS-137	(< 1.96E-02)
PB-212	(6.30 ± 1.67 E-02)
BI-214	(2.35 ± 2.21 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 40

JULY, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 07/06/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 415.6 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	4.36 \pm 0.71 E-01	(2.45 \pm 0.69 E-01)
K-40	3.55 \pm 0.19 E+00	(5.91 \pm 0.26 E+00)
I-131	< 1.90E-02	(< 1.80E-02)
CS-134	< 1.84E-02	(< 2.36E-02)
CS-137	< 1.67E-02	(< 1.96E-02)
PB-212	LESS THAN LLD	(6.30 \pm 1.67 E-02)
BI-214	2.91 \pm 1.90 E-02	(2.35 \pm 2.21 E-02)
RA-226	2.24 \pm 1.39 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 41

JULY, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 07/06/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 466.3 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	5.44 \pm 0.89 E-01	(6.42 \pm 0.74 E-01)
K-40	2.90 \pm 0.20 E+00	(1.78 \pm 0.14 E+00)
I-131	< 1.62E-02	(< 1.78E-02)
CS-134	< 2.02E-02	(< 1.73E-02)
CS-137	< 1.69E-02	(< 1.55E-02)
TL-208	5.23 \pm 1.37 E-02	(LESS THAN LLD)
PB-212	5.92 \pm 1.37 E-02	(LESS THAN LLD)
BI-214	3.47 \pm 2.15 E-02	(LESS THAN LLD)
RA-226	2.20 \pm 2.11 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 42

JULY, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 07/06/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 429.8 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	5.26 ± 0.74 E-01	(6.42 ± 0.74 E-01)
K-40	2.07 ± 0.21 E+00	(1.78 ± 0.14 E+00)
I-131	< 2.06E-02	(< 1.78E-02)
CS-134	< 2.36E-02	(< 1.73E-02)
CS-137	< 2.31E-02	(< 1.55E-02)
BI-214	8.32 ± 2.62 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 43

JULY, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 07/06/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 520.5 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7

(6.42 ± 0.74 E-01)

K-40

(1.78 ± 0.14 E+00)

I-131

(< 1.78E-02)

CS-134

(< 1.73E-02)

CS-137

(< 1.55E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 44

JULY, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 07/06/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 390.8 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	3.30 \pm 0.76 E-01	(6.42 \pm 0.74 E-01)
K-40	1.64 \pm 0.18 E+00	(1.78 \pm 0.14 E+00)
I-131	< 2.27E-02	(< 1.78E-02)
CS-134	< 2.27E-02	(< 1.73E-02)
CS-137	< 1.90E-02	(< 1.55E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 45

JULY, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 07/06/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 420.8 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.16 ± 0.08 E+00	(8.04 ± 0.63 E-01)
K-40	2.45 ± 0.18 E+00	(1.95 ± 0.17 E+00)
I-131	< 1.65E-02	(< 1.48E-02)
CS-134	< 1.89E-02	(< 1.72E-02)
CS-137	< 1.60E-02	(< 1.53E-02)
TL-208	1.53 ± 0.66 E-02	(1.18 ± 0.87 E-02)
PB-212	3.23 ± 1.35 E-02	(1.74 ± 1.18 E-02)
BI-214	LESS THAN LLD	(1.51 ± 1.40 E-02)
AC-228	LESS THAN LLD	(1.01 ± 0.29 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 46

JULY, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 07/06/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 479.3 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	4.42 \pm 0.66 E-01	(8.04 \pm 0.63 E-01)
K-40	2.20 \pm 0.15 E+00	(1.95 \pm 0.17 E+00)
I-131	< 1.14E-02	(< 1.48E-02)
CS-134	< 1.35E-02	(< 1.72E-02)
CS-137	< 1.52E-02	(< 1.53E-02)
TL-208	1.98 \pm 0.72 E-02	(1.18 \pm 0.87 E-02)
PB-212	4.79 \pm 1.16 E-02	(1.74 \pm 1.18 E-02)
BI-214	LESS THAN LLD	(1.51 \pm 1.40 E-02)
RA-226	2.11 \pm 1.43 E-01	(LESS THAN LLD)
AC-228	LESS THAN LLD	(1.01 \pm 0.29 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 47

JULY, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 07/06/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 422.6 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(8.04 ± 0.63 E-01)
K-40	(1.95 ± 0.17 E+00)
I-131	(< 1.48E-02)
CS-134	(< 1.72E-02)
CS-137	(< 1.53E-02)
TL-208	(1.18 ± 0.87 E-02)
PB-212	(1.74 ± 1.18 E-02)
BI-214	(1.51 ± 1.40 E-02)
AC-228	(1.01 ± 0.29 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 48

JULY, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 07/06/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 408.5 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	7.80 \pm 0.84 E-01	(8.04 \pm 0.63 E-01)
K-40	3.23 \pm 0.26 E+00	(1.95 \pm 0.17 E+00)
I-131	< 2.21E-02	(< 1.48E-02)
CS-134	< 2.57E-02	(< 1.72E-02)
CS-137	< 2.16E-02	(< 1.53E-02)
TL-208	LESS THAN LLD	(1.18 \pm 0.87 E-02)
PB-212	LESS THAN LLD	(1.74 \pm 1.18 E-02)
BI-214	LESS THAN LLD	(1.51 \pm 1.40 E-02)
AC-228	LESS THAN LLD	(1.01 \pm 0.29 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 49

AUGUST, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 08/10/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 425.8 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.68 \pm 0.12 E+00	(6.38 \pm 0.60 E-01)
K-40	2.92 \pm 0.22 E+00	(3.66 \pm 0.18 E+00)
I-131	< 1.97E-02	(< 1.44E-02)
CS-134	< 2.54E-02	(< 1.56E-02)
CS-137	< 2.12E-02	(< 1.37E-02)
TL-208	LESS THAN LLD	(9.24 \pm 7.95 E-03)
PB-212	4.62 \pm 1.40 E-02	(2.62 \pm 1.02 E-02)
BI-214	LESS THAN LLD	(1.84 \pm 1.08 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 50

AUGUST, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 08/10/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 378.3 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	6.55 \pm 0.97 E-01	(6.38 \pm 0.60 E-01)
K-40	1.18 \pm 0.20 E+00	(3.66 \pm 0.18 E+00)
I-131	< 2.33E-02	(< 1.44E-02)
CS-134	< 2.34E-02	(< 1.56E-02)
CS-137	< 2.19E-02	(< 1.37E-02)
TL-208	LESS THAN LLD	(9.24 \pm 7.95 E-03)
PB-212	LESS THAN LLD	(2.62 \pm 1.02 E-02)
BI-214	LESS THAN LLD	(1.84 \pm 1.08 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 51

AUGUST, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 08/10/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 461 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(6.38 ± 0.60 E-01)
K-40	(3.66 ± 0.18 E+00)
I-131	(< 1.44E-02)
CS-134	(< 1.56E-02)
CS-137	(< 1.37E-02)
TL-208	(9.24 ± 7.95 E-03)
PB-212	(2.62 ± 1.02 E-02)
BI-214	(1.84 ± 1.08 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 52

AUGUST, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 08/10/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 417.4 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	8.40 \pm 0.84 E-01	(6.38 \pm 0.60 E-01)
K-40	2.54 \pm 0.17 E+00	(3.66 \pm 0.18 E+00)
I-131	< 1.97E-02	(< 1.44E-02)
CS-134	< 1.79E-02	(< 1.56E-02)
CS-137	< 1.50E-02	(< 1.37E-02)
TL-208	1.50 \pm 0.61 E-02	(9.24 \pm 7.95 E-03)
PB-212	LESS THAN LLD	(2.62 \pm 1.02 E-02)
BI-214	LESS THAN LLD	(1.84 \pm 1.08 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 53

AUGUST, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 08/10/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 384.5 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.32 \pm 0.08 E+00	(7.71 \pm 0.71 E-01)
K-40	1.72 \pm 0.18 E+00	(1.49 \pm 0.15 E+00)
I-131	< 1.56E-02	(< 1.48E-02)
CS-134	< 1.68E-02	(< 1.59E-02)
CS-137	< 1.67E-02	(< 1.39E-02)
PB-212	2.83 \pm 1.30 E-02	(1.42 \pm 1.06 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 54

AUGUST, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 08/10/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 509.3 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	7.68 \pm 0.66 E-01	(7.71 \pm 0.71 E-01)
K-40	1.18 \pm 0.13 E+00	(1.49 \pm 0.15 E+00)
I-131	< 1.43E-02	(< 1.48E-02)
CS-134	< 1.43E-02	(< 1.59E-02)
CS-137	< 1.27E-02	(< 1.39E-02)
PB-212	LESS THAN LLD	(1.42 \pm 1.06 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 55

AUGUST, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 08/10/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 465.4 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(7.71 ± 0.71 E-01)
K-40	(1.49 ± 0.15 E+00)
I-131	(< 1.48E-02)
CS-134	(< 1.59E-02)
CS-137	(< 1.39E-02)
PB-212	(1.42 ± 1.06 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 56

AUGUST, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 08/10/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 457.7 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.09 \pm 0.10 E+00	(7.71 \pm 0.71 E-01)
K-40	2.49 \pm 0.21 E+00	(1.49 \pm 0.15 E+00)
I-131	< 1.96E-02	(< 1.48E-02)
CS-134	< 2.15E-02	(< 1.59E-02)
CS-137	< 1.83E-02	(< 1.39E-02)
PB-212	LESS THAN LLD	(1.42 \pm 1.06 E-02)
RA-226	2.57 \pm 1.93 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 57

AUGUST, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 08/10/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 430.4 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.51 \pm 0.08 E+00	(1.63 \pm 0.12 E+00)
K-40	1.81 \pm 0.16 E+00	(2.06 \pm 0.22 E+00)
I-131	< 1.31E-02	(< 2.38E-02)
CS-134	< 1.49E-02	(< 2.61E-02)
CS-137	< 1.45E-02	(< 2.32E-02)
PB-212	1.59 \pm 1.09 E-02	(2.86 \pm 1.81 E-02)
BI-214	2.50 \pm 1.46 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 58

AUGUST, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 08/10/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 362.7 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.59 \pm 0.12 E+00	(1.63 \pm 0.12 E+00)
K-40	3.20 \pm 0.28 E+00	(2.06 \pm 0.22 E+00)
I-131	< 2.18E-02	(< 2.38E-02)
CS-134	< 2.79E-02	(< 2.61E-02)
CS-137	< 2.43E-02	(< 2.32E-02)
PB-212	3.31 \pm 1.49 E-02	(2.86 \pm 1.81 E-02)
BI-214	5.05 \pm 2.34 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 59

AUGUST, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 08/10/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 356.5 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(1.63 \pm 0.12 E+00)
K-40	(2.06 \pm 0.22 E+00)
I-131	(< 2.38E-02)
CS-134	(< 2.61E-02)
CS-137	(< 2.32E-02)
PB-212	(2.86 \pm 1.81 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 60

AUGUST, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 08/10/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 403.5 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.55 \pm 0.08 E+00	(1.63 \pm 0.12 E+00)
K-40	2.12 \pm 0.18 E+00	(2.06 \pm 0.22 E+00)
I-131	< 1.69E-02	(< 2.38E-02)
CS-134	< 1.76E-02	(< 2.61E-02)
CS-137	< 1.51E-02	(< 2.32E-02)
PB-212	LESS THAN LLD	(2.86 \pm 1.81 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 61

SEPTEMBER, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 09/07/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 343.5 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.44 \pm 0.11 E+00	(1.41 \pm 0.09 E+00)
K-40	1.75 \pm 0.19 E+00	(2.96 \pm 0.20 E+00)
I-131	< 2.04E-02	(< 2.43E-02)
CS-134	< 2.09E-02	(< 2.24E-02)
CS-137	< 1.98E-02	(< 2.23E-02)
PB-212	LESS THAN LLD	(2.31 \pm 1.31 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 62

SEPTEMBER, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 09/07/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 349.9 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	8.42 \pm 0.80 E-01	(1.41 \pm 0.09 E+00)
K-40	3.12 \pm 0.22 E+00	(2.96 \pm 0.20 E+00)
I-131	< 2.09E-02	(< 2.43E-02)
CS-134	< 2.11E-02	(< 2.24E-02)
CS-137	< 1.85E-02	(< 2.23E-02)
PB-212	LESS THAN LLD	(2.31 \pm 1.31 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 63

SEPTEMBER, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 09/07/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 416.7 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7 (1.41 ± 0.09 E+00)

K-40 (2.96 ± 0.20 E+00)

I-131 (< 2.43E-02)

CS-134 (< 2.24E-02)

CS-137 (< 2.23E-02)

PB-212 (2.31 ± 1.31 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 64

SEPTEMBER, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 09/07/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 370.3 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.12 \pm 0.12 E+00	(1.41 \pm 0.09 E+00)
K-40	2.21 \pm 0.22 E+00	(2.96 \pm 0.20 E+00)
I-131	< 2.70E-02	(< 2.43E-02)
CS-134	< 2.73E-02	(< 2.24E-02)
CS-137	< 2.17E-02	(< 2.23E-02)
PB-212	LESS THAN LLD	(2.31 \pm 1.31 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 65

SEPTEMBER, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 09/07/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 371.7 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.67 \pm 0.12 E+00	(9.47 \pm 0.77 E-01)
K-40	1.10 \pm 0.18 E+00	(2.13 \pm 0.19 E+00)
I-131	< 2.22E-02	(< 1.79E-02)
CS-134	< 2.40E-02	(< 1.85E-02)
CS-137	< 2.34E-02	(< 1.75E-02)
TL-208	LESS THAN LLD	(2.08 \pm 0.61 E-02)
PB-212	2.41 \pm 1.73 E-02	(LESS THAN LLD)
BI-214	LESS THAN LLD	(2.21 \pm 1.85 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 66

SEPTEMBER, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 09/07/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 407.3 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	8.84 \pm 0.89 E-01	(9.47 \pm 0.77 E-01)
K-40	1.66 \pm 0.19 E+00	(2.13 \pm 0.19 E+00)
I-131	< 2.12E-02	(< 1.79E-02)
CS-134	< 2.19E-02	(< 1.85E-02)
CS-137	< 1.96E-02	(< 1.75E-02)
TL-208	LESS THAN LLD	(2.08 \pm 0.61 E-02)
BI-214	LESS THAN LLD	(2.21 \pm 1.85 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 67

SEPTEMBER, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 09/07/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 490 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(9.47 ± 0.77 E-01)
K-40	(2.13 ± 0.19 E+00)
I-131	(< 1.79E-02)
CS-134	(< 1.85E-02)
CS-137	(< 1.75E-02)
TL-208	(2.08 ± 0.61 E-02)
BI-214	(2.21 ± 1.85 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 68

SEPTEMBER, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 09/07/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 398.3 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.76 \pm 0.10 E+00	(9.47 \pm 0.77 E-01)
K-40	2.04 \pm 0.18 E+00	(2.13 \pm 0.19 E+00)
I-131	< 2.20E-02	(< 1.79E-02)
CS-134	< 1.99E-02	(< 1.85E-02)
CS-137	< 1.76E-02	(< 1.75E-02)
TL-208	2.78 \pm 0.66 E-02	(2.08 \pm 0.61 E-02)
PB-212	2.58 \pm 1.60 E-02	(LESS THAN LLD)
BI-214	LESS THAN LLD	(2.21 \pm 1.85 E-02)
RA-226	3.15 \pm 1.82 E-01	(LESS THAN LLD)
AC-228	2.45 \pm 0.38 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 69

SEPTEMBER, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 09/07/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 436.8 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	2.63 \pm 0.11 E+00	(4.56 \pm 0.17 E+00)
K-40	2.28 \pm 0.23 E+00	(2.43 \pm 0.30 E+00)
I-131	< 1.93E-02	(< 2.62E-02)
CS-134	< 2.18E-02	(< 3.03E-02)
CS-137	< 2.13E-02	(< 2.63E-02)
PB-212	3.77 \pm 1.78 E-02	(4.29 \pm 1.69 E-02)
PB-214	LESS THAN LLD	(9.33 \pm 2.27 E-02)
BI-214	6.27 \pm 2.54 E-02	(9.46 \pm 3.01 E-02)
AC-228	LESS THAN LLD	(3.93 \pm 0.52 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 70

SEPTEMBER, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 09/07/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 453.5 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.56 \pm 0.10 E+00	(4.56 \pm 0.17 E+00)
K-40	2.77 \pm 0.20 E+00	(2.43 \pm 0.30 E+00)
I-131	< 1.98E-02	(< 2.62E-02)
CS-134	< 2.07E-02	(< 3.03E-02)
CS-137	< 1.85E-02	(< 2.63E-02)
PB-212	LESS THAN LLD	(4.29 \pm 1.69 E-02)
PB-214	3.32 \pm 2.19 E-02	(9.33 \pm 2.27 E-02)
BI-214	5.71 \pm 2.28 E-02	(9.46 \pm 3.01 E-02)
AC-228	LESS THAN LLD	(3.93 \pm 0.52 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 71

SEPTEMBER, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 09/07/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 344.5 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(4.56 ± 0.17 E+00)
K-40	(2.43 ± 0.30 E+00)
I-131	(< 2.62E-02)
CS-134	(< 3.03E-02)
CS-137	(< 2.63E-02)
PB-212	(4.29 ± 1.69 E-02)
PB-214	(9.33 ± 2.27 E-02)
BI-214	(9.46 ± 3.01 E-02)
AC-228	(3.93 ± 0.52 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 72

SEPTEMBER, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 09/07/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 502.7 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	8.34 \pm 0.70 E-01	(4.56 \pm 0.17 E+00)
K-40	1.45 \pm 0.14 E+00	(2.43 \pm 0.30 E+00)
I-131	< 1.63E-02	(< 2.62E-02)
CS-134	< 1.44E-02	(< 3.03E-02)
CS-137	< 1.31E-02	(< 2.63E-02)
PB-212	2.67 \pm 1.13 E-02	(4.29 \pm 1.69 E-02)
PB-214	LESS THAN LLD	(9.33 \pm 2.27 E-02)
BI-214	3.16 \pm 1.45 E-02	(9.46 \pm 3.01 E-02)
AC-228	LESS THAN LLD	(3.93 \pm 0.52 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 73

OCTOBER, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 10/11/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 391.5 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	2.07 \pm 0.13 E+00	(1.14 \pm 0.07 E+00)
K-40	1.70 \pm 0.18 E+00	(3.39 \pm 0.17 E+00)
I-131	< 2.52E-02	(< 1.64E-02)
CS-134	< 2.24E-02	(< 1.62E-02)
CS-137	< 1.99E-02	(< 1.34E-02)
PB-212	LESS THAN LLD	(2.76 \pm 1.77 E-02)
BI-214	LESS THAN LLD	(3.05 \pm 1.61 E-02)
RA-226	LESS THAN LLD	(2.48 \pm 1.39 E-01)
AC-228	LESS THAN LLD	(4.71 \pm 2.56 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 74

OCTOBER, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 10/11/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 442.3 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	7.83 \pm 0.82 E-01	(1.14 \pm 0.07 E+00)
K-40	2.15 \pm 0.19 E+00	(3.39 \pm 0.17 E+00)
I-131	< 2.18E-02	(< 1.64E-02)
CS-134	< 2.04E-02	(< 1.62E-02)
CS-137	< 1.88E-02	(< 1.34E-02)
PB-212	LESS THAN LLD	(2.76 \pm 1.77 E-02)
BI-214	LESS THAN LLD	(3.05 \pm 1.61 E-02)
RA-226	LESS THAN LLD	(2.48 \pm 1.39 E-01)
AC-228	LESS THAN LLD	(4.71 \pm 2.56 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 75

OCTOBER, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 10/11/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 462.7 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(1.14 \pm 0.07 E+00)
K-40	(3.39 \pm 0.17 E+00)
I-131	(< 1.64E-02)
CS-134	(< 1.62E-02)
CS-137	(< 1.34E-02)
PB-212	(2.76 \pm 1.77 E-02)
BI-214	(3.05 \pm 1.61 E-02)
RA-226	(2.48 \pm 1.39 E-01)
AC-228	(4.71 \pm 2.56 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 76

OCTOBER, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 10/11/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 365.7 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	8.87 \pm 0.71 E-01	(1.14 \pm 0.07 E+00)
K-40	2.13 \pm 0.20 E+00	(3.39 \pm 0.17 E+00)
I-131	< 2.04E-02	(< 1.64E-02)
CS-134	< 1.66E-02	(< 1.62E-02)
CS-137	< 1.61E-02	(< 1.34E-02)
PB-212	LESS THAN LLD	(2.76 \pm 1.77 E-02)
BI-214	LESS THAN LLD	(3.05 \pm 1.61 E-02)
RA-226	LESS THAN LLD	(2.48 \pm 1.39 E-01)
AC-228	LESS THAN LLD	(4.71 \pm 2.56 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 77

OCTOBER, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 10/11/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 476.7 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.62 \pm 0.07 E+00	(1.90 \pm 0.08 E+00)
K-40	1.11 \pm 0.01 E+00	(1.97 \pm 0.14 E+00)
I-131	< 1.36E-02	(< 1.54E-02)
CS-134	< 1.35E-02	(< 1.28E-02)
CS-137	< 1.33E-02	(< 1.26E-02)
PB-212	1.55 \pm 0.92 E-02	(3.68 \pm 1.27 E-02)
BI-214	1.81 \pm 1.19 E-02	(LESS THAN LLD)
RA-226	2.99 \pm 1.37 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 78

OCTOBER, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 10/11/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 477.6 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.19 \pm 0.07 E+00	(1.90 \pm 0.08 E+00)
K-40	1.59 \pm 0.14 E+00	(1.97 \pm 0.14 E+00)
I-131	< 1.62E-02	(< 1.54E-02)
CS-134	< 1.35E-02	(< 1.28E-02)
CS-137	< 1.40E-02	(< 1.26E-02)
PB-212	1.32 \pm 1.15 E-02	(3.68 \pm 1.27 E-02)
RA-226	2.75 \pm 1.41 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 79

OCTOBER, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 10/11/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 549 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(1.90 ± 0.08 E+00)
K-40	(1.97 ± 0.14 E+00)
I-131	(< 1.54E-02)
CS-134	(< 1.28E-02)
CS-137	(< 1.26E-02)
PB-212	(3.68 ± 1.27 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 80

OCTOBER, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 10/11/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 369.9 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.04 \pm 0.08 E+00	(1.90 \pm 0.08 E+00)
K-40	1.92 \pm 0.17 E+00	(1.97 \pm 0.14 E+00)
I-131	< 2.32E-02	(< 1.54E-02)
CS-134	< 2.09E-02	(< 1.28E-02)
CS-137	< 1.82E-02	(< 1.26E-02)
PB-212	2.42 \pm 1.50 E-02	(3.68 \pm 1.27 E-02)
BI-214	2.48 \pm 1.97 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 81

OCTOBER, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 10/11/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 402.6 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	2.78 \pm 0.13 E+00	(1.87 \pm 0.14 E+00)
K-40	3.00 \pm 0.24 E+00	(3.40 \pm 0.28 E+00)
I-131	< 2.28E-02	(< 2.71E-02)
CS-134	< 2.35E-02	(< 2.94E-02)
CS-137	< 2.18E-02	(< 2.78E-02)
BI-214	LESS THAN LLD	(9.58 \pm 2.69 E-02)
RA-226	LESS THAN LLD	(2.56 \pm 2.20 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 82

OCTOBER, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 10/11/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 465.6 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.76 ± 0.08 E+00	(1.87 ± 0.14 E+00)
K-40	1.53 ± 0.15 E+00	(3.40 ± 0.28 E+00)
I-131	< 1.50E-02	(< 2.71E-02)
CS-134	< 1.51E-02	(< 2.94E-02)
CS-137	< 1.46E-02	(< 2.78E-02)
TL-208	7.46 ± 7.21 E-03	(LESS THAN LLD)
BI-214	5.01 ± 1.84 E-02	(9.58 ± 2.69 E-02)
RA-226	1.47 ± 1.13 E-01	(2.56 ± 2.20 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 83

OCTOBER, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 10/11/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 353.9 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(1.87 ± 0.14 E+00)
K-40	(3.40 ± 0.28 E+00)
I-131	(< 2.71E-02)
CS-134	(< 2.94E-02)
CS-137	(< 2.78E-02)
BI-214	(9.58 ± 2.69 E-02)
RA-226	(2.56 ± 2.20 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 84

OCTOBER, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 10/11/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 369.9 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.89 \pm 0.13 E+00	(1.87 \pm 0.14 E+00)
K-40	2.65 \pm 0.23 E+00	(3.40 \pm 0.28 E+00)
I-131	< 2.69E-02	(< 2.71E-02)
CS-134	< 2.80E-02	(< 2.94E-02)
CS-137	< 2.41E-02	(< 2.78E-02)
BI-214	LESS THAN LLD	(9.58 \pm 2.69 E-02)
RA-226	LESS THAN LLD	(2.56 \pm 2.20 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 85

NOVEMBER, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 11/08/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 439.4 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.95 \pm 0.09 E+00	(1.74 \pm 0.08 E+00)
K-40	1.89 \pm 0.13 E+00	(2.19 \pm 0.17 E+00)
I-131	< 1.54E-02	(< 1.54E-02)
CS-134	< 1.41E-02	(< 1.58E-02)
CS-137	< 1.44E-02	(< 1.47E-02)
PB-212	2.03 \pm 1.19 E-02	(2.10 \pm 1.07 E-02)
RA-226	LESS THAN LLD	(3.83 \pm 1.24 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 86

NOVEMBER, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 11/08/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 497 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	9.21 \pm 0.62 E-01	(1.74 \pm 0.08 E+00)
K-40	1.91 \pm 0.16 E+00	(2.19 \pm 0.17 E+00)
I-131	< 1.45E-02	(< 1.54E-02)
CS-134	< 1.58E-02	(< 1.58E-02)
CS-137	< 1.42E-02	(< 1.47E-02)
PB-212	1.74 \pm 1.01 E-02	(2.10 \pm 1.07 E-02)
RA-226	1.42 \pm 1.40 E-01	(3.83 \pm 1.24 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 87

NOVEMBER, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 11/08/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 450.5 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(1.74 ± 0.08 E+00)
K-40	(2.19 ± 0.17 E+00)
I-131	(< 1.54E-02)
CS-134	(< 1.58E-02)
CS-137	(< 1.47E-02)
PB-212	(2.10 ± 1.07 E-02)
RA-226	(3.83 ± 1.24 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 88

NOVEMBER, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 11/08/93)

CHERRY

GAMMA SPECTROMETRY

MASS: 404.3 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.05 \pm 0.08 E+00	(1.74 \pm 0.08 E+00)
K-40	1.82 \pm 0.16 E+00	(2.19 \pm 0.17 E+00)
I-131	< 1.80E-02	(< 1.54E-02)
CS-134	< 1.66E-02	(< 1.58E-02)
CS-137	< 1.44E-02	(< 1.47E-02)
TL-208	8.02 \pm 7.45 E-03	(LESS THAN LLD)
PB-212	1.73 \pm 1.10 E-02	(2.10 \pm 1.07 E-02)
RA-226	LESS THAN LLD	(3.83 \pm 1.24 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 89

NOVEMBER, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 11/08/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 482.5 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.49 \pm 0.10 E+00	(1.91 \pm 0.11 E+00)
K-40	2.24 \pm 0.14 E+00	(1.45 \pm 0.14 E+00)
I-131	< 1.73E-02	(< 2.14E-02)
CS-134	< 1.93E-02	(< 1.73E-02)
CS-137	< 1.71E-02	(< 1.73E-02)
PB-212	LESS THAN LLD	(3.64 \pm 1.40 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 90

NOVEMBER, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 11/08/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 445.2 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.25 ± 0.10 E+00	(1.91 ± 0.11 E+00)
K-40	2.07 ± 0.18 E+00	(1.45 ± 0.14 E+00)
I-131	< 2.10E-02	(< 2.14E-02)
CS-134	< 2.16E-02	(< 1.73E-02)
CS-137	< 1.95E-02	(< 1.73E-02)
PB-212	LESS THAN LLD	(3.64 ± 1.40 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 91

NOVEMBER, 1993

10.0 MI ~ NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 11/08/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 509.3 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(1.91 \pm 0.11 E+00)
K-40	(1.45 \pm 0.14 E+00)
I-131	(< 2.14E-02)
CS-134	(< 1.73E-02)
CS-137	(< 1.73E-02)
PB-212	(3.64 \pm 1.40 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 92

NOVEMBER, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 11/08/93)

SWEETGUM

GAMMA SPECTROMETRY

MASS: 419.8 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	8.39 \pm 0.80 E-01	(1.91 \pm 0.11 E+00)
K-40	1.29 \pm 0.17 E+00	(1.45 \pm 0.14 E+00)
I-131	< 1.96E-02	(< 2.14E-02)
CS-134	< 1.69E-02	(< 1.73E-02)
CS-137	< 1.52E-02	(< 1.73E-02)
TL-208	2.02 \pm 0.63 E-02	(LESS THAN LLD)
PB-212	1.59 \pm 1.16 E-02	(3.64 \pm 1.40 E-02)
RA-226	2.21 \pm 1.56 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 93

NOVEMBER, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 11/08/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 418.6 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	2.23 \pm 0.09 E+00	(2.77 \pm 0.11 E+00)
K-40	1.23 \pm 0.15 E+00	(1.50 \pm 0.14 E+00)
I-131	< 1.58E-02	(< 1.94E-02)
CS-134	< 1.57E-02	(< 1.91E-02)
CS-137	< 1.40E-02	(< 1.51E-02)
TL-208	LESS THAN LLD	(3.91 \pm 1.20 E-02)
PB-212	LESS THAN LLD	(2.92 \pm 1.08 E-02)
PB-214	LESS THAN LLD	(1.06 \pm 0.20 E-01)
BI-214	3.07 \pm 1.44 E-02	(8.40 \pm 2.10 E-02)
AC-228	LESS THAN LLD	(1.54 \pm 0.26 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 94

NOVEMBER, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 11/08/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 462.3 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.52 \pm 0.07 E+00	(2.77 \pm 0.11 E+00)
K-40	1.54 \pm 0.13 E+00	(1.50 \pm 0.14 E+00)
I-131	< 1.57E-02	(< 1.94E-02)
CS-134	< 1.50E-02	(< 1.91E-02)
CS-137	< 1.48E-02	(< 1.51E-02)
TL-208	LESS THAN LLD	(3.91 \pm 1.20 E-02)
PB-212	LESS THAN LLD	(2.92 \pm 1.08 E-02)
PB-214	LESS THAN LLD	(1.06 \pm 0.20 E-01)
BI-214	3.43 \pm 1.61 E-02	(8.40 \pm 2.10 E-02)
AC-228	LESS THAN LLD	(1.54 \pm 0.26 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 95

NOVEMBER, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 11/08/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 400 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(2.77 ± 0.11 E+00)
K-40	(1.50 ± 0.14 E+00)
I-131	(< 1.94E-02)
CS-134	(< 1.91E-02)
CS-137	(< 1.51E-02)
TL-208	(3.91 ± 1.20 E-02)
PB-212	(2.92 ± 1.08 E-02)
PB-214	(1.06 ± 0.20 E-01)
BI-214	(8.40 ± 2.10 E-02)
AC-228	(1.54 ± 0.26 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 96

NOVEMBER, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 11/08/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 456.1 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	8.58 \pm 0.60 E-01	(2.77 \pm 0.11 E+00)
K-40	1.35 \pm 0.13 E+00	(1.50 \pm 0.14 E+00)
I-131	< 1.72E-02	(< 1.94E-02)
CS-134	< 1.49E-02	(< 1.91E-02)
CS-137	< 1.55E-02	(< 1.51E-02)
TL-208	LESS THAN LLD	(3.91 \pm 1.20 E-02)
PB-212	1.38 \pm 0.96 E-02	(2.92 \pm 1.08 E-02)
PB-214	LESS THAN LLD	(1.06 \pm 0.20 E-01)
BI-214	LESS THAN LLD	(8.40 \pm 2.10 E-02)
AC-228	LESS THAN LLD	(1.54 \pm 0.26 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 97

DECEMBER, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 12/14/93)

NANDINA

GAMMA SPECTROMETRY

MASS: 399.3 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.57 \pm 0.10 E+00	(8.62 \pm 0.66 E-01)
K-40	4.04 \pm 0.21 E+00	(3.31 \pm 0.17 E+00)
I-131	< 1.77E-02	(< 1.69E-02)
CS-134	< 2.14E-02	(< 1.76E-02)
CS-137	< 1.68E-02	(4.42 \pm 0.73 E-02)
TL-208	2.44 \pm 0.72 E-02	(LESS THAN LLD)
PB-212	4.79 \pm 1.54 E-02	(1.89 \pm 1.14 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 98

DECEMBER, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 12/14/93)

NANDINA

GAMMA SPECTROMETRY

MASS: 422.5 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	5.01 \pm 0.90 E-01	(8.62 \pm 0.66 E-01)
K-40	3.10 \pm 0.19 E+00	(3.31 \pm 0.17 E+00)
I-131	< 1.75E-02	(< 1.69E-02)
CS-134	< 1.58E-02	(< 1.76E-02)
CS-137	< 1.67E-02	(4.42 \pm 0.73 E-02)
TL-208	1.22 \pm 0.59 E-02	(LESS THAN LLD)
PB-212	3.43 \pm 1.13 E-02	(1.89 \pm 1.14 E-02)
RA-226	4.45 \pm 1.70 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 99

DECEMBER, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 12/14/93)

NANDINA

GAMMA SPECTROMETRY

MASS: 430.5 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(8.62 ± 0.66 E-01)
K-40	(3.31 ± 0.17 E+00)
I-131	(< 1.69E-02)
CS-134	(< 1.76E-02)
CS-137	(4.42 ± 0.73 E-02)
PB-212	(1.89 ± 1.14 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 100

DECEMBER, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 12/14/93)

NANDINA

GAMMA SPECTROMETRY

MASS: 476.1 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	9.03 \pm 0.71 E-01	(8.62 \pm 0.66 E-01)
K-40	3.70 \pm 0.17 E+00	(3.31 \pm 0.17 E+00)
I-131	< 2.13E-02	(< 1.69E-02)
CS-134	< 1.70E-02	(< 1.76E-02)
CS-137	< 1.56E-02	(4.42 \pm 0.73 E-02)
PB-212	LESS THAN LLD	(1.89 \pm 1.14 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 101

DECEMBER, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 12/14/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 441.7 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.83 \pm 0.08 E+00	(1.46 \pm 0.08 E+00)
K-40	1.92 \pm 0.17 E+00	(2.32 \pm 0.15 E+00)
I-131	< 1.63E-02	(< 1.79E-02)
CS-134	< 1.70E-02	(< 1.71E-02)
CS-137	< 1.48E-02	(< 1.46E-02)
TL-208	2.39 \pm 0.59 E-02	(3.70 \pm 0.67 E-02)
PB-212	3.96 \pm 1.12 E-02	(1.53 \pm 1.05 E-02)
PB-214	LESS THAN LLD	(5.46 \pm 1.81 E-02)
BI-214	4.57 \pm 2.40 E-02	(5.35 \pm 1.67 E-02)
RA-226	LESS THAN LLD	(2.48 \pm 1.43 E-01)
AC-228	LESS THAN LLD	(1.66 \pm 0.29 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 102

DECEMBER, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 12/14/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 454.4 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.09 \pm 0.08 E+00	(1.46 \pm 0.08 E+00)
K-40	2.02 \pm 0.15 E+00	(2.32 \pm 0.15 E+00)
I-131	< 1.72E-02	(< 1.79E-02)
CS-134	< 1.46E-02	(< 1.71E-02)
CS-137	< 1.56E-02	(< 1.46E-02)
TL-208	LESS THAN LLD	(3.70 \pm 0.67 E-02)
PB-212	1.80 \pm 1.02 E-02	(1.53 \pm 1.05 E-02)
PB-214	LESS THAN LLD	(5.46 \pm 1.81 E-02)
BI-214	LESS THAN LLD	(5.35 \pm 1.67 E-02)
RA-226	LESS THAN LLD	(2.48 \pm 1.43 E-01)
AC-228	LESS THAN LLD	(1.66 \pm 0.29 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 103

DECEMBER, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 12/14/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 483.7 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(1.46 \pm 0.08 E+00)
K-40	(2.32 \pm 0.15 E+00)
I-131	(< 1.79E-02)
CS-134	(< 1.71E-02)
CS-137	(< 1.46E-02)
TL-208	(3.70 \pm 0.67 E-02)
PB-212	(1.53 \pm 1.05 E-02)
PB-214	(5.46 \pm 1.81 E-02)
BI-214	(5.35 \pm 1.67 E-02)
RA-226	(2.48 \pm 1.43 E-01)
AC-228	(1.66 \pm 0.29 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 104

DECEMBER, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 12/14/93)

WAX MYRTLE

GAMMA SPECTROMETRY

MASS: 457.7 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.80 \pm 0.10 E+00	(1.46 \pm 0.08 E+00)
K-40	1.89 \pm 0.15 E+00	(2.32 \pm 0.15 E+00)
I-131	< 2.40E-02	(< 1.79E-02)
CS-134	< 1.84E-02	(< 1.71E-02)
CS-137	2.32 \pm 0.56 E-02	(< 1.46E-02)
TL-208	2.01 \pm 0.48 E-02	(3.70 \pm 0.67 E-02)
PB-212	3.38 \pm 1.17 E-02	(1.53 \pm 1.05 E-02)
PB-214	LESS THAN LLD	(5.46 \pm 1.81 E-02)
BI-214	LESS THAN LLD	(5.35 \pm 1.67 E-02)
RA-226	LESS THAN LLD	(2.48 \pm 1.43 E-01)
AC-228	LESS THAN LLD	(1.66 \pm 0.29 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 105

DECEMBER, 1993

0.7 MI NE - INTAKE CANAL (BL-800)
(DATE COLLECTED: 12/14/93)

SWEET BAY

GAMMA SPECTROMETRY

MASS: 392.5 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.25 \pm 0.10 E+00	(5.71 \pm 0.83 E-01)
K-40	2.38 \pm 0.16 E+00	(2.62 \pm 0.18 E+00)
I-131	< 1.66E-02	(< 2.02E-02)
CS-134	< 1.60E-02	(< 1.80E-02)
CS-137	< 1.75E-02	(< 1.61E-02)
PB-212	2.64 \pm 1.49 E-02	(LESS THAN LLD)
BI-214	2.17 \pm 2.02 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 106

DECEMBER, 1993

0.6 MI SW - DISCHARGE CANAL (BL-801)
(DATE COLLECTED: 12/14/93)

SWEET BAY

GAMMA SPECTROMETRY

MASS: 402.7 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	1.22 \pm 0.07 E+00	(5.71 \pm 0.83 E-01)
K-40	2.86 \pm 0.17 E+00	(2.62 \pm 0.18 E+00)
I-131	< 1.61E-02	(< 2.02E-02)
CS-134	< 1.67E-02	(< 1.80E-02)
CS-137	< 1.63E-02	(< 1.61E-02)
TL-208	1.51 \pm 0.62 E-02	(LESS THAN LLD)
PB-212	3.19 \pm 1.20 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 107

DECEMBER, 1993

10.0 MI - NOT SPECIFIED (CONTROL) (BL-802)
(DATE COLLECTED: 12/14/93)

SWEET BAY

GAMMA SPECTROMETRY

MASS: 394 GRAMS WET

ISOTOPE

CONTROL ACTIVITY

BE-7	(5.71 ± 0.83 E-01)
K-40	(2.62 ± 0.18 E+00)
I-131	(< 2.02E-02)
CS-134	(< 1.80E-02)
CS-137	(< 1.61E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

BSEP - 108

DECEMBER, 1993

0.6 MI SSE - SPOIL POND (BL-803)
(DATE COLLECTED: 12/14/93)

SWEET BAY

GAMMA SPECTROMETRY

MASS: 464.4 GRAMS WET

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
BE-7	3.83 \pm 0.63 E-01	(5.71 \pm 0.83 E-01)
K-40	2.63 \pm 0.14 E+00	(2.62 \pm 0.18 E+00)
I-131	< 1.72E-02	(< 2.02E-02)
CS-134	< 1.53E-02	(< 1.80E-02)
CS-137	< 1.38E-02	(< 1.61E-02)
PB-212	1.86 \pm 1.08 E-02	(LESS THAN LLD)
BI-214	1.45 \pm 1.38 E-02	(LESS THAN LLD)

FISH AND INVERTEBRATES SAMPLES
(PICOCURIES PER GRAM)

BSEP - 109

SECOND SEMI-ANNUAL, 1993

5.5 MI SSW - FREE SWIMMERS AT DISCHARGE (FI-700)
(DATE COLLECTED: 11/23/93)

FREE SWIMMERS, EDIBLE PORTION

GAMMA SPECTROMETRY

MASS: 913.9 GRAMS FRESH

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
K-40	3.11 ± 0.20 E+00	(2.50 ± 0.21 E+00)
RA-226	2.58 ± 1.38 E-01	(1.85 ± 1.63 E-01)

FISH AND INVERTEBRATES SAMPLES
(PICOCURIES PER GRAM)

BSEP - 110

SECOND SEMI-ANNUAL, 1993

FREE SWIMMERS - ATLANTIC OCEAN (CONTROL) (FI-703)
(DATE COLLECTED: 11/23/93)

FREE SWIMMERS, EDIBLE PORTION

GAMMA SPECTROMETRY

MASS: 732.1 GRAMS FRESH

ISOTOPE

CONTROL ACTIVITY

K-40

(2.50 \pm 0.21 E+00)

RA-226

(1.85 \pm 1.63 E-01)

FISH AND INVERTEBRATES SAMPLES
(PICOCURIES PER GRAM)

BSEP - 111

SECOND SEMI-ANNUAL, 1993

5.5 MI SSW - BOTTOM FEEDER AT DISCHARGE (FI-701)
(DATE COLLECTED: 11/23/93)

BOTTOM FEEDERS, EDIBLE PORTION

GAMMA SPECTROMETRY

MASS: 825.8 GRAMS FRESH

ISOTOPE

SAMPLE ACTIVITY

CONTROL ACTIVITY

K-40

2.32 ± 0.21 E+00

(1.99 ± 0.20 E+00)

FISH AND INVERTEBRATES SAMPLES
(PICOCURIES PER GRAM)

BSEP - 112

SECOND SEMI-ANNUAL, 1993

BOTTOM FEEDER - ATLANTIC OCEAN (CONTROL) (FI-704)
(DATE COLLECTED: 11/23/93)

BOTTOM FEEDERS, EDIBLE PORTION

GAMMA SPECTROMETRY MASS: 828.2 GRAMS FRESH

ISOTOPE CONTROL ACTIVITY
K-40 (1.99 ± 0.20 E+00)

INVERTEBRATES SAMPLES
(PICOCURIES PER GRAM)

BSEP - 113

SECOND SEMI-ANNUAL, 1993

5.5 MI SSW - SH/BO AT DISCHARGE (IN-702)
(DATE COLLECTED: 11/23/93)

INVERTEBRATES, EDIBLE PORTION

GAMMA SPECTROMETRY MASS: 682.8 GRAMS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
K-40	2.72 \pm 0.21 E+00	(1.81 \pm 0.21 E+00)
BI-214	6.28 \pm 2.07 E-02	(LESS THAN LLD)

INVERTEBRATES SAMPLES
(PICOCURIES PER GRAM)

BSEP - 114

SECOND SEMI-ANNUAL, 1993

SH/BO - ATLANTIC OCEAN (CONTROL) (IN-705)
(DATE COLLECTED: 11/23/93)

INVERTEBRATES, EDIBLE PORTION

GAMMA SPECTROMETRY

MASS: 798.6 GRAMS

ISOTOPE

K-40

CONTROL ACTIVITY

(1.81 ± 0.21 E+00)

SHORELINE SEDIMENT SAMPLES
(PICOCURIES PER GRAM)

BSEP - 115

SECOND SEMI-ANNUAL, 1993

4.9 MI SSW - DISCHARGE, BEACH (SS-500)
(DATE COLLECTED: 11/16/93)

GAMMA SPECTROMETRY MASS: 1010.5 GRAMS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
K-40	4.72 \pm 0.83 E-01	(NOT REQUIRED)
TL-208	3.07 \pm 0.74 E-02	(NOT REQUIRED)
PB-212	5.91 \pm 1.11 E-02	(NOT REQUIRED)
PB-214	9.37 \pm 1.70 E-02	(NOT REQUIRED)
BI-214	1.04 \pm 0.14 E-01	(NOT REQUIRED)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 116

JULY, 1993

0.7 MI NE - INTAKE CANAL (CONTROL) (SW-400)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	(< 1.03E+03)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>CONTROL ACTIVITY</u>
K-40	(4.35 ± 0.41 E+02)
PB-212	(3.72 ± 2.78 E+00)
PB-214	(1.30 ± 0.41 E+01)
BI-214	(9.13 ± 4.48 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 117

JULY, 1993

4.9 MI SSW - DISCHARGE CANAL, STILL POND (SW-401)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	< 1.03E+03	(< 1.03E+03)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
K-40	3.05 ± 0.34 E+02	(4.35 ± 0.41 E+02)
PB-212	LESS THAN LLD	(3.72 ± 2.78 E+00)
PB-214	LESS THAN LLD	(1.30 ± 0.41 E+01)
BI-214	4.87 ± 3.99 E+00	(9.13 ± 4.48 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 118

AUGUST, 1993

0.7 MI NE - INTAKE CANAL (CONTROL) (SW-400)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	(< 1.03E+03)

GAMMA SPECTROMETRY VOLUME : 1 LITERS

<u>ISOTOPE</u>	<u>CONTROL ACTIVITY</u>
K-40	(2.68 ± 0.33 E+02)
PB-212	(4.02 ± 3.51 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 119

AUGUST, 1993

4.9 MI SSW - DISCHARGE CANAL, STILL POND (SW-401)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	< 1.09E+03	(< 1.09E+03)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
K-40	3.13 ± 0.35 E+02	(2.68 ± 0.33 E+02)
PB-212	LESS THAN LLD	(4.02 ± 3.51 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 120

SEPTEMBER, 1993

0.7 MI NE - INTAKE CANAL (CONTROL) (SW-400)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	(< 1.07E+03)

GAMMA SPECTROMETRY MASS : 1 GRAMS

<u>ISOTOPE</u>	<u>CONTROL ACTIVITY</u>
K-40	(4.21 ± 0.41 E+02)
PB-214	(1.01 ± 0.46 E+01)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 121

SEPTEMBER, 1993

4.9 MI SSW - DISCHARGE CANAL, STILL POND (SW-401)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	< 1.07E+03	(< 1.07E+03)

GAMMA SPECTROMETRY MASS : 1 GRAMS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
K-40	2.61 \pm 0.36 E+02	(4.21 \pm 0.41 E+02)
PB-214	LESS THAN LLD	(1.01 \pm 0.46 E+01)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 122

OCTOBER, 1993

0.7 MI NE - INTAKE CANAL (CONTROL) (SW-400)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	(< 1.06E+03)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>CONTROL ACTIVITY</u>
K-40	(2.97 ± 0.34 E+02)
TL-208	(5.54 ± 1.39 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 123

OCTOBER, 1993

4.9 MI SSW - DISCHARGE CANAL, STILL POND (SW-401)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	< 1.06E+03	(< 1.06E+03)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
K-40	2.82 ± 0.33 E+02	(2.97 ± 0.34 E+02)
TL-208	3.85 ± 1.26 E+00	(5.54 ± 1.39 E+00)
PB-212	3.54 ± 2.86 E+00	(LESS THAN LLD)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 124

NOVEMBER, 1993

0.7 MI NE - INTAKE CANAL (CONTROL) (SW-400)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	(< 1.13E+03)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>CONTROL ACTIVITY</u>
K-40	(2.96 ± 0.32 E+02)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 125

NOVEMBER, 1993

4.9 MI SSW - DISCHARGE CANAL, STILL POND (SW-401)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	< 1.13E+03	(< 1.13E+03)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
K-40	3.80 ± 0.42 E+02	(2.96 ± 0.32 E+02)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 126

DECEMBER, 1993

0.7 MI NE - INTAKE CANAL (CONTROL) (SW-400)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	(< 1.04E+03)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>CONTROL ACTIVITY</u>
K-40	(2.48 ± 0.33 E+02)
TL-208	(4.45 ± 1.18 E+00)
RA-226	(3.73 ± 3.23 E+01)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

BSEP - 127

DECEMBER, 1993

4.9 MI SSW - DISCHARGE CANAL, STILL POND (SW-401)

RADIOCHEMISTRY

<u>ANALYSIS</u>	<u>LITERS</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
TRITIUM	0.005	< 1.04E+03	(< 1.04E+03)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

<u>ISOTOPE</u>	<u>SAMPLE ACTIVITY</u>	<u>CONTROL ACTIVITY</u>
K-40	2.81 ± 0.36 E+02	(2.48 ± 0.33 E+02)
TL-208	4.40 ± 1.30 E+00	(4.45 ± 1.18 E+00)
PB-214	4.95 ± 4.30 E+00	(LESS THAN LLD)
RA-226	LESS THAN LLD	(3.73 ± 3.23 E+01)

ENVIRONMENTAL TLD
(MILLIROENTGEN PER WEEK)

BSEP - 128

THIRD QUARTER, 1993

	<u>STATION</u>	<u>MILLIROENTGEN PER WEEK</u>
	CONTROL	(1.10 ± 0.40 E+00)
1	1.1 MI E - MOORE ST EXTENSION	8.00 ± 4.00 E-01
3	0.9 MI SE - MOORE ST EXTENSION	8.00 ± 4.00 E-01
4	1.1 MI SSE - MOORE ST EXTENTION	8.00 ± 4.00 E-01
5	1.1 MI S - LEONARD ST	9.00 ± 4.00 E-01
6	1.0 MI S - BEMCO POWER LINE	7.00 ± 4.00 E-01
7	1.0 MI SW - HWY 87 AT RIGHT-OF-WAY	8.00 ± 4.00 E-01
8	1.2 MI W - HWY 87	7.00 ± 4.00 E-01
9	1.0 MI WNW - BETHEL CHURCH RD	1.10 ± 0.40 E+00
10	0.9 MI NW - BETHEL CHURCH RD	7.00 ± 4.00 E-01
11	0.9 MI NNW - BETHEL CHURCH RD	1.10 ± 0.40 E+00
12	1.0 MI N - BETHEL CHURCH RD	8.00 ± 4.00 E-01
13	1.2 MI NNE - BETHEL CHURCH RD	6.00 ± 4.00 E-01
14	0.5 MI NE - INTAKE CANAL	1.30 ± 0.60 E+00
15	0.9 MI ENE - INTAKE CANAL	9.00 ± 4.00 E-01
16	1.0 MI WSW - DISCHARGE CANAL	8.00 ± 4.00 E-01
17	1.5 MI ESE - PFIZER PROPERTY	7.00 ± 4.00 E-01
18	1.7 MI SE - PFIZER PROPERTY	1.00 ± 0.40 E+00
20	2.0 MI S - MOORE ST	7.00 ± 4.00 E-01
21	2.9 MI SSW - WEST ST AT SEA CAPTAIN	7.00 ± 4.00 E-01
22	5.3 MI SW - CASWELL BEACH RD	7.00 ± 4.00 E-01
23	4.6 MI WSW - NEAR AIRPORT	7.00 ± 4.00 E-01

ENVIRONMENTAL TLD
(MILLIROENTGEN PER WEEK)

BSEP - 129

THIRD QUARTER, 1993

	<u>STATION</u>	<u>MILLIROENTGEN PER WEEK</u>
	CONTROL	(1.10 ± 0.40 E+00)
24	3.0 MI W - HWY 211	7.00 ± 4.00 E-01
25	8.7 MI WNW - ANTIOCH BAPTIST CHURCH	1.20 ± 0.40 E+00
26	5.9 MI NW - W BOILING SPRINGS RD	1.20 ± 0.40 E+00
27	5.0 MI NNW - HWY 133	7.00 ± 4.00 E-01
28	4.2 MI NW - AT SOUTH BRUNSWICK HS	9.00 ± 4.00 E-01
29	2.6 MI SSW - SOUTHPORT ELEMENTARY SCHOOL	7.00 ± 4.00 E-01
30	2.0 MI NE - SUNNY POINT MOT	1.10 ± 0.40 E+00
31	2.6 MI ENE - SUNNY POINT MOT	8.00 ± 4.00 E-01
32	5.7 MI ENE - FT FISHER AFB HOUSING	9.00 ± 4.00 E-01
33	4.0 MI E - FERRY SLIP IN NEW HANOVER CO	7.00 ± 4.00 E-01
34	5.5 MI ENE - FT FISHER MUSEUM	7.00 ± 4.00 E-01
35	7.5 MI SSE - BALD HEAD ISLAND	7.00 ± 4.00 E-01
36	9.3 MI NE - CAROLINA BEACH	7.00 ± 4.00 E-01
37	5.5 MI NW - BOILING SPRINGS LAKES	7.00 ± 4.00 E-01
39	5.3 MI SW - YAUPON BEACH CITY HALL	6.00 ± 4.00 E-01
40	6.9 MI WSW - LONG BEACH CITY HALL	8.00 ± 4.00 E-01
75	4.5 MI S - FT CASWELL BAPTIST ASSEMBLY	9.00 ± 4.00 E-01
76	4.8 MI SSW - CASWELL BEACH	1.10 ± 0.40 E+00
77	5.3 MI SSE - BALDHEAD ISLAND	7.00 ± 4.00 E-01
78	10.0 MI NNE - HWY 133 AT SR 1521	7.00 ± 4.00 E-01
79	9.5 MI N - SR 1539 AT SR 1521	1.10 ± 0.40 E+00

ENVIRONMENTAL TLD
(MILLIROENTGEN PER WEEK)

BSEP - 130

THIRD QUARTER, 1993

<u>STATION</u>	<u>MILLIROENTGEN PER WEEK</u>
CONTROL	(1.10 ± 0.40 E+00)
81 10.0 MI WNW - MIDWAY RD AT SR 1508	1.10 ± 0.40 E+00

ENVIRONMENTAL TLD
(MILLIROENTGEN PER WEEK)

BSEP - 131

FOURTH QUARTER, 1993

	<u>STATION</u>	<u>MILLIROENTGEN PER WEEK</u>
	CONTROL	(8.00 ± 1.00 E-01)
1	1.1 MI E - MOORE ST EXTENSION	8.00 ± 1.00 E-01
2	1.0 MI ESE - MOORE ST EXTENSION	8.00 ± 1.00 E-01
3	0.9 MI SE - MOORE ST EXTENSION	8.00 ± 1.00 E-01
4	1.1 MI SSE - MOORE ST EXTENTION	8.00 ± 1.00 E-01
5	1.1 MI S - LEONARD ST	8.00 ± 1.00 E-01
6	1.0 MI S - BEMCO POWER LINE	7.00 ± 1.00 E-01
7	1.0 MI SW - HWY 87 AT RIGHT-OF-WAY	8.00 ± 1.00 E-01
8	1.2 MI W - HWY 87	7.00 ± 1.00 E-01
9	1.0 MI WNW - BETHEL CHURCH RD	8.00 ± 1.00 E-01
10	0.9 MI NW - BETHEL CHURCH RD	7.00 ± 1.00 E-01
11	0.9 MI NNW - BETHEL CHURCH RD	8.00 ± 1.00 E-01
12	1.0 MI N - BETHEL CHURCH RD	8.00 ± 1.00 E-01
13	1.2 MI NNE - BETHEL CHURCH RD	7.00 ± 1.00 E-01
14	0.5 MI NE - INTAKE CANAL	9.00 ± 1.00 E-01
15	0.9 MI ENE - INTAKE CANAL	9.00 ± 1.00 E-01
16	1.0 MI WSW - DISCHARGE CANAL	8.00 ± 1.00 E-01
17	1.5 MI ESE - PFIZER PROPERTY	7.00 ± 1.00 E-01
18	1.7 MI SE - PFIZER PROPERTY	7.00 ± 1.00 E-01
20	2.0 MI S - MOORE ST	7.00 ± 1.00 E-01
21	2.9 MI SSW - WEST ST AT SEA CAPTAIN	7.00 ± 1.00 E-01
22	5.3 MI SW - CASWELL BEACH RD	8.00 ± 1.00 E-01

ENVIRONMENTAL TLD
(MILLIROENTGEN PER WEEK)

BSEP - 132

FOURTH QUARTER, 1993

	<u>STATION</u>	<u>MILLIROENTGEN PER WEEK</u>
	CONTROL	(8.00 ± 1.00 E-01)
23	4.6 MI WSW - NEAR AIRPORT	7.00 ± 1.00 E-01
24	3.0 MI W - HWY 211	8.00 ± 1.00 E-01
25	8.7 MI WNW - ANTIOCH BAPTIST CHURCH	9.00 ± 1.00 E-01
26	5.9 MI NW - W BOILING SPRINGS RD	9.00 ± 1.00 E-01
27	5.0 MI NNW - HWY 133	7.00 ± 1.00 E-01
28	4.2 MI NW - AT SOUTH BRUNSWICK HS	8.00 ± 1.00 E-01
29	2.6 MI SSW - SOUTHPORT ELEMENTARY SCHOOL	7.00 ± 1.00 E-01
31	2.6 MI ENE - SUNNY POINT MOT	8.00 ± 1.00 E-01
32	5.7 MI ENE - FT FISHER AFB HOUSING	8.00 ± 1.00 E-01
33	4.0 MI E - FERRY SLIP IN NEW HANOVER CO	7.00 ± 1.00 E-01
34	5.5 MI ENE - FT FISHER MUSEUM	8.00 ± 1.00 E-01
35	7.5 MI SSE - BALD HEAD ISLAND	7.00 ± 1.00 E-01
36	9.3 MI NE - CAROLINA BEACH	7.00 ± 1.00 E-01
37	5.5 MI NW - BOILING SPRINGS LAKES	7.00 ± 1.00 E-01
38	11.0 MI W - SUNSET HARBOR	7.00 ± 1.00 E-01
39	5.3 MI SW - YAUPON BEACH CITY HALL	7.00 ± 1.00 E-01
40	6.9 MI WSW - LONG BEACH CITY HALL	8.00 ± 1.00 E-01
75	4.5 MI S - FT CASWELL BAPTIST ASSEMBLY	9.00 ± 1.00 E-01
76	4.8 MI SSW - CASWELL BEACH	8.00 ± 1.00 E-01
77	5.3 MI SSE - BALDHEAD ISLAND	7.00 ± 1.00 E-01
78	10.0 MI NNE - HWY 133 AT SR 1521	7.00 ± 1.00 E-01

ENVIRONMENTAL TLD
(MILLIROENTGEN PER WEEK)

BSEP - 133

FOURTH QUARTER, 1993

<u>STATION</u>	<u> MILLIROENTGEN PER WEEK</u>
CONTROL	(8.00 ± 1.00 E-01)
81 10.0 MI WNW - MIDWAY RD AT SR 1508	8.00 ± 1.00 E-01