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H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261
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1990 RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

Gentlemen:

Carolina Power and Light Company (CP&L) hereby submits the 1990 Radiological Environmental Operating Report as required by Technical Specification 6.9.1.e.

Please contact my staff if you need additional information.

Very truly yours,

J. J. Sheppard
General Manager
H. B. Robinson S. E. Plant

SAB:td

Enclosure

cc: S. D. Ebneter
L. W. Garner

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Radiological Environmental Operating Report

1990

ROBINSON NUCLEAR PROJECT

CAROLINA POWER & LIGHT COMPANY

Harris Energy & Environmental Center

Carolina Power & Light Company

New Hill, North Carolina

RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

FOR THE

H. B. ROBINSON STEAM ELECTRIC GENERATING PLANT

JANUARY 1, 1990, THROUGH DECEMBER 31, 1990

Prepared by:

Daniel F. Cahill

Reviewed by:

Ronald L. Thompson

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1.0 SUMMARY

The Radiological Environmental Surveillance Program was conducted in accordance with the H.B. Robinson Steam Electric Generating Plant Technical Specifications, Off-Site Dose Calculation Manual, and approved procedures.

The purpose of the Radiological Environmental Surveillance Program is to measure accumulation of radioactivity in the environment, to determine whether this radioactivity is the result of the operations of the H.B. Robinson Steam Electric Generating Plant, and to assess the potential dose to the off-site populations based on the cumulative measurements of radioactivity of plant origin. Of over 1,150 sample analyses and measurements taken from indicator locations during the year, detectable radioactivity resulting from plant operations was found in 35 measurements (Table 1-1). Modeling estimates based on these measurements indicate that any dose to a member of the public, due to plant operations during 1990, was less than one mrem.

1. Radioactivity in environmental samples which could be attributed to the plant operations in 1990 is summarized in Table 1-1.

2. All detectable radionuclides in the environmental samples for 1990 were less than reportable levels as defined in HBR Technical Specifications.

3. Environmental sampling and analyses performed during 1990 demonstrated that the H.B. Robinson Unit 2 Steam Electric Plant continues to operate with minimum impact on the environment and little dose to the general public.

4. A statistical summary of all the data gathered in 1990 has been compiled in Table 1-2.

5. The following locations are used as control locations and are intended to indicate conditions away from the H.B. Robinson Plant influence:

Thermoluminescent Dosimeters Airborne and Particulate Samples	**Florence, S.C.** (Sample Location 1)
Surface Water	**Black Creek at US 1** (Sample Location 41)
Fish	**Lake Bee or May Lake** (Sample Location 47)
Milk	**Cunningham Dairy** (Sample Location 63)
Broadleaf Vegetation	**10 Miles W. Bethune** (Sample Location 52)
Food Products	**>5 Miles from plant--Lowest D/Q** (Sample Location 49)

TABLE 1-1

Radioactivity in Environmental Samples Attributed to Plant Operations

Sample Media	Radionuclide	Average Concentration and Occurrence	Maximum Individual Dose (mrem/yr.)
Fish (pCi/g)	Cs-134	9.5 E-2 (1/8)	0.3
Bottom Sediment (pCi/g)	Sb-125	7.9 E-1 (1/3)	*
	Co-60	1.3 E+0 (2/3)	*
	Cs-137	6.1 E-1 (2/3)	*
Aquatic Vegetation (pCi/g)	Mn-54	3.4 E-2 (2/3)	*
	Co-58	3.0 E-2 (1/3)	*
	Co-60	2.6 E-1 (2/3)	*
	Cs-137	2.5 E-2 (1/3)	*
	Ag-110m	2.3 E-2 (1/3)	*
	Cd-109	3.2 E-1 (1/3)	*
Surface Water (pCi/l)	H-3	2.1 E+3 (21/24)	0.004 (from fish)

*No dose calculated since no general population exposure pathway exists.

TABLE 1-2

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY

H.B. Robinson Steam Electric Plant
Darlington County, South Carolina

Docket Number - 50-261
Calendar Year 1990

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 Mean Range(2)	Location w/Highest Annual Mean: Name, Distance, and Direction	Location w/Highest Annual Mean: Mean Range(2)	Control Locations Mean Range(2)
Air Cartridge (pCi/m^3)	I-131 422(3)	1.0E-2	All less than LLD		All less than LLD	All less than LLD
Air Particulate (pCi/m^3)	Gross Beta 422(3)	1.3E-3	1.88E-2 (369/369) 8.60E-3 - 4.29E-2	Johnson's Landing 0.9 mile ENE	2.50E-2 (53/53) 9.31E-3 - 4.26E-2	1.57E-2 (53/53) 8.55E-3 - 2.75E-2
	Gamma 32	See Table 6-1	All less than LLD		All less than LLD	All less than LLD
Broadleaf Vegetation (pCi/g, wet)	Gamma 45(4) Cs-137	1.9E-2	1.29E-1 (28/30) 1.03E-2 - 3.60E-1	CP&L Property 0.25 mile SSE	1.52E-1 (15/15) 1.03E-2 - 3.60E-1	2.30E-1 (11/15) 2.53E-2 - 7.31E-1
Fish (pCi/g, wet) Bottom-Feeder	Gamma 6 Cs-137	3.4E-2	1.10E-1 (4/4) 8.52E-2 - 1.41E-1	Lake Robinson site varies	1.29E-1 (2/2) 1.18E-1 - 1.41E-1	1.52E-1 (2/2) 1.12E-1 -1.93E-1
	K-40	1.1E+0	3.35E+0 (4/4) 2.91E+0 - 3.70E+0	Prestwood Lake 4.9 miles ESE	3.45E+0 (2/2) 3.21E+0 - 3.70E+0	1.94E+0 (2/2) 1.43E+0 - 2.45E+0
Fish (pCi/g, wet) Free-Swimmer	Gamma 6 Cs-134	3.8E-2	9.49E-2 (1/4) Single value	Prestwood Lake 4.9 miles ESE	9.49E-2 (1/2) Single value	All Less than LLD
	Cs-137	1.8E-2	2.84E-1 (4/4) 8.59E-2 - 8.05E-1	Prestwood Lake 4.9 miles ESE	4.45E-1 (2/2) 8.59E-2 - 8.05E-1	2.46E-1 (2/2) 2.21E-1 - 2.71E-1
	K-40	1.1E+0	3.46E+0 (4/4) 3.17E+0 - 3.97E+0	Prestwood Lake 4.9 miles ESE	3.57E+0 (2/2) 3.17E+0 - 3.97E+0	5.29E+0 (2/2) 2.69E+0 - 7.74E+0
Food Products (pCi/g, wet)	Gamma 5(5) Cs-137	1.9E-2	2.36E-2 (2/5) 1.20E-2 - 3.52E-2	Howell's Farm 5.0 miles E	2.36E-2 (2/5) 1.20E-2 - 3.52E-2	No control
Groundwater (pCi/l)	Gamma 36	See Table 6-1	All less than LLD		All less than LLD	No control
	Tritium 36	1.2E+3	1.26E+3 (1/36) Single value		All less than LLD	No control

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TABLE 1-2 (continued)

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 Mean Range[2]	Location w/Highest Annual Mean: Name, Distance, and Direction	Location w/Highest Annual Mean: Mean Range[2]	Control Locations Mean Range[2]
Milk (pCi/l)	I-131 54	5.0E-1	All less than LLD		All less than LLD	All less than LLD
	Gamma 54 Cs-137	5.0E+0	All less than LLD		All less than LLD	1.02E+1 (3/27) 8.87E+0 - 1.17E+1
Shoreline Sediment (pCi/g, dry)	Gamma 4	See Table 6-1	All less than LLD		All less than LLD	No Control
Bottom Sediment (pCi/g, dry)	Gamma 4 Sb-125	1.2E-1	7.86E-1 (1/3) Single value	Prestwood Lake 4.9 miles ESE	7.86E-1 (1/1) Single value	All less than LLD
	Co-60	3.7E-2	1.34E+0 (2/3) 1.77E-1 - 2.50E+0	Prestwood Lake 4.9 miles ESE	2.50E+0 (1/1) Single value	All less than LLD
	Cs-137	5.3E-2	6.10E-1 (2/3) 1.51E-1 - 1.07E+0	Prestwood Lake 4.9 miles ESE	1.07E+0 (1/1) Single value	1.10E-1 (1/1) Single value
Aquatic Vegetation (pCi/g, wet)	Gamma 4 Mn-54	1.6E-2	3.38E-2 (2/3) 1.95E-2 - 4.82E-2	Lake Robinson site varies	4.82E-2 (1/1) Single value	All less than LLD
	Co-58	1.9E-2	3.02E-2 (1/3) Single value	Lake Robinson site varies	3.02E-2 (1/1) Single value	All less than LLD
	Co-60	2.3E-2	2.63E-1 (2/3) 7.64E-2 - 4.49E-1	Lake Robinson site varies	4.49E-1 (1/1) Single value	All less than LLD
	Cs-137	1.9E-2	2.49E-2 (2/3) 1.37E-2 - 3.61E-2	Lake Robinson site varies	3.61E-2 (1/1) Single value	All less than LLD
	Ag-110m	1.7E-2	2.31E-2 (1/3) Single value	Lake Robinson site varies	2.31E-2 (1/1) Single value	All less than LLD
	Cd-109	3.2E-1	3.18E-1 (1/3) Single value	Lake Robinson site varies	3.18E-1 (1/1) Single value	All less than LLD
Surface Water (pCi/l)	Gamma 36	See Table 6-1	All less than LLD		All less than LLD	All less than LLD
	Tritium 36	1.2E+3	2.05E+3 (21/24) 1.09E+3 - 3.19E+3	Ash Pond	2.20E+3 (9/12) 2.09E+3 - 3.04E+3	All less than LLD
TLD (mR/wk)	TLD 161[3]	1 mR	1.10E+0 (157/157) 8.00E-1 - 1.90E+0	Intersection of SR 31-51 and 16-12 4.4 miles SW	1.82E+0 (4/4) 1.80E+0 - 1.90E+0	1.12E+0 (4/4) 9.00E-1 - 1.30E+0

FOOTNOTES TO TABLE 1-2

1. Lower Limit of Detection (LLD) is the smallest concentration of radioactive material in a sample that will yield a net count above system background which will be detected with 95 percent probability with only 5 percent probability of falsely concluding that a blank observation represents a "real" signal.

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.

4. Three types of broadleaf vegetation samples are collected monthly when available from three locations for a possible total of 108 samples. The missing samples are discussed in Section 4.

5. Food products are required to be sampled at locations where plant effluents are used to irrigate food crops. The farm previously sampled has ceased its irrigation operations. However, food products were collected for split sampling with the state of South Carolina.

2.0 GENERAL INFORMATION

The following report summarizes the radiological environmental data for the H.B. Robinson Steam Electric Generating Plant during the calendar year 1990. The surveillance requirements for this report were performed by the requirements of the Radiological Effluent Technical Specifications (RETS) which were implemented on January 1, 1985.

2.1 Plant and Location

The H.B. Robinson Steam Electric Generating Plant is located in northeastern South Carolina near Hartsville and approximately 25 miles northwest of Florence. This site includes a fossil-fueled plant, Unit 1, which was placed in service in 1960 and a pressurized water nuclear power reactor, Unit 2, which entered commercial operation on March 7, 1971. The Robinson Impoundment (hereafter referred to as Lake Robinson) on the plant site was created for Unit 1 and is also a cooling reservoir for Unit 2. Lake Robinson has an area of 2,250 acres with plant intake at the south end adjacent to the dam. Following condenser use, the water is returned by a 4.2-mile canal to the north end of Lake Robinson near the mouth of Black Creek which flows into the lake from the north.

2.2 Radiological Impact Considerations

Potential population exposure due to plant operations is most significant in the liquid release fish-man pathway. Two additional pathways are also potentially important. These are the airborne radioiodine-pasture-milk pathway and the direct external radiation exposure to individuals on the ground from plumes of noble gases. Contact with Lake Robinson waters, including boating and immersion (swimming), constitutes an insignificant dose to man.

2.3 Environmental Monitoring Program

The required environmental sampling is defined by technical specifications. The program, as implemented by the plant, is described in the Off-Site Dose Calculation Manual. The program objective is to monitor specific elements of exposure pathways. The sampling media and release pathways are listed below.

Sampling Media	Release Pathway
Glass Fiber Filter	Gaseous
Iodine Collection Cartridge	Gaseous
TLDs	Gaseous
Surface Water	Liquid
Groundwater	Liquid
Shoreline Sediment	Liquid
Milk	Gaseous and liquid (when irrigating)
Fish	Liquid
Food Crops	Liquid (when irrigating)
Broadleaf Vegetation (when there are no milk locations within five miles of plant site)	Gaseous
Aquatic Vegetation	Liquid

SYMBOL	SAMPLE TYPE	
AC	AIR CARTRIDGE	1-7, 55
AP	AIR PARTICULATE	1-7, 55
SS	SHORELINE SEDIMENT	44 57
GW	GROUNDWATER	40 42 43
BL	BROADLEAF VEGETATION	50 51 52
SW	SURFACE WATER	40 41 57
TL	TLD	1-39 55 56
MK	MILK	54 63
FI	FISH	45 46 47
FC	FOOD PRODUCTS	49 54 58
AV	AQUATIC VEGETATION	41 45 46 54

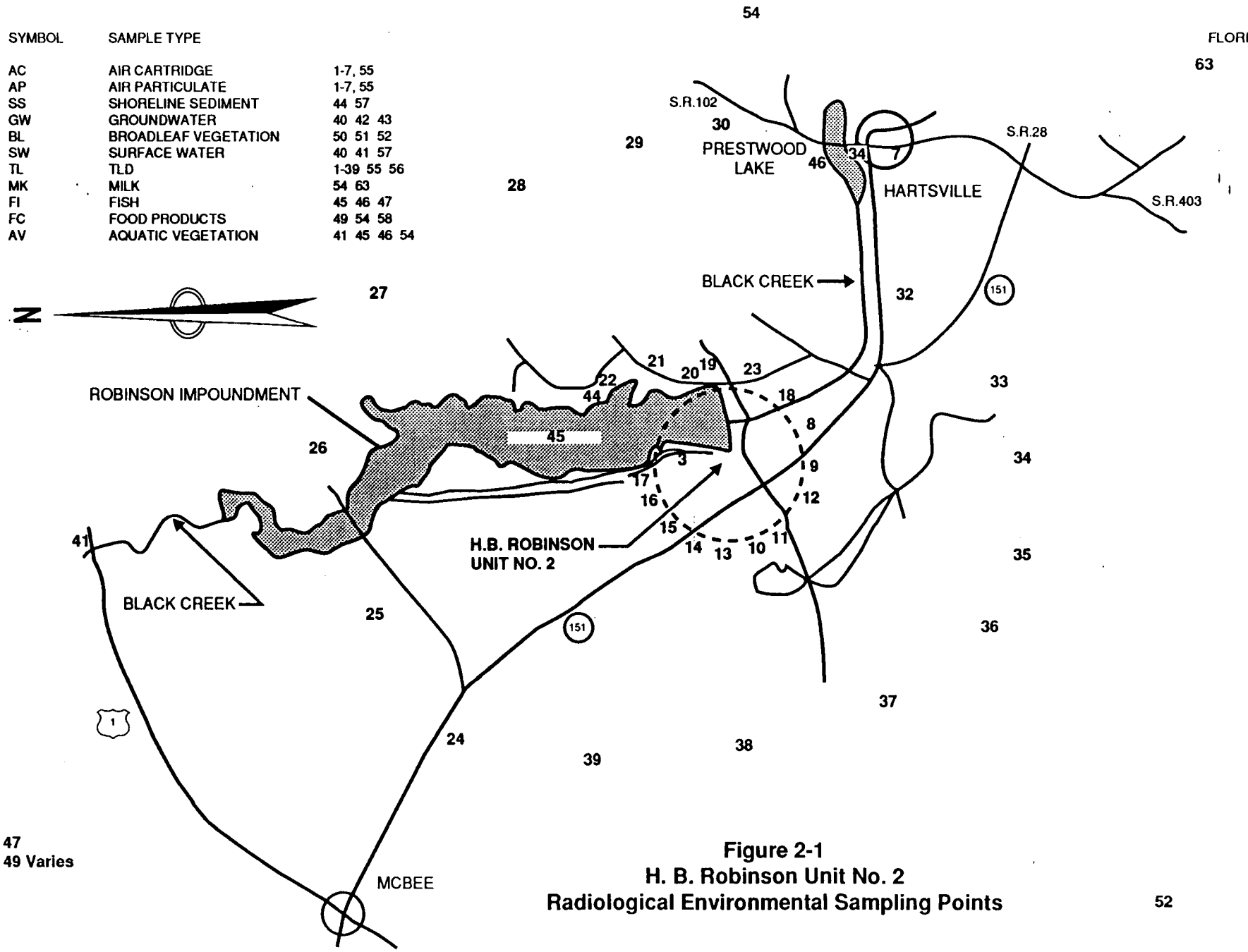

Figure 2-1
H. B. Robinson Unit No. 2
Radiological Environmental Sampling Points

SYMBOL	SAMPLE TYPE	
AC	AIR CARTRIDGE	1-7, 55
AP	AIR PARTICULATE	1-7, 55
SS	SHORELINE SEDIMNENT	44 57
GW	GROUNDWATER	40 42 43
SL	BROADLEAF VEGETATION	50 51 52
SW	SURFACE WATER	40 41 57
TL	TLD	1-39 55 56
MK	MILK	54 63
FI	FISH	45 46 47
FC	FOOD PRODUCTS	49 54 58
AV	AQUATIC VEGETATION	41 45 46 54

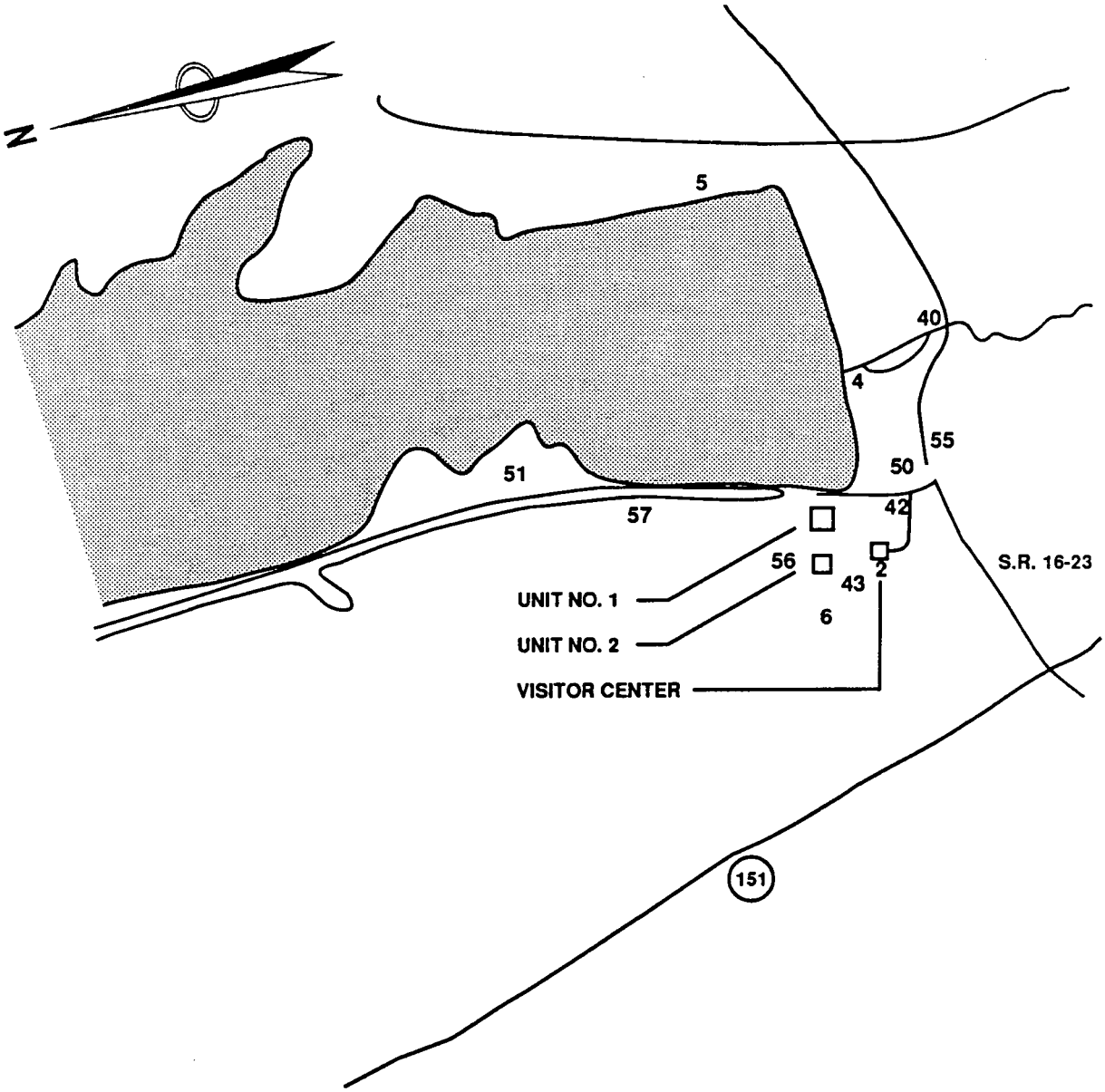

FIGURE 2-2
H. B. ROBINSON UNIT NO. 2
RADIOLOGICAL ENVIRONMENTAL SAMPLING POINTS
ON SITE

TABLE 2-1
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM
H.B. ROBINSON STEAM ELECTRIC PLANT

Sample Type	Sampling Point and Description[1]	Sampling Frequency	Approximate Sample Size	Sample Analysis
Air Cartridge (AC)	1--26 miles ESE Florence--Control 2--0.2 mile S Information Center 3--0.7 mile N Microwave Tower 4--0.4 mile ESE Spillway 5--0.9 mile ENE Johnson's Landing 6--0.3 mile SW Information Center 7--6.3 miles ESE Hartsville 55--0.3 mile SSE Site Boundary	Weekly	800 m^3	Iodine
Air Particulate (AP)	1--26 miles ESE Florence--Control 2--0.2 mile S Information Center 3--0.7 mile N Microwave Tower 4--0.4 mile ESE Spillway 5--0.9 mile ENE Johnson's Landing 6--0.3 mile SW Information Center 7--6.3 miles ESE Hartsville 55--0.3 mile SSE Site Boundary	Weekly	800 m^3	Weekly--Gross Beta Quarterly--Composite-Gamma
External Radiation Dose (TL)	1--26 miles ESE Florence--Control 2--0.2 mile S Information Center 3--0.7 mile N Microwave Tower 4--0.4 mile ESE Spillway 5--0.9 mile ENE Johnson's Landing 6--0.3 mile SW Information Center 7--6.3 miles ESE Hartsville 8--0.8 mile SSE Oak Tree Near Transmission Lines 9--1.0 mile S Second Pole From SC-151 10--1.0 mile WSW on Power Pole at Church of God Cemetery	Quarterly	Not Applicable	TLD Readout

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TABLE 2-1 (continued)

Sample Type	Sampling Point and Description[1]	Sampling Frequency	Approximate Sample Size	Sample Analysis
External Radiation Dose (TL) (cont.)	11--1.0 mile SW 4th Pole from Old Camden Road 12--1.2 miles SSW Tree at 2nd Intersection of Dirt Road 13--1.0 mile W Pine Tree on Corner Where Road Splits 14--0.9 mile WNW Power Pole at Pine Ridge Church 15--1.0 mile NW Pine Tree Adjacent to CP&L Ash Pond 16--1.0 mile NNW Darlington Co. IC Turbine Plant 17--1.1 miles N Pine Tree Beside Discharge Canal Road 18--0.7 mile SE Near Old Railroad Trestle at Black Creek 19--1.0 mile E Power Pole on Road 16-23 20--1.3 miles ENE Power Pole 47 on Road 16-39 21-1.4 miles NE Near Atkinson's Boat Landing Sign 22-1.9 miles NNE Shady Rest Club on Light Pole 23--1.2 miles ESE Power Pole 41E-5 on Road 16-39 24--5.0 miles NW 5th Pole from SR 151 on Road 13-711 25--4.6 miles NNW Fence Line off Road 13-346 26--5.0 miles N Power Pole 32J-6 on Road 13-346	Quarterly	Not Applicable	TLD Readout

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TABLE 2-1 (continued)

Sample Type	Sampling Point and Description[1]	Sampling Frequency	Approximate Sample Size	Sample Analysis
External Radiation Dose (TL) (cont.)	27--5.0 miles NNE Road 13-736 28--4.8 miles NE Power Pole 30-4-A on Road 29--4.1 miles Transmission Pole near Road 16-20 30--4.6 miles E Pole at Johnson's Fence and Awning Co. 31--4.6 miles E Pole at Johnson's Fence and Awning Co. 32--4.5 miles SE Transmission Tower at End of Kalber Drive 33--4.6 miles SSE Power Pole 25-4 on Road 16-493 34--4.6 miles S Transmission Pole Nearest Road 16-772 35--4.4 miles SSW Intersection of Roads 31-51 and 16-12 36--4.7 miles SW Pole on Dirt Road 3/4 mile from 16-85 37--5.0 miles WSW Transmission Tower Nearest Clay Road 38--4.9 miles W Pole Beside Union Church 39--5.0 miles WNW Pole in Middle of Field 55--0.3 mile SSE--Site Boundary 56--300 feet North of ISFSI	Quarterly	Not Applicable	TLD Readout

TABLE 2-1 (continued)

Sample Type	Sampling Point and Description[1]	Sampling Frequency	Approximate Sample Size	Sample Analysis
Surface Water (SW)	40---0.6 mile ESE Black Creek at Road 16-23 41--7.2 miles NNW Black Creek--Control 57--Ash Pond	Monthly Composite	4 liters	Gamma Tritium
Groundwater (GW)	40--0.6 mile ESE Artesian Well 42--Unit 1 Deep Well 43--Unit 2 Deep Well	Monthly	4 liters	Gamma Tritium
Milk (MK)	54--10.1 miles E Auburndale Plantation 63--18 miles ESE Cunningham Dairy--Control	Semimonthly when animals are on pasture; monthly at other times	8 liters	Iodine Gamma
Fish (FI)	45--Site Varies Within Lake Robinson 46--4.9 miles ESE Prestwood Lake 47--13.0 miles NNW Bee Lake or 12.5 miles NW May Lake--Control	Semiannually	500 grams	(Edible Portion) Gamma
Shoreline Sediment (SS)	44--1.9 miles NNE Shady Rest Club 57--Ash Pond	Semiannually	500 grams	Gamma
Food Products (FC)	49--> 5 miles in Least D/Q Sector Control 54--10.1 miles E Auburndale Plantation	Annual at Harvest	500 grams	Gamma
Broadleaf Vegetation (BL)	50--0.25 mile SSE CP&L Property 51--0.25 mile NNE CP&L Property 52--10 miles W Bethune--Control	Monthly when available	500 grams	Gamma

TABLE 2-1 (continued)

Sample Type	Sampling Point and Description[1]	Sampling Frequency	Approximate Sample Size	Sample Analysis
Aquatic Vegetation (AV)	46--Prestwood Lake 41--Black Creek--Control 45--Lake Robinson 54--Auburndale	Annual	500 grams	Gamma

3.0 INTERPRETATIONS AND CONCLUSIONS

3.1 Air Sampling

Air samples collected during 1990 had a mean gross beta activity of 1.88 E-2 pCi/m^3 for the indicator stations versus an average concentration of 1.57 E-2 pCi/m^3 for the control stations. This data is consistent with preoperational data obtained for the H.B. Robinson Steam Electric Generating Plant (1.40 E-1 pCi/m^3) and are typical of the naturally occurring radionuclides of the region. Figures 3-1 through 3-7 depict the gross beta activity in air versus the control location and the preoperational average. The lower current value is primarily due to the reduction of worldwide fallout over that which was occurring during the preoperational years. These figures confirm that the indicator stations show no significant increase over the control samples and hence no discernible impact from the plant operations is apparent in the data.

The quarterly composite gamma analyses for air particulate samples for all quarters revealed no radionuclides typical of plant effluents.

All 369 air cartridge samples from the indicator stations and 53 air cartridges from the control locations had iodine-131 (I-131) activities which were less than the LLD.

3.2 Broadleaf Vegetation

Broadleaf vegetation sampling is accomplished by collecting oak, wild cherry, pin oak, willow oak, and sassafras leaves. Three species of samples, when available, are collected monthly at three locations (one control and two locations at the site boundary selected using historical meteorology with the highest calculated annual average ground level deposition). Broadleaf sampling is conducted since no milk animals are located within a radius of approximately five miles of the plant and is used to simulate dose to an individual via the milk pathway for compliance purposes.

During 1990, 28 of 30 samples taken from the indicator site demonstrated detectable concentrations of Cs-137 for an average value of 1.29 E-1 pCi/g (wet). The control samples had detectable concentrations of Cs-137 in 11 of 15

samples with a mean concentration of 2.30 E-1 pCi/g (wet). Upon comparing these results, we conclude that the indicator values are consistent with those of the control and are not indicative of plant effluents. Past sampling experience further supports this interpretation.

3.3 Fish

Samples of free-swimmer and bottom-feeding fish were taken from Lake Robinson and Prestwood Lake (the first downstream lake) and compared to similar fish from a control lake unaffected by plant operations. Of eight indicator fish samples taken, one sample indicated a detectable concentration of Cs-134. This sample came from Prestwood Lake and was slightly greater than two times the detectable limits. If one considers that a maximum exposed individual (adult) consumed 21 Kg of this fish during the year, he would receive an estimated 0.3 mrem for the year through this pathway. Although Cs-137 was detected in both the bottom-feeders and the free-swimmers, the concentrations were similar to the concentrations of Cs-137 observed in the control samples, and therefore no plant-effected dose was assigned to the presence of this radionuclide. Consideration was also given to the transport of tritium from the surface water concentrations in Lake Robinson and a dose to a maximum exposed individual was estimated at 0.004 mrem for the year for tritium through this pathway.

3.4 Groundwater

Groundwater sampling indicated that only 1 of 36 samples contained any detectable concentration of tritium. This value occurred near the lower limit of detection (LLD) such that there exists a degree of uncertainty related to its value; therefore, no dose is assigned through this pathway. No gamma-emitting radionuclides were detected in this media.

3.5 Milk

Three of twenty-seven samples from the control milk station indicated measurable concentrations of Cs-137. None of the indicator stations demonstrated any presence of the cesium. This was accepted as another indication of

the presence of Cs-137 in the environs from worldwide fallout and not attributable to plant operations.

3.6 Food Products

At the request of the state of South Carolina, food products were sampled and analyzed primarily for interlaboratory comparisons. Two of the five samples analyzed indicated a detectable concentration of Cs-137. These concentrations were in the range of values frequently observed in broadleaf vegetation control samples in the area. No dose pathway from plant operations was determined to exist through this media.

3.7 Shoreline Sediment

No radionuclides of plant origin were detected and no dose was assigned to this pathway.

3.8 Bottom Sediment

Sampling of bottom sediments was performed due to the past history of the Lake Robinson and its downstream system. Antimony-125 was detected in one sample from Prestwood Lake at a concentration of 0.79 pCi/g. In addition, Co-60 at 1.34 pCi/g and Cs-137 at 0.61 pCi/g were detected. Since this sampling is for indications of radionuclides in transport and not an integral element of a dose pathway, no dose is assigned based on this sampling.

3.9 Aquatic Vegetation

Aquatic vegetation was another media sampled to identify radionuclides present in the ecosystem but not at a sensitive location for dose modeling. As shown in Table 1-2, the Mn-54, Co-58, Co-60, Cs-137, Ag-110m, and Cd-109 were detected at concentrations between 1 and 20 times their respective LLDs. No dose is estimated through this sampling regime.

3.10 Surface Water

Surface waters of Lake Robinson indicated a presence of tritium which is considered to be related to plant operations. Since these surface waters do not supply drinking water at any downstream location and irrigation practices downstream were not used in 1990; therefore, radiological dose via this pathway is limited to the consumption of fish from Lake Robinson. A dose model available through the application of Nuclear Regulatory Guide 1.109 references indicate a dose of 0.004 mrem/year could be assigned to this pathway.

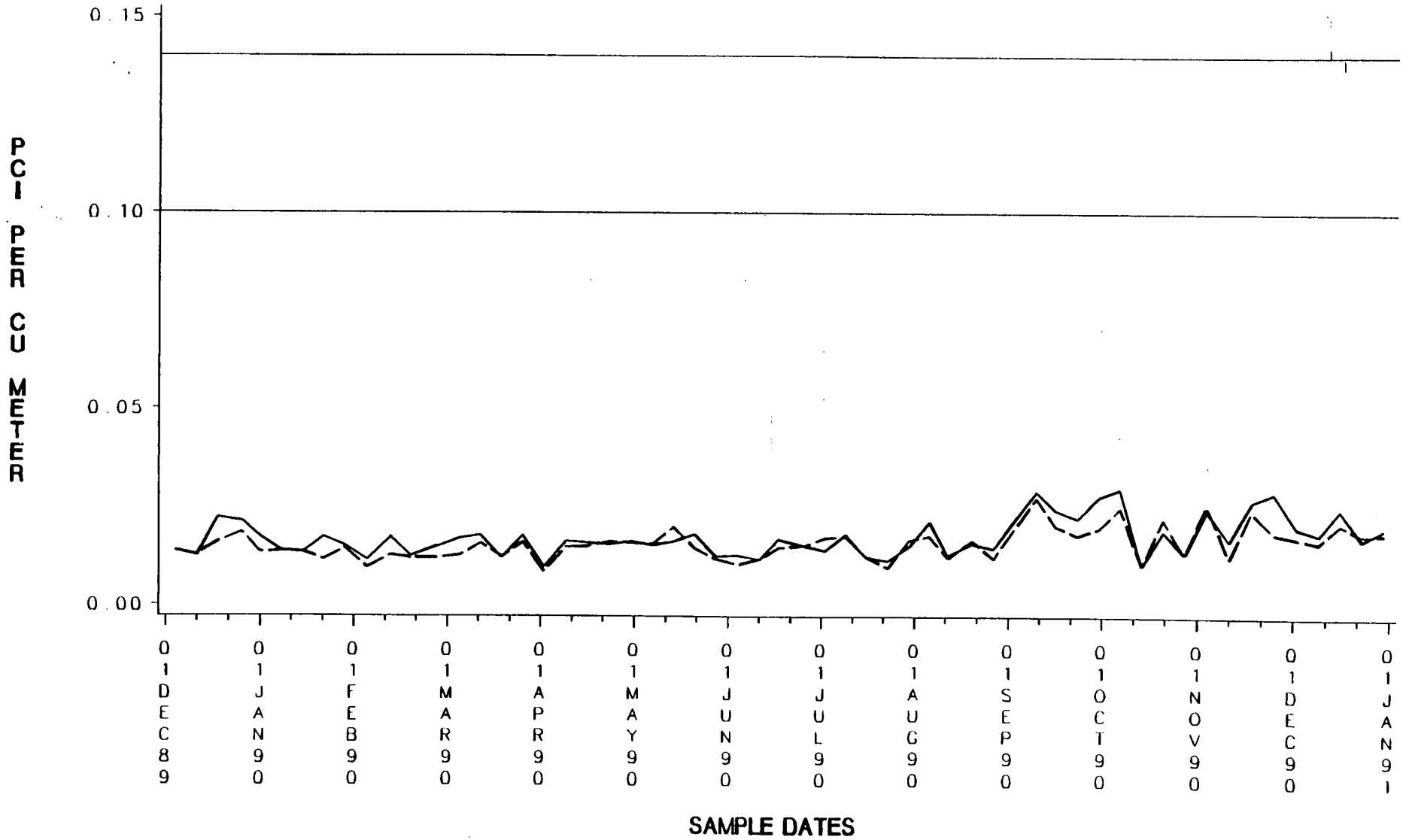
3.11 Direct Radiation

Direct radiation exposure in the H.B. Robinson environs was measured by the placement of thermoluminescent dosimeters about the plant forming inner and outer concentric circles. The expectation would be that if plant effect existed, the inner ring dose measurements would exceed those made in the outer ring. This condition was not observed, and therefore any direct radiation dose to the off-site population was determined to be less than measurable.

3.12 Asiatic Clams

Benthic samples from Lake Robinson during 1990 continue to confirm the absence of any substantial populations of Asiatic clams (*Corbicula fluminea*). The natural chemistry of the lake inhibits their proliferation.

FIGURE 3-1
CP&L ENVIRONMENTAL SURVEILLANCE
GROSS BETA ACTIVITY FOR
AIR PARTICULATE SAMPLES
PLANT=HBR SAMPLE POINT=0002



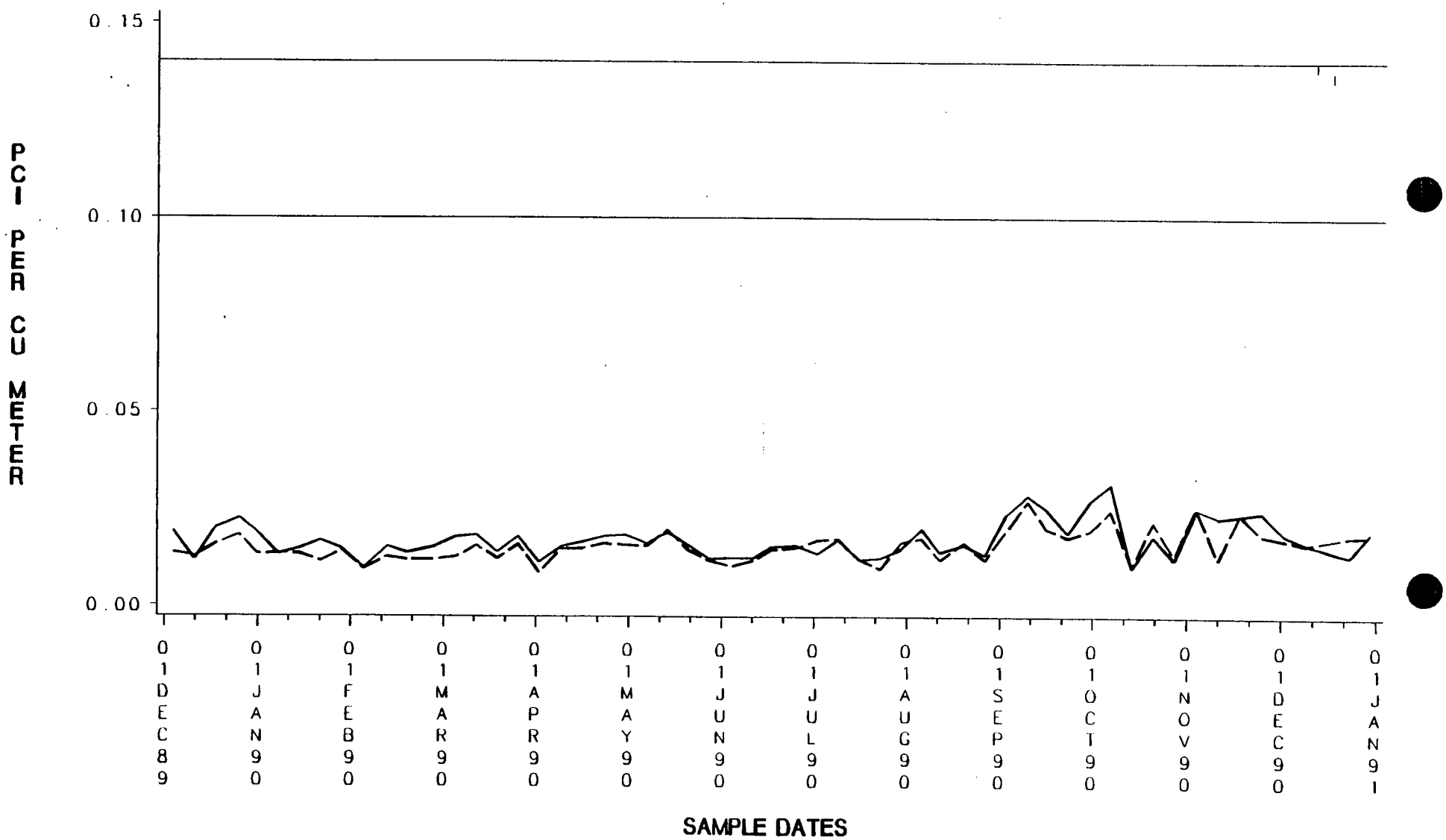
SOLID LINE FOR SAMPLE STATION
BROKEN LINE FOR CONTROL STATION

PRE-OP AVERAGE=0.14
ISOTOPIC ANALYSIS REQUIRED ABOVE 0.10

FIGURE 3-2

CP&L ENVIRONMENTAL SURVEILLANCE

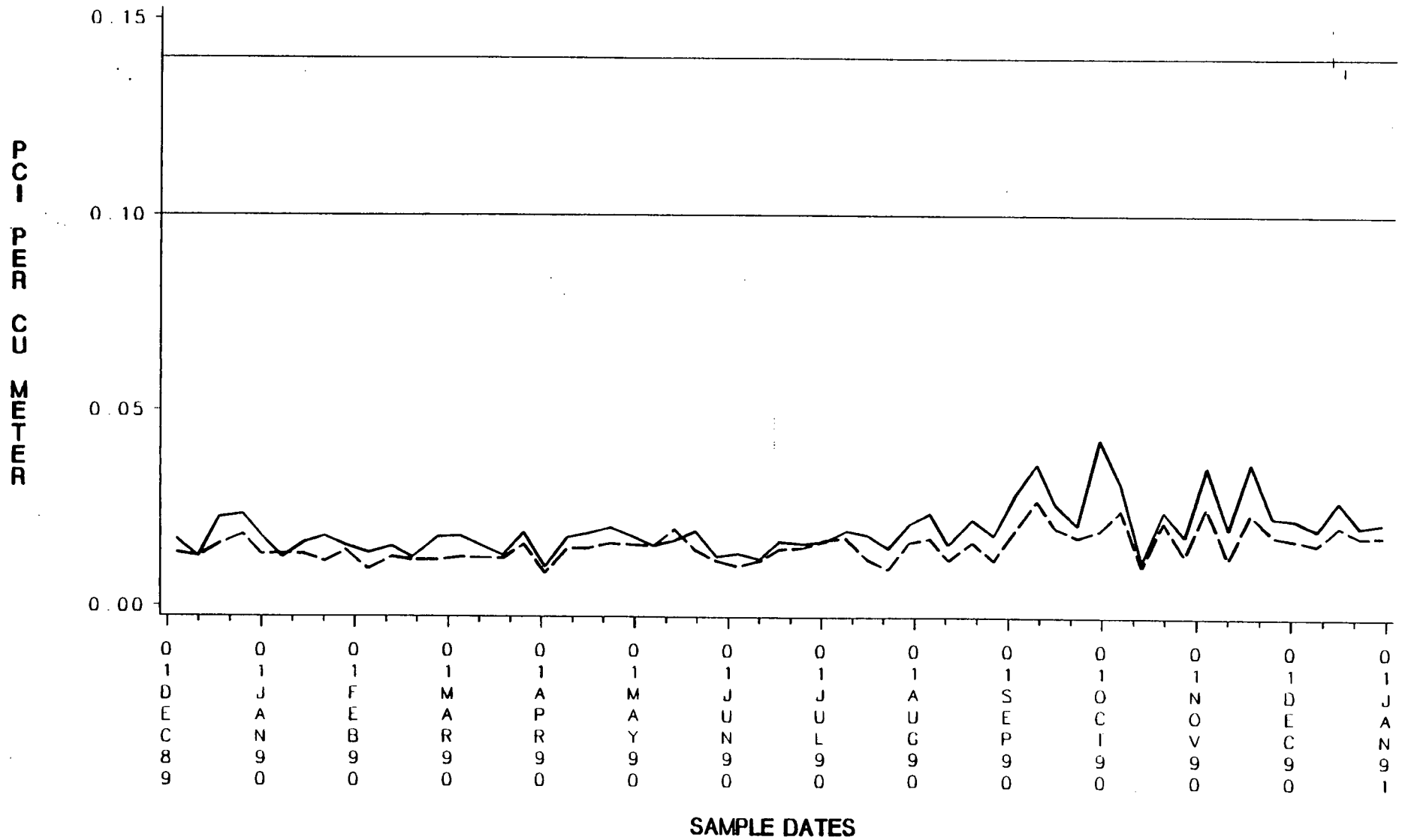
GROSS BETA ACTIVITY FOR
AIR PARTICULATE SAMPLES
PLANT=HBR SAMPLE POINT=0003



SOLID LINE FOR SAMPLE STATION
BROKEN LINE FOR CONTROL STATION

PRE-OP AVERAGE=0.14
ISOTOPIC ANALYSIS REQUIRED ABOVE 0.10

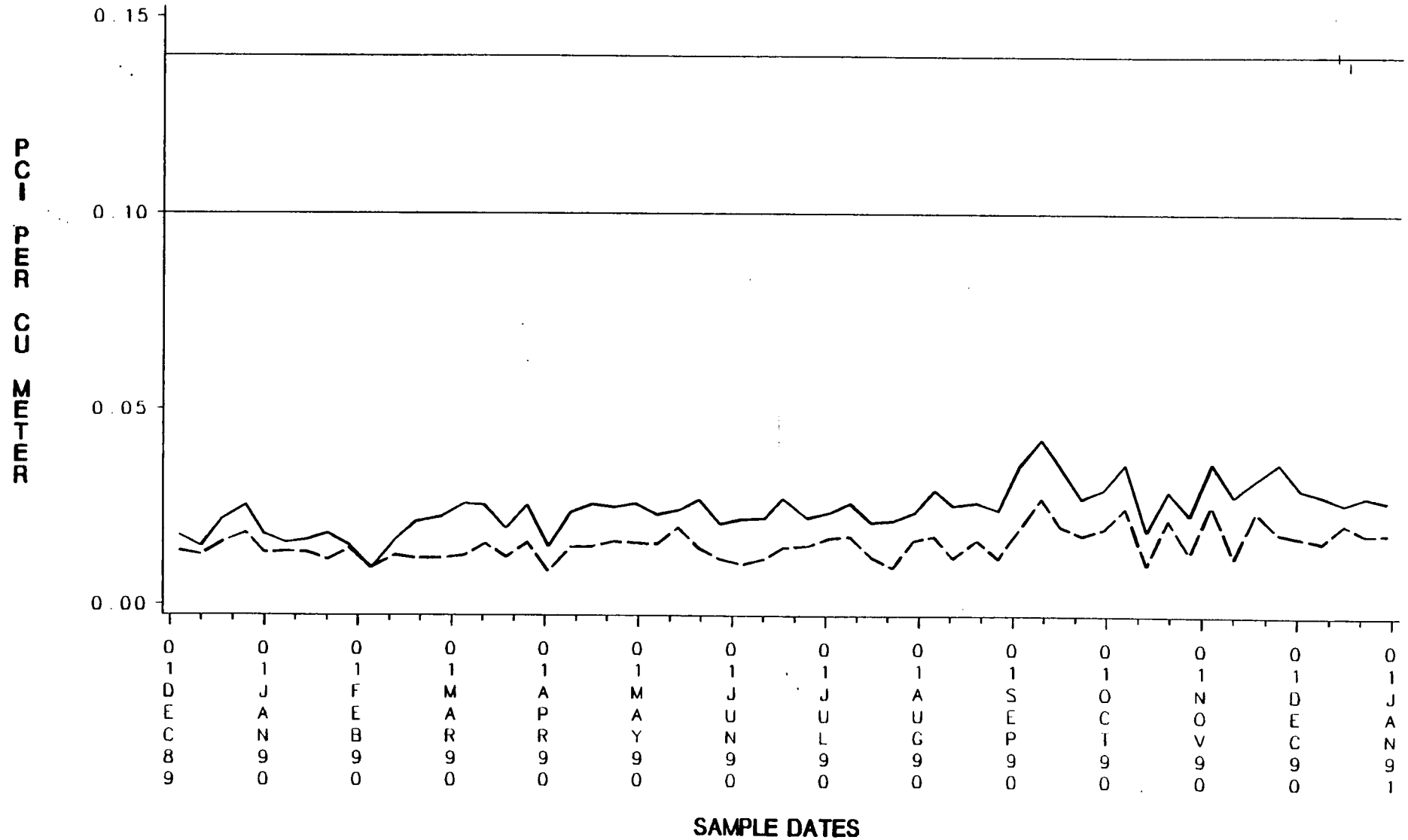
FIGURE 3-3
CP&L ENVIRONMENTAL SURVEILLANCE
GROSS BETA ACTIVITY FOR
AIR PARTICULATE SAMPLES
PLANT=HBR SAMPLE POINT=0004



SOLID LINE FOR SAMPLE STATION
BROKEN LINE FOR CONTROL STATION

PRE-OP AVERAGE-0.14
ISOTOPIC ANALYSIS REQUIRED ABOVE 0.10

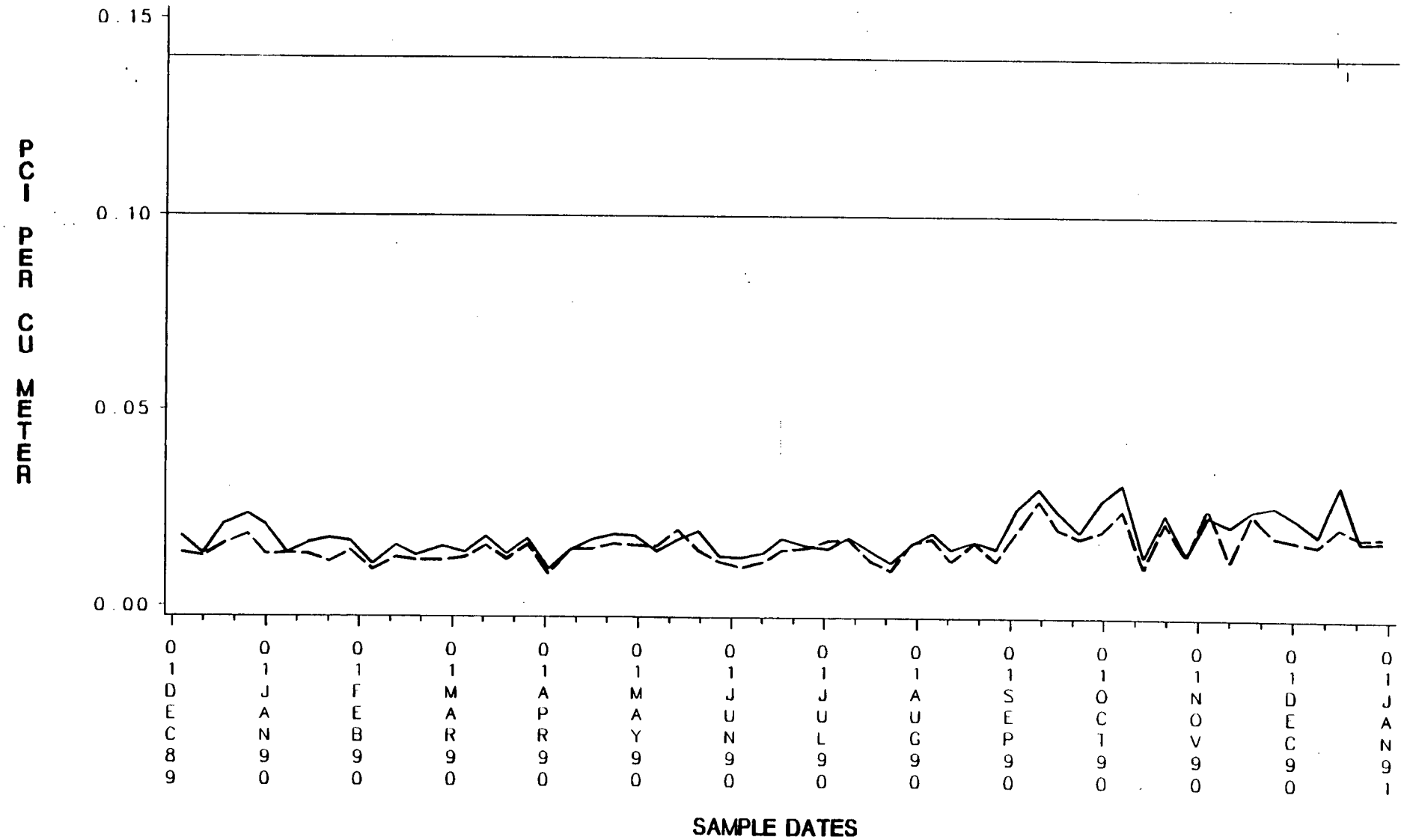
FIGURE 3-4
CP&L ENVIRONMENTAL SURVEILLANCE
GROSS BETA ACTIVITY FOR
AIR PARTICULATE SAMPLES
PLANT=HBR SAMPLE POINT=0005



SOLID LINE FOR SAMPLE STATION
BROKEN LINE FOR CONTROL STATION

PRE-OP AVERAGE = 0.14
ISOTOPIC ANALYSIS REQUIRED ABOVE 0.10

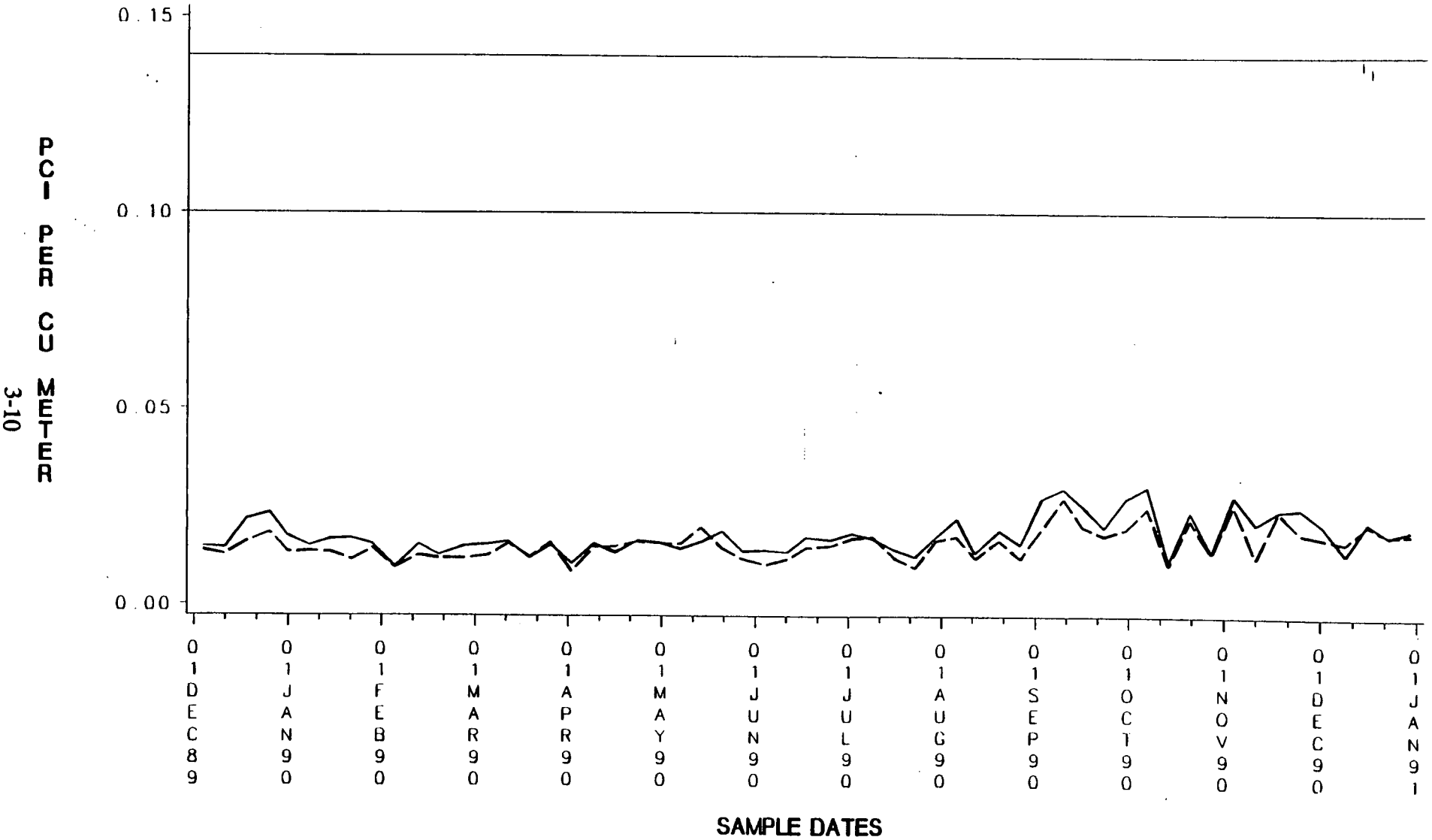
FIGURE 3-5
CP&L ENVIRONMENTAL SURVEILLANCE
GROSS BETA ACTIVITY FOR
AIR PARTICULATE SAMPLES
PLANT=HBR SAMPLE POINT=0006



SOLID LINE FOR SAMPLE STATION
BROKEN LINE FOR CONTROL STATION

PRE-OP AVERAGE = 0.14
ISOTOPIC ANALYSIS REQUIRED ABOVE 0.10

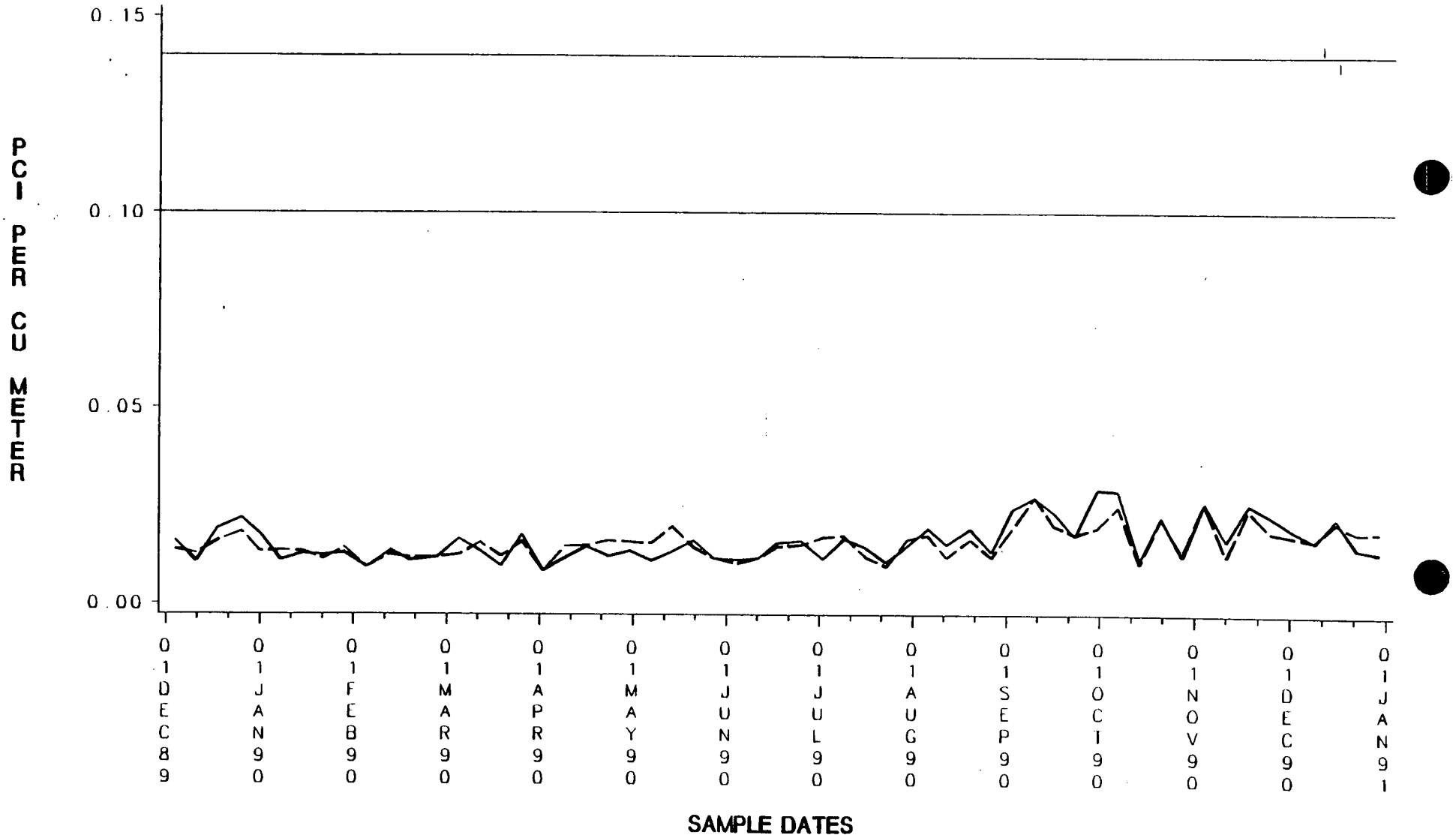
FIGURE 3-6
CP&L ENVIRONMENTAL SURVEILLANCE
GROSS BETA ACTIVITY FOR
AIR PARTICULATE SAMPLES
PLANT=HBR SAMPLE POINT=0007



SOLID LINE FOR SAMPLE STATION
BROKEN LINE FOR CONTROL STATION

PRE-OP AVERAGE=0.14
ISOTOPIC ANALYSIS REQUIRED ABOVE 0.10

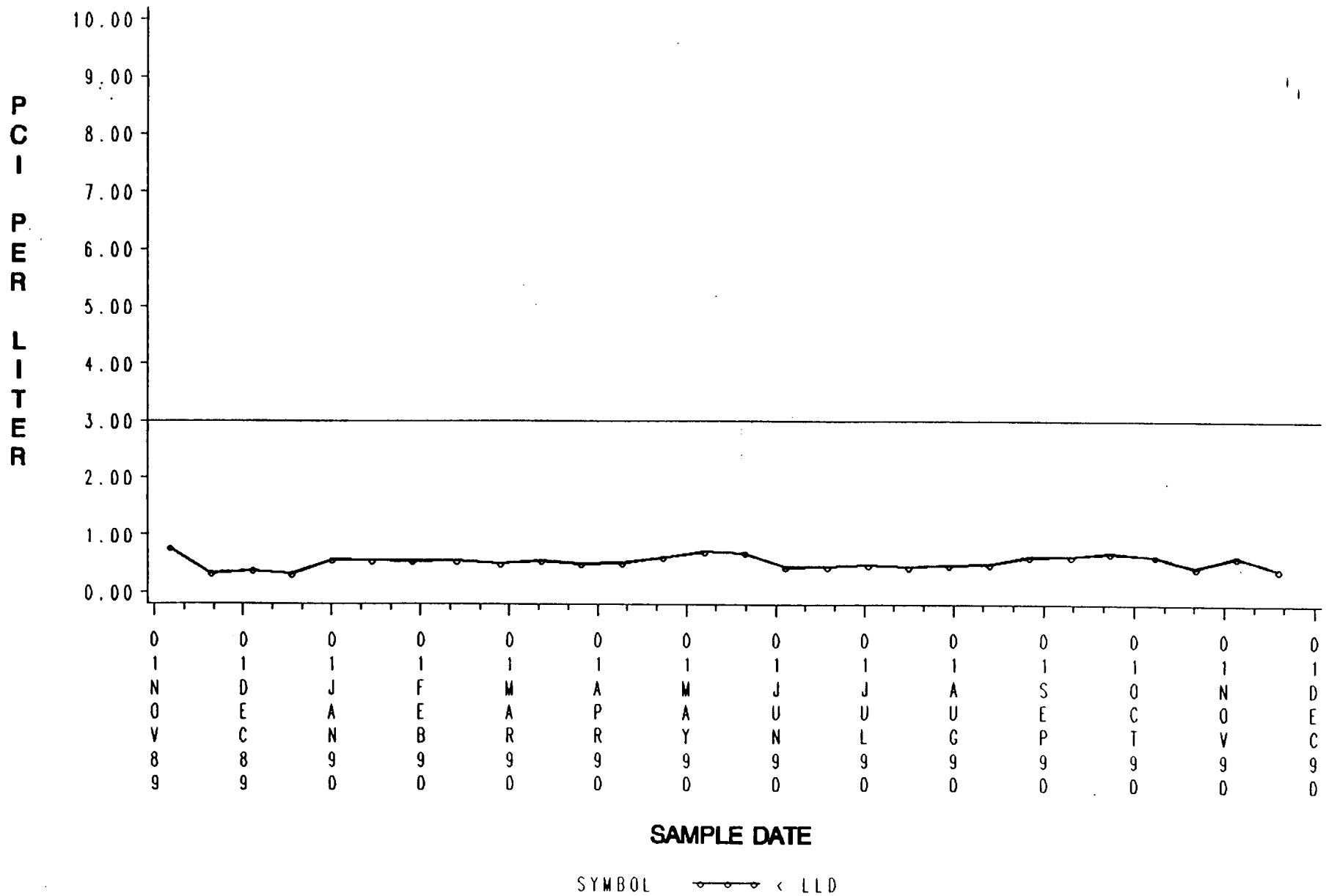
FIGURE 3-7
CP&L ENVIRONMENTAL SURVEILLANCE
GROSS BETA ACTIVITY FOR
AIR PARTICULATE SAMPLES
PLANT=HBR SAMPLE POINT=0055



SOLID LINE FOR SAMPLE STATION
BROKEN LINE FOR CONTROL STATION

PRE-OP AVERAGE - 0.14
ISOTOPIC ANALYSIS REQUIRED ABOVE 0.10

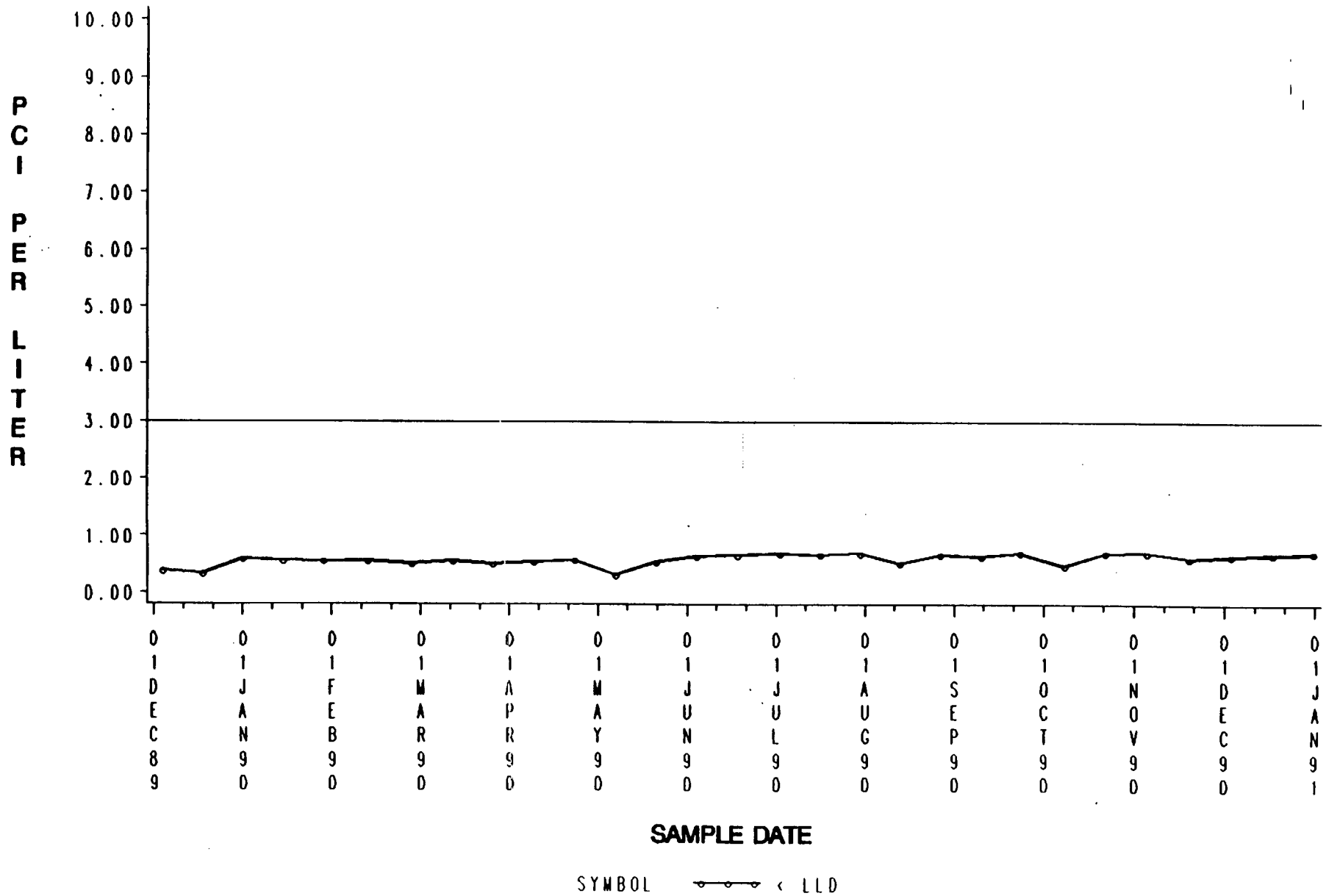
FIGURE 3-8
CP&L ENVIRONMENTAL SURVEILLANCE
IODINE-131 ACTIVITY FOR
MILK SAMPLES
PLANT=HBR POINT=0054



STATION '0063' IS THE CONTROL POINT

REPORTING LEVEL IS 3.0

FIGURE 3-9
CP&L ENVIRONMENTAL SURVEILLANCE
IODINE-131 ACTIVITY FOR
MILK SAMPLES
PLANT=HBR POINT=0063



STATION '0063' IS THE CONTROL POINT

REPORTING LEVEL IS 3.0

FIGURE 3-10
CP&L ENVIRONMENTAL SURVEILLANCE
GAMMA ACTIVITY FOR
AQUATIC VEGETATION SAMPLES
PLANT=HBR SAMPLE POINT=0045

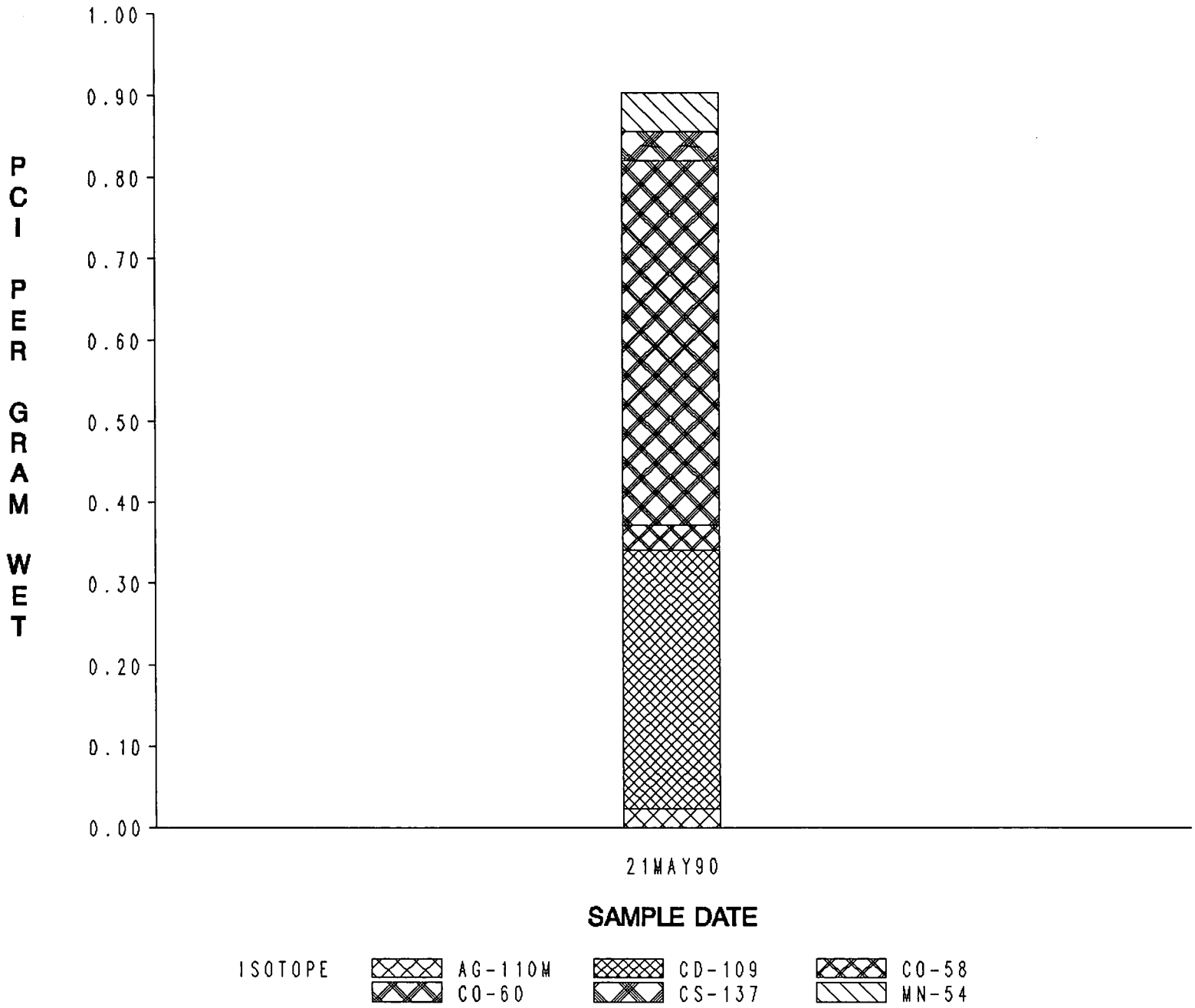


FIGURE 3-11
CP&L ENVIRONMENTAL SURVEILLANCE
GAMMA ACTIVITY FOR
AQUATIC VEGETATION SAMPLES
PLANT=HBR SAMPLE POINT=0046

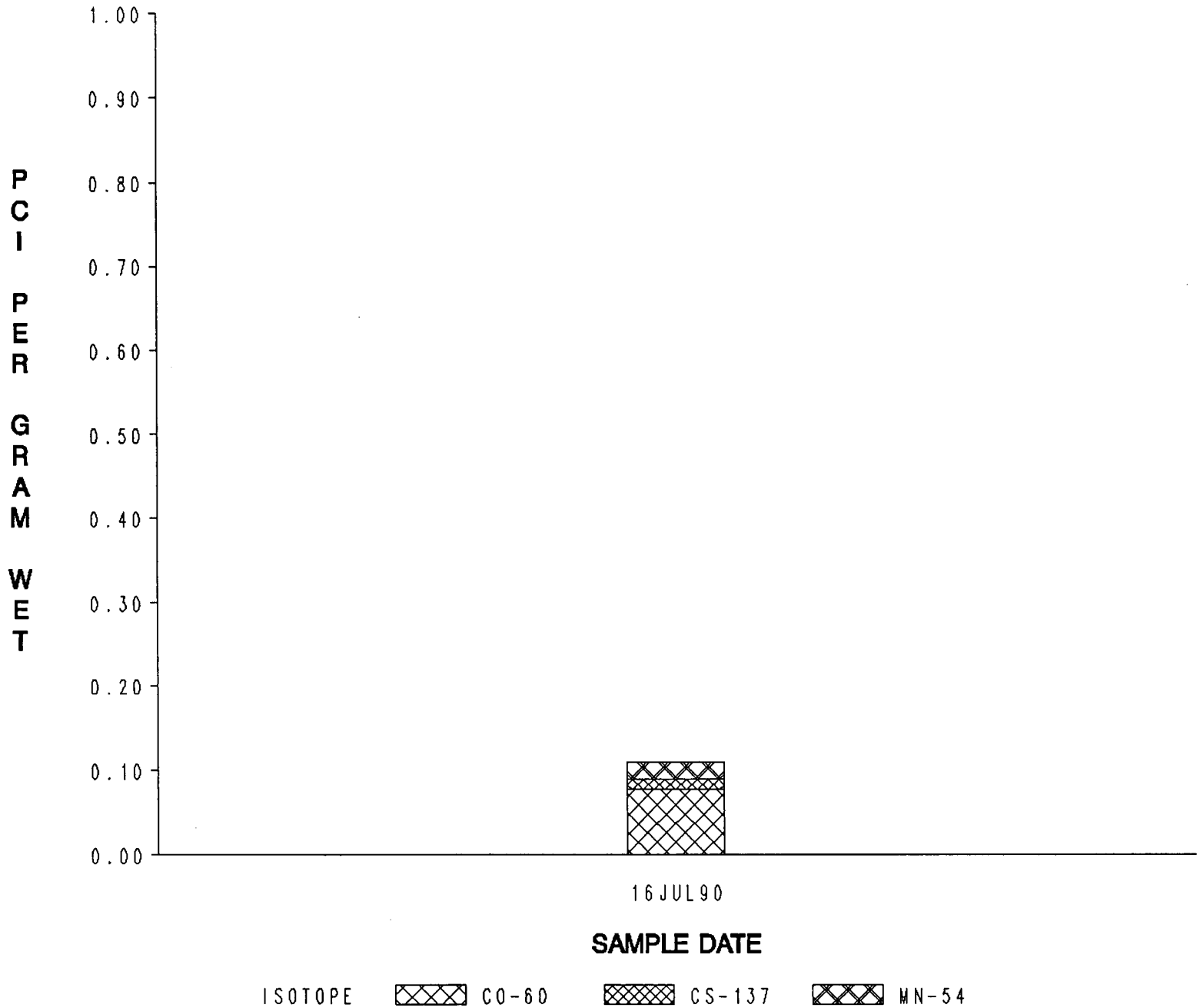
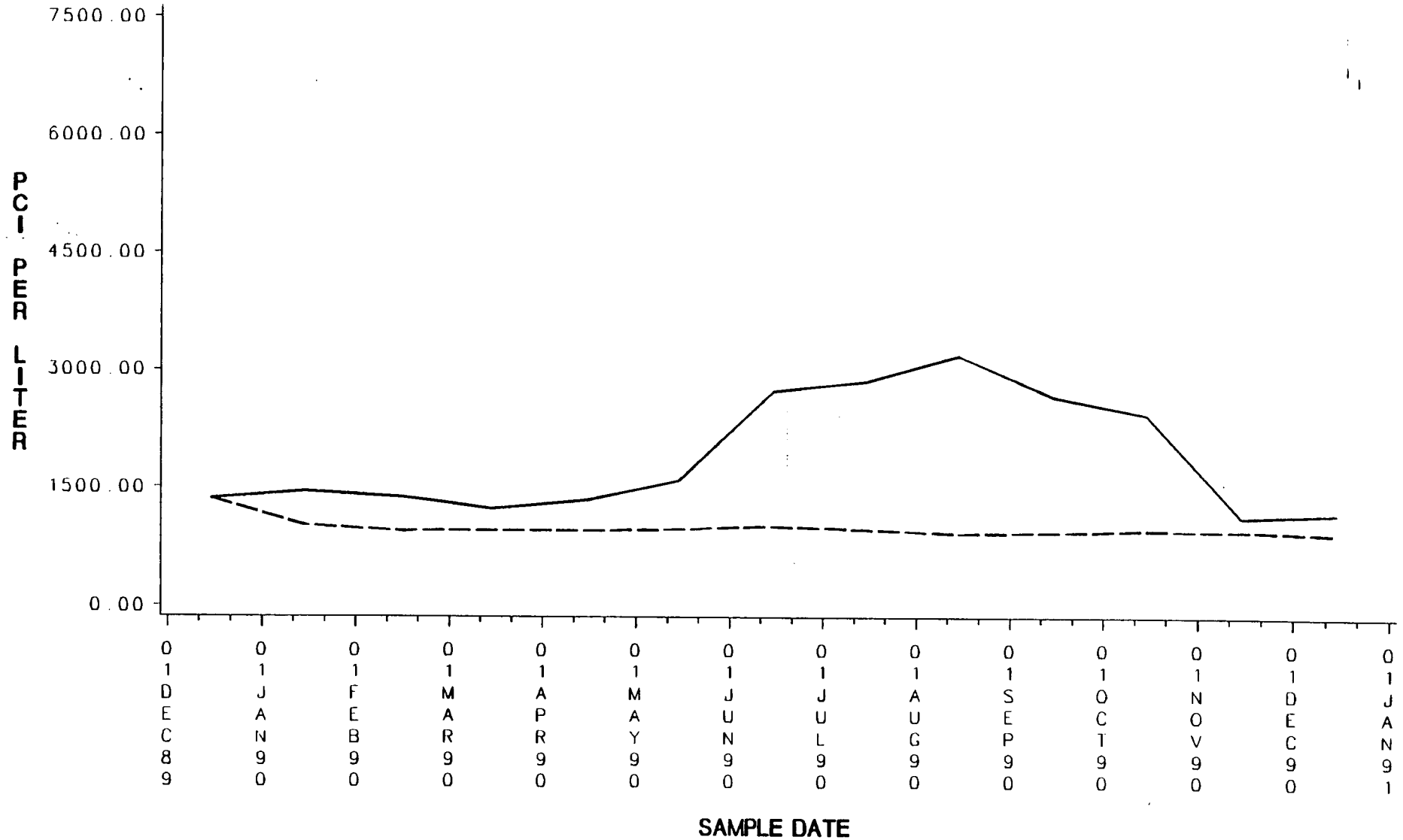


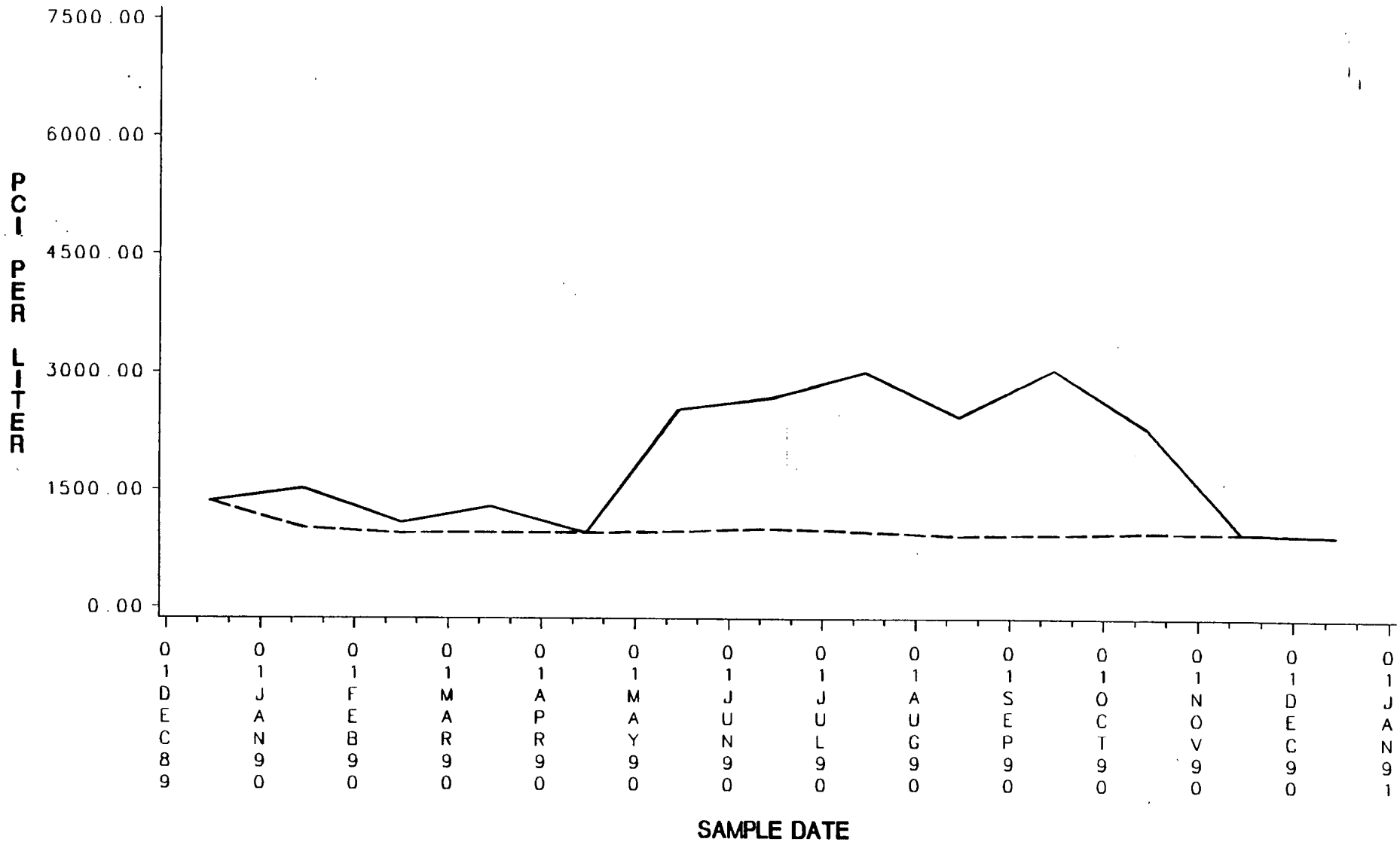
FIGURE 3-12
CP&L ENVIRONMENTAL SURVEILLANCE
TRITIUM ACTIVITY FOR
SURFACE WATER SAMPLES
PLANT=HBR SAMPLE POINT=0040



SOLID LINE FOR SAMPLE STATION
BROKEN LINE FOR CONTROL STATION

SAMPLE DATA MAY OVERLAY CONTROL DATA

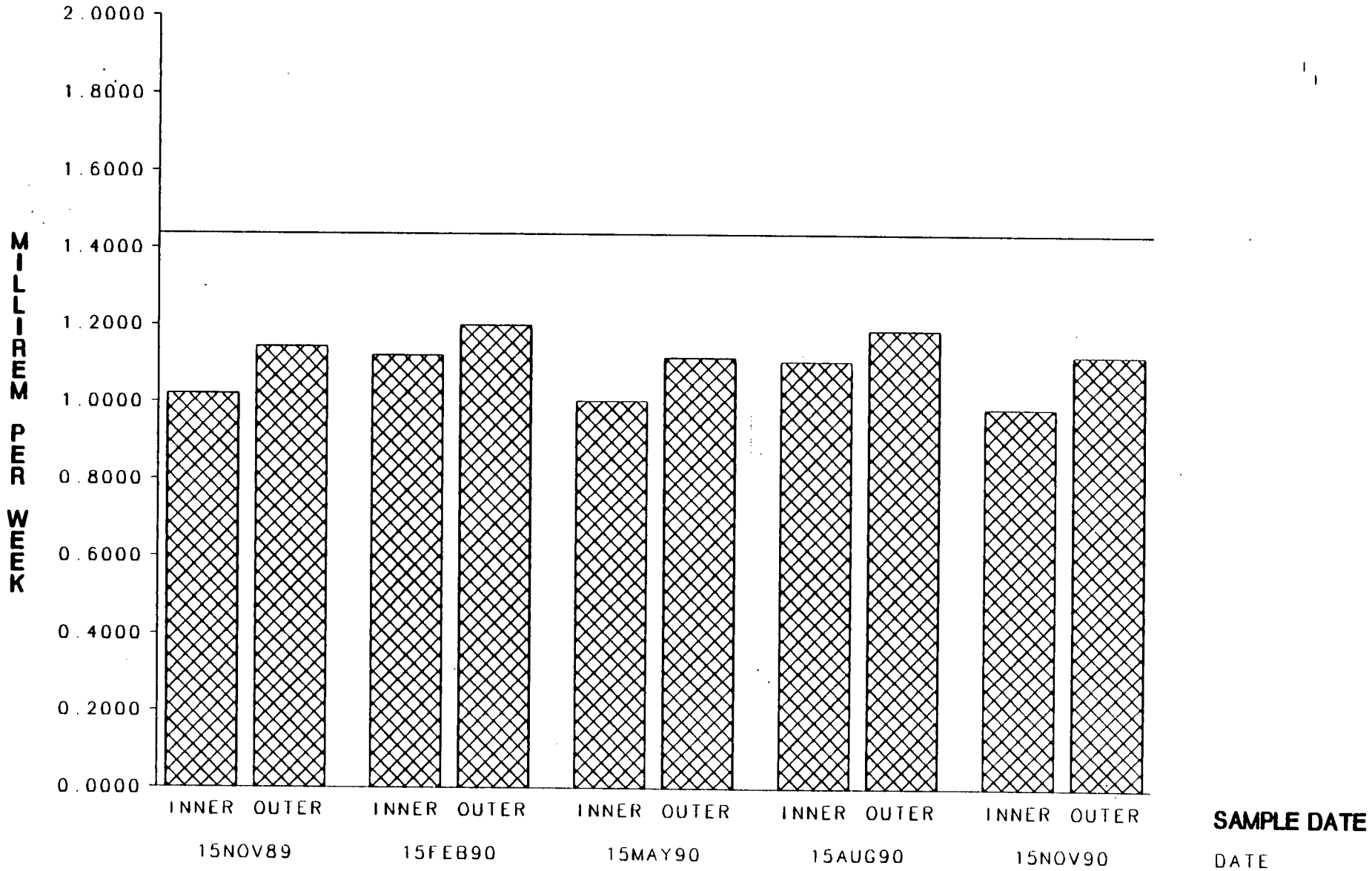
FIGURE 3-13
CP&L ENVIRONMENTAL SURVEILLANCE
TRITIUM ACTIVITY FOR
SURFACE WATER SAMPLES
PLANT=HBR SAMPLE POINT=0057



SOLID LINE FOR SAMPLE STATION
BROKEN LINE FOR CONTROL STATION

SAMPLE DATA MAY OVERLAY CONTROL DATA

FIGURE 3-14
CP&L ENVIRONMENTAL SURVEILLANCE
TLD AVERAGES FOR
INNER AND OUTER RING LOCATIONS
PLANT=HBR



AVERAGE(1983–1987)=1.4358

4.0 MISSED SAMPLES AND ANALYSES

4.1 Air Cartridges and Air Particulates

No sample was available for Location AC/AP-4 in the week of March 12, 1990, due to a tripped breaker. No sample was available for Location AC/AP-3 in the week of December 16, 1990, due to a burned out motor.

4.2 Broadleaf Vegetation

No broadleaf vegetation samples were available for the months of January, February, March, April, November, and December.

4.3 Thermoluminescent Dosimeters (TLDs)

TLD 27 was missing in the field for the second quarter due to vandalism. TLD 6 was missing in the field for the fourth quarter due to vandalism. TLD 28 was missing in the field for the fourth quarter due to vandalism.

5.0 LAND-USE CENSUS

The 1990 land-use census was performed in May in accordance with Technical Specification 3.17.2. The purpose of the survey is to identify the location of the nearest milk animal, the nearest resident, and the nearest garden of greater than 500 square feet producing fresh, leafy vegetables in each of the 16 meteorological sectors within a distance of 5 miles.

Table 5-1 summarizes the locations of the nearest resident and garden within a 5-mile radius of the site in each of the 16 meteorological sectors. No changes in the land-use census occurred from the previous year.

Table 5-1
Land-Use Census
Distance to Locations of Interest (miles)

Sector	Distance to Nearest Resident	Distance to Nearest Garden
N	2.90	2.90
NNE	1.30	1.80
NE	1.10	1.30
ENE	0.85	1.10
E	0.90	1.30
ESE	0.60	0.60
SE	0.30	1.60
SSE	0.30	2.00
S	0.30	0.30
SSW	0.25	0.25
SW	0.40	0.60
WSW	0.40	0.40
W	0.55	0.55
WNW	0.60	1.00
NW	1.35	1.35
NNW	2.80	2.80

No milk-producing animals are located within a 5-mile radius of the plant.

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 0.0013 pCi/m^3.

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

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 1200 pCi/l.

6.3 Iodine-131

Iodine-131 airborne concentrations are quantified by the intrinsic Ge gamma spectrometry system. The cartridges are placed on the detector and each charcoal cartridge is counted individually with an approximate LLD of 1E-2 pCi/m^3.

Iodine-131 in milk is determined either by radiochemical or instrumental methods. Analysis involves use of anion-exchange resin and either direct gamma analysis of the resin with a sodium iodide (NaI) well-detector or sodium hypochlorite elution of the resin and organic extraction of the iodine, followed by precipitation as silver iodide. The precipitate is collected on a tared filter, dried, and counted on a low-background beta counter. The LLD using the NaI detector is approximately 0.5 pCi/l for milk. The LLD using the radiochemical separation and beta counting is approximately 0.4 pCi/l.

6.4 Gamma Spectrometry

Gamma spectrum analysis utilizes intrinsic Ge 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.

Liquid samples, except milk, are boiled down to a small volume, transferred to a 250-ml polypropylene beaker with lid, and analyzed directly One-liter samples of milk are analyzed in a Marinelli beaker.

Shoreline sediments are dried, weighed, and then analyzed in a Marinelli beaker.

Food products and broadleaf and aquatic vegetation samples are weighed wet and analyzed in a Marinelli beaker.

Fish samples are cleaned, dressed, and placed in a Marinelli beaker for analysis.

6.5 Thermoluminescent Dosimetry (TLD)

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 deexcited above 150°C. 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 radiological environmental surveillance programs. 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 1990, 58 analyses were completed on 21 samples representing 3 major environmental media (water, milk, and air filters). Data on the known activities and the normalized standard deviations for these 58 analyses have been received from the EPA. A comparison of the average of our reported values with the EPA known activity and its standard deviation can be summarized as follows:

Standard Deviation (sigma) From Known Activity	Percent of Analyses
≤ 1 standard deviation	66
≤ 2 standard deviation	91
≤ 3 standard deviation	97

Two of fifty-eight samples exceeded the 3-sigma action level. A gross alpha analysis of a water sample received in May 1990 fell outside the 3-sigma limit. Preliminary examination of the problem suggests that the counter alpha efficiency at high sample weights was incorrect. A new self-absorption curve was prepared and a subsequent gross alpha analysis was within the 1-sigma limit. In another sample, the natural potassium content in milk was estimated high due to the conversion factor used for pCi K-40 per mg K..

6.7 Lower Limits of Detection (LLD)

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 LLD)
Ge Gamma Spectrometry

Surface Water/Groundwater Samples (Freshwater)	
Isotope	**(LLD)**
Cr-51	18 pCi/l
Mn-54	3
Co-58	3
Co-60	4
Zn-65	8
Nb-95	3
Zr-95	7
I-131	2
Cs-134	4
Cs-137	3
Ba-140	9
La-140	3
Other Expected Gamma Emitters	1 to 111
Air Particulates (Quarterly Composite)	
Isotope	**(LLD)**
Cs-134	0.001 pCi/m^3
Cs-137	0.001
Ba-140	0.002
La-140	0.001
Other Expected Gamma Emitters	0.001 to .012
Milk (Gamma Scan)	
Isotope	**(LLD)**
Cr-51	31 pCi/l
Mn-54	5
Co-58	5
Co-60	7
I-131	4
Cs-134	6
Cs-137	5
Ba-140	16
La-140	6
Other Expected Gamma Emitters	3 to 44

Table 6-1 (continued)

Sediments (Shoreline or Bottom)	
Isotope	**(LLD)**
Cr-51	269 pCi/kg (dry weight)
Mn-54	44
Co-58	37
Co-60	37
Cs-134	74
Cs-137	53
Other Expected Gamma Emitters	31 to 2804
Fish	
Isotope	**(LLD)**
Cr-51	180 pCi/kg (wet weight)
Mn-54	34
Co-58	31
Co-60	44
Zn-65	52
I-131	23
CS-134	38
CS-137	34
Other Expected Gamma Emitters	16 to 1064
Food Products and Vegetation	
Isotope	**(LLD)**
Cr-51	110 pCi/kg (wet weight)
Mn-54	16
Co-58	19
Co-60	23
I-131	13
Cs-134	20
Cs-137	19
Other Expected Gamma Emitters	9 to 976

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

26 MI ESE - FLORENCE - CONTROL (AC-1)

DATE COLLECTED	CUBIC METERS	CONTROL ACTIVITY
01/01/90	708.6	(< 1.80E-02)
01/08/90	712.7	(< 2.39E-02)
01/15/90	851.5	(< 1.17E-02)
01/22/90	809.5	(< 1.25E-02)
01/29/90	859.3	(< 1.26E-02)
02/05/90	945.9	(< 1.22E-02)
02/12/90	804.5	(< 1.21E-02)
02/18/90	732.0	(< 1.80E-02)
02/26/90	1111.0	(< 7.73E-03)
03/05/90	779.2	(< 1.49E-02)
03/12/90	889.2	(< 8.12E-03)
03/19/90	905.5	(< 1.02E-02)
03/26/90	900.1	(< 8.80E-03)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

0.2 MI S - INFORMATION CENTER (AC-2)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
01/01/90	771.5	< 1.59E-02	(< 1.80E-02)
01/08/90	921.8	< 1.12E-02	(< 2.39E-02)
01/15/90	910.9	< 1.15E-02	(< 1.17E-02)
01/22/90	877.8	< 9.81E-03	(< 1.25E-02)
01/29/90	927.5	< 1.11E-02	(< 1.26E-02)
02/05/90	910.8	< 1.05E-02	(< 1.22E-02)
02/12/90	925.7	< 9.63E-03	(< 1.21E-02)
02/18/90	781.2	< 8.76E-03	(< 1.80E-02)
02/26/90	985.7	< 1.05E-02	(< 7.73E-03)
03/05/90	850.9	< 1.13E-02	(< 1.49E-02)
03/12/90	940.9	< 1.16E-02	(< 8.12E-03)
03/19/90	923.2	< 1.20E-02	(< 1.02E-02)
03/26/90	841.0	< 1.06E-02	(< 8.80E-03)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

0.7 MI N - MICROWAVE TOWER (AC-3)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
01/01/90	729.0	< 1.67E-02	(< 1.80E-02)
01/08/90	853.3	< 1.53E-02	(< 2.39E-02)
01/15/90	843.3	< 1.97E-02	(< 1.17E-02)
01/22/90	860.2	< 1.23E-02	(< 1.25E-02)
01/29/90	819.0	< 1.40E-02	(< 1.26E-02)
02/05/90	855.6	< 1.11E-02	(< 1.22E-02)
02/12/90	862.7	< 1.78E-02	(< 1.21E-02)
02/18/90	712.8	< 1.35E-02	(< 1.80E-02)
02/26/90	968.2	< 1.40E-02	(< 7.73E-03)
03/05/90	809.4	< 1.89E-02	(< 1.49E-02)
03/12/90	868.1	< 2.19E-02	(< 8.12E-03)
03/19/90	769.0	< 1.90E-02	(< 1.02E-02)
03/26/90	733.2	< 1.70E-02	(< 8.80E-03)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

0.4 MI ESE - SPILLWAY (AC-4)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
01/01/90	749.4	< 1.36E-02	(< 1.80E-02)
01/08/90	876.3	< 1.41E-02	(< 2.39E-02)
01/15/90	862.9	< 1.23E-02	(< 1.17E-02)
01/22/90	870.8	< 1.08E-02	(< 1.25E-02)
01/29/90	867.1	< 1.25E-02	(< 1.26E-02)
02/05/90	416.2	< 2.37E-02	(< 1.22E-02)
02/12/90	788.9	< 1.36E-02	(< 1.21E-02)
02/18/90	605.3	< 1.54E-02	(< 1.80E-02)
02/26/90	682.7	< 1.58E-02	(< 7.73E-03)
03/05/90	721.5	< 8.96E-03	(< 1.49E-02)
03/19/90	835.2	< 1.51E-02	(< 1.02E-02)
03/26/90	788.6	< 1.30E-02	(< 8.80E-03)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

0.9 MI ENE - JOHNSON'S LANDING (AC-5)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
01/01/90	752.2	< 1.73E-02	(< 1.80E-02)
01/08/90	883.2	< 1.39E-02	(< 2.39E-02)
01/15/90	862.8	< 1.12E-02	(< 1.17E-02)
01/22/90	876.4	< 9.84E-03	(< 1.25E-02)
01/29/90	892.3	< 9.76E-03	(< 1.26E-02)
02/05/90	910.0	< 1.07E-02	(< 1.22E-02)
02/12/90	901.8	< 1.07E-02	(< 1.21E-02)
02/18/90	752.4	< 1.82E-02	(< 1.80E-02)
02/26/90	1006.2	< 8.89E-03	(< 7.73E-03)
03/05/90	848.6	< 9.57E-03	(< 1.49E-02)
03/12/90	905.2	< 1.06E-02	(< 8.12E-03)
03/19/90	912.8	< 1.29E-02	(< 1.02E-02)
03/26/90	867.6	< 9.37E-03	(< 8.80E-03)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

0.3 MI SW - INFORMATION CENTER (AC-6)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
01/01/90	788.6	< 1.54E-02	(< 1.80E-02)
01/08/90	947.9	< 1.82E-02	(< 2.39E-02)
01/15/90	927.9	< 1.47E-02	(< 1.17E-02)
01/22/90	913.9	< 1.99E-02	(< 1.25E-02)
01/29/90	926.3	< 1.57E-02	(< 1.26E-02)
02/05/90	977.3	< 8.04E-03	(< 1.22E-02)
02/12/90	967.0	< 1.50E-02	(< 1.21E-02)
02/18/90	811.0	< 1.37E-02	(< 1.80E-02)
02/26/90	1092.8	< 1.05E-02	(< 7.73E-03)
03/05/90	881.2	< 1.42E-02	(< 1.49E-02)
03/12/90	966.2	< 1.18E-02	(< 8.12E-03)
03/19/90	951.1	< 1.30E-02	(< 1.02E-02)
03/26/90	892.9	< 1.28E-02	(< 8.80E-03)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

6.3 MI ESE - HARTSVILLE CP&L SUBSTATION (AC-7)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
01/01/90	627.5	< 1.75E-02	(< 1.80E-02)
01/08/90	844.7	< 1.55E-02	(< 2.39E-02)
01/15/90	911.5	< 9.48E-03	(< 1.17E-02)
01/22/90	925.8	< 1.86E-02	(< 1.25E-02)
01/29/90	931.5	< 1.21E-02	(< 1.26E-02)
02/05/90	986.0	< 1.13E-02	(< 1.22E-02)
02/12/90	971.8	< 8.84E-03	(< 1.21E-02)
02/18/90	822.3	< 1.30E-02	(< 1.80E-02)
02/26/90	1115.7	< 8.75E-03	(< 7.73E-03)
03/05/90	865.8	< 1.24E-02	(< 1.49E-02)
03/12/90	874.2	< 1.34E-02	(< 8.12E-03)
03/19/90	984.5	< 1.24E-02	(< 1.02E-02)
03/26/90	938.0	< 8.28E-03	(< 8.80E-03)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

0.3 MI SSE - SITE BOUNDARY (AC-55)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
01/01/90	609.5	< 2.17E-02	(< 1.80E-02)
01/08/90	726.4	< 1.57E-02	(< 2.39E-02)
01/15/90	718.0	< 1.46E-02	(< 1.17E-02)
01/22/90	728.2	< 1.78E-02	(< 1.25E-02)
01/29/90	713.0	< 1.03E-02	(< 1.26E-02)
02/05/90	730.8	< 1.21E-02	(< 1.22E-02)
02/12/90	732.4	< 8.63E-03	(< 1.21E-02)
02/18/90	612.7	< 1.58E-02	(< 1.80E-02)
02/26/90	829.3	< 1.25E-02	(< 7.73E-03)
03/05/90	705.2	< 1.15E-02	(< 1.49E-02)
03/12/90	743.3	< 1.29E-02	(< 8.12E-03)
03/19/90	746.6	< 1.06E-02	(< 1.02E-02)
03/26/90	729.8	< 2.12E-02	(< 8.80E-03)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

26 MI ESE - FLORENCE - CONTROL (AC-1)

DATE COLLECTED	CUBIC METERS	CONTROL ACTIVITY
04/02/90	959.5	(< 1.15E-02)
04/09/90	944.7	(< 1.11E-02)
04/16/90	940.6	(< 1.45E-02)
04/23/90	970.0	(< 1.20E-02)
04/30/90	917.3	(< 1.32E-02)
05/07/90	971.0	(< 1.07E-02)
05/14/90	961.5	(< 1.38E-02)
05/21/90	954.7	(< 1.39E-02)
05/28/90	967.1	(< 1.06E-02)
06/04/90	1002.2	(< 6.36E-03)
06/11/90	902.7	(< 1.05E-02)
06/17/90	764.7	(< 1.79E-02)
06/25/90	971.8	(< 1.02E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

0.2 MI S - INFORMATION CENTER (AC-2)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
04/02/90	919.9	< 1.27E-02	(< 1.15E-02)
04/09/90	912.3	< 9.64E-03	(< 1.11E-02)
04/16/90	896.4	< 1.42E-02	(< 1.45E-02)
04/23/90	915.9	< 1.68E-02	(< 1.20E-02)
04/30/90	852.4	< 1.53E-02	(< 1.32E-02)
05/07/90	915.5	< 1.51E-02	(< 1.07E-02)
05/14/90	925.6	< 1.43E-02	(< 1.38E-02)
05/21/90	915.0	< 1.46E-02	(< 1.39E-02)
05/28/90	926.0	< 1.06E-02	(< 1.06E-02)
06/04/90	930.7	< 6.24E-03	(< 6.36E-03)
06/11/90	894.6	< 1.27E-02	(< 1.05E-02)
06/17/90	755.9	< 1.10E-02	(< 1.79E-02)
06/25/90	996.2	< 9.03E-03	(< 1.02E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

0.7 MI N - MICROWAVE TOWER (AC-3)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
04/02/90	858.8	< 1.57E-02	(< 1.15E-02)
04/09/90	817.6	< 2.14E-02	(< 1.11E-02)
04/16/90	809.4	< 1.48E-02	(< 1.45E-02)
04/23/90	841.7	< 1.39E-02	(< 1.20E-02)
04/30/90	801.4	< 1.24E-02	(< 1.32E-02)
05/07/90	844.7	< 1.14E-02	(< 1.07E-02)
05/14/90	844.1	< 1.37E-02	(< 1.38E-02)
05/21/90	858.2	< 9.67E-03	(< 1.39E-02)
05/28/90	907.5	< 1.18E-02	(< 1.06E-02)
06/04/90	921.1	< 1.28E-02	(< 6.36E-03)
06/11/90	849.5	< 1.10E-02	(< 1.05E-02)
06/17/90	787.8	< 9.60E-03	(< 1.79E-02)
06/25/90	979.8	< 7.75E-03	(< 1.02E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

0.4 MI ESE - SPILLWAY (AC-4)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
04/02/90	817.2	< 1.60E-02	(< 1.15E-02)
04/09/90	845.5	< 1.44E-02	(< 1.11E-02)
04/16/90	745.4	< 1.28E-02	(< 1.45E-02)
04/23/90	851.8	< 1.44E-02	(< 1.20E-02)
04/30/90	799.5	< 1.21E-02	(< 1.32E-02)
05/07/90	847.3	< 1.29E-02	(< 1.07E-02)
05/14/90	854.6	< 1.06E-02	(< 1.38E-02)
05/21/90	886.4	< 1.40E-02	(< 1.39E-02)
05/28/90	901.9	< 1.14E-02	(< 1.06E-02)
06/04/90	917.6	< 7.53E-03	(< 6.36E-03)
06/11/90	905.8	< 1.12E-02	(< 1.05E-02)
06/17/90	773.3	< 1.27E-02	(< 1.79E-02)
06/25/90	1041.6	< 9.05E-03	(< 1.02E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

0.9 MI ENE - JOHNSON'S LANDING (AC-5)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
04/02/90	888.7	< 1.25E-02	(< 1.15E-02)
04/09/90	903.0	< 1.07E-02	(< 1.11E-02)
04/16/90	905.8	< 1.57E-02	(< 1.45E-02)
04/23/90	898.1	< 1.46E-02	(< 1.20E-02)
04/30/90	876.9	< 1.45E-02	(< 1.32E-02)
05/07/90	909.4	< 1.47E-02	(< 1.07E-02)
05/14/90	903.5	< 1.26E-02	(< 1.38E-02)
05/21/90	854.6	< 1.31E-02	(< 1.39E-02)
05/28/90	856.8	< 1.44E-02	(< 1.06E-02)
06/04/90	853.2	< 1.22E-02	(< 6.36E-03)
06/11/90	838.6	< 1.41E-02	(< 1.05E-02)
06/17/90	726.4	< 1.57E-02	(< 1.79E-02)
06/25/90	973.0	< 7.83E-03	(< 1.02E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

0.3 MI SW - INFORMATION CENTER (AC-6)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
04/02/90	968.4	< 1.50E-02	(< 1.15E-02)
04/09/90	932.2	< 1.45E-02	(< 1.11E-02)
04/16/90	943.1	< 1.11E-02	(< 1.45E-02)
04/23/90	944.9	< 1.30E-02	(< 1.20E-02)
04/30/90	912.3	< 1.15E-02	(< 1.32E-02)
05/07/90	964.2	< 1.02E-02	(< 1.07E-02)
05/14/90	950.0	< 8.63E-03	(< 1.38E-02)
05/21/90	893.6	< 1.01E-02	(< 1.39E-02)
05/28/90	946.4	< 1.19E-02	(< 1.06E-02)
06/04/90	977.7	< 4.86E-03	(< 6.36E-03)
06/11/90	866.6	< 5.59E-03	(< 1.05E-02)
06/17/90	790.8	< 1.49E-02	(< 1.79E-02)
06/25/90	1007.5	< 9.25E-03	(< 1.02E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

6.3 MI ESE - HARTSVILLE CP&L SUBSTATION (AC-7)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
04/02/90	960.9	< 1.03E-02	(< 1.15E-02)
04/09/90	986.0	< 1.47E-02	(< 1.11E-02)
04/16/90	979.7	< 1.35E-02	(< 1.45E-02)
04/23/90	977.5	< 1.12E-02	(< 1.20E-02)
04/30/90	969.2	< 9.62E-03	(< 1.32E-02)
05/07/90	997.8	< 6.35E-03	(< 1.07E-02)
05/14/90	987.6	< 1.19E-02	(< 1.38E-02)
05/21/90	880.3	< 1.41E-02	(< 1.39E-02)
05/28/90	866.9	< 1.05E-02	(< 1.06E-02)
06/04/90	898.7	< 1.07E-02	(< 6.36E-03)
06/11/90	859.6	< 1.31E-02	(< 1.05E-02)
06/17/90	507.2	< 1.49E-02	(< 1.79E-02)
06/25/90	1048.9	< 7.95E-03	(< 1.02E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

0.3 MI SSE - SITE BOUNDARY (AC-55)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
04/02/90	732.1	< 1.31E-02	(< 1.15E-02)
04/09/90	743.0	< 1.50E-02	(< 1.11E-02)
04/16/90	730.5	< 1.76E-02	(< 1.45E-02)
04/23/90	741.5	< 1.99E-02	(< 1.20E-02)
04/30/90	735.0	< 1.53E-02	(< 1.32E-02)
05/07/90	749.9	< 1.65E-02	(< 1.07E-02)
05/14/90	746.8	< 1.43E-02	(< 1.38E-02)
05/21/90	657.9	< 9.81E-03	(< 1.39E-02)
05/28/90	660.6	< 1.78E-02	(< 1.06E-02)
06/04/90	666.0	< 1.47E-02	(< 6.36E-03)
06/11/90	662.5	< 1.19E-02	(< 1.05E-02)
06/17/90	564.6	< 1.74E-02	(< 1.79E-02)
06/25/90	747.6	< 1.29E-02	(< 1.02E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

26 MI ESE - FLORENCE - CONTROL (AP-1)

DATE COLLECTED	CUBIC METERS	CONTROL ACTIVITY
01/01/90	708.6	(1.34 ± 0.16 E-02)
01/08/90	712.7	(1.35 ± 0.16 E-02)
01/15/90	851.5	(1.34 ± 0.14 E-02)
01/22/90	809.5	(1.15 ± 0.13 E-02)
01/29/90	859.3	(1.44 ± 0.14 E-02)
02/05/90	945.9	(9.48 ± 1.13 E-03)
02/12/90	804.5	(1.27 ± 0.13 E-02)
02/18/90	732.0	(1.19 ± 0.14 E-02)
02/26/90	1111.0	(1.20 ± 0.11 E-02)
03/05/90	779.2	(1.26 ± 0.14 E-02)
03/12/90	889.2	(1.57 ± 0.14 E-02)
03/19/90	905.5	(1.23 ± 0.13 E-02)
03/26/90	900.1	(1.60 ± 0.14 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

0.2 MI S - INFORMATION CENTER (AP-2)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
01/01/90	771.5	1.73 ± 0.17 E-02	(1.34 ± 0.16 E-02)
01/08/90	921.8	1.37 ± 0.14 E-02	(1.35 ± 0.16 E-02)
01/15/90	910.9	1.33 ± 0.13 E-02	(1.34 ± 0.14 E-02)
01/22/90	877.7	1.72 ± 0.15 E-02	(1.15 ± 0.13 E-02)
01/29/90	927.5	1.51 ± 0.14 E-02	(1.44 ± 0.14 E-02)
02/05/90	910.8	1.14 ± 0.12 E-02	(9.48 ± 1.13 E-03)
02/12/90	925.7	1.73 ± 0.14 E-02	(1.27 ± 0.13 E-02)
02/18/90	781.2	1.24 ± 0.14 E-02	(1.19 ± 0.14 E-02)
02/26/90	985.7	1.48 ± 0.13 E-02	(1.20 ± 0.11 E-02)
03/05/90	850.9	1.69 ± 0.15 E-02	(1.26 ± 0.14 E-02)
03/12/90	940.9	1.77 ± 0.14 E-02	(1.57 ± 0.14 E-02)
03/19/90	923.2	1.21 ± 0.12 E-02	(1.23 ± 0.13 E-02)
03/26/90	841.0	1.77 ± 0.15 E-02	(1.60 ± 0.14 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

0.7 MI N - MICROWAVE TOWER (AP-3)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
01/01/90	729.0	1.91 ± 0.18 E-02	(1.34 ± 0.16 E-02)
01/08/90	853.3	1.34 ± 0.14 E-02	(1.35 ± 0.16 E-02)
01/15/90	843.3	1.49 ± 0.15 E-02	(1.34 ± 0.14 E-02)
01/22/90	860.2	1.69 ± 0.15 E-02	(1.15 ± 0.13 E-02)
01/29/90	819.0	1.49 ± 0.15 E-02	(1.44 ± 0.14 E-02)
02/05/90	855.6	9.74 ± 1.21 E-03	(9.48 ± 1.13 E-03)
02/12/90	862.7	1.54 ± 0.14 E-02	(1.27 ± 0.13 E-02)
02/18/90	712.8	1.37 ± 0.15 E-02	(1.19 ± 0.14 E-02)
02/26/90	968.2	1.52 ± 0.13 E-02	(1.20 ± 0.11 E-02)
03/05/90	809.4	1.79 ± 0.16 E-02	(1.26 ± 0.14 E-02)
03/12/90	868.1	1.83 ± 0.15 E-02	(1.57 ± 0.14 E-02)
03/19/90	769.0	1.41 ± 0.15 E-02	(1.23 ± 0.13 E-02)
03/26/90	733.2	1.81 ± 0.17 E-02	(1.60 ± 0.14 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

0.4 MI ESE - SPILLWAY (AP-4)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
01/01/90	749.4	1.81 ± 0.17 E-02	(1.34 ± 0.16 E-02)
01/08/90	876.3	1.27 ± 0.14 E-02	(1.35 ± 0.16 E-02)
01/15/90	862.9	1.64 ± 0.15 E-02	(1.34 ± 0.14 E-02)
01/22/90	870.8	1.79 ± 0.15 E-02	(1.15 ± 0.13 E-02)
01/29/90	867.1	1.57 ± 0.14 E-02	(1.44 ± 0.14 E-02)
02/05/90	416.2	1.38 ± 0.22 E-02	(9.48 ± 1.13 E-03)
02/12/90	788.9	1.55 ± 0.15 E-02	(1.27 ± 0.13 E-02)
02/18/90	605.3	1.26 ± 0.16 E-02	(1.19 ± 0.14 E-02)
02/26/90	682.7	1.79 ± 0.18 E-02	(1.20 ± 0.11 E-02)
03/05/90	721.5	1.80 ± 0.17 E-02	(1.26 ± 0.14 E-02)
03/19/90	835.2	1.31 ± 0.13 E-02	(1.23 ± 0.13 E-02)
03/26/90	788.6	1.91 ± 0.16 E-02	(1.60 ± 0.14 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

0.9 MI ENE - JOHNSON'S LANDING (AP-5)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
01/01/90	752.2	1.80 ± 0.17 E-02	(1.34 ± 0.16 E-02)
01/08/90	883.2	1.59 ± 0.15 E-02	(1.35 ± 0.16 E-02)
01/15/90	862.8	1.66 ± 0.15 E-02	(1.34 ± 0.14 E-02)
01/22/90	876.4	1.82 ± 0.15 E-02	(1.15 ± 0.13 E-02)
01/29/90	892.3	1.52 ± 0.14 E-02	(1.44 ± 0.14 E-02)
02/05/90	910.0	9.31 ± 1.15 E-03	(9.48 ± 1.13 E-03)
02/12/90	901.8	1.66 ± 0.14 E-02	(1.27 ± 0.13 E-02)
02/18/90	752.4	2.11 ± 0.17 E-02	(1.19 ± 0.14 E-02)
02/26/90	1006.2	2.25 ± 0.15 E-02	(1.20 ± 0.11 E-02)
03/05/90	848.6	2.57 ± 0.18 E-02	(1.26 ± 0.14 E-02)
03/12/90	905.2	2.54 ± 0.17 E-02	(1.57 ± 0.14 E-02)
03/19/90	912.8	1.95 ± 0.15 E-02	(1.23 ± 0.13 E-02)
03/26/90	867.6	2.55 ± 0.17 E-02	(1.60 ± 0.14 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

0.3 MI SW - INFORMATION CENTER (AP-6)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
01/01/90	788.6	2.07 ± 0.17 E-02	(1.34 ± 0.16 E-02)
01/08/90	947.9	1.38 ± 0.13 E-02	(1.35 ± 0.16 E-02)
01/15/90	927.9	1.63 ± 0.14 E-02	(1.34 ± 0.14 E-02)
01/22/90	913.9	1.74 ± 0.15 E-02	(1.15 ± 0.13 E-02)
01/29/90	926.3	1.68 ± 0.14 E-02	(1.44 ± 0.14 E-02)
02/05/90	977.3	1.09 ± 0.12 E-02	(9.48 ± 1.13 E-03)
02/12/90	967.0	1.57 ± 0.13 E-02	(1.27 ± 0.13 E-02)
02/18/90	811.0	1.32 ± 0.14 E-02	(1.19 ± 0.14 E-02)
02/26/90	1092.8	1.54 ± 0.13 E-02	(1.20 ± 0.11 E-02)
03/05/90	881.2	1.39 ± 0.13 E-02	(1.26 ± 0.14 E-02)
03/12/90	966.2	1.80 ± 0.14 E-02	(1.57 ± 0.14 E-02)
03/19/90	951.1	1.37 ± 0.13 E-02	(1.23 ± 0.13 E-02)
03/26/90	892.9	1.75 ± 0.15 E-02	(1.60 ± 0.14 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

6.3 MI ESE - HARTSVILLE CP&L SUBSTATION (AP-7)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
01/01/90	627.5	1.74 ± 0.19 E-02	(1.34 ± 0.16 E-02)
01/08/90	844.7	1.50 ± 0.15 E-02	(1.35 ± 0.16 E-02)
01/15/90	911.5	1.68 ± 0.15 E-02	(1.34 ± 0.14 E-02)
01/22/90	925.8	1.70 ± 0.14 E-02	(1.15 ± 0.13 E-02)
01/29/90	931.5	1.54 ± 0.14 E-02	(1.44 ± 0.14 E-02)
02/05/90	986.0	9.70 ± 1.11 E-03	(9.48 ± 1.13 E-03)
02/12/90	971.8	1.55 ± 0.13 E-02	(1.27 ± 0.13 E-02)
02/18/90	822.3	1.27 ± 0.13 E-02	(1.19 ± 0.14 E-02)
02/26/90	1115.7	1.50 ± 0.12 E-02	(1.20 ± 0.11 E-02)
03/05/90	865.8	1.55 ± 0.14 E-02	(1.26 ± 0.14 E-02)
03/12/90	874.2	1.61 ± 0.14 E-02	(1.57 ± 0.14 E-02)
03/19/90	984.5	1.21 ± 0.12 E-02	(1.23 ± 0.13 E-02)
03/26/90	938.0	1.55 ± 0.14 E-02	(1.60 ± 0.14 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

0.3 MI SSE - SITE BOUNDARY (AP-55)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
01/01/90	609.5	1.79 ± 0.19 E-02	(1.34 ± 0.16 E-02)
01/08/90	726.4	1.12 ± 0.15 E-02	(1.35 ± 0.16 E-02)
01/15/90	718.0	1.27 ± 0.15 E-02	(1.34 ± 0.14 E-02)
01/22/90	728.2	1.25 ± 0.15 E-02	(1.15 ± 0.13 E-02)
01/29/90	713.0	1.30 ± 0.15 E-02	(1.44 ± 0.14 E-02)
02/05/90	730.8	9.44 ± 1.33 E-03	(9.48 ± 1.13 E-03)
02/12/90	732.4	1.37 ± 0.15 E-02	(1.27 ± 0.13 E-02)
02/18/90	612.7	1.12 ± 0.15 E-02	(1.19 ± 0.14 E-02)
02/26/90	829.3	1.19 ± 0.13 E-02	(1.20 ± 0.11 E-02)
03/05/90	705.2	1.66 ± 0.16 E-02	(1.26 ± 0.14 E-02)
03/12/90	743.3	1.35 ± 0.15 E-02	(1.57 ± 0.14 E-02)
03/19/90	746.6	9.81 ± 1.31 E-03	(1.23 ± 0.13 E-02)
03/26/90	729.8	1.78 ± 0.17 E-02	(1.60 ± 0.14 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

26 MI ESE - FLORENCE - CONTROL (AP-1)

DATE COLLECTED	CUBIC METERS	CONTROL ACTIVITY
04/02/90	959.5	(8.55 ± 1.04 E-03)
04/09/90	944.7	(1.48 ± 0.13 E-02)
04/16/90	940.6	(1.49 ± 0.13 E-02)
04/23/90	970.0	(1.62 ± 0.14 E-02)
04/30/90	917.3	(1.58 ± 0.14 E-02)
05/07/90	971.0	(1.56 ± 0.14 E-02)
05/14/90	961.5	(1.99 ± 0.15 E-02)
05/21/90	954.7	(1.45 ± 0.13 E-02)
05/28/90	967.1	(1.17 ± 0.12 E-02)
06/04/90	1002.2	(1.04 ± 0.11 E-02)
06/11/90	902.7	(1.17 ± 0.13 E-02)
06/17/90	764.7	(1.46 ± 0.15 E-02)
06/25/90	971.8	(1.51 ± 0.13 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

0.2 MI S - INFORMATION CENTER (AP-2)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
04/02/90	919.9	9.77 ± 1.12 E-03	(8.55 ± 1.04 E-03)
04/09/90	912.3	1.63 ± 0.14 E-02	(1.48 ± 0.13 E-02)
04/16/90	896.4	1.58 ± 0.14 E-02	(1.49 ± 0.13 E-02)
04/23/90	915.9	1.55 ± 0.14 E-02	(1.62 ± 0.14 E-02)
04/30/90	852.4	1.61 ± 0.15 E-02	(1.58 ± 0.14 E-02)
05/07/90	915.5	1.52 ± 0.14 E-02	(1.56 ± 0.14 E-02)
05/14/90	925.6	1.62 ± 0.14 E-02	(1.99 ± 0.15 E-02)
05/21/90	915.0	1.80 ± 0.15 E-02	(1.45 ± 0.13 E-02)
05/28/90	926.0	1.25 ± 0.13 E-02	(1.17 ± 0.12 E-02)
06/04/90	930.7	1.26 ± 0.13 E-02	(1.04 ± 0.11 E-02)
06/11/90	894.6	1.16 ± 0.13 E-02	(1.17 ± 0.13 E-02)
06/17/90	755.9	1.68 ± 0.16 E-02	(1.46 ± 0.15 E-02)
06/25/90	996.2	1.53 ± 0.13 E-02	(1.51 ± 0.13 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

0.7 MI N - MICROWAVE TOWER (AP-3)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
04/02/90	858.8	1.13 ± 0.12 E-02	(8.55 ± 1.04 E-03)
04/09/90	817.6	1.53 ± 0.14 E-02	(1.48 ± 0.13 E-02)
04/16/90	809.4	1.66 ± 0.15 E-02	(1.49 ± 0.13 E-02)
04/23/90	841.7	1.80 ± 0.15 E-02	(1.62 ± 0.14 E-02)
04/30/90	801.4	1.84 ± 0.16 E-02	(1.58 ± 0.14 E-02)
05/07/90	844.7	1.62 ± 0.15 E-02	(1.56 ± 0.14 E-02)
05/14/90	844.1	1.91 ± 0.16 E-02	(1.99 ± 0.15 E-02)
05/21/90	858.2	1.58 ± 0.15 E-02	(1.45 ± 0.13 E-02)
05/28/90	907.5	1.23 ± 0.13 E-02	(1.17 ± 0.12 E-02)
06/04/90	921.1	1.25 ± 0.13 E-02	(1.04 ± 0.11 E-02)
06/11/90	849.5	1.24 ± 0.13 E-02	(1.17 ± 0.13 E-02)
06/17/90	787.8	1.54 ± 0.15 E-02	(1.46 ± 0.15 E-02)
06/25/90	979.8	1.58 ± 0.14 E-02	(1.51 ± 0.13 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

0.4 MI ESE - SPILLWAY (AP-4)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
04/02/90	817.2	1.01 ± 0.12 E-02	(8.55 ± 1.04 E-03)
04/09/90	845.5	1.76 ± 0.15 E-02	(1.48 ± 0.13 E-02)
04/16/90	745.4	1.88 ± 0.17 E-02	(1.49 ± 0.13 E-02)
04/23/90	851.8	2.02 ± 0.16 E-02	(1.62 ± 0.14 E-02)
04/30/90	799.5	1.81 ± 0.16 E-02	(1.58 ± 0.14 E-02)
05/07/90	847.3	1.56 ± 0.15 E-02	(1.56 ± 0.14 E-02)
05/14/90	854.6	1.69 ± 0.15 E-02	(1.99 ± 0.15 E-02)
05/21/90	886.4	1.93 ± 0.16 E-02	(1.45 ± 0.13 E-02)
05/28/90	901.9	1.29 ± 0.13 E-02	(1.17 ± 0.12 E-02)
06/04/90	917.6	1.35 ± 0.13 E-02	(1.04 ± 0.11 E-02)
06/11/90	905.8	1.23 ± 0.13 E-02	(1.17 ± 0.13 E-02)
06/17/90	773.3	1.66 ± 0.16 E-02	(1.46 ± 0.15 E-02)
06/25/90	1041.6	1.62 ± 0.13 E-02	(1.51 ± 0.13 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

0.9 MI ENE - JOHNSON'S LANDING (AP-5)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
04/02/90	888.7	1.49 ± 0.14 E-02	(8.55 ± 1.04 E-03)
04/09/90	903.0	2.36 ± 0.16 E-02	(1.48 ± 0.13 E-02)
04/16/90	905.8	2.56 ± 0.17 E-02	(1.49 ± 0.13 E-02)
04/23/90	898.1	2.48 ± 0.17 E-02	(1.62 ± 0.14 E-02)
04/30/90	876.9	2.58 ± 0.18 E-02	(1.58 ± 0.14 E-02)
05/07/90	909.4	2.30 ± 0.17 E-02	(1.56 ± 0.14 E-02)
05/14/90	903.5	2.41 ± 0.17 E-02	(1.99 ± 0.15 E-02)
05/21/90	854.6	2.69 ± 0.18 E-02	(1.45 ± 0.13 E-02)
05/28/90	856.8	2.07 ± 0.16 E-02	(1.17 ± 0.12 E-02)
06/04/90	853.2	2.20 ± 0.17 E-02	(1.04 ± 0.11 E-02)
06/11/90	838.6	2.21 ± 0.17 E-02	(1.17 ± 0.13 E-02)
06/17/90	726.4	2.72 ± 0.20 E-02	(1.46 ± 0.15 E-02)
06/25/90	973.0	2.22 ± 0.16 E-02	(1.51 ± 0.13 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

0.3 MI SW - INFORMATION CENTER (AP-6)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
04/02/90	968.4	9.88 ± 1.09 E-03	(8.55 ± 1.04 E-03)
04/09/90	932.2	1.47 ± 0.13 E-02	(1.48 ± 0.13 E-02)
04/16/90	943.1	1.72 ± 0.14 E-02	(1.49 ± 0.13 E-02)
04/23/90	944.9	1.85 ± 0.15 E-02	(1.62 ± 0.14 E-02)
04/30/90	912.3	1.82 ± 0.15 E-02	(1.58 ± 0.14 E-02)
05/07/90	964.2	1.43 ± 0.13 E-02	(1.56 ± 0.14 E-02)
05/14/90	950.0	1.72 ± 0.14 E-02	(1.99 ± 0.15 E-02)
05/21/90	893.6	1.95 ± 0.16 E-02	(1.45 ± 0.13 E-02)
05/28/90	946.4	1.31 ± 0.13 E-02	(1.17 ± 0.12 E-02)
06/04/90	977.7	1.29 ± 0.12 E-02	(1.04 ± 0.11 E-02)
06/11/90	866.6	1.38 ± 0.14 E-02	(1.17 ± 0.13 E-02)
06/17/90	790.8	1.75 ± 0.16 E-02	(1.46 ± 0.15 E-02)
06/25/90	1007.5	1.58 ± 0.13 E-02	(1.51 ± 0.13 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

6.3 MI ESE - HARTSVILLE CP&L SUBSTATION (AP-7)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
04/02/90	960.9	1.06 ± 0.11 E-02	(8.55 ± 1.04 E-03)
04/09/90	986.0	1.56 ± 0.13 E-02	(1.48 ± 0.13 E-02)
04/16/90	979.7	1.34 ± 0.13 E-02	(1.49 ± 0.13 E-02)
04/23/90	977.5	1.64 ± 0.14 E-02	(1.62 ± 0.14 E-02)
04/30/90	969.2	1.60 ± 0.14 E-02	(1.58 ± 0.14 E-02)
05/07/90	997.8	1.44 ± 0.13 E-02	(1.56 ± 0.14 E-02)
05/14/90	987.6	1.62 ± 0.13 E-02	(1.99 ± 0.15 E-02)
05/21/90	880.3	1.88 ± 0.15 E-02	(1.45 ± 0.13 E-02)
05/28/90	866.9	1.37 ± 0.14 E-02	(1.17 ± 0.12 E-02)
06/04/90	898.7	1.39 ± 0.13 E-02	(1.04 ± 0.11 E-02)
06/11/90	859.6	1.35 ± 0.14 E-02	(1.17 ± 0.13 E-02)
06/17/90	507.2	1.74 ± 0.21 E-02	(1.46 ± 0.15 E-02)
06/25/90	1048.9	1.67 ± 0.13 E-02	(1.51 ± 0.13 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

0.3 MI SSE - SITE BOUNDARY (AP-55)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
04/02/90	732.1	8.60 ± 1.24 E-03	(8.55 ± 1.04 E-03)
04/09/90	743.0	1.19 ± 0.14 E-02	(1.48 ± 0.13 E-02)
04/16/90	730.5	1.47 ± 0.16 E-02	(1.49 ± 0.13 E-02)
04/23/90	741.5	1.22 ± 0.14 E-02	(1.62 ± 0.14 E-02)
04/30/90	735.0	1.36 ± 0.15 E-02	(1.58 ± 0.14 E-02)
05/07/90	749.9	1.11 ± 0.14 E-02	(1.56 ± 0.14 E-02)
05/14/90	746.8	1.35 ± 0.15 E-02	(1.99 ± 0.15 E-02)
05/21/90	657.9	1.63 ± 0.17 E-02	(1.45 ± 0.13 E-02)
05/28/90	660.6	1.18 ± 0.16 E-02	(1.17 ± 0.12 E-02)
06/04/90	666.0	1.14 ± 0.15 E-02	(1.04 ± 0.11 E-02)
06/11/90	662.5	1.18 ± 0.15 E-02	(1.17 ± 0.13 E-02)
06/17/90	564.6	1.56 ± 0.18 E-02	(1.46 ± 0.15 E-02)
06/25/90	747.6	1.62 ± 0.16 E-02	(1.51 ± 0.13 E-02)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

26 MI ESE - FLORENCE - CONTROL (AP-1)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 11009 CUBIC METERS

ISOTOPE	CONTROL ACTIVITY
BE-7	(9.38 ± 0.74 E-02)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

0.2 MI S - INFORMATION CENTER (AP-2)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 11568.9 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	8.98 ± 0.70 E-02	(9.38 ± 0.74 E-02)
K-40	2.21 ± 0.39 E-02	(LESS THAN LLD)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

0.7 MI N - MICROWAVE TOWER (AP-3)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 10683.8 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	9.96 ± 1.01 E-02	(9.38 ± 0.74 E-02)
PB-212	4.59 ± 3.62 E-04	(LESS THAN LLD)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

0.4 MI ESE - SPILLWAY (AP-4)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 9203.3 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	5.69 ± 0.79 E-02	(9.38 ± 0.74 E-02)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

0.9 MI ENE - JOHNSON'S LANDING (AP-5)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 9545.9 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	1.30 ± 0.10 E-01	(9.38 ± 0.74 E-02)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

0.3 MI SW - INFORMATION CENTER (AP-6)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 12044.1 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	1.14 ± 0.09 E-01	(9.38 ± 0.74 E-02)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

6.3 MI ESE - HARTSVILLE CP&L SUBSTATION (AP-7)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 11799.3 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	8.45 ± 0.72 E-02	(9.38 ± 0.74 E-02)
K-40	5.20 ± 4.05 E-03	(LESS THAN LLD)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

FIRST QUARTER, 1990

0.3 MI SSE - SITE BOUNDARY (AP-55)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 9325.2 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	5.50 ± 0.69 E-02	(9.38 ± 0.74 E-02)
K-40	5.66 ± 0.44 E-03	(LESS THAN LLD)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

26 MI ESE - FLORENCE - CONTROL (AP-1)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 12227.8 CUBIC METERS

ISOTOPE	CONTROL ACTIVITY
BE-7	(8.16 ± 0.62 E-02)
RA-226	(4.62 ± 4.02 E-03)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

0.2 MI S - INFORMATION CENTER (AP-2)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 11756.4 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	7.80 ± 0.79 E-02	(8.16 ± 0.62 E-02)
RA-226	LESS THAN LLD	(4.62 ± 4.02 E-03)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

0.7 MI N - MICROWAVE TOWER (AP-3)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 11121.6 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	9.30 ± 0.82 E-02	(8.16 ± 0.62 E-02)
RA-226	LESS THAN LLD	(4.62 ± 4.02 E-03)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

0.4 MI ESE - SPILLWAY (AP-4)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 11187.9 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	7.97 ± 0.71 E-02	(8.16 ± 0.62 E-02)
RA-226	LESS THAN LLD	(4.62 ± 4.02 E-03)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

0.9 MI ENE - JOHNSON'S LANDING (AP-5)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 11388 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	9.62 ± 0.66 E-02	(8.16 ± 0.62 E-02)
RA-226	LESS THAN LLD	(4.62 ± 4.02 E-03)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

0.3 MI SW - INFORMATION CENTER (AP-6)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 12097.7 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	8.12 ± 0.66 E-02	(8.16 ± 0.62 E-02)
BI-214	6.75 ± 4.46 E-04	(LESS THAN LLD)
RA-226	LESS THAN LLD	(4.62 ± 4.02 E-03)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

6.3 MI ESE - HARTSVILLE CP&L SUBSTATION (AP-7)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 11920.3 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	8.52 ± 0.70 E-02	(8.16 ± 0.62 E-02)
RA-226	LESS THAN LLD	(4.62 ± 4.02 E-03)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

SECOND QUARTER, 1990

0.3 MI SSE - SITE BOUNDARY (AP-55)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 9138 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	6.29 ± 0.72 E-02	(8.16 ± 0.62 E-02)
K-40	1.74 ± 0.52 E-02	(LESS THAN LLD)
RA-226	LESS THAN LLD	(4.62 ± 4.02 E-03)

AQUATIC VEGETATION SAMPLES
(PICOCURIES PER GRAM)

FIRST SEMI-ANNUAL, 1990

7.2 MI NNW - BLACK CREEK - CONTROL (AV-41)
(DATE COLLECTED: 05/21/90)

GAMMA SPECTROMETRY MASS: 536.6 GRAMS WET

ISOTOPE	CONTROL ACTIVITY
K-40	(1.84 ± 0.17 E+00)
I-131	(< 1.77E-02)
CS-134	(< 1.77E-02)
CS-137	(< 1.84E-02)
TL-208	(1.25 ± 0.81 E-02)
PB-214	(6.64 ± 1.83 E-02)
BI-214	(8.72 ± 1.75 E-02)

AQUATIC VEGETATION SAMPLES
(PICOCURIES PER GRAM)

FIRST SEMI-ANNUAL, 1990

SITE VARIES WITHIN LAKE ROBINSON (AV-45)
(DATE COLLECTED: 05/21/90)

GAMMA SPECTROMETRY MASS: 988.3 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	6.90 ± 0.56 E-01	(LESS THAN LLD)
K-40	7.29 ± 0.74 E-01	(1.84 ± 0.17 E+00)
MN-54	4.82 ± 0.66 E-02	(LESS THAN LLD)
CO-58	3.02 ± 0.63 E-02	(LESS THAN LLD)
CO-60	4.49 ± 0.12 E-01	(LESS THAN LLD)
AG-110M	2.31 ± 0.56 E-02	(LESS THAN LLD)
CD-109	3.18 ± 1.05 E-01	(LESS THAN LLD)
I-131	< 2.23E-02	(< 1.77E-02)
CS-134	< 1.42E-02	(< 1.77E-02)
CS-137	3.61 ± 0.55 E-02	(< 1.84E-02)
TL-208	8.05 ± 0.71 E-02	(1.25 ± 0.81 E-02)
PB-212	2.26 ± 0.09 E-01	(LESS THAN LLD)
PB-214	2.12 ± 0.12 E-01	(6.64 ± 1.83 E-02)
BI-212	1.29 ± 0.38 E-01	(LESS THAN LLD)
BI-214	1.64 ± 0.13 E-01	(8.72 ± 1.75 E-02)
RA-226	6.00 ± 1.20 E-01	(LESS THAN LLD)
AC-228	3.68 ± 0.32 E-02	(LESS THAN LLD)

AQUATIC VEGETATION SAMPLES
(PICOCURIES PER GRAM)

FIRST SEMI-ANNUAL, 1990

10.1 MI E - AUBURNDALE PLANTATION (AV-54)
(DATE COLLECTED: 05/21/90)

GAMMA SPECTROMETRY MASS: 547.7 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	4.57 ± 0.16 E+00	(1.84 ± 0.17 E+00)
I-131	< 1.45E-02	(< 1.77E-02)
CS-134	< 1.69E-02	(< 1.77E-02)
CS-137	< 1.81E-02	(< 1.84E-02)
TL-208	LESS THAN LLD	(1.25 ± 0.81 E-02)
PB-212	1.69 ± 0.97 E-02	(LESS THAN LLD)
PB-214	9.58 ± 1.57 E-02	(6.64 ± 1.83 E-02)
BI-214	6.94 ± 1.63 E-02	(8.72 ± 1.75 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

MAY, 1990

0.25 MI SSE - CP&L PROPERTY (BL-50)
(DATE COLLECTED: 05/22/90)

CHERRY

GAMMA SPECTROMETRY MASS: 322.4 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	4.66 ± 1.26 E-01	(3.93 ± 0.68 E-01)
K-40	3.15 ± 0.23 E+00	(3.41 ± 0.19 E+00)
I-131	< 2.37E-02	(< 1.83E-02)
CS-134	< 2.26E-02	(< 1.75E-02)
CS-137	2.86 ± 0.91 E-02	(5.05 ± 0.91 E-02)
TL-208	1.56 ± 1.21 E-02	(LESS THAN LLD)
PB-212	3.93 ± 1.89 E-02	(2.37 ± 1.07 E-02)
RA-226	2.91 ± 2.03 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

MAY, 1990

0.25 MI SSW - CP&L PROPERTY (BL-51)
(DATE COLLECTED: 05/22/90)

CHERRY

GAMMA SPECTROMETRY MASS: 387.7 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	3.35 ± 0.79 E-01	(3.93 ± 0.68 E-01)
K-40	4.03 ± 0.22 E+00	(3.41 ± 0.19 E+00)
I-131	< 3.27E-02	(< 1.83E-02)
CS-134	< 2.17E-02	(< 1.75E-02)
CS-137	2.12 ± 0.75 E-02	(5.05 ± 0.91 E-02)
PB-212	3.89 ± 1.53 E-02	(2.37 ± 1.07 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

MAY, 1990

10 MI W - BETHUNE - CONTROL (BL-52)
(DATE COLLECTED: 05/22/90)

CHERRY

GAMMA SPECTROMETRY MASS: 419.5 GRAMS WET

ISOTOPE	CONTROL ACTIVITY
BE-7	(3.93 ± 0.68 E-01)
K-40	(3.41 ± 0.19 E+00)
I-131	(< 1.83E-02)
CS-134	(< 1.75E-02)
CS-137	(5.05 ± 0.91 E-02)
PB-212	(2.37 ± 1.07 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

MAY, 1990

0.25 MI SSE - CP&L PROPERTY (BL-50)
(DATE COLLECTED: 05/22/90)

OAK

GAMMA SPECTROMETRY MASS: 365.2 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	6.30 ± 0.78 E-01	(6.32 ± 1.31 E-01)
K-40	2.25 ± 0.19 E+00	(2.89 ± 0.23 E+00)
I-131	< 1.95E-02	(< 3.33E-02)
CS-134	< 1.93E-02	(< 2.84E-02)
CS-137	3.47 ± 0.16 E-01	(6.33 ± 0.23 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

MAY, 1990

0.25 MI SSW - CP&L PROPERTY (BL-51)
(DATE COLLECTED: 05/22/90)

OAK

GAMMA SPECTROMETRY MASS: 367.4 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	7.95 ± 1.26 E-01	(6.32 ± 1.31 E-01)
K-40	2.38 ± 0.28 E+00	(2.89 ± 0.23 E+00)
I-131	< 2.11E-02	(< 3.33E-02)
CS-134	< 3.14E-02	(< 2.84E-02)
CS-137	1.07 ± 0.14 E-01	(6.33 ± 0.23 E-01)
TL-208	2.24 ± 1.22 E-02	(LESS THAN LLD)
PB-212	4.17 ± 1.74 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

MAY, 1990

10 MI W - BETHUNE - CONTROL (BL-52)
(DATE COLLECTED: 05/22/90)

OAK

GAMMA SPECTROMETRY MASS: 338.9 GRAMS WET

ISOTOPE	CONTROL ACTIVITY
BE-7	(6.32 ± 1.31 E-01)
K-40	(2.89 ± 0.23 E+00)
I-131	(< 3.33E-02)
CS-134	(< 2.84E-02)
CS-137	(6.33 ± 0.23 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

MAY, 1990

0.25 MI SSE - CP&L PROPERTY (BL-50)
(DATE COLLECTED: 05/22/90)

SASSAFRAS

GAMMA SPECTROMETRY MASS: 366.4 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	6.07 ± 0.93 E-01	(4.97 ± 0.94 E-01)
K-40	1.82 ± 0.19 E+00	(2.61 ± 0.17 E+00)
I-131	< 2.55E-02	(< 4.80E-02)
CS-134	< 2.42E-02	(< 1.85E-02)
CS-137	1.03 ± 0.14 E-02	(< 1.73E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

MAY, 1990

0.25 MI SSW - CP&L PROPERTY (BL-51)
(DATE COLLECTED: 05/22/90)

SASSAFRAS

GAMMA SPECTROMETRY MASS: 422.8 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	5.38 ± 0.75 E-01	(4.97 ± 0.94 E-01)
K-40	2.42 ± 0.18 E+00	(2.61 ± 0.17 E+00)
I-131	< 1.74E-02	(< 4.80E-02)
CS-134	< 1.67E-02	(< 1.85E-02)
CS-137	1.31 ± 0.10 E-01	(< 1.73E-02)
TL-208	1.49 ± 0.80 E-02	(LESS THAN LLD)
PB-212	3.02 ± 1.29 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

MAY, 1990

10 MI W - BETHUNE - CONTROL (BL-52)
(DATE COLLECTED: 05/22/90)

SASSAFRAS

GAMMA SPECTROMETRY MASS: 494.2 GRAMS WET

ISOTOPE	CONTROL ACTIVITY
BE-7	(4.97 ± 0.94 E-01)
K-40	(2.61 ± 0.17 E+00)
I-131	(< 4.80E-02)
CS-134	(< 1.85E-02)
CS-137	(< 1.73E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

JUNE, 1990

0.25 MI SSE - CP&L PROPERTY (BL-50)
(DATE COLLECTED: 06/19/90)

CHERRY

GAMMA SPECTROMETRY MASS: 520.6 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	4.07 ± 0.75 E-01	(3.43 ± 0.49 E-01)
K-40	2.63 ± 0.24 E+00	(4.10 ± 0.17 E+00)
I-131	< 1.70E-02	(< 1.41E-02)
CS-134	< 2.43E-02	(< 1.53E-02)
CS-137	6.45 ± 1.10 E-02	(3.91 ± 0.81 E-02)
TL-208	2.47 ± 0.88 E-02	(2.53 ± 0.74 E-02)
PB-212	5.00 ± 1.39 E-02	(2.53 ± 0.74 E-02)
BI-214	LESS THAN LLD	(1.64 ± 1.32 E-02)
RA-226	2.20 ± 1.63 E-01	(1.34 ± 1.14 E-01)
AC-228	7.62 ± 4.61 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

JUNE, 1990

0.25 MI SSW - CP&L PROPERTY (BL-51)
(DATE COLLECTED: 06/19/90)

CHERRY

GAMMA SPECTROMETRY MASS: 520.8 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	4.63 ± 0.59 E-01	(3.43 ± 0.49 E-01)
K-40	1.92 ± 0.14 E+00	(4.10 ± 0.17 E+00)
I-131	< 1.40E-02	(< 1.41E-02)
CS-134	< 1.57E-02	(< 1.53E-02)
CS-137	< 1.60E-02	(3.91 ± 0.81 E-02)
TL-208	1.36 ± 0.64 E-02	(2.53 ± 0.74 E-02)
PB-212	4.80 ± 1.10 E-02	(2.53 ± 0.74 E-02)
BI-214	LESS THAN LLD	(1.64 ± 1.32 E-02)
RA-226	2.63 ± 1.25 E-01	(1.34 ± 1.14 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

JUNE, 1990

10 MI W - BETHUNE - CONTROL (BL-52)
(DATE COLLECTED: 06/19/90)

CHERRY

GAMMA SPECTROMETRY MASS: 536.2 GRAMS WET

ISOTOPE	CONTROL ACTIVITY
BE-7	(3.43 ± 0.49 E-01)
K-40	(4.10 ± 0.17 E+00)
I-131	(< 1.41E-02)
CS-134	(< 1.53E-02)
CS-137	(3.91 ± 0.81 E-02)
TL-208	(2.53 ± 0.74 E-02)
PB-212	(2.53 ± 0.74 E-02)
BI-214	(1.64 ± 1.32 E-02)
RA-226	(1.34 ± 1.14 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

JUNE, 1990

0.25 MI SSE - CP&L PROPERTY (BL-50)
(DATE COLLECTED: 06/19/90)

OAK

GAMMA SPECTROMETRY MASS: 508.4 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	7.41 ± 0.90 E-01	(8.40 ± 1.22 E-01)
K-40	2.08 ± 0.22 E+00	(4.07 ± 0.29 E+00)
I-131	< 1.67E-02	(< 3.11E-02)
CS-134	< 1.96E-02	(< 2.78E-02)
CS-137	2.55 ± 0.18 E-01	(7.31 ± 0.26 E-01)
PB-212	3.72 ± 1.47 E-02	(4.26 ± 1.96 E-02)
BI-214	6.64 ± 1.81 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

JUNE, 1990

0.25 MI SSW - CP&L PROPERTY (BL-51)
(DATE COLLECTED: 06/19/90)

OAK

GAMMA SPECTROMETRY MASS: 503.8 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	4.91 ± 0.60 E-01	(8.40 ± 1.22 E-01)
K-40	1.83 ± 0.14 E+00	(4.07 ± 0.29 E+00)
I-131	< 1.36E-02	(< 3.11E-02)
CS-134	< 1.45E-02	(< 2.78E-02)
CS-137	1.21 ± 0.10 E-01	(7.31 ± 0.26 E-01)
PB-212	3.80 ± 1.23 E-02	(4.26 ± 1.96 E-02)
RA-226	3.62 ± 1.90 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

JUNE, 1990

10 MI W - BETHUNE - CONTROL (BL-52)
(DATE COLLECTED: 06/19/90)

OAK

GAMMA SPECTROMETRY MASS: 278 GRAMS WET

ISOTOPE	CONTROL ACTIVITY
BE-7	(8.40 ± 1.22 E-01)
K-40	(4.07 ± 0.29 E+00)
I-131	(< 3.11E-02)
CS-134	(< 2.78E-02)
CS-137	(7.31 ± 0.26 E-01)
PB-212	(4.26 ± 1.96 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

JUNE, 1990

0.25 MI SSE - CP&L PROPERTY (BL-50)
(DATE COLLECTED: 06/19/90)

SASSAFRAS

GAMMA SPECTROMETRY MASS: 506.2 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	3.53 ± 0.54 E-01	(8.67 ± 0.97 E-01)
K-40	2.67 ± 0.14 E+00	(2.76 ± 0.22 E+00)
I-131	< 1.35E-02	(< 2.45E-02)
CS-134	< 1.50E-02	(< 2.25E-02)
CS-137	1.79 ± 0.10 E-01	(1.87 ± 0.15 E-01)
TL-208	1.35 ± 0.85 E-02	(LESS THAN LLD)
PB-212	2.72 ± 1.01 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

JUNE, 1990

0.25 MI SSW - CP&L PROPERTY (BL-51)
(DATE COLLECTED: 06/19/90)

SASSAFRAS

GAMMA SPECTROMETRY MASS: 507.7 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	5.03 ± 0.74 E-01	(8.67 ± 0.97 E-01)
K-40	2.40 ± 0.18 E+00	(2.76 ± 0.22 E+00)
I-131	< 1.78E-02	(< 2.45E-02)
CS-134	< 1.88E-02	(< 2.25E-02)
CS-137	6.06 ± 0.84 E-02	(1.87 ± 0.15 E-01)
BI-212	1.39 ± 0.43 E-01	(LESS THAN LLD)
BI-214	2.01 ± 1.50 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

JUNE, 1990

10 MI W - BETHUNE - CONTROL (BL-52)
(DATE COLLECTED: 06/19/90)

SASSAFRAS

GAMMA SPECTROMETRY MASS: 375.5 GRAMS WET

ISOTOPE	CONTROL ACTIVITY
BE-7	(8.67 ± 0.97 E-01)
K-40	(2.76 ± 0.22 E+00)
I-131	(< 2.45E-02)
CS-134	(< 2.25E-02)
CS-137	(1.87 ± 0.15 E-01)

FOOD CROP SAMPLES
(PICOCURIES PER GRAM)

ONE TIME PER GROWING SEASON, 1990

SITE VARIES WITHIN 3 MI OF PLANT (FC-58)
(DATE COLLECTED: 06/20/90)

COLLARDS

GAMMA SPECTROMETRY MASS: 530.9 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	4.99 ± 0.29 E+00	(NOT REQUIRED)
I-131	< 1.59E-02	(NOT REQUIRED)
CS-134	< 2.33E-02	(NOT REQUIRED)
CS-137	3.52 ± 1.20 E-02	(NOT REQUIRED)
TL-208	6.39 ± 1.10 E-02	(NOT REQUIRED)
PB-212	1.56 ± 0.15 E-01	(NOT REQUIRED)
BI-212	2.09 ± 0.62 E-01	(NOT REQUIRED)

FOOD CROP SAMPLES
(PICOCURIES PER GRAM)

ONE TIME PER GROWING SEASON, 1990

SITE VARIES WITHIN 3 MI OF PLANT (FC-58)
(DATE COLLECTED: 06/20/90)

PEACHES

GAMMA SPECTROMETRY MASS: 517 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.15 ± 0.17 E+00	(NOT REQUIRED)
I-131	< 1.33E-02	(NOT REQUIRED)
CS-134	< 1.45E-02	(NOT REQUIRED)
CS-137	< 1.47E-02	(NOT REQUIRED)

BOTTOM FEEDER SAMPLES
(PICOCURIES PER GRAM)

FIRST SEMI-ANNUAL, 1990

SITE VARIES WITHIN LAKE ROBINSON (F1-45)
(DATE COLLECTED: 06/04/90)

BOTTOM FEEDERS , EDIBLE PORTION

GAMMA SPECTROMETRY MASS: 535.8 GRAMS FRESH

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	3.58 ± 0.39 E+00	(1.43 ± 0.34 E+00)
CS-137	1.41 ± 0.18 E-01	(1.12 ± 0.20 E-01)
PB-212	3.54 ± 3.08 E-02	(9.81 ± 2.59 E-02)
PB-214	LESS THAN LLD	(1.24 ± 0.33 E-01)
BI-214	7.77 ± 2.88 E-02	(1.28 ± 0.39 E-01)
RA-226	LESS THAN LLD	(3.26 ± 2.00 E-01)

BOTTOM FEEDER SAMPLES
(PICOCURIES PER GRAM)

FIRST SEMI-ANNUAL, 1990

4.9 MI ESE - PRESTWOOD LAKE (F1-46)
(DATE COLLECTED: 06/04/90)

BOTTOM FEEDERS , EDIBLE PORTION

GAMMA SPECTROMETRY MASS: 673.1 GRAMS FRESH

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	3.21 ± 0.26 E+00	(1.43 ± 0.34 E+00)
CS-137	8.52 ± 1.34 E-02	(1.12 ± 0.20 E-01)
PB-212	LESS THAN LLD	(9.81 ± 2.59 E-02)
PB-214	LESS THAN LLD	(1.24 ± 0.33 E-01)
BI-214	6.65 ± 2.48 E-02	(1.28 ± 0.39 E-01)
RA-226	LESS THAN LLD	(3.26 ± 2.00 E-01)

BOTTOM FEEDER SAMPLES
(PICOCURIES PER GRAM)

FIRST SEMI-ANNUAL, 1990

13 MI NNW - LAKE BEE - CONTROL (F1-47)
(DATE COLLECTED: 06/04/90)

BOTTOM FEEDERS , EDIBLE PORTION

GAMMA SPECTROMETRY MASS: 501.8 GRAMS FRESH

ISOTOPE	CONTROL ACTIVITY
K-40	(1.43 ± 0.34 E+00)
CS-137	(1.12 ± 0.20 E-01)
PB-212	(9.81 ± 2.59 E-02)
PB-214	(1.24 ± 0.33 E-01)
BI-214	(1.28 ± 0.39 E-01)
RA-226	(3.26 ± 2.00 E-01)

FREE SWIMMER SAMPLES
(PICOCURIES PER GRAM)

FIRST SEMI-ANNUAL, 1990

SITE VARIES WITHIN LAKE ROBINSON (F2-45)
(DATE COLLECTED: 06/04/90)

FREE SWIMMERS , EDIBLE PORTION

GAMMA SPECTROMETRY MASS: 523.4 GRAMS FRESH

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	3.22 ± 0.37 E+00	(2.69 ± 0.23 E+00)
CS-137	1.09 ± 0.18 E-01	(2.21 ± 0.19 E-01)
PB-214	LESS THAN LLD	(1.00 ± 0.21 E-01)
BI-214	LESS THAN LLD	(9.35 ± 2.91 E-02)
RA-226	LESS THAN LLD	(4.48 ± 1.83 E-01)

FREE SWIMMER SAMPLES
(PICOCURIES PER GRAM)

FIRST SEMI-ANNUAL, 1990

4.9 MI ESE - PRESTWOOD LAKE (F2-46)
(DATE COLLECTED: 06/04/90)

FREE SWIMMERS , EDIBLE PORTION

GAMMA SPECTROMETRY MASS: 729.2 GRAMS FRESH

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	3.97 ± 0.30 E+00	(2.69 ± 0.23 E+00)
CS-134	9.49 ± 1.22 E-02	(LESS THAN LLD)
CS-137	8.05 ± 0.31 E-01	(2.21 ± 0.19 E-01)
PB-214	LESS THAN LLD	(1.00 ± 0.21 E-01)
BI-214	7.82 ± 3.02 E-02	(9.35 ± 2.91 E-02)
RA-226	LESS THAN LLD	(4.48 ± 1.83 E-01)

FREE SWIMMER SAMPLES
(PICOCURIES PER GRAM)

FIRST SEMI-ANNUAL, 1990

13 MI NNW - LAKE BEE - CONTROL (F2-47)
(DATE COLLECTED: 06/04/90)

FREE SWIMMERS , EDIBLE PORTION

GAMMA SPECTROMETRY MASS: 463.2 GRAMS FRESH

ISOTOPE	CONTROL ACTIVITY
K-40	(2.69 ± 0.23 E+00)
CS-137	(2.21 ± 0.19 E-01)
PB-214	(1.00 ± 0.21 E-01)
BI-214	(9.35 ± 2.91 E-02)
RA-226	(4.48 ± 1.83 E-01)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

JANUARY, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (GW-40)
(DATE COLLECTED: 01/08/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 1.26E+03	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
	ALL GAMMA EMITTERS LESS THAN LLD	

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

JANUARY, 1990

UNIT 1 DEEP WELL NEAR SITE ENTRANCE (GW-42)
(DATE COLLECTED: 01/08/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 1.26E+03	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	3.78 ± 3.31 E+01	(NOT REQUIRED)
PB-212	5.82 ± 2.61 E+00	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

JANUARY, 1990

UNIT 2 DEEP WELL (GW-43)
(DATE COLLECTED: 01/08/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 1.26E+03	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	4.09 ± 3.27 E+01	(NOT REQUIRED)
PB-212	7.34 ± 2.68 E+00	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

FEBRUARY, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (GW-40)
(DATE COLLECTED: 02/12/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	1.26 ± 0.60 E+03	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
	ALL GAMMA EMITTERS LESS THAN LLD	

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

FEBRUARY, 1990

UNIT 1 DEEP WELL NEAR SITE ENTRANCE (GW-42)
(DATE COLLECTED: 02/12/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.43E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	5.95 ± 2.61 E+00	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

FEBRUARY, 1990

UNIT 2 DEEP WELL (GW-43)
(DATE COLLECTED: 02/12/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.43E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
RA-226	5.05 ± 3.64 E+01	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

MARCH, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (GW-40)
(DATE COLLECTED: 03/12/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.51E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	3.19 ± 2.70 E+01	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

MARCH, 1990

UNIT 1 DEEP WELL NEAR SITE ENTRANCE (GW-42)
(DATE COLLECTED: 03/12/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.51E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
PB-212	6.96 ± 2.47 E+00	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

MARCH, 1990

UNIT 2 DEEP WELL (GW-43)
(DATE COLLECTED: 03/12/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.51E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	4.66 ± 2.76 E+01	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

APRIL, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (GW-40)
(DATE COLLECTED: 04/10/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.83E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BI-214	5.79 ± 4.29 E+00	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

APRIL, 1990

UNIT 1 DEEP WELL NEAR SITE ENTRANCE (GW-42)
(DATE COLLECTED: 04/10/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.83E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
PB-212	3.96 ± 2.21 E+00	(NOT REQUIRED)
RA-226	3.73 ± 3.01 E+01	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

APRIL, 1990

UNIT 2 DEEP WELL (GW-43)
(DATE COLLECTED: 04/10/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.83E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
	ALL GAMMA EMITTERS LESS THAN LLD	

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

MAY, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (GW-40)
(DATE COLLECTED: 05/14/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 1.13E+03	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	7.03 ± 3.28 E+01	(NOT REQUIRED)
PB-212	4.87 ± 2.05 E+00	(NOT REQUIRED)
BI-214	4.54 ± 3.76 E+00	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

MAY, 1990

UNIT 1 DEEP WELL NEAR SITE ENTRANCE (GW-42)
(DATE COLLECTED: 05/14/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 1.13E+03	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
	ALL GAMMA EMITTERS LESS THAN LLD	

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

MAY, 1990

UNIT 2 DEEP WELL (GW-43)
(DATE COLLECTED: 05/14/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 1.13E+03	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
PB-212	3.18 ± 1.84 E+00	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

JUNE, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (GW-40)
(DATE COLLECTED: 06/11/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.63E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	3.84 ± 2.60 E+01	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

JUNE, 1990

UNIT 1 DEEP WELL NEAR SITE ENTRANCE (GW-42)
(DATE COLLECTED: 06/11/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.63E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
TL-208	1.63 ± 1.18 E+00	(NOT REQUIRED)
PB-212	4.77 ± 2.35 E+00	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

JUNE, 1990

UNIT 2 DEEP WELL (GW-43)
(DATE COLLECTED: 06/11/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.63E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
PB-212	5.79 ± 2.27 E+00	(NOT REQUIRED)
BI-214	5.31 ± 3.24 E+00	(NOT REQUIRED)

MILK SAMPLES
(PICOCURIES PER LITER)

JANUARY 1, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 01/01/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 5.51E-01	(< 5.87E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.32 ± 0.06 E+03	(1.50 ± 0.06 E+03)
TL-208	LESS THAN LLD	(2.44 ± 2.15 E+00)
PB-212	LESS THAN LLD	(7.54 ± 3.54 E+00)
BI-214	9.73 ± 6.83 E+00	(LESS THAN LLD)

MILK SAMPLES
(PICOCURIES PER LITER)

JANUARY 1, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 01/01/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 5.87E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.50 ± 0.06 E+03)
TL-208	(2.44 ± 2.15 E+00)
PB-212	(7.54 ± 3.54 E+00)

MILK SAMPLES
(PICOCURIES PER LITER)

JANUARY 15, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 01/15/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 5.45E-01	(< 5.61E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.18 ± 0.06 E+03	(1.39 ± 0.06 E+03)
BI-214	8.03 ± 6.48 E+00	(LESS THAN LLD)
RA-226	LESS THAN LLD	(6.27 ± 5.37 E+01)

MILK SAMPLES
(PICOCURIES PER LITER)

JANUARY 15, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 01/15/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 5.61E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.39 ± 0.06 E+03)
RA-226	(6.27 ± 5.37 E+01)

MILK SAMPLES
(PICOCURIES PER LITER)

JANUARY 29, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 01/29/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 5.34E-01	(< 5.47E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.38 ± 0.05 E+03	(1.29 ± 0.06 E+03)
PB-212	1.02 ± 0.39 E+01	(LESS THAN LLD)

MILK SAMPLES
(PICOCURIES PER LITER)

JANUARY 29, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 01/29/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 5.47E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.29 ± 0.06 E+03)

MILK SAMPLES
(PICOCURIES PER LITER)

FEBRUARY 12, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 02/12/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 5.42E-01	(< 5.53E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.27 ± 0.05 E+03	(1.35 ± 0.05 E+03)
PB-212	LESS THAN LLD	(7.29 ± 3.54 E+00)

MILK SAMPLES
(PICOCURIES PER LITER)

FEBRUARY 12, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 02/12/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 5.53E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.35 ± 0.05 E+03)
PB-212	(7.29 ± 3.54 E+00)

MILK SAMPLES
(PICOCURIES PER LITER)

FEBRUARY 26, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 02/26/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 4.96E-01	(< 5.08E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.32 ± 0.06 E+03	(1.37 ± 0.05 E+03)
PB-212	LESS THAN LLD	(1.01 ± 0.40 E+01)

MILK SAMPLES
(PICOCURIES PER LITER)

FEBRUARY 26, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 02/26/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 5.08E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.37 ± 0.05 E+03)
PB-212	(1.01 ± 0.40 E+01)

MILK SAMPLES
(PICOCURIES PER LITER)

MARCH 12, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 03/12/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 5.37E-01	(< 5.53E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.42 ± 0.06 E+03	(1.40 ± 0.05 E+03)
PB-212	LESS THAN LLD	(8.88 ± 3.63 E+00)

MILK SAMPLES
(PICOCURIES PER LITER)

MARCH 12, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 03/12/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 5.53E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.40 ± 0.05 E+03)
PB-212	(8.88 ± 3.63 E+00)

MILK SAMPLES
(PICOCURIES PER LITER)

MARCH 26, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 03/26/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 4.87E-01	(< 5.06E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.21 ± 0.06 E+03	(1.36 ± 0.05 E+03)
PB-212	LESS THAN LLD	(1.03 ± 0.36 E+01)

MILK SAMPLES
(PICOCURIES PER LITER)

MARCH 26, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 03/26/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 5.06E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.36 ± 0.05 E+03)
PB-212	(1.03 ± 0.36 E+01)

MILK SAMPLES
(PICOCURIES PER LITER)

APRIL 9, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 04/09/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 5.07E-01	(< 5.39E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.28 ± 0.06 E+03	(1.40 ± 0.05 E+03)
PB-212	LESS THAN LLD	(6.16 ± 3.54 E+00)
PB-214	1.30 ± 0.60 E+01	(LESS THAN LLD)
BI-214	1.35 ± 0.68 E+01	(LESS THAN LLD)

MILK SAMPLES
(PICOCURIES PER LITER)

APRIL 9, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 04/09/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 5.39E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.40 ± 0.05 E+03)
PB-212	(6.16 ± 3.54 E+00)

MILK SAMPLES
(PICOCURIES PER LITER)

APRIL 23, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 04/23/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 5.98E-01	(< 5.66E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.30 ± 0.06 E+03	(1.47 ± 0.05 E+03)
PB-212	LESS THAN LLD	(6.88 ± 3.52 E+00)
PB-214	2.10 ± 0.67 E+01	(LESS THAN LLD)

MILK SAMPLES
(PICOCURIES PER LITER)

APRIL 23, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 04/23/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 5.66E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.47 ± 0.05 E+03)
PB-212	(6.88 ± 3.52 E+00)

MILK SAMPLES
(PICOCURIES PER LITER)

MAY 7, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 05/07/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 7.07E-01	(< 3.12E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.31 ± 0.06 E+03	(1.44 ± 0.09 E+03)
PB-212	LESS THAN LLD	(4.06 ± 4.03 E+00)

MILK SAMPLES
(PICOCURIES PER LITER)

MAY 7, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 05/07/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 3.12E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.44 ± 0.09 E+03)
PB-212	(4.06 ± 4.03 E+00)

MILK SAMPLES
(PICOCURIES PER LITER)

MAY 21, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 05/21/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 6.81E-01	(< 5.38E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.22 ± 0.05 E+03	(1.45 ± 0.06 E+03)
PB-212	LESS THAN LLD	(1.11 ± 0.36 E+01)

MILK SAMPLES
(PICOCURIES PER LITER)

MAY 21, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 05/21/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 5.38E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.45 ± 0.06 E+03)
PB-212	(1.11 ± 0.36 E+01)

MILK SAMPLES
(PICOCURIES PER LITER)

JUNE 4, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 06/04/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 4.42E-01	(< 6.37E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.21 ± 0.05 E+03	(1.36 ± 0.05 E+03)
TL-208	LESS THAN LLD	(2.61 ± 2.36 E+00)
PB-212	LESS THAN LLD	(5.85 ± 3.53 E+00)

MILK SAMPLES
(PICOCURIES PER LITER)

JUNE 4, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 06/04/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 6.37E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.36 ± 0.05 E+03)
TL-208	(2.61 ± 2.36 E+00)
PB-212	(5.85 ± 3.53 E+00)

MILK SAMPLES
(PICOCURIES PER LITER)

JUNE 18, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 06/18/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 4.47E-01	(< 6.58E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.41 ± 0.05 E+03	(1.48 ± 0.06 E+03)
PB-212	5.56 ± 3.58 E+00	(4.15 ± 3.48 E+00)

MILK SAMPLES
(PICOCURIES PER LITER)

JUNE 18, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 06/18/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 6.58E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.48 ± 0.06 E+03)
PB-212	(4.15 ± 3.48 E+00)

BOTTOM SEDIMENT SAMPLES
(PICOCURIES PER GRAM)

FIRST SEMI-ANNUAL, 1990

7.2 MI NNW - BLACK CREEK - CONTROL (SD-41)
(DATE COLLECTED: 05/21/90)

GAMMA SPECTROMETRY MASS: 712.3 GRAMS DRY

ISOTOPE	CONTROL ACTIVITY
K-40	(9.71 ± 1.70 E-01)
CS-137	(1.00 ± 0.16 E-01)
TL-208	(2.63 ± 0.17 E-01)
PB-212	(6.10 ± 0.26 E-01)
PB-214	(5.54 ± 0.32 E-01)
BI-212	(5.42 ± 0.86 E-01)
BI-214	(5.10 ± 0.29 E-01)
RA-226	(1.20 ± 0.23 E+00)
AC-228	(7.87 ± 0.61 E-01)

BOTTOM SEDIMENT SAMPLES
(PICOCURIES PER GRAM)

FIRST SEMI-ANNUAL, 1990

SITE VARIES WITHIN LAKE ROBINSON (SD-45)
(DATE COLLECTED: 05/21/90)

GAMMA SPECTROMETRY MASS: 662.6 GRAMS DRY

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	LESS THAN LLD	(9.71 ± 1.70 E-01)
CO-60	1.77 ± 0.20 E-01	(LESS THAN LLD)
CS-137	1.51 ± 0.17 E-01	(1.00 ± 0.16 E-01)
TL-208	3.63 ± 0.27 E-01	(2.63 ± 0.17 E-01)
PB-212	1.03 ± 0.04 E+00	(6.10 ± 0.26 E-01)
PB-214	9.88 ± 0.48 E-01	(5.54 ± 0.32 E-01)
BI-212	7.46 ± 1.14 E-01	(5.42 ± 0.86 E-01)
BI-214	9.21 ± 0.52 E-01	(5.10 ± 0.29 E-01)
RA-226	1.91 ± 0.29 E+00	(1.20 ± 0.23 E+00)
AC-228	1.22 ± 0.08 E+00	(7.87 ± 0.61 E-01)

BOTTOM SEDIMENT SAMPLES
(PICOCURIES PER GRAM)

FIRST SEMI-ANNUAL, 1990

10.1 MI E - AUBURNDALE PLANTATION (SD-54)
(DATE COLLECTED: 05/21/90)

GAMMA SPECTROMETRY MASS: 1220.8 GRAMS DRY

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	3.92 ± 1.21 E-01	(9.71 ± 1.70 E-01)
CS-137	LESS THAN LLD	(1.00 ± 0.16 E-01)
TL-208	1.65 ± 0.15 E-01	(2.63 ± 0.17 E-01)
PB-212	4.44 ± 0.20 E-01	(6.10 ± 0.26 E-01)
PB-214	3.92 ± 0.28 E-01	(5.54 ± 0.32 E-01)
BI-212	3.06 ± 1.06 E-01	(5.42 ± 0.86 E-01)
BI-214	4.05 ± 0.29 E-01	(5.10 ± 0.29 E-01)
RA-226	1.29 ± 0.23 E+00	(1.20 ± 0.23 E+00)
AC-228	4.98 ± 0.50 E-01	(7.87 ± 0.61 E-01)

SHORELINE SEDIMENT SAMPLES
(PICOCURIES PER GRAM)

FIRST SEMI-ANNUAL, 1990

1.9 MI NNE - SHADY REST CLUB (SS-44)
(DATE COLLECTED: 01/15/90)

GAMMA SPECTROMETRY MASS: 820.9 GRAMS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
PB-212	9.62 ± 1.65 E-02	(NOT REQUIRED)
PB-214	1.35 ± 0.19 E-01	(NOT REQUIRED)
BI-214	1.06 ± 0.21 E-01	(NOT REQUIRED)

SHORELINE SEDIMENT SAMPLES
(PICOCURIES PER GRAM)

FIRST SEMI-ANNUAL, 1990

0.9 MI NNW - ASH POND (SS-57)
(DATE COLLECTED: 01/15/90)

GAMMA SPECTROMETRY MASS: 663.7 GRAMS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.24 ± 0.26 E+00	(NOT REQUIRED)
TL-208	5.78 ± 0.33 E-01	(NOT REQUIRED)
PB-212	1.45 ± 0.05 E+00	(NOT REQUIRED)
PB-214	1.21 ± 0.05 E+00	(NOT REQUIRED)
BI-212	1.51 ± 0.19 E+00	(NOT REQUIRED)
BI-214	1.17 ± 0.06 E+00	(NOT REQUIRED)
RA-226	2.39 ± 0.33 E+00	(NOT.REQUIRED)
AC-228	1.73 ± 0.11 E+00	(NOT REQUIRED)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

JANUARY, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (SW-40)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	1.45 ± 0.65 E+03	(< 1.02E+03)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	LESS THAN LLD	(3.71 ± 3.21 E+01)
PB-212	LESS THAN LLD	(3.68 ± 2.04 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

JANUARY, 1990

7.2 MI NNW - BLACK CREEK - CONTROL (SW-41)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
TRITIUM	0.005	(< 1.02E+03)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(3.71 ± 3.21 E+01)
PB-212	(3.68 ± 2.04 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

JANUARY, 1990

0.9 MI NNW - ASH POND (SW-57)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	1.52 ± 0.65 E+03	(< 1.02E+03)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	3.39 ± 3.32 E+01	(3.71 ± 3.21 E+01)
PB-212	4.24 ± 2.80 E+00	(3.68 ± 2.04 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

FEBRUARY, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (SW-40)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	1.38 ± 0.61 E+03	(< 9.50E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	4.80 ± 2.94 E+01	(LESS THAN LLD)
PB-212	LESS THAN LLD	(5.36 ± 2.29 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

FEBRUARY, 1990

7.2 MI NNW - BLACK CREEK - CONTROL (SW-41)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
TRITIUM	0.005	(< 9.50E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
PB-212	(5.36 ± 2.29 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

FEBRUARY, 1990

0.9 MI NNW - ASH POND (SW-57)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	1.09 ± 0.60 E+03	(< 9.50E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
PB-212	LESS THAN LLD	(5.36 ± 2.29 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

MARCH, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (SW-40)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	1.22 ± 0.61 E+03	(< 9.60E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	LESS THAN LLD	(4.72 ± 3.21 E+01)
PB-212	LESS THAN LLD	(6.56 ± 2.28 E+00)
BI-214	1.12 ± 0.30 E+01	(LESS THAN LLD)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

MARCH, 1990

7.2 MI NNW - BLACK CREEK - CONTROL (SW-41)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
TRITIUM	0.005	(< 9.60E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(4.72 ± 3.21 E+01)
PB-212	(6.56 ± 2.28 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

MARCH, 1990

0.9 MI NNW - ASH POND (SW-57)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	1.29 ± 0.61 E+03	(< 9.60E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	LESS THAN LLD	(4.72 ± 3.21 E+01)
PB-212	LESS THAN LLD	(6.56 ± 2.28 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

APRIL, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (SW-40)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	1.33 ± 0.61 E+03	(< 9.56E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	LESS THAN LLD	(1.03 ± 0.32 E+02)
PB-212	LESS THAN LLD	(2.73 ± 2.14 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

APRIL, 1990

7.2 MI NNW - BLACK CREEK - CONTROL (SW-41)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
TRITIUM	0.005	(< 9.56E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.03 ± 0.32 E+02)
PB-212	(2.73 ± 2.14 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

APRIL, 1990

0.9 MI NNW - ASH POND (SW-57)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.56E+02	(< 9.56E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	LESS THAN LLD	(1.03 ± 0.32 E+02)
PB-212	2.18 ± 2.04 E+00	(2.73 ± 2.14 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

MAY, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (SW-40)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	1.59 ± 0.63 E+03	(< 9.74E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	8.13 ± 3.26 E-01	(LESS THAN LLD)
PB-212	5.42 ± 2.72 E+00	(LESS THAN LLD)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

MAY, 1990

7.2 MI NNW - BLACK CREEK - CONTROL (SW-41)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
TRITIUM	0.005	(< 9.74E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
ALL GAMMA EMITTERS LESS THAN LLD	

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

MAY, 1990

0.9 MI NNW - ASH POND (SW-57)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	2.53 ± 0.64 E+03	(< 9.74E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.74 ± 0.23 E+02	(LESS THAN LLD)
PB-212	4.80 ± 2.15 E+00	(LESS THAN LLD)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

JUNE, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (SW-40)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	2.74 ± 0.67 E+03	(< 1.02E+03)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	LESS THAN LLD	(8.11 ± 3.10 E+01)
TL-208	2.84 ± 1.93 E+00	(LESS THAN LLD)
PB-212	LESS THAN LLD	(1.10 ± 0.32 E+01)
RA-226	3.39 ± 2.48 E+01	(LESS THAN LLD)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

JUNE, 1990

7.2 MI NNW - BLACK CREEK - CONTROL (SW-41)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
TRITIUM	0.005	(< 1.02E+03)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(8.11 ± 3.10 E+01)
PB-212	(1.10 ± 0.32 E+01)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

JUNE, 1990

0.9 MI NNW - ASH POND (SW-57)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	2.69 ± 0.67 E+03	(< 1.02E+03)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	LESS THAN LLD	(8.11 ± 3.10 E+01)
PB-212	LESS THAN LLD	(1.10 ± 0.32 E+01)
RA-226	4.05 ± 2.88 E+01	(LESS THAN LLD)

ENVIRONMENTAL TLD
(MILLIROENTGEN PER WEEK)

FIRST QUARTER, 1990

	STATION	MILLIROENTGEN PER WEEK
	CONTROL	(1.30 ± 0.20 E+00)
1	26 MI ESE - FLORENCE - CONTROL	1.30 ± 0.20 E+00
2	0.2 MI S - INFORMATION CENTER	1.10 ± 0.20 E+00
3	0.7 MI N - MICROWAVE TOWER	1.40 ± 0.20 E+00
4	0.4 MI ESE - SPILLWAY	1.00 ± 0.20 E+00
5	0.9 MI ENE - JOHNSON'S LANDING	1.20 ± 0.20 E+00
6	0.3 MI SW - INFORMATION CENTER	1.20 ± 0.30 E+00
7	6.3 MI ESE - HARTSVILLE CP&L SUBSTATION	1.20 ± 0.20 E+00
8	0.8 MI SSE - POWER POLES FROM HBR	9.00 ± 2.00 E-01
9	1.0 MI S - POWER POLE NEAR HWY 151	1.60 ± 0.20 E+00
10	1.0 MI WSW - CHURCH OF GOD CEMETERY	1.30 ± 0.20 E+00
11	1.0 MI SW - POWER POLE AT OLD CAMDEN RD	9.00 ± 2.00 E-01
12	1.2 MI SSW-PINE TREE AT 2ND INT DIRT RD	1.00 ± 0.20 E+00
13	1.0 MI W-PINE TREE WHERE DIRT RD SPLITS	9.00 ± 2.00 E-01
14	0.9 MI WNW - HWY 151 AT PINE RIDGE CH	1.00 ± 0.20 E+00
15	1.0 MI NW -DIRT RD NEAR ASH POND	1.00 ± 0.20 E+00
16	1.0 MI NNW - DARLINGTON IC TURBINE PLANT	1.20 ± 0.20 E+00
17	1.1 MI N - DIS CANAL RD AT UNIT 1 WEIR	1.40 ± 0.20 E+00
18	0.7 MI SE - TRAIN TRESTLE OVER BLACK CR	1.00 ± 0.20 E+00
19	1.0 MI E - RD S-16-23	1.00 ± 0.20 E+00
20	1.3 MI ENE - RD S-16-39 NORTH	1.10 ± 0.20 E+00
21	ATKINSON'S BOAT LANDING	1.10 ± 0.20 E+00

ENVIRONMENTAL TLD
(MILLIROENTGEN PER WEEK)

FIRST QUARTER, 1990

	STATION	MILLIROENTGEN PER WEEK
	CONTROL	(1.30 ± 0.20 E+00)
22	1.9 MI NNE - SHADY REST NEAR DOCK	1.10 ± 0.20 E+00
23	1.2 MI ESE - INT RD 41E-5 AND S-16-39	1.00 ± 0.20 E+00
24	5.0 MI NW - S-13-711 PAST PEACH FARM	1.20 ± 0.20 E+00
25	4.6 MI NNW - RD S-13-346 OFF 151 NORTH	1.00 ± 0.20 E+00
26	5.0 MI N - RD S-13-346	1.30 ± 0.20 E+00
27	5.0 MI NNE - RD S-13-763 NEAR INTER	1.10 ± 0.20 E+00
28	4.8 MI NE - NEAR DUMPSTER RD S-13-39	1.20 ± 0.20 E+00
29	RD S-16-20 SOUTH OF LOOKOUT TOWER	1.30 ± 0.20 E+00
30	4.6 MI E - RD S-16-20 JOHNSON FENCE CO	1.00 ± 0.20 E+00
31	4.6 MI ESE - LAKESHORE DRIVE	1.40 ± 0.20 E+00
32	4.5 MI SE - END OF KALBER DRIVE	1.10 ± 0.20 E+00
33	4.6 MI SSE-RD S16-493 NEAR SEGAR'S ENTR	1.20 ± 0.20 E+00
34	4.6 MI S - RD S-16-772	8.00 ± 2.00 E-01
35	4.4 MI SSW - INT RD S-31-51 & S-16-12	1.80 ± 0.20 E+00
36	4.7 MI SW - PAVED RD OFF RD S-16-85	1.40 ± 0.20 E+00
37	5.0 MI WSW - TRANS TOWER NEAR CLAY RD	1.40 ± 0.20 E+00
38	4.9 MI W - RD S-16-231 AT UNION CHURCH	1.10 ± 0.20 E+00
39	5.0 MI WNW - POWER POLE IN FIELD	1.00 ± 0.20 E+00
55	0.3 MI SSE - SITE BOUNDARY	1.10 ± 0.20 E+00
56	300 FT N OF ISFSI	1.10 ± 0.20 E+00

ENVIRONMENTAL TLD
(MILLIROENTGEN PER WEEK)

SECOND QUARTER, 1990

	STATION	MILLIROENTGEN PER WEEK
	CONTROL	(1.00 ± 0.10 E+00)
1	26 MI ESE - FLORENCE - CONTROL	1.00 ± 0.10 E+00
2	0.2 MI S - INFORMATION CENTER	1.00 ± 0.10 E+00
3	0.7 MI N - MICROWAVE TOWER	1.30 ± 0.20 E+00
4	0.4 MI ESE - SPILLWAY	1.00 ± 0.10 E+00
5	0.9 MI ENE - JOHNSON'S LANDING	9.00 ± 1.00 E-01
6	0.3 MI SW - INFORMATION CENTER	9.00 ± 1.00 E-01
7	6.3 MI ESE - HARTSVILLE CP&L SUBSTATION	9.00 ± 1.00 E-01
8	0.8 MI SSE - POWER POLES FROM HBR	8.00 ± 1.00 E-01
9	1.0 MI S - POWER POLE NEAR HWY 151	1.50 ± 0.10 E+00
10	1.0 MI WSW - CHURCH OF GOD CEMETERY	1.00 ± 0.20 E+00
11	1.0 MI SW - POWER POLE AT OLD CAMDEN RD	9.00 ± 1.00 E-01
12	1.2 MI SSW-PINE TREE AT 2ND INT DIRT RD	1.00 ± 0.10 E+00
13	1.0 MI W-PINE TREE WHERE DIRT RD SPLITS	8.00 ± 1.00 E-01
14	0.9 MI WNW - HWY 151 AT PINE RIDGE CH	9.00 ± 1.00 E-01
15	1.0 MI NW -DIRT RD NEAR ASH POND	9.00 ± 1.00 E-01
16	1.0 MI NNW - DARLINGTON IC TURBINE PLANT	1.00 ± 0.10 E+00
17	1.1 MI N - DIS CANAL RD AT UNIT 1 WEIR	1.30 ± 0.20 E+00
18	0.7 MI SE - TRAIN TRESTLE OVER BLACK CR	9.00 ± 1.00 E-01
19	1.0 MI E - RD S-16-23	9.00 ± 1.00 E-01
20	1.3 MI ENE - RD S-16-39 NORTH	1.00 ± 0.10 E+00
21	ATKINSON'S BOAT LANDING	1.10 ± 0.10 E+00

ENVIRONMENTAL TLD
(MILLIROENTGEN PER WEEK)

SECOND QUARTER, 1990

	STATION	MILLIROENTGEN PER WEEK
	CONTROL	(1.00 ± 0.10 E+00)
22	1.9 MI NNE - SHADY REST NEAR DOCK	9.00 ± 1.00 E-01
23	1.2 MI ESE - INT RD 41E-5 AND S-16-39	9.00 ± 1.00 E-01
24	5.0 MI NW - S-13-711 PAST PEACH FARM	1.20 ± 0.10 E+00
25	4.6 MI NNW - RD S-13-346 OFF 151 NORTH	1.00 ± 0.10 E+00
26	5.0 MI N - RD S-13-346	1.20 ± 0.10 E+00
28	4.8 MI NE - NEAR DUMPSTER RD S-13-39	1.20 ± 0.10 E+00
29	RD S-16-20 SOUTH OF LOOKOUT TOWER	1.20 ± 0.10 E+00
30	4.6 MI E - RD S-16-20 JOHNSON FENCE CO	9.00 ± 1.00 E-01
31	4.6 MI ESE - LAKESHORE DRIVE	1.10 ± 0.10 E+00
32	4.5 MI SE - END OF KALBER DRIVE	1.00 ± 0.10 E+00
33	4.6 MI SSE-RD S16-493 NEAR SEGAR'S ENTR	1.10 ± 0.10 E+00
34	4.6 MI S - RD S-16-772	8.00 ± 1.00 E-01
35	4.4 MI SSW - INT RD S-31-51 & S-16-12	1.80 ± 0.10 E+00
36	4.7 MI SW - PAVED RD OFF RD S-16-85	1.40 ± 0.10 E+00
37	5.0 MI WSW - TRANS TOWER NEAR CLAY RD	1.30 ± 0.10 E+00
38	4.9 MI W - RD S-16-231 AT UNION CHURCH	1.10 ± 0.10 E+00
39	5.0 MI WNW - POWER POLE IN FIELD	1.10 ± 0.10 E+00
55	0.3 MI SSE - SITE BOUNDARY	1.00 ± 0.10 E+00
56	300 FT N OF ISFSI	9.00 ± 1.00 E-01

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

26 MI ESE - FLORENCE - CONTROL (AC-1)

DATE COLLECTED	CUBIC METERS	CONTROL ACTIVITY
07/02/90	943.1	(< 1.06E-02)
07/09/90	949.7	(< 1.40E-02)
07/16/90	907.6	(< 1.52E-02)
07/23/90	959.6	(< 1.06E-02)
07/30/90	928.3	(< 1.17E-02)
08/06/90	940.9	(< 1.05E-02)
08/12/90	790.8	(< 1.30E-02)
08/20/90	1140.7	(< 7.99E-03)
08/27/90	976.6	(< 1.26E-02)
09/03/90	467.2	(< 2.76E-02)
09/10/90	947.6	(< 9.44E-03)
09/16/90	833.9	(< 1.27E-02)
09/23/90	907.0	(< 1.08E-02)
09/30/90	849.6	(< 1.25E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

0.2 MI S - INFORMATION CENTER (AC-2)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
07/02/90	927.4	< 6.40E-03	(< 1.06E-02)
07/09/90	929.7	< 1.06E-02	(< 1.40E-02)
07/16/90	923.8	< 1.30E-02	(< 1.52E-02)
07/23/90	928.5	< 8.13E-03	(< 1.06E-02)
07/30/90	926.2	< 1.33E-02	(< 1.17E-02)
08/06/90	856.9	< 1.14E-02	(< 1.05E-02)
08/12/90	818.4	< 1.11E-02	(< 1.30E-02)
08/20/90	1044.8	< 1.18E-02	(< 7.99E-03)
08/27/90	933.0	< 8.22E-03	(< 1.26E-02)
09/03/90	939.1	< 9.57E-03	(< 2.76E-02)
09/10/90	859.3	< 1.13E-02	(< 9.44E-03)
09/16/90	743.7	< 1.31E-02	(< 1.27E-02)
09/23/90	809.8	< 1.60E-02	(< 1.08E-02)
09/30/90	889.4	< 6.46E-03	(< 1.25E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

0.7 MI N - MICROWAVE TOWER (AC-3)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
07/02/90	925.7	< 1.12E-02	(< 1.06E-02)
07/09/90	917.3	< 9.03E-03	(< 1.40E-02)
07/16/90	929.5	< 1.11E-02	(< 1.52E-02)
07/23/90	875.3	< 1.33E-02	(< 1.06E-02)
07/30/90	881.9	< 1.21E-02	(< 1.17E-02)
08/06/90	843.1	< 1.57E-02	(< 1.05E-02)
08/12/90	787.9	< 1.14E-02	(< 1.30E-02)
08/20/90	1010.5	< 8.91E-03	(< 7.99E-03)
08/27/90	904.6	< 1.09E-02	(< 1.26E-02)
09/03/90	914.5	< 1.07E-02	(< 2.76E-02)
09/10/90	837.8	< 1.05E-02	(< 9.44E-03)
09/16/90	748.0	< 1.06E-02	(< 1.27E-02)
09/23/90	876.6	< 7.77E-03	(< 1.08E-02)
09/30/90	845.8	< 1.07E-02	(< 1.25E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

0.4 MI ESE - SPILLWAY (AC-4)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
07/02/90	898.5	< 5.05E-03	(< 1.06E-02)
07/09/90	728.6	< 6.75E-03	(< 1.40E-02)
07/16/90	734.5	< 1.25E-02	(< 1.52E-02)
07/23/90	745.9	< 1.20E-02	(< 1.06E-02)
07/30/90	740.5	< 1.31E-02	(< 1.17E-02)
08/06/90	732.0	< 1.37E-02	(< 1.05E-02)
08/12/90	663.5	< 1.47E-02	(< 1.30E-02)
08/20/90	830.4	< 1.46E-02	(< 7.99E-03)
08/27/90	753.0	< 8.42E-03	(< 1.26E-02)
09/03/90	758.4	< 1.46E-02	(< 2.76E-02)
09/10/90	729.1	< 1.39E-02	(< 9.44E-03)
09/16/90	633.6	< 2.10E-02	(< 1.27E-02)
09/23/90	741.6	< 1.49E-02	(< 1.08E-02)
09/30/90	731.8	< 1.62E-02	(< 1.25E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

0.9 MI ENE - JOHNSON'S LANDING (AC-5)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
07/02/90	869.6	< 1.17E-02	(< 1.06E-02)
07/09/90	846.9	< 9.91E-03	(< 1.40E-02)
07/16/90	831.0	< 1.26E-02	(< 1.52E-02)
07/23/90	839.5	< 1.18E-02	(< 1.06E-02)
07/30/90	843.9	< 1.39E-02	(< 1.17E-02)
08/06/90	828.6	< 1.21E-02	(< 1.05E-02)
08/12/90	746.7	< 1.58E-02	(< 1.30E-02)
08/20/90	932.8	< 7.41E-03	(< 7.99E-03)
08/27/90	840.7	< 1.42E-02	(< 1.26E-02)
09/03/90	828.7	< 1.38E-02	(< 2.76E-02)
09/10/90	844.4	< 1.24E-02	(< 9.44E-03)
09/16/90	718.1	< 1.60E-02	(< 1.27E-02)
09/23/90	854.6	< 1.40E-02	(< 1.08E-02)
09/30/90	828.5	< 1.55E-02	(< 1.25E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

0.3 MI SW - INFORMATION CENTER (AC-6)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
07/02/90	896.5	< 9.87E-03	(< 1.06E-02)
07/09/90	937.5	< 8.86E-03	(< 1.40E-02)
07/16/90	942.4	< 8.49E-03	(< 1.52E-02)
07/23/90	951.1	< 9.42E-03	(< 1.06E-02)
07/30/90	950.4	< 5.04E-03	(< 1.17E-02)
08/06/90	903.6	< 1.25E-02	(< 1.05E-02)
08/12/90	845.8	< 1.14E-02	(< 1.30E-02)
08/20/90	1057.2	< 7.92E-03	(< 7.99E-03)
08/27/90	960.3	< 6.52E-03	(< 1.26E-02)
09/03/90	911.8	< 1.16E-02	(< 2.76E-02)
09/10/90	863.3	< 8.88E-03	(< 9.44E-03)
09/16/90	763.4	< 9.01E-03	(< 1.27E-02)
09/23/90	913.0	< 9.15E-03	(< 1.08E-02)
09/30/90	854.1	< 1.15E-02	(< 1.25E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

6.3 MI ESE - HARTSVILLE CP&L SUBSTATION (AC-7)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
07/02/90	887.2	< 1.52E-02	(< 1.06E-02)
07/09/90	901.1	< 7.52E-03	(< 1.40E-02)
07/16/90	879.5	< 8.29E-03	(< 1.52E-02)
07/23/90	883.9	< 9.24E-03	(< 1.06E-02)
07/30/90	877.7	< 1.24E-02	(< 1.17E-02)
08/06/90	859.9	< 1.41E-02	(< 1.05E-02)
08/12/90	753.7	< 1.12E-02	(< 1.30E-02)
08/20/90	1020.6	< 7.48E-03	(< 7.99E-03)
08/27/90	882.2	< 5.16E-03	(< 1.26E-02)
09/03/90	865.0	< 9.65E-03	(< 2.76E-02)
09/10/90	882.3	< 1.00E-02	(< 9.44E-03)
09/16/90	761.0	< 1.06E-02	(< 1.27E-02)
09/23/90	870.0	< 1.24E-02	(< 1.08E-02)
09/30/90	862.3	< 1.31E-02	(< 1.25E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

0.3 MI SSE - SITE BOUNDARY (AC-55)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
07/02/90	667.5	< 1.36E-02	(< 1.06E-02)
07/09/90	652.8	< 1.85E-02	(< 1.40E-02)
07/16/90	642.8	< 1.88E-02	(< 1.52E-02)
07/23/90	657.6	< 1.18E-02	(< 1.06E-02)
07/30/90	652.8	< 1.51E-02	(< 1.17E-02)
08/06/90	650.0	< 1.26E-02	(< 1.05E-02)
08/12/90	576.7	< 2.05E-02	(< 1.30E-02)
08/20/90	725.1	< 6.85E-03	(< 7.99E-03)
08/27/90	647.8	< 1.62E-02	(< 1.26E-02)
09/03/90	663.4	< 1.29E-02	(< 2.76E-02)
09/10/90	636.1	< 1.01E-02	(< 9.44E-03)
09/16/90	550.8	< 2.50E-02	(< 1.27E-02)
09/23/90	643.7	< 1.09E-02	(< 1.08E-02)
09/30/90	627.7	< 2.25E-02	(< 1.25E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

26 MI ESE - FLORENCE - CONTROL (AC-1)

DATE COLLECTED	CUBIC METERS	CONTROL ACTIVITY
10/07/90	885.6	(< 1.34E-02)
10/14/90	956.4	(< 9.80E-03)
10/21/90	909.3	(< 1.07E-02)
10/28/90	777.3	(< 1.26E-02)
11/04/90	697.7	(< 1.39E-02)
11/11/90	943.9	(< 8.93E-03)
11/18/90	777.8	(< 1.07E-02)
11/25/90	743.6	(< 8.00E-03)
12/02/90	820.2	(< 1.43E-02)
12/09/90	797.4	(< 1.22E-02)
12/16/90	771.8	(< 1.25E-02)
12/23/90	902.2	(< 9.25E-03)
12/30/90	881.4	(< 1.05E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

0.2 MI S - INFORMATION CENTER (AC-2)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
10/07/90	807.7	< 1.46E-02	(< 1.34E-02)
10/14/90	921.0	< 9.54E-03	(< 9.80E-03)
10/21/90	932.2	< 9.74E-03	(< 1.07E-02)
10/28/90	847.0	< 1.56E-02	(< 1.26E-02)
11/04/90	849.3	< 1.31E-02	(< 1.39E-02)
11/11/90	848.7	< 1.08E-02	(< 8.93E-03)
11/18/90	804.9	< 1.11E-02	(< 1.07E-02)
11/25/90	703.6	< 1.40E-02	(< 8.00E-03)
12/02/90	769.9	< 1.37E-02	(< 1.43E-02)
12/09/90	759.5	< 1.30E-02	(< 1.22E-02)
12/16/90	707.7	< 1.38E-02	(< 1.25E-02)
12/23/90	828.9	< 1.29E-02	(< 9.25E-03)
12/30/90	815.7	< 1.65E-02	(< 1.05E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

0.7 MI N - MICROWAVE TOWER (AC-3)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
10/07/90	855.3	< 1.32E-02	(< 1.34E-02)
10/14/90	899.0	< 8.92E-03	(< 9.80E-03)
10/21/90	912.4	< 7.41E-03	(< 1.07E-02)
10/28/90	895.9	< 1.43E-02	(< 1.26E-02)
11/04/90	834.1	< 9.95E-03	(< 1.39E-02)
11/11/90	636.6	< 1.60E-02	(< 8.93E-03)
11/18/90	935.8	< 7.36E-03	(< 1.07E-02)
11/25/90	814.9	< 1.44E-02	(< 8.00E-03)
12/02/90	853.4	< 1.71E-02	(< 1.43E-02)
12/09/90	502.9	< 1.51E-02	(< 1.22E-02)
12/23/90	442.7	< 2.20E-02	(< 9.25E-03)
12/30/90	756.4	< 1.85E-02	(< 1.05E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

0.4 MI ESE - SPILLWAY (AC-4)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
10/07/90	724.9	< 1.42E-02	(< 1.34E-02)
10/14/90	724.9	< 1.44E-02	(< 9.80E-03)
10/21/90	740.9	< 9.39E-03	(< 1.07E-02)
10/28/90	660.1	< 1.36E-02	(< 1.26E-02)
11/04/90	632.5	< 1.42E-02	(< 1.39E-02)
11/11/90	694.2	< 1.23E-02	(< 8.93E-03)
11/18/90	650.5	< 1.98E-02	(< 1.07E-02)
11/25/90	734.6	< 6.70E-03	(< 8.00E-03)
12/02/90	743.0	< 1.76E-02	(< 1.43E-02)
12/09/90	721.7	< 6.84E-03	(< 1.22E-02)
12/16/90	721.9	< 1.40E-02	(< 1.25E-02)
12/23/90	697.7	< 7.70E-03	(< 9.25E-03)
12/30/90	714.6	< 1.37E-02	(< 1.05E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

0.9 MI ENE - JOHNSON'S LANDING (AC-5)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
10/07/90	841.0	< 1.33E-02	(< 1.34E-02)
10/14/90	845.4	< 1.30E-02	(< 9.80E-03)
10/21/90	830.5	< 1.01E-02	(< 1.07E-02)
10/28/90	862.8	< 9.51E-03	(< 1.26E-02)
11/04/90	847.7	< 1.15E-02	(< 1.39E-02)
11/11/90	835.1	< 1.37E-02	(< 8.93E-03)
11/18/90	884.7	< 1.38E-02	(< 1.07E-02)
11/25/90	777.8	< 1.40E-02	(< 8.00E-03)
12/02/90	798.3	< 7.95E-03	(< 1.43E-02)
12/09/90	777.2	< 1.72E-02	(< 1.22E-02)
12/16/90	782.7	< 1.54E-02	(< 1.25E-02)
12/23/90	793.1	< 1.42E-02	(< 9.25E-03)
12/30/90	771.1	< 1.28E-02	(< 1.05E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

0.3 MI SW - INFORMATION CENTER (AC-6)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
10/07/90	816.1	< 1.56E-02	(< 1.34E-02)
10/14/90	815.1	< 7.63E-03	(< 9.80E-03)
10/21/90	891.0	< 1.18E-02	(< 1.07E-02)
10/28/90	961.8	< 1.21E-02	(< 1.26E-02)
11/04/90	963.7	< 1.28E-02	(< 1.39E-02)
11/11/90	834.3	< 1.18E-02	(< 8.93E-03)
11/18/90	924.3	< 1.08E-02	(< 1.07E-02)
11/25/90	807.9	< 1.53E-02	(< 8.00E-03)
12/02/90	805.8	< 1.22E-02	(< 1.43E-02)
12/09/90	853.5	< 1.16E-02	(< 1.22E-02)
12/16/90	794.5	< 8.76E-03	(< 1.25E-02)
12/23/90	930.0	< 1.45E-02	(< 9.25E-03)
12/30/90	920.6	< 1.32E-02	(< 1.05E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

6.3 MI ESE - HARTSVILLE CP&L SUBSTATION (AC-7)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
10/07/90	857.7	< 1.33E-02	(< 1.34E-02)
10/14/90	864.0	< 1.14E-02	(< 9.80E-03)
10/21/90	856.1	< 9.69E-03	(< 1.07E-02)
10/28/90	965.1	< 1.15E-02	(< 1.26E-02)
11/04/90	804.8	< 1.03E-02	(< 1.39E-02)
11/11/90	837.9	< 1.41E-02	(< 8.93E-03)
11/18/90	887.3	< 1.03E-02	(< 1.07E-02)
11/25/90	712.7	< 1.06E-02	(< 8.00E-03)
12/02/90	842.5	< 1.07E-02	(< 1.43E-02)
12/09/90	867.3	< 1.30E-02	(< 1.22E-02)
12/16/90	771.9	< 1.33E-02	(< 1.25E-02)
12/23/90	848.4	< 1.07E-02	(< 9.25E-03)
12/30/90	825.5	< 1.55E-02	(< 1.05E-02)

AIR CARTRIDGE SAMPLES - IODINE
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

0.3 MI SSE - SITE BOUNDARY (AC-55)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
10/07/90	633.1	< 2.12E-02	(< 1.34E-02)
10/14/90	629.7	< 7.44E-03	(< 9.80E-03)
10/21/90	630.8	< 1.10E-02	(< 1.07E-02)
10/28/90	671.7	< 1.66E-02	(< 1.26E-02)
11/04/90	705.6	< 1.09E-02	(< 1.39E-02)
11/11/90	703.3	< 7.04E-03	(< 8.93E-03)
11/18/90	677.7	< 1.42E-02	(< 1.07E-02)
11/25/90	684.4	< 1.22E-02	(< 8.00E-03)
12/02/90	703.8	< 7.58E-03	(< 1.43E-02)
12/09/90	691.0	< 1.75E-02	(< 1.22E-02)
12/16/90	687.0	< 1.62E-02	(< 1.25E-02)
12/23/90	707.4	< 1.52E-02	(< 9.25E-03)
12/30/90	695.9	< 7.72E-03	(< 1.05E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

26 MI ESE - FLORENCE - CONTROL (AP-1)

DATE COLLECTED	CUBIC METERS	CONTROL ACTIVITY
07/02/90	943.1	(1.71 ± 0.14 E-02)
07/09/90	949.7	(1.75 ± 0.14 E-02)
07/16/90	907.6	(1.23 ± 0.13 E-02)
07/23/90	959.6	(9.65 ± 1.14 E-03)
07/30/90	928.3	(1.66 ± 0.14 E-02)
08/06/90	940.9	(1.76 ± 0.14 E-02)
08/12/90	790.8	(1.21 ± 0.14 E-02)
08/20/90	1140.7	(1.66 ± 0.13 E-02)
08/27/90	976.6	(1.21 ± 0.12 E-02)
09/03/90	467.2	(1.96 ± 0.24 E-02)
09/10/90	947.6	(2.75 ± 0.17 E-02)
09/16/90	833.9	(2.03 ± 0.17 E-02)
09/23/90	907.0	(1.79 ± 0.15 E-02)
09/30/90	849.6	(1.96 ± 0.16 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

0.2 MI S - INFORMATION CENTER (AP-2)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
07/02/90	927.4	1.40 ± 0.13 E-02	(1.71 ± 0.14 E-02)
07/09/90	929.7	1.80 ± 0.15 E-02	(1.75 ± 0.14 E-02)
07/16/90	923.8	1.22 ± 0.13 E-02	(1.23 ± 0.13 E-02)
07/23/90	928.5	1.14 ± 0.12 E-02	(9.65 ± 1.14 E-03)
07/30/90	926.2	1.50 ± 0.13 E-02	(1.66 ± 0.14 E-02)
08/06/90	856.9	2.13 ± 0.16 E-02	(1.76 ± 0.14 E-02)
08/12/90	818.4	1.29 ± 0.14 E-02	(1.21 ± 0.14 E-02)
08/20/90	1044.8	1.58 ± 0.13 E-02	(1.66 ± 0.13 E-02)
08/27/90	933.0	1.45 ± 0.13 E-02	(1.21 ± 0.12 E-02)
09/03/90	939.1	2.17 ± 0.16 E-02	(1.96 ± 0.24 E-02)
09/10/90	859.3	2.90 ± 0.19 E-02	(2.75 ± 0.17 E-02)
09/16/90	743.7	2.43 ± 0.19 E-02	(2.03 ± 0.17 E-02)
09/23/90	809.8	2.20 ± 0.18 E-02	(1.79 ± 0.15 E-02)
09/30/90	889.4	2.77 ± 0.18 E-02	(1.96 ± 0.16 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

0.7 MI N - MICROWAVE TOWER (AP-3)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
07/02/90	925.7	1.37 ± 0.13 E-02	(1.71 ± 0.14 E-02)
07/09/90	917.3	1.73 ± 0.15 E-02	(1.75 ± 0.14 E-02)
07/16/90	929.5	1.21 ± 0.13 E-02	(1.23 ± 0.13 E-02)
07/23/90	875.3	1.25 ± 0.13 E-02	(9.65 ± 1.14 E-03)
07/30/90	881.9	1.49 ± 0.14 E-02	(1.66 ± 0.14 E-02)
08/06/90	843.1	2.02 ± 0.16 E-02	(1.76 ± 0.14 E-02)
08/12/90	787.9	1.41 ± 0.15 E-02	(1.21 ± 0.14 E-02)
08/20/90	1010.5	1.60 ± 0.13 E-02	(1.66 ± 0.13 E-02)
08/27/90	904.6	1.34 ± 0.13 E-02	(1.21 ± 0.12 E-02)
09/03/90	914.5	2.38 ± 0.17 E-02	(1.96 ± 0.24 E-02)
09/10/90	837.8	2.88 ± 0.19 E-02	(2.75 ± 0.17 E-02)
09/16/90	748.0	2.54 ± 0.19 E-02	(2.03 ± 0.17 E-02)
09/23/90	876.6	1.91 ± 0.16 E-02	(1.79 ± 0.15 E-02)
09/30/90	845.8	2.74 ± 0.19 E-02	(1.96 ± 0.16 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

0.4 MI ESE - SPILLWAY (AP-4)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
07/02/90	898.5	1.67 ± 0.14 E-02	(1.71 ± 0.14 E-02)
07/09/90	728.6	1.94 ± 0.17 E-02	(1.75 ± 0.14 E-02)
07/16/90	734.5	1.85 ± 0.17 E-02	(1.23 ± 0.13 E-02)
07/23/90	745.9	1.50 ± 0.16 E-02	(9.65 ± 1.14 E-03)
07/30/90	740.5	2.12 ± 0.18 E-02	(1.66 ± 0.14 E-02)
08/06/90	732.0	2.41 ± 0.19 E-02	(1.76 ± 0.14 E-02)
08/12/90	663.5	1.60 ± 0.17 E-02	(1.21 ± 0.14 E-02)
08/20/90	830.4	2.25 ± 0.17 E-02	(1.66 ± 0.13 E-02)
08/27/90	753.0	1.84 ± 0.16 E-02	(1.21 ± 0.12 E-02)
09/03/90	758.4	2.87 ± 0.20 E-02	(1.96 ± 0.24 E-02)
09/10/90	729.1	3.67 ± 0.23 E-02	(2.75 ± 0.17 E-02)
09/16/90	633.6	2.64 ± 0.22 E-02	(2.03 ± 0.17 E-02)
09/23/90	741.6	2.11 ± 0.18 E-02	(1.79 ± 0.15 E-02)
09/30/90	731.8	4.29 ± 0.24 E-02	(1.96 ± 0.16 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

0.9 MI ENE - JOHNSON'S LANDING (AP-5)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
07/02/90	869.6	2.36 ± 0.17 E-02	(1.71 ± 0.14 E-02)
07/09/90	846.9	2.60 ± 0.18 E-02	(1.75 ± 0.14 E-02)
07/16/90	831.0	2.12 ± 0.17 E-02	(1.23 ± 0.13 E-02)
07/23/90	839.5	2.16 ± 0.17 E-02	(9.65 ± 1.14 E-03)
07/30/90	843.9	2.35 ± 0.17 E-02	(1.66 ± 0.14 E-02)
08/06/90	828.6	2.94 ± 0.19 E-02	(1.76 ± 0.14 E-02)
08/12/90	746.7	2.54 ± 0.19 E-02	(1.21 ± 0.14 E-02)
08/20/90	932.8	2.61 ± 0.17 E-02	(1.66 ± 0.13 E-02)
08/27/90	840.7	2.42 ± 0.17 E-02	(1.21 ± 0.12 E-02)
09/03/90	828.7	3.58 ± 0.21 E-02	(1.96 ± 0.24 E-02)
09/10/90	844.4	4.26 ± 0.23 E-02	(2.75 ± 0.17 E-02)
09/16/90	718.1	3.57 ± 0.23 E-02	(2.03 ± 0.17 E-02)
09/23/90	854.6	2.73 ± 0.19 E-02	(1.79 ± 0.15 E-02)
09/30/90	828.5	2.96 ± 0.19 E-02	(1.96 ± 0.16 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

0.3 MI SW - INFORMATION CENTER (AP-6)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
07/02/90	896.5	1.51 ± 0.14 E-02	(1.71 ± 0.14 E-02)
07/09/90	937.5	1.79 ± 0.15 E-02	(1.75 ± 0.14 E-02)
07/16/90	942.4	1.47 ± 0.13 E-02	(1.23 ± 0.13 E-02)
07/23/90	951.1	1.18 ± 0.12 E-02	(9.65 ± 1.14 E-03)
07/30/90	950.4	1.63 ± 0.14 E-02	(1.66 ± 0.14 E-02)
08/06/90	903.6	1.92 ± 0.15 E-02	(1.76 ± 0.14 E-02)
08/12/90	845.8	1.49 ± 0.14 E-02	(1.21 ± 0.14 E-02)
08/20/90	1057.2	1.70 ± 0.13 E-02	(1.66 ± 0.13 E-02)
08/27/90	960.3	1.52 ± 0.13 E-02	(1.21 ± 0.12 E-02)
09/03/90	911.8	2.54 ± 0.17 E-02	(1.96 ± 0.24 E-02)
09/10/90	863.3	3.04 ± 0.19 E-02	(2.75 ± 0.17 E-02)
09/16/90	763.4	2.46 ± 0.19 E-02	(2.03 ± 0.17 E-02)
09/23/90	913.0	1.94 ± 0.16 E-02	(1.79 ± 0.15 E-02)
09/30/90	854.1	2.74 ± 0.18 E-02	(1.96 ± 0.16 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

6.3 MI ESE - HARTSVILLE CP&L SUBSTATION (AP-7)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
07/02/90	887.2	1.83 ± 0.15 E-02	(1.71 ± 0.14 E-02)
07/09/90	901.1	1.71 ± 0.15 E-02	(1.75 ± 0.14 E-02)
07/16/90	879.5	1.42 ± 0.14 E-02	(1.23 ± 0.13 E-02)
07/23/90	883.9	1.25 ± 0.13 E-02	(9.65 ± 1.14 E-03)
07/30/90	877.7	1.75 ± 0.15 E-02	(1.66 ± 0.14 E-02)
08/06/90	859.9	2.22 ± 0.17 E-02	(1.76 ± 0.14 E-02)
08/12/90	753.7	1.35 ± 0.15 E-02	(1.21 ± 0.14 E-02)
08/20/90	1020.6	1.92 ± 0.14 E-02	(1.66 ± 0.13 E-02)
08/27/90	882.2	1.56 ± 0.14 E-02	(1.21 ± 0.12 E-02)
09/03/90	865.0	2.74 ± 0.18 E-02	(1.96 ± 0.24 E-02)
09/10/90	882.3	2.98 ± 0.19 E-02	(2.75 ± 0.17 E-02)
09/16/90	761.0	2.56 ± 0.19 E-02	(2.03 ± 0.17 E-02)
09/23/90	870.0	2.00 ± 0.16 E-02	(1.79 ± 0.15 E-02)
09/30/90	862.3	2.74 ± 0.18 E-02	(1.96 ± 0.16 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

0.3 MI SSE - SITE BOUNDARY (AP-55)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
07/02/90	667.5	1.16 ± 0.15 E-02	(1.71 ± 0.14 E-02)
07/09/90	652.8	1.67 ± 0.18 E-02	(1.75 ± 0.14 E-02)
07/16/90	642.8	1.47 ± 0.17 E-02	(1.23 ± 0.13 E-02)
07/23/90	657.6	1.08 ± 0.15 E-02	(9.65 ± 1.14 E-03)
07/30/90	652.8	1.50 ± 0.17 E-02	(1.66 ± 0.14 E-02)
08/06/90	650.0	1.94 ± 0.18 E-02	(1.76 ± 0.14 E-02)
08/12/90	576.7	1.53 ± 0.18 E-02	(1.21 ± 0.14 E-02)
08/20/90	725.1	1.93 ± 0.17 E-02	(1.66 ± 0.13 E-02)
08/27/90	647.8	1.35 ± 0.16 E-02	(1.21 ± 0.12 E-02)
09/03/90	663.4	2.44 ± 0.20 E-02	(1.96 ± 0.24 E-02)
09/10/90	636.1	2.73 ± 0.22 E-02	(2.75 ± 0.17 E-02)
09/16/90	550.8	2.37 ± 0.23 E-02	(2.03 ± 0.17 E-02)
09/23/90	643.7	1.75 ± 0.19 E-02	(1.79 ± 0.15 E-02)
09/30/90	627.7	2.93 ± 0.23 E-02	(1.96 ± 0.16 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

26 MI ESE - FLORENCE - CONTROL (AP-1)

DATE COLLECTED	CUBIC METERS	CONTROL ACTIVITY
10/07/90	885.6	(2.50 ± 0.17 E-02)
10/14/90	956.4	(1.04 ± 0.11 E-02)
10/21/90	909.3	(2.20 ± 0.16 E-02)
10/28/90	777.3	(1.33 ± 0.14 E-02)
11/04/90	697.7	(2.59 ± 0.20 E-02)
11/11/90	943.9	(1.24 ± 0.13 E-02)
11/18/90	777.8	(2.42 ± 0.18 E-02)
11/25/90	743.6	(1.85 ± 0.17 E-02)
12/02/90	820.2	(1.74 ± 0.15 E-02)
12/09/90	797.4	(1.64 ± 0.15 E-02)
12/16/90	771.8	(2.11 ± 0.17 E-02)
12/23/90	902.2	(1.83 ± 0.15 E-02)
12/30/90	881.4	(1.86 ± 0.16 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

0.2 MI S - INFORMATION CENTER (AP-2)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
10/07/90	807.7	2.97 ± 0.20 E-02	(2.50 ± 0.17 E-02)
10/14/90	921.0	1.04 ± 0.12 E-02	(1.04 ± 0.11 E-02)
10/21/90	932.2	1.91 ± 0.15 E-02	(2.20 ± 0.16 E-02)
10/28/90	847.0	1.34 ± 0.14 E-02	(1.33 ± 0.14 E-02)
11/04/90	849.3	2.44 ± 0.18 E-02	(2.59 ± 0.20 E-02)
11/11/90	848.7	1.66 ± 0.15 E-02	(1.24 ± 0.13 E-02)
11/18/90	804.9	2.65 ± 0.19 E-02	(2.42 ± 0.18 E-02)
11/25/90	703.6	2.88 ± 0.21 E-02	(1.85 ± 0.17 E-02)
12/02/90	769.9	2.01 ± 0.17 E-02	(1.74 ± 0.15 E-02)
12/09/90	759.5	1.83 ± 0.17 E-02	(1.64 ± 0.15 E-02)
12/16/90	707.7	2.48 ± 0.20 E-02	(2.11 ± 0.17 E-02)
12/23/90	828.9	1.72 ± 0.16 E-02	(1.83 ± 0.15 E-02)
12/30/90	815.7	1.98 ± 0.17 E-02	(1.86 ± 0.16 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

0.7 MI N - MICROWAVE TOWER (AP-3)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
10/07/90	855.3	3.17 ± 0.20 E-02	(2.50 ± 0.17 E-02)
10/14/90	899.0	1.01 ± 0.12 E-02	(1.04 ± 0.11 E-02)
10/21/90	912.4	1.83 ± 0.15 E-02	(2.20 ± 0.16 E-02)
10/28/90	895.9	1.23 ± 0.13 E-02	(1.33 ± 0.14 E-02)
11/04/90	834.1	2.53 ± 0.18 E-02	(2.59 ± 0.20 E-02)
11/11/90	636.6	2.31 ± 0.20 E-02	(1.24 ± 0.13 E-02)
11/18/90	935.8	2.37 ± 0.16 E-02	(2.42 ± 0.18 E-02)
11/25/90	814.9	2.45 ± 0.18 E-02	(1.85 ± 0.17 E-02)
12/02/90	853.4	1.88 ± 0.16 E-02	(1.74 ± 0.15 E-02)
12/09/90	502.9	1.65 ± 0.21 E-02	(1.64 ± 0.15 E-02)
12/23/90	442.7	1.33 ± 0.21 E-02	(1.83 ± 0.15 E-02)
12/30/90	756.4	1.96 ± 0.18 E-02	(1.86 ± 0.16 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

0.4 MI ESE - SPILLWAY (AP-4)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
10/07/90	724.9	3.17 ± 0.21 E-02	(2.50 ± 0.17 E-02)
10/14/90	724.9	1.18 ± 0.14 E-02	(1.04 ± 0.11 E-02)
10/21/90	740.9	2.47 ± 0.19 E-02	(2.20 ± 0.16 E-02)
10/28/90	660.1	1.83 ± 0.18 E-02	(1.33 ± 0.14 E-02)
11/04/90	632.5	3.60 ± 0.25 E-02	(2.59 ± 0.20 E-02)
11/11/90	694.2	2.01 ± 0.18 E-02	(1.24 ± 0.13 E-02)
11/18/90	650.5	3.70 ± 0.24 E-02	(2.42 ± 0.18 E-02)
11/25/90	734.6	2.33 ± 0.19 E-02	(1.85 ± 0.17 E-02)
12/02/90	743.0	2.27 ± 0.18 E-02	(1.74 ± 0.15 E-02)
12/09/90	721.7	2.01 ± 0.18 E-02	(1.64 ± 0.15 E-02)
12/16/90	721.9	2.76 ± 0.20 E-02	(2.11 ± 0.17 E-02)
12/23/90	697.7	2.09 ± 0.19 E-02	(1.83 ± 0.15 E-02)
12/30/90	714.6	2.18 ± 0.19 E-02	(1.86 ± 0.16 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

0.9 MI ENE - JOHNSON'S LANDING (AP-5)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
10/07/90	841.0	3.63 ± 0.21 E-02	(2.50 ± 0.17 E-02)
10/14/90	845.4	1.90 ± 0.16 E-02	(1.04 ± 0.11 E-02)
10/21/90	830.5	2.92 ± 0.19 E-02	(2.20 ± 0.16 E-02)
10/28/90	862.8	2.32 ± 0.17 E-02	(1.33 ± 0.14 E-02)
11/04/90	847.7	3.66 ± 0.21 E-02	(2.59 ± 0.20 E-02)
11/11/90	835.1	2.79 ± 0.19 E-02	(1.24 ± 0.13 E-02)
11/18/90	884.7	3.24 ± 0.19 E-02	(2.42 ± 0.18 E-02)
11/25/90	777.8	3.67 ± 0.22 E-02	(1.85 ± 0.17 E-02)
12/02/90	798.3	2.98 ± 0.20 E-02	(1.74 ± 0.15 E-02)
12/09/90	777.2	2.82 ± 0.20 E-02	(1.64 ± 0.15 E-02)
12/16/90	782.7	2.61 ± 0.19 E-02	(2.11 ± 0.17 E-02)
12/23/90	793.1	2.80 ± 0.19 E-02	(1.83 ± 0.15 E-02)
12/30/90	771.1	2.68 ± 0.20 E-02	(1.86 ± 0.16 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

0.3 MI SW - INFORMATION CENTER (AP-6)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
10/07/90	816.1	3.15 ± 0.20 E-02	(2.50 ± 0.17 E-02)
10/14/90	815.1	1.33 ± 0.14 E-02	(1.04 ± 0.11 E-02)
10/21/90	891.0	2.40 ± 0.17 E-02	(2.20 ± 0.16 E-02)
10/28/90	961.8	1.39 ± 0.13 E-02	(1.33 ± 0.14 E-02)
11/04/90	963.7	2.36 ± 0.16 E-02	(2.59 ± 0.20 E-02)
11/11/90	834.3	2.12 ± 0.17 E-02	(1.24 ± 0.13 E-02)
11/18/90	924.3	2.50 ± 0.17 E-02	(2.42 ± 0.18 E-02)
11/25/90	807.9	2.61 ± 0.19 E-02	(1.85 ± 0.17 E-02)
12/02/90	805.8	2.29 ± 0.17 E-02	(1.74 ± 0.15 E-02)
12/09/90	853.5	1.90 ± 0.16 E-02	(1.64 ± 0.15 E-02)
12/16/90	794.5	3.17 ± 0.20 E-02	(2.11 ± 0.17 E-02)
12/23/90	930.0	1.73 ± 0.15 E-02	(1.83 ± 0.15 E-02)
12/30/90	920.6	1.75 ± 0.15 E-02	(1.86 ± 0.16 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

6.3 MI ESE - HARTSVILLE CP&L SUBSTATION (AP-7)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
10/07/90	857.7	3.04 ± 0.19 E-02	(2.50 ± 0.17 E-02)
10/14/90	864.0	1.15 ± 0.13 E-02	(1.04 ± 0.11 E-02)
10/21/90	856.1	2.40 ± 0.17 E-02	(2.20 ± 0.16 E-02)
10/28/90	965.1	1.36 ± 0.13 E-02	(1.33 ± 0.14 E-02)
11/04/90	804.8	2.82 ± 0.19 E-02	(2.59 ± 0.20 E-02)
11/11/90	837.9	2.10 ± 0.17 E-02	(1.24 ± 0.13 E-02)
11/18/90	887.3	2.43 ± 0.17 E-02	(2.42 ± 0.18 E-02)
11/25/90	712.7	2.48 ± 0.20 E-02	(1.85 ± 0.17 E-02)
12/02/90	842.5	2.05 ± 0.16 E-02	(1.74 ± 0.15 E-02)
12/09/90	867.3	1.35 ± 0.14 E-02	(1.64 ± 0.15 E-02)
12/16/90	771.9	2.17 ± 0.18 E-02	(2.11 ± 0.17 E-02)
12/23/90	848.4	1.81 ± 0.16 E-02	(1.83 ± 0.15 E-02)
12/30/90	825.5	1.97 ± 0.17 E-02	(1.86 ± 0.16 E-02)

AIR PARTICULATE SAMPLES - BETA
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

0.3 MI SSE - SITE BOUNDARY (AP-55)

DATE COLLECTED	CUBIC METERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
10/07/90	633.1	2.90 ± 0.22 E-02	(2.50 ± 0.17 E-02)
10/14/90	629.7	1.15 ± 0.16 E-02	(1.04 ± 0.11 E-02)
10/21/90	630.8	2.24 ± 0.20 E-02	(2.20 ± 0.16 E-02)
10/28/90	671.7	1.24 ± 0.15 E-02	(1.33 ± 0.14 E-02)
11/04/90	705.6	2.60 ± 0.20 E-02	(2.59 ± 0.20 E-02)
11/11/90	703.3	1.63 ± 0.17 E-02	(1.24 ± 0.13 E-02)
11/18/90	677.7	2.56 ± 0.20 E-02	(2.42 ± 0.18 E-02)
11/25/90	684.4	2.25 ± 0.19 E-02	(1.85 ± 0.17 E-02)
12/02/90	703.8	1.92 ± 0.18 E-02	(1.74 ± 0.15 E-02)
12/09/90	691.0	1.61 ± 0.17 E-02	(1.64 ± 0.15 E-02)
12/16/90	687.0	2.22 ± 0.19 E-02	(2.11 ± 0.17 E-02)
12/23/90	707.4	1.42 ± 0.16 E-02	(1.83 ± 0.15 E-02)
12/30/90	695.9	1.34 ± 0.16 E-02	(1.86 ± 0.16 E-02)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

26 MI ESE - FLORENCE - CONTROL (AP-1)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 11599.5 CUBIC METERS

ISOTOPE	CONTROL ACTIVITY
BE-7	(7.24 ± 0.62 E-02)
K-40	(4.23 ± 3.33 E-03)
PB-214	(1.08 ± 0.42 E-03)
BI-214	(4.58 ± 3.70 E-04)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

0.2 MI S - INFORMATION CENTER (AP-2)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 11602.6 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	7.77 ± 0.73 E-02	(7.24 ± 0.62 E-02)
K-40	LESS THAN LLD	(4.23 ± 3.33 E-03)
PB-214	LESS THAN LLD	(1.08 ± 0.42 E-03)
BI-214	LESS THAN LLD	(4.58 ± 3.70 E-04)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

0.7 MI N - MICROWAVE TOWER (AP-3)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 11372.8 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	6.68 ± 0.57 E-02	(7.24 ± 0.62 E-02)
K-40	LESS THAN LLD	(4.23 ± 3.33 E-03)
PB-212	5.35 ± 3.28 E-04	(LESS THAN LLD)
PB-214	LESS THAN LLD	(1.08 ± 0.42 E-03)
BI-214	6.92 ± 4.03 E-04	(4.58 ± 3.70 E-04)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

0.4 MI ESE - SPILLWAY (AP-4)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 9522.9 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	5.96 ± 0.69 E-02	(7.24 ± 0.62 E-02)
K-40	LESS THAN LLD	(4.23 ± 3.33 E-03)
PB-214	LESS THAN LLD	(1.08 ± 0.42 E-03)
BI-214	LESS THAN LLD	(4.58 ± 3.70 E-04)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

0.9 MI ENE - JOHNSON'S LANDING (AP-5)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 10784.4 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	7.56 ± 0.61 E-02	(7.24 ± 0.62 E-02)
K-40	LESS THAN LLD	(4.23 ± 3.33 E-03)
PB-214	LESS THAN LLD	(1.08 ± 0.42 E-03)
BI-214	1.39 ± 0.48 E-03	(4.58 ± 3.70 E-04)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

0.3 MI SW - INFORMATION CENTER (AP-6)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 11853.9 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	8.08 ± 0.72 E-02	(7.24 ± 0.62 E-02)
K-40	5.96 ± 4.12 E-03	(4.23 ± 3.33 E-03)
PB-214	LESS THAN LLD	(1.08 ± 0.42 E-03)
BI-214	LESS THAN LLD	(4.58 ± 3.70 E-04)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

6.3 MI ESE - HARTSVILLE CP&L SUBSTATION (AP-7)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 11299.2 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	8.80 ± 0.76 E-02	(7.24 ± 0.62 E-02)
K-40	LESS THAN LLD	(4.23 ± 3.33 E-03)
PB-214	LESS THAN LLD	(1.08 ± 0.42 E-03)
BI-214	LESS THAN LLD	(4.58 ± 3.70 E-04)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

THIRD QUARTER, 1990

0.3 MI SSE - SITE BOUNDARY (AP-55)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 8327.3 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	6.10 ± 0.66 E-02	(7.24 ± 0.62 E-02)
K-40	LESS THAN LLD	(4.23 ± 3.33 E-03)
PB-214	LESS THAN LLD	(1.08 ± 0.42 E-03)
BI-214	LESS THAN LLD	(4.58 ± 3.70 E-04)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

26 MI ESE - FLORENCE - CONTROL (AP-1)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 10864.6 CUBIC METERS

ISOTOPE	CONTROL ACTIVITY
BE-7	(9.29 ± 0.68 E-02)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

0.2 MI S - INFORMATION CENTER (AP-2)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 10596.1 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	9.10 ± 0.82 E-02	(9.29 ± 0.68 E-02)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

0.7 MI N - MICROWAVE TOWER (AP-3)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 9339.4 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	9.84 ± 0.79 E-02	(9.29 ± 0.68 E-02)
K-40	8.22 ± 4.71 E-03	(LESS THAN LLD)
BI-214	6.97 ± 4.45 E-04	(LESS THAN LLD)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

0.4 MI ESE - SPILLWAY (AP-4)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 9161.5 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	8.24 ± 0.87 E-02	(9.29 ± 0.68 E-02)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

0.9 MI ENE - JOHNSON'S LANDING (AP-5)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 10647.4 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	1.04 ± 0.09 E-01	(9.29 ± 0.68 E-02)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

0.3 MI SW - INFORMATION CENTER (AP-6)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 11318.6 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	8.77 ± 0.64 E-02	(9.29 ± 0.68 E-02)
K-40	7.27 ± 2.96 E-03	(LESS THAN LLD)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

6.3 MI ESE - HARTSVILLE CP&L SUBSTATION (AP-7)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 10941.2 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	1.08 ± 0.07 E-01	(9.29 ± 0.68 E-02)
K-40	1.24 ± 0.47 E-02	(LESS THAN LLD)

AIR PARTICULATE SAMPLES
(PICOCURIES PER CUBIC METER)

FOURTH QUARTER, 1990

0.3 MI SSE - SITE BOUNDARY (AP-55)
(COMPOSITE SAMPLE)

GAMMA SPECTROMETRY VOLUME: 8821.4 CUBIC METERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	6.51 ± 0.66 E-02	(9.29 ± 0.68 E-02)

AQUATIC VEGETATION SAMPLES
(PICOCURIES PER GRAM)

SECOND SEMI-ANNUAL, 1990

4.9 MI ESE - PRESTWOOD LAKE (AV-46)
(DATE COLLECTED: 07/16/90)

GAMMA SPECTROMETRY MASS: 897.8 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	3.06 ± 0.45 E-01	(LESS THAN LLD)
K-40	7.48 ± 0.85 E-01	(LESS THAN LLD)
MN-54	1.95 ± 0.53 E-02	(LESS THAN LLD)
CO-60	7.64 ± 0.86 E-02	(LESS THAN LLD)
I-131	< 1.24E-02	(LESS THAN LLD)
CS-134	< 1.85E-02	(LESS THAN LLD)
CS-137	1.37 ± 0.47 E-02	(LESS THAN LLD)
TL-208	1.24 ± 0.10 E-01	(LESS THAN LLD)
PB-212	3.52 ± 0.16 E-01	(LESS THAN LLD)
PB-214	7.45 ± 1.30 E-02	(LESS THAN LLD)
BI-212	2.06 ± 0.49 E-01	(LESS THAN LLD)
BI-214	6.55 ± 1.46 E-02	(LESS THAN LLD)
RA-226	9.18 ± 1.50 E-01	(LESS THAN LLD)
AC-228	6.58 ± 0.35 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

JULY, 1990

0.25 MI SSE - CP&L PROPERTY (BL-50)
(DATE COLLECTED: 07/17/90)

CHERRY

GAMMA SPECTROMETRY MASS: 561.5 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	5.55 ± 0.70 E-01	(8.17 ± 0.66 E-01)
K-40	2.82 ± 0.23 E+00	(4.25 ± 0.19 E+00)
I-131	< 1.44E-02	(< 1.63E-02)
CS-134	< 2.03E-02	(< 1.70E-02)
CS-137	6.45 ± 1.15 E-02	(2.53 ± 0.63 E-02)
TL-208	2.49 ± 0.63 E-02	(LESS THAN LLD)
PB-212	5.03 ± 1.41 E-02	(2.39 ± 1.00 E-02)
BI-214	LESS THAN LLD	(1.61 ± 1.46 E-02)
RA-226	LESS THAN LLD	(2.26 ± 1.52 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

JULY, 1990

0.25 MI SSW - CP&L PROPERTY (BL-51)
(DATE COLLECTED: 07/17/90)

CHERRY

GAMMA SPECTROMETRY MASS: 521.7 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	5.67 ± 0.54 E-01	(8.17 ± 0.66 E-01)
K-40	2.51 ± 0.54 E-01	(4.25 ± 0.19 E+00)
I-131	< 1.43E-02	(< 1.63E-02)
CS-134	< 1.41E-02	(< 1.70E-02)
CS-137	1.98 ± 0.63 E-02	(2.53 ± 0.63 E-02)
PB-212	1.89 ± 1.14 E-02	(2.39 ± 1.00 E-02)
BI-214	LESS THAN LLD	(1.61 ± 1.46 E-02)
RA-226	2.61 ± 1.38 E-01	(2.26 ± 1.52 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

JULY, 1990

10 MI W - BETHUNE - CONTROL (BL-52)
(DATE COLLECTED: 07/17/90)

CHERRY

GAMMA SPECTROMETRY MASS: 508.7 GRAMS WET

ISOTOPE	CONTROL ACTIVITY
BE-7	(8.17 ± 0.66 E-01)
K-40	(4.25 ± 0.19 E+00)
I-131	(< 1.63E-02)
CS-134	(< 1.70E-02)
CS-137	(2.53 ± 0.63 E-02)
PB-212	(2.39 ± 1.00 E-02)
BI-214	(1.61 ± 1.46 E-02)
RA-226	(2.26 ± 1.52 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

JULY, 1990

0.25 MI SSE - CP&L PROPERTY (BL-50)
(DATE COLLECTED: 07/17/90)

OAK

GAMMA SPECTROMETRY MASS: 396.6 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	1.16 ± 0.12 E+00	(1.01 ± 0.08 E+00)
K-40	3.73 ± 0.26 E+00	(2.17 ± 0.15 E+00)
I-131	< 2.15E-02	(< 1.79E-02)
CS-134	< 2.74E-02	(< 1.64E-02)
CS-137	3.12 ± 0.23 E-01	(2.68 ± 0.12 E-01)
PB-212	3.95 ± 1.72 E-02	(6.76 ± 1.60 E-02)
RA-226	2.22 ± 2.11 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

JULY, 1990

0.25 MI SSW - CP&L PROPERTY (BL-51)
(DATE COLLECTED: 07/17/90)

OAK

GAMMA SPECTROMETRY MASS: 414.9 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	1.39 ± 0.09 E+00	(1.01 ± 0.08 E+00)
K-40	2.37 ± 0.18 E+00	(2.17 ± 0.15 E+00)
I-131	< 1.75E-02	(< 1.79E-02)
CS-134	< 1.95E-02	(< 1.64E-02)
CS-137	2.43 ± 0.13 E-01	(2.68 ± 0.12 E-01)
TL-208	9.15 ± 7.12 E-03	(LESS THAN LLD)
PB-212	2.44 ± 1.16 E-02	(6.76 ± 1.60 E-02)
RA-226	4.15 ± 2.22 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

JULY, 1990

10 MI W - BETHUNE - CONTROL (BL-52)
(DATE COLLECTED: 07/17/90)

OAK

GAMMA SPECTROMETRY MASS: 460.1 GRAMS WET

ISOTOPE	CONTROL ACTIVITY
BE-7	(1.01 ± 0.08 E+00)
K-40	(2.17 ± 0.15 E+00)
I-131	(< 1.79E-02)
CS-134	(< 1.64E-02)
CS-137	(2.68 ± 0.12 E-01)
PB-212	(6.76 ± 1.60 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

JULY, 1990

0.25 MI SSE - CP&L PROPERTY (BL-50)
(DATE COLLECTED: 07/17/90)

SASSAFRAS

GAMMA SPECTROMETRY MASS: 435.2 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	6.19 ± 0.68 E-01	(4.73 ± 0.74 E-01)
K-40	2.58 ± 0.16 E+00	(2.38 ± 0.17 E+00)
I-131	< 1.54E-02	(< 2.09E-02)
CS-134	< 1.68E-02	(< 1.98E-02)
CS-137	1.19 ± 0.12 E-01	(4.40 ± 0.15 E-01)
TL-208	LESS THAN LLD	(1.01 ± 0.90 E-02)
PB-212	4.61 ± 1.63 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

JULY, 1990

0.25 MI SSW - CP&L PROPERTY (BL-51)
(DATE COLLECTED: 07/17/90)

SASSAFRAS

GAMMA SPECTROMETRY MASS: 509.8 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	8.52 ± 0.75 E-01	(4.73 ± 0.74 E-01)
K-40	2.70 ± 0.17 E+00	(2.38 ± 0.17 E+00)
I-131	< 1.83E-02	(< 2.09E-02)
CS-134	< 1.94E-02	(< 1.98E-02)
CS-137	5.25 ± 0.81 E-02	(4.40 ± 0.15 E-01)
TL-208	LESS THAN LLD	(1.01 ± 0.90 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

JULY, 1990

10 MI W - BETHUNE - CONTROL (BL-52)
(DATE COLLECTED: 07/17/90)

SASSAFRAS

GAMMA SPECTROMETRY MASS: 534.7 GRAMS WET

ISOTOPE	CONTROL ACTIVITY
BE-7	(4.73 ± 0.74 E-01)
K-40	(2.38 ± 0.17 E+00)
I-131	(< 2.09E-02)
CS-134	(< 1.98E-02)
CS-137	(4.40 ± 0.15 E-01)
TL-208	(1.01 ± 0.90 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

AUGUST, 1990

0.25 MI SSE - CP&L PROPERTY (BL-50)
(DATE COLLECTED: 08/21/90)

CHERRY

GAMMA SPECTROMETRY MASS: 428.1 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	9.06 ± 0.96 E-01	(6.39 ± 0.67 E-01)
K-40	2.78 ± 0.18 E+00	(3.20 ± 0.20 E+00)
I-131	< 1.68E-02	(< 1.91E-02)
CS-134	< 2.01E-02	(< 1.89E-02)
CS-137	2.67 ± 0.78 E-02	(< 1.89E-02)
TL-208	4.39 ± 1.16 E-02	(LESS THAN LLD)
PB-212	LESS THAN LLD	(4.59 ± 1.34 E-02)
RA-226	6.15 ± 1.75 E-01	(2.63 ± 1.95 E-02)
AC-228	1.43 ± 0.29 E-02	(2.87 ± 0.40 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

AUGUST, 1990

0.25 MI SSW - CP&L PROPERTY (BL-51)
(DATE COLLECTED: 08/21/90)

CHERRY

GAMMA SPECTROMETRY MASS: 479.4 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	7.11 ± 0.72 E-01	(6.39 ± 0.67 E-01)
K-40	2.16 ± 0.24 E+00	(3.20 ± 0.20 E+00)
I-131	< 1.55E-02	(< 1.91E-02)
CS-134	< 2.30E-02	(< 1.89E-02)
CS-137	< 2.11E-02	(< 1.89E-02)
TL-208	3.40 ± 0.79 E-02	(LESS THAN LLD)
PB-212	4.47 ± 1.33 E-02	(4.59 ± 1.34 E-02)
RA-226	LESS THAN LLD	(2.63 ± 1.95 E-02)
AC-228	1.36 ± 0.44 E-01	(2.87 ± 0.40 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

AUGUST, 1990

10 MI W - BETHUNE - CONTROL (BL-52)
(DATE COLLECTED: 08/21/90)

CHERRY

GAMMA SPECTROMETRY MASS: 409.8 GRAMS WET

ISOTOPE	CONTROL ACTIVITY
BE-7	(6.39 ± 0.67 E-01)
K-40	(3.20 ± 0.20 E+00)
I-131	(< 1.91E-02)
CS-134	(< 1.89E-02)
CS-137	(< 1.89E-02)
PB-212	(4.59 ± 1.34 E-02)
RA-226	(2.63 ± 1.95 E-02)
AC-228	(2.87 ± 0.40 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

AUGUST, 1990

0.25 MI SSE - CP&L PROPERTY (BL-50)
(DATE COLLECTED: 08/21/90)

OAK

GAMMA SPECTROMETRY MASS: 446.6 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	1.12 ± 0.08 E+00	(1.82 ± 0.09 E+00)
K-40	2.47 ± 0.16 E+00	(2.37 ± 0.15 E+00)
I-131	< 1.62E-02	(< 1.70E-02)
CS-134	< 1.68E-02	(< 1.85E-02)
CS-137	3.60 ± 0.14 E-01	(6.92 ± 0.92 E-02)
TL-208	2.94 ± 1.14 E-02	(LESS THAN LLD)
PB-212	5.24 ± 1.57 E-02	(2.92 ± 1.15 E-02)
RA-226	LESS THAN LLD	(3.56 ± 2.02 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

AUGUST, 1990

0.25 MI SSW - CP&L PROPERTY (BL-51)
(DATE COLLECTED: 08/21/90)

OAK

GAMMA SPECTROMETRY MASS: 348.2 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	1.65 ± 0.12 E+00	(1.82 ± 0.09 E+00)
K-40	2.08 ± 0.21 E+00	(2.37 ± 0.15 E+00)
I-131	< 2.42E-02	(< 1.70E-02)
CS-134	< 2.62E-02	(< 1.85E-02)
CS-137	1.76 ± 0.14 E-01	(6.92 ± 0.92 E-02)
TL-208	2.63 ± 1.32 E-02	(LESS THAN LLD)
PB-212	LESS THAN LLD	(2.92 ± 1.15 E-02)
BI-214	3.89 ± 3.17 E-02	(LESS THAN LLD)
RA-226	LESS THAN LLD	(3.56 ± 2.02 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

AUGUST, 1990

10 MI W - BETHUNE - CONTROL (BL-52)
(DATE COLLECTED: 08/21/90)

OAK

GAMMA SPECTROMETRY MASS: 421.8 GRAMS WET

ISOTOPE	CONTROL ACTIVITY
BE-7	(1.82 ± 0.09 E+00)
K-40	(2.37 ± 0.15 E+00)
I-131	(< 1.70E-02)
CS-134	(< 1.85E-02)
CS-137	(6.92 ± 0.92 E-02)
PB-212	(2.92 ± 1.15 E-02)
RA-226	(3.56 ± 2.02 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

AUGUST, 1990

0.25 MI SSE - CP&L PROPERTY (BL-50)
(DATE COLLECTED: 08/21/90)

SASSAFRAS

GAMMA SPECTROMETRY MASS: 472.1 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	7.72 ± 0.78 E-01	(1.44 ± 0.10 E+00)
K-40	2.17 ± 0.17 E+00	(2.10 ± 0.18 E+00)
I-131	< 1.74E-02	(< 1.83E-02)
CS-134	< 2.12E-02	(< 1.85E-02)
CS-137	1.38 ± 0.11 E-01	(< 2.22E-02)
TL-208	LESS THAN LLD	(1.26 ± 1.01 E-02)
PB-212	LESS THAN LLD	(4.83 ± 1.45 E-02)
BI-212	5.01 ± 4.39 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

AUGUST, 1990

0.25 MI SSW - CP&L PROPERTY (BL-51)
(DATE COLLECTED: 08/21/90)

SASSAFRAS

GAMMA SPECTROMETRY MASS: 427.5 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	7.31 ± 0.91 E-01	(1.44 ± 0.10 E+00)
K-40	2.07 ± 0.25 E+00	(2.10 ± 0.18 E+00)
I-131	< 1.84E-02	(< 1.83E-02)
CS-134	< 2.09E-02	(< 1.85E-02)
CS-137	3.64 ± 1.11 E-02	(< 2.22E-02)
TL-208	LESS THAN LLD	(1.26 ± 1.01 E-02)
PB-212	5.76 ± 1.58 E-02	(4.83 ± 1.45 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

AUGUST, 1990

10 MI W - BETHUNE - CONTROL (BL-52)
(DATE COLLECTED: 08/21/90)

SASSAFRAS

GAMMA SPECTROMETRY MASS: 397.3 GRAMS WET

ISOTOPE	CONTROL ACTIVITY
BE-7	(1.44 ± 0.10 E+00)
K-40	(2.10 ± 0.18 E+00)
I-131	(< 1.83E-02)
CS-134	(< 1.85E-02)
CS-137	(< 2.22E-02)
TL-208	(1.26 ± 1.01 E-02)
PB-212	(4.83 ± 1.45 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

SEPTEMBER, 1990

0.25 MI SSE - CP&L PROPERTY (BL-50)
(DATE COLLECTED: 09/24/90)

CHERRY

GAMMA SPECTROMETRY MASS: 440.5 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	4.17 ± 0.89 E-01	(5.94 ± 0.63 E-01)
K-40	1.99 ± 0.17 E+00	(2.27 ± 0.18 E+00)
I-131	< 1.93E-02	(< 1.73E-02)
CS-134	< 2.45E-02	(< 2.23E-02)
CS-137	9.07 ± 1.09 E-02	(< 1.76E-02)
TL-208	3.06 ± 1.27 E-02	(2.96 ± 1.00 E-02)
PB-212	3.79 ± 1.84 E-02	(6.23 ± 1.29 E-02)
BI-212	3.31 ± 0.89 E-01	(LESS THAN LLD)
BI-214	2.37 ± 2.32 E-02	(LESS THAN LLD)
RA-226	LESS THAN LLD	(1.92 ± 1.68 E-01)
AC-228	2.16 ± 0.44 E-01	(3.21 ± 0.34 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

SEPTEMBER, 1990

0.25 MI SSW - CP&L PROPERTY (BL-51)
(DATE COLLECTED: 09/24/90)

CHERRY

GAMMA SPECTROMETRY MASS: 438.4 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	6.99 ± 0.99 E-01	(5.94 ± 0.63 E-01)
K-40	2.29 ± 0.29 E+00	(2.27 ± 0.18 E+00)
I-131	< 1.98E-02	(< 1.73E-02)
CS-134	< 2.52E-02	(< 2.23E-02)
CS-137	2.65 ± 1.20 E-02	(< 1.76E-02)
TL-208	LESS THAN LLD	(2.96 ± 1.00 E-02)
PB-212	7.13 ± 1.88 E-02	(6.23 ± 1.29 E-02)
RA-226	LESS THAN LLD	(1.92 ± 1.68 E-01)
AC-228	2.41 ± 0.41 E-01	(3.21 ± 0.34 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

SEPTEMBER, 1990

10 MI W - BETHUNE - CONTROL (BL-52)
(DATE COLLECTED: 09/24/90)

CHERRY

GAMMA SPECTROMETRY MASS: 438.6 GRAMS WET

ISOTOPE	CONTROL ACTIVITY
BE-7	(5.94 ± 0.63 E-01)
K-40	(2.27 ± 0.18 E+00)
I-131	(< 1.73E-02)
CS-134	(< 2.23E-02)
CS-137	(< 1.76E-02)
TL-208	(2.96 ± 1.00 E-02)
PB-212	(6.23 ± 1.29 E-02)
RA-226	(1.92 ± 1.68 E-01)
AC-228	(3.21 ± 0.34 E-01)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

SEPTEMBER, 1990

0.25 MI SSE - CP&L PROPERTY (BL-50)
(DATE COLLECTED: 09/24/90)

OAK

GAMMA SPECTROMETRY MASS: 419.2 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	1.34 ± 0.08 E+00	(1.34 ± 0.11 E-01)
K-40	2.56 ± 0.02 E+00	(4.00 ± 0.27 E+00)
I-131	< 1.69E-02	(< 4.10E-02)
CS-134	< 1.82E-02	(< 2.65E-02)
CS-137	1.98 ± 0.13 E-01	(6.61 ± 1.28 E-02)
TL-208	2.78 ± 0.84 E-02	(LESS THAN LLD)
PB-212	7.10 ± 1.42 E-02	(3.51 ± 1.44 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

SEPTEMBER, 1990

0.25 MI SSW - CP&L PROPERTY (BL-51)
(DATE COLLECTED: 09/24/90)

OAK

GAMMA SPECTROMETRY MASS: 404.6 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	1.38 ± 0.11 E+00	(1.34 ± 0.11 E-01)
K-40	1.84 ± 0.19 E+00	(4.00 ± 0.27 E+00)
I-131	< 2.36E-02	(< 4.10E-02)
CS-134	< 2.45E-02	(< 2.65E-02)
CS-137	2.56 ± 0.16 E-01	(6.61 ± 1.28 E-02)
TL-208	1.55 ± 1.18 E-02	(LESS THAN LLD)
PB-212	LESS THAN LLD	(3.51 ± 1.44 E-02)
PB-214	2.38 ± 2.25 E-02	(LESS THAN LLD)
BI-214	6.82 ± 2.49 E-02	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

SEPTEMBER, 1990

10 MI W - BETHUNE - CONTROL (BL-52)
(DATE COLLECTED: 09/24/90)

OAK

GAMMA SPECTROMETRY MASS: 356.4 GRAMS WET

ISOTOPE	CONTROL ACTIVITY
BE-7	(1.34 ± 0.11 E-01)
K-40	(4.00 ± 0.27 E+00)
I-131	(< 4.10E-02)
CS-134	(< 2.65E-02)
CS-137	(6.61 ± 1.28 E-02)
PB-212	(3.51 ± 1.44 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

SEPTEMBER, 1990

0.25 MI SSE - CP&L PROPERTY (BL-50)
(DATE COLLECTED: 09/24/90)

SASSAFRAS

GAMMA SPECTROMETRY MASS: 427.7 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	8.14 ± 0.94 E-01	(1.45 ± 0.09 E+00)
K-40	3.05 ± 0.23 E+00	(1.48 ± 0.14 E+00)
I-131	< 1.85E-02	(< 1.69E-02)
CS-134	< 2.42E-02	(< 1.84E-02)
CS-137	9.08 ± 1.34 E-02	(2.58 ± 0.87 E-02)
TL-208	6.73 ± 1.11 E-02	(LESS THAN LLD)
PB-212	9.80 ± 1.39 E-02	(3.84 ± 1.37 E-02)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

SEPTEMBER, 1990

0.25 MI SSW - CP&L PROPERTY (BL-51)
(DATE COLLECTED: 09/24/90)

SASSAFRAS

GAMMA SPECTROMETRY MASS: 436.2 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	1.03 ± 0.07 E+00	(1.45 ± 0.09 E+00)
K-40	1.90 ± 0.15 E+00	(1.48 ± 0.14 E+00)
I-131	< 1.54E-02	(< 1.69E-02)
CS-134	< 1.65E-02	(< 1.84E-02)
CS-137	6.52 ± 0.91 E-02	(2.58 ± 0.87 E-02)
TL-208	2.33 ± 1.01 E-02	(LESS THAN LLD)
PB-212	6.79 ± 1.38 E-02	(3.84 ± 1.37 E-02)
AC-228	1.01 ± 0.30 E-01	(LESS THAN LLD)

BROADLEAF VEGETATION SAMPLES
(PICOCURIES PER GRAM)

SEPTEMBER, 1990

10 MI W - BETHUNE - CONTROL (BL-52)
(DATE COLLECTED: 09/24/90)

SASSAFRAS

GAMMA SPECTROMETRY MASS: 417.7 GRAMS WET

ISOTOPE	CONTROL ACTIVITY
BE-7	(1.45 ± 0.09 E+00)
K-40	(1.48 ± 0.14 E+00)
I-131	(< 1.69E-02)
CS-134	(< 1.84E-02)
CS-137	(2.58 ± 0.87 E-02)
PB-212	(3.84 ± 1.37 E-02)

FOOD CROP SAMPLES
(PICOCURIES PER GRAM)

ONE TIME PER GROWING SEASON, 1990

SITE VARIES WITHIN 3 MI OF PLANT (FC-58)
(DATE COLLECTED: 10/29/90)

COLLARDS

GAMMA SPECTROMETRY MASS: 582.3 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	7.92 ± 6.22 E-02	(NOT REQUIRED)
K-40	4.72 ± 0.19 E+00	(NOT REQUIRED)
I-131	< 1.67E-02	(NOT REQUIRED)
CS-134	< 1.90E-02	(NOT REQUIRED)
CS-137	1.20 ± 0.71 E-02	(NOT REQUIRED)
TL-208	1.80 ± 0.89 E-02	(NOT REQUIRED)
BI-214	3.12 ± 1.49 E-02	(NOT REQUIRED)
RA-226	2.59 ± 1.85 E-01	(NOT REQUIRED)
AC-228	2.39 ± 0.39 E-01	(NOT REQUIRED)

FOOD CROP SAMPLES
(PICOCURIES PER GRAM)

ONE TIME PER GROWING SEASON, 1990

SITE VARIES WITHIN 3 MI OF PLANT (FC-58)
(DATE COLLECTED: 10/29/90)

MUSTARD GREENS

GAMMA SPECTROMETRY MASS: 543.6 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	2.72 ± 0.53 E-01	(NOT REQUIRED)
K-40	3.19 ± 0.26 E+00	(NOT REQUIRED)
I-131	< 1.49E-02	(NOT REQUIRED)
CS-134	< 2.12E-02	(NOT REQUIRED)
CS-137	< 2.09E-02	(NOT REQUIRED)
PB-212	2.79 ± 1.23 E-02	(NOT REQUIRED)

FOOD CROP SAMPLES
(PICOCURIES PER GRAM)

ONE TIME PER GROWING SEASON, 1990

SITE VARIES WITHIN 3 MI OF PLANT (FC-58)
(DATE COLLECTED: 10/29/90)

TURNIPS AND GREENS

GAMMA SPECTROMETRY MASS: 677.3 GRAMS WET

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	3.28 ± 0.49 E-01	(NOT REQUIRED)
K-40	3.84 ± 0.15 E+00	(NOT REQUIRED)
I-131	< 1.14E-02	(NOT REQUIRED)
CS-134	< 1.13E-02	(NOT REQUIRED)
CS-137	< 1.46E-02	(NOT REQUIRED)
PB-212	2.05 ± 0.84 E-02	(NOT REQUIRED)

BOTTOM FEEDER SAMPLES
(PICOCURIES PER GRAM)

SECOND SEMI-ANNUAL, 1990

SITE VARIES WITHIN LAKE ROBINSON (F1-45)
(DATE COLLECTED: 11/06/90)

BOTTOM FEEDERS , EDIBLE PORTION

GAMMA SPECTROMETRY MASS: 530.9 GRAMS FRESH

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	2.91 ± 0.23 E+00	(2.45 ± 0.47 E+00)
CS-137	1.18 ± 0.12 E-01	(1.93 ± 0.37 E-01)
PB-212	LESS THAN LLD	(4.24 ± 2.51 E-02)
BI-214	LESS THAN LLD	(2.69 ± 0.66 E-01)
RA-226	LESS THAN LLD	(9.64 ± 5.32 E-01)

BOTTOM FEEDER SAMPLES
(PICOCURIES PER GRAM)

SECOND SEMI-ANNUAL, 1990

4.9 MI ESE - PRESTWOOD LAKE (F1-46)
(DATE COLLECTED: 11/06/90)

BOTTOM FEEDERS , EDIBLE PORTION

GAMMA SPECTROMETRY MASS: 746.6 GRAMS FRESH

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	3.70 ± 0.28 E+00	(2.45 ± 0.47 E+00)
CS-137	9.42 ± 1.58 E-02	(1.93 ± 0.37 E-01)
PB-212	LESS THAN LLD	(4.24 ± 2.51 E-02)
PB-214	9.37 ± 2.44 E-02	(LESS THAN LLD)
BI-214	8.92 ± 2.47 E-02	(2.69 ± 0.66 E-01)
RA-226	LESS THAN LLD	(9.64 ± 5.32 E-01)

BOTTOM FEEDER SAMPLES
(PICOCURIES PER GRAM)

SECOND SEMI-ANNUAL, 1990

13 MI NNW - LAKE BEE - CONTROL (F1-47)
(DATE COLLECTED: 11/06/90)

BOTTOM FEEDERS , EDIBLE PORTION

GAMMA SPECTROMETRY MASS: 410.8 GRAMS FRESH

ISOTOPE	CONTROL ACTIVITY
K-40	(2.45 ± 0.47 E+00)
CS-137	(1.93 ± 0.37 E-01)
PB-212	(4.24 ± 2.51 E-02)
BI-214	(2.69 ± 0.66 E-01)
RA-226	(9.64 ± 5.32 E-01)

FREE SWIMMER SAMPLES
(PICOCURIES PER GRAM)

SECOND SEMI-ANNUAL, 1990

SITE VARIES WITHIN LAKE ROBINSON (F2-45)
(DATE COLLECTED: 11/06/90)

FREE SWIMMERS , EDIBLE PORTION

GAMMA SPECTROMETRY MASS: 611.8 GRAMS FRESH

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	3.48 ± 0.26 E+00	(7.74 ± 0.54 E+00)
CS-137	1.38 ± 0.17 E-01	(2.71 ± 0.35 E-01)
PB-212	2.33 ± 1.36 E-02	(4.03 ± 3.55 E-02)
BI-214	LESS THAN LLD	(1.37 ± 0.58 E-02)
RA-226	LESS THAN LLD	(6.53 ± 5.14 E-01)

FREE SWIMMER SAMPLES
(PICOCURIES PER GRAM)

SECOND SEMI-ANNUAL, 1990

4.9 MI ESE - PRESTWOOD LAKE (F2-46)
(DATE COLLECTED: 11/06/90)

FREE SWIMMERS , EDIBLE PORTION

GAMMA SPECTROMETRY MASS: 678.8 GRAMS FRESH

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	3.17 ± 0.40 E+00	(7.74 ± 0.54 E+00)
CS-137	8.59 ± 1.57 E-02	(2.71 ± 0.35 E-01)
PB-212	LESS THAN LLD	(4.03 ± 3.55 E-02)
BI-214	LESS THAN LLD	(1.37 ± 0.58 E-02)
RA-226	LESS THAN LLD	(6.53 ± 5.14 E-01)

FREE SWIMMER SAMPLES
(PICOCURIES PER GRAM)

SECOND SEMI-ANNUAL, 1990

13 MI NNW - LAKE BEE - CONTROL (F2-47)
(DATE COLLECTED: 11/06/90)

FREE SWIMMERS , EDIBLE PORTION

GAMMA SPECTROMETRY MASS: 329.2 GRAMS FRESH

ISOTOPE	CONTROL ACTIVITY
K-40	(7.74 ± 0.54 E+00)
CS-137	(2.71 ± 0.35 E-01)
PB-212	(4.03 ± 3.55 E-02)
BI-214	(1.37 ± 0.58 E-02)
RA-226	(6.53 ± 5.14 E-01)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

JULY, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (GW-40)
(DATE COLLECTED: 07/09/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 1.01E+03	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BI-214	6.80 ± 4.69 E+00	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

JULY, 1990

UNIT 1 DEEP WELL NEAR SITE ENTRANCE (GW-42)
(DATE COLLECTED: 07/09/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 1.01E+03	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
PB-212	2.28 ± 2.19 E+00	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

JULY, 1990

UNIT 2 DEEP WELL (GW-43)
(DATE COLLECTED: 07/09/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 1.01E+03	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
RA-226	4.92 ± 3.52 E+01	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

AUGUST, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (GW-40)
(DATE COLLECTED: 08/12/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.75E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	3.29 ± 2.80 E+01	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

AUGUST, 1990

UNIT 1 DEEP WELL NEAR SITE ENTRANCE (GW-42)
(DATE COLLECTED: 08/12/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.75E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	8.62 ± 3.25 E+01	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

AUGUST, 1990

UNIT 2 DEEP WELL (GW-43)
(DATE COLLECTED: 08/12/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.75E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
	ALL GAMMA EMITTERS LESS THAN LLD	

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

SEPTEMBER, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (GW-40)
(DATE COLLECTED: 09/10/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.54E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	3.35 ± 3.16 E+01	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

SEPTEMBER, 1990

UNIT 1 DEEP WELL NEAR SITE ENTRANCE (GW-42)
(DATE COLLECTED: 09/10/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.54E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	4.29 ± 2.93 E+01	(NOT REQUIRED)
PB-212	4.66 ± 2.18 E+00	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

SEPTEMBER, 1990

UNIT 2 DEEP WELL (GW-43)
(DATE COLLECTED: 09/10/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.54E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
RA-226	2.88 ± 2.85 E+01	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

OCTOBER, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (GW-40)
(DATE COLLECTED: 10/14/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.70E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	5.55 ± 3.08 E+01	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

OCTOBER, 1990

UNIT 1 DEEP WELL NEAR SITE ENTRANCE (GW-42)
(DATE COLLECTED: 10/14/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.70E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.85 ± 0.23 E+02	(NOT REQUIRED)
PB-212	2.69 ± 1.74 E+00	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

OCTOBER, 1990

UNIT 2 DEEP WELL (GW-43)
(DATE COLLECTED: 10/14/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.70E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
	ALL GAMMA EMITTERS LESS THAN LLD	

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

NOVEMBER, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (GW-40)
(DATE COLLECTED: 11/18/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.85E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
	ALL GAMMA EMITTERS LESS THAN LLD	

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

NOVEMBER, 1990

UNIT 1 DEEP WELL NEAR SITE ENTRANCE (GW-42)
(DATE COLLECTED: 11/18/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.85E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	9.64 ± 5.72 E+01	(NOT REQUIRED)

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

NOVEMBER, 1990

UNIT 2 DEEP WELL (GW-43)
(DATE COLLECTED: 11/18/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.85E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
	ALL GAMMA EMITTERS LESS THAN LLD	

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

DECEMBER, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (GW-40)
(DATE COLLECTED: 12/23/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.36E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
	ALL GAMMA EMITTERS LESS THAN LLD	

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

DECEMBER, 1990

UNIT 1 DEEP WELL NEAR SITE ENTRANCE (GW-42)
(DATE COLLECTED: 12/23/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.36E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
	ALL GAMMA EMITTERS LESS THAN LLD	

GROUNDWATER SAMPLES
(PICOCURIES PER LITER)

DECEMBER, 1990

UNIT 2 DEEP WELL (GW-43)
(DATE COLLECTED: 12/23/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.36E+02	(NOT REQUIRED)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
PB-214	3.21 ± 2.94 E+00	(NOT REQUIRED)

MILK SAMPLES
(PICOCURIES PER LITER)

JULY 2, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 07/02/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 4.77E-01	(< 6.85E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.35 ± 0.05 E+03	(1.25 ± 0.05 E+03)
PB-212	4.87 ± 3.41 E+00	(LESS THAN LLD)

MILK SAMPLES
(PICOCURIES PER LITER)

JULY 2, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 07/02/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 6.85E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.25 ± 0.05 E+03)

MILK SAMPLES
(PICOCURIES PER LITER)

JULY 16, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 07/16/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 4.48E-01	(< 6.63E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.27 ± 0.05 E+03	(1.46 ± 0.05 E+03)
PB-212	LESS THAN LLD	(7.79 ± 3.59 E+00)

MILK SAMPLES
(PICOCURIES PER LITER)

JULY 16, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 07/16/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 6.63E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.46 ± 0.05 E+03)
PB-212	(7.79 ± 3.59 E+00)

MILK SAMPLES
(PICOCURIES PER LITER)

JULY 30, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 07/30/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 4.71E-01	(< 6.92E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.18 ± 0.08 E+03	(1.39 ± 0.06 E+03)
PB-212	5.83 ± 3.65 E+00	(LESS THAN LLD)

MILK SAMPLES
(PICOCURIES PER LITER)

JULY 30, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 07/30/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 6.92E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.39 ± 0.06 E+03)

MILK SAMPLES
(PICOCURIES PER LITER)

AUGUST 13, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 08/13/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 4.88E-01	(< 5.14E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.24 ± 0.06 E+03	(1.44 ± 0.05 E+03)

MILK SAMPLES
(PICOCURIES PER LITER)

AUGUST 13, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 08/13/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 5.14E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.44 ± 0.05 E+03)

MILK SAMPLES
(PICOCURIES PER LITER)

AUGUST 27, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 08/27/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 6.20E-01	(< 6.61E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.33 ± 0.05 E+03	(1.42 ± 0.06 E+03)
PB-212	5.84 ± 3.90 E+00	(LESS THAN LLD)

MILK SAMPLES
(PICOCURIES PER LITER)

AUGUST 27, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 08/27/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 6.61E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.42 ± 0.06 E+03)

MILK SAMPLES
(PICOCURIES PER LITER)

SEPTEMBER 10, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 09/10/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 6.26E-01	(< 6.39E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.24 ± 0.05 E+03	(1.32 ± 0.05 E+03)

MILK SAMPLES
(PICOCURIES PER LITER)

SEPTEMBER 10, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 09/10/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 6.39E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.32 ± 0.05 E+03)

MILK SAMPLES
(PICOCURIES PER LITER)

SEPTEMBER 23, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 09/23/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 6.87E-01	(< 6.98E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.25 ± 0.05 E+03	(1.28 ± 0.09 E+03)
BI-214	8.10 ± 7.32 E+00	(LESS THAN LLD)

MILK SAMPLES
(PICOCURIES PER LITER)

SEPTEMBER 23, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 09/23/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 6.98E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.28 ± 0.09 E+03)

MILK SAMPLES
(PICOCURIES PER LITER)

OCTOBER 8, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 10/08/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 6.31E-01	(< 4.69E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.18 ± 0.05 E+03	(1.71 ± 0.07 E+03)

MILK SAMPLES
(PICOCURIES PER LITER)

OCTOBER 8, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 10/08/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 4.69E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.71 ± 0.07 E+03)

MILK SAMPLES
(PICOCURIES PER LITER)

OCTOBER 22, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 10/22/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 4.35E-01	(< 6.93E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.37 ± 0.09 E+03	(1.51 ± 0.09 E+03)

MILK SAMPLES
(PICOCURIES PER LITER)

OCTOBER 22, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 10/22/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 6.93E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.51 ± 0.09 E+03)

MILK SAMPLES
(PICOCURIES PER LITER)

NOVEMBER 5, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 11/05/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 6.21E-01	(< 7.08E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.62 ± 0.07 E+03	(1.44 ± 0.09 E+03)

MILK SAMPLES
(PICOCURIES PER LITER)

NOVEMBER 5, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 11/05/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 7.08E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.44 ± 0.09 E+03)

MILK SAMPLES
(PICOCURIES PER LITER)

NOVEMBER 19, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 11/19/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 4.11E-01	(< 6.08E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.40 ± 0.06 E+03	(1.34 ± 0.05 E+03)
RA-226	LESS THAN LLD	(8.23 ± 5.61 E+01)

MILK SAMPLES
(PICOCURIES PER LITER)

NOVEMBER 19, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 11/19/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 6.08E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.34 ± 0.05 E+03)
RA-226	(8.23 ± 5.61 E+01)

MILK SAMPLES
(PICOCURIES PER LITER)

DECEMBER 3, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 12/03/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 4.56E-01	(< 6.52E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.30 ± 0.06 E+03	(1.21 ± 0.06 E+03)
CS-137	LESS THAN LLD	(1.17 ± 0.24 E+01)
PB-214	7.64 ± 6.48 E+00	(LESS THAN LLD)
BI-214	1.31 ± 6.86 E+00	(LESS THAN LLD)

MILK SAMPLES
(PICOCURIES PER LITER)

DECEMBER 3, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 12/03/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 6.52E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.21 ± 0.06 E+03)
CS-137	(1.17 ± 0.24 E+01)

MILK SAMPLES
(PICOCURIES PER LITER)

DECEMBER 17, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 12/17/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 4.93E-01	(< 6.87E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.43 ± 0.06 E+03	(1.35 ± 0.05 E+03)
CS-137	LESS THAN LLD	(8.87 ± 2.22 E+00)

MILK SAMPLES
(PICOCURIES PER LITER)

DECEMBER 17, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 12/17/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 6.87E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.35 ± 0.05 E+03)
CS-137	(8.87 ± 2.22 E+00)

MILK SAMPLES
(PICOCURIES PER LITER)

DECEMBER 31, 1990

10.1 MI E - AUBURNDALE PLANTATION (MK-54)
(DATE COLLECTED: 12/31/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
I-131	4.0	< 4.74E-01	(< 7.09E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.44 ± 0.05 E+03	(1.36 ± 0.05 E+03)
CS-137	LESS THAN LLD	(1.01 ± 0.21 E+01)
PB-212	6.33 ± 3.56 E+00	(LESS THAN LLD)
RA-226	LESS THAN LLD	(1.39 ± 0.57 E+02)

MILK SAMPLES
(PICOCURIES PER LITER)

DECEMBER 31, 1990

18 MI ESE - CUNNINGHAM FARM - CONTROL (MK-63)
(DATE COLLECTED: 12/31/90)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
I-131	4.0	(< 7.09E-01)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.36 ± 0.05 E+03)
CS-137	(1.01 ± 0.21 E+01)
RA-226	(1.39 ± 0.57 E+02)

BOTTOM SEDIMENT SAMPLES
(PICOCURIES PER GRAM)

SECOND SEMI-ANNUAL, 1990

4.9 MI ESE - PRESTWOOD LAKE (SD-46)
(DATE COLLECTED: 07/16/90)

GAMMA SPECTROMETRY MASS: 130.6 GRAMS DRY

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	3.57 ± 0.72 E+00	(LESS THAN LLD)
CO-60	2.50 ± 0.15 E+00	(LESS THAN LLD)
SB-125	7.86 ± 1.92 E-01	(LESS THAN LLD)
CS-137	1.07 ± 0.11 E+00	(LESS THAN LLD)
TL-208	7.56 ± 0.87 E-01	(LESS THAN LLD)
PB-212	2.49 ± 0.13 E+00	(LESS THAN LLD)
PB-214	2.73 ± 0.21 E+00	(LESS THAN LLD)
BI-212	7.43 ± 4.45 E-01	(LESS THAN LLD)
BI-214	2.37 ± 0.20 E+00	(LESS THAN LLD)
RA-226	7.28 ± 1.31 E+00	(LESS THAN LLD)
AC-228	2.42 ± 0.30 E+00	(LESS THAN LLD)

SHORELINE SEDIMENT SAMPLES
(PICOCURIES PER GRAM)

SECOND SEMI-ANNUAL, 1990

1.9 MI NNE - SHADY REST CLUB (SS-44)
(DATE COLLECTED: 07/16/90)

GAMMA SPECTROMETRY MASS: 873.8 GRAMS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	2.08 ± 0.63 E-01	(NOT REQUIRED)
TL-208	4.25 ± 0.88 E-02	(NOT REQUIRED)
PB-212	8.89 ± 1.59 E-02	(NOT REQUIRED)
PB-214	1.68 ± 0.18 E-01	(NOT REQUIRED)
BI-212	1.18 ± 0.52 E-01	(NOT REQUIRED)
BI-214	1.31 ± 0.20 E-01	(NOT REQUIRED)
RA-226	4.04 ± 1.93 E-01	(NOT REQUIRED)

SHORELINE SEDIMENT SAMPLES
(PICOCURIES PER GRAM)

SECOND SEMI-ANNUAL, 1990

0.9 MI NNW - ASH POND (SS-57)
(DATE COLLECTED: 07/16/90)

GAMMA SPECTROMETRY MASS: 962.6 GRAMS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
BE-7	3.49 ± 1.18 E-01	(NOT REQUIRED)
K-40	1.54 ± 0.20 E+00	(NOT REQUIRED)
TL-208	9.67 ± 0.28 E-01	(NOT REQUIRED)
PB-212	2.91 ± 0.04 E+00	(NOT REQUIRED)
PB-214	1.83 ± 0.05 E+00	(NOT REQUIRED)
BI-212	1.72 ± 0.14 E+00	(NOT REQUIRED)
BI-214	1.70 ± 0.05 E+00	(NOT REQUIRED)
RA-226	4.09 ± 0.40 E+00	(NOT REQUIRED)
AC-228	3.00 ± 0.09 E+00	(NOT REQUIRED)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

JULY, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (SW-40)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	2.86 ± 0.65 E+03	(< 9.72E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	4.83 ± 3.43 E+01	(LESS THAN LLD)
PB-212	3.08 ± 2.25 E+00	(3.34 ± 2.52 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

JULY, 1990

7.2 MI NNW - BLACK CREEK - CONTROL (SW-41)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
TRITIUM	0.005	(< 9.72E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
PB-212	(3.34 ± 2.52 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

JULY, 1990

0.9 MI NNW - ASH POND (SW-57)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	3.02 ± 0.65 E+03	(< 9.72E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
PB-212	LESS THAN LLD	(3.34 ± 2.52 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

AUGUST, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (SW-40)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	3.19 ± 0.63 E+03	(< 9.24E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
PB-212	7.32 ± 2.45 E+00	(LESS THAN LLD)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

AUGUST, 1990

7.2 MI NNW - BLACK CREEK - CONTROL (SW-41)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
TRITIUM	0.005	(< 9.24E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
ALL GAMMA EMITTERS LESS THAN LLD	

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

AUGUST, 1990

0.9 MI NNW - ASH POND (SW-57)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	2.45 ± 0.61 E+03	(< 9.24E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
PB-212	1.81 ± 1.59 E+00	(LESS THAN LLD)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

SEPTEMBER, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (SW-40)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	2.67 ± 0.63 E+03	(< 9.40E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	8.11 ± 2.99 E+01	(1.47 ± 0.23 E+02)
PB-212	3.29 ± 2.53 E+00	(LESS THAN LLD)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

SEPTEMBER, 1990

7.2 MI NNW - BLACK CREEK - CONTROL (SW-41)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
TRITIUM	0.005	(< 9.40E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
K-40	(1.47 ± 0.23 E+02)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

SEPTEMBER, 1990

0.9 MI NNW - ASH POND (SW-57)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	3.04 ± 0.63 E+03	(< 9.40E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	1.85 ± 0.21 E+02	(1.47 ± 0.23 E+02)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

OCTOBER, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (SW-40)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	2.44 ± 0.64 E+03	(< 9.64E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	4.81 ± 0.23 E+00	(LESS THAN LLD)
TL-208	LESS THAN LLD	(3.12 ± 1.93 E+00)
PB-212	2.80 ± 0.24 E-01	(7.02 ± 2.47 E+00)
RA-226	2.08 ± 2.93 E+01	(LESS THAN LLD)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

OCTOBER, 1990

7.2 MI NNW - BLACK CREEK - CONTROL (SW-41)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
TRITIUM	0.005	(< 9.64E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
TL-208	(3.12 ± 1.93 E+00)
PB-212	(7.02 ± 2.47 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

OCTOBER, 1990

0.9 MI NNW - ASH POND (SW-57)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	2.30 ± 0.63 E+03	(< 9.64E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
TL-208	LESS THAN LLD	(3.12 ± 1.93 E+00)
PB-212	3.10 ± 2.17 E+00	(7.02 ± 2.47 E+00)
RA-226	3.79 ± 3.09 E+01	(LESS THAN LLD)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

NOVEMBER, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (SW-40)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	1.13 ± 0.60 E+03	(< 9.57E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	5.27 ± 3.08 E+01	(LESS THAN LLD)
PB-212	1.36 ± 0.37 E+01	(4.50 ± 1.71 E+00)
RA-226	3.60 ± 3.42 E+01	(LESS THAN LLD)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

NOVEMBER, 1990

7.2 MI NNW - BLACK CREEK - CONTROL (SW-41)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
TRITIUM	0.005	(< 9.57E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
PB-212	(4.50 ± 1.71 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

NOVEMBER, 1990

0.9 MI NNW - ASH POND (SW-57)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.57E+02	(< 9.57E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
K-40	3.82 ± 2.31 E+01	(LESS THAN LLD)
PB-212	LESS THAN LLD	(4.50 ± 1.71 E+00)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

DECEMBER, 1990

0.6 MI ESE-SC23 AT BLACK CR AND ART WELL (SW-40)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	1.18 ± 0.59 E+03	(< 9.27E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
TL-208	1.98 ± 1.93 E+00	(LESS THAN LLD)
PB-212	6.31 ± 2.14 E+00	(LESS THAN LLD)
RA-226	2.98 ± 2.72 E+01	(LESS THAN LLD)

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

DECEMBER, 1990

7.2 MI NNW - BLACK CREEK - CONTROL (SW-41)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	CONTROL ACTIVITY
TRITIUM	0.005	(< 9.27E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	CONTROL ACTIVITY
ALL GAMMA EMITTERS LESS THAN LLD	

SURFACE WATER SAMPLES
(PICOCURIES PER LITER)

DECEMBER, 1990

0.9 MI NNW - ASH POND (SW-57)
(COMPOSITE SAMPLE)

RADIOCHEMISTRY

ANALYSIS	LITERS	SAMPLE ACTIVITY	CONTROL ACTIVITY
TRITIUM	0.005	< 9.27E+02	(< 9.27E+02)

GAMMA SPECTROMETRY VOLUME: 1 LITERS

ISOTOPE	SAMPLE ACTIVITY	CONTROL ACTIVITY
PB-212	2.42 ± 1.79 E+00	(LESS THAN LLD)

ENVIRONMENTAL TLD
(MILLIROENTGEN PER WEEK)

THIRD QUARTER, 1990

	STATION	MILLIROENTGEN PER WEEK
	CONTROL	(1.30 ± 0.30 E+00)
1	26 MI ESE - FLORENCE - CONTROL	1.30 ± 0.30 E+00
2	0.2 MI S - INFORMATION CENTER	1.10 ± 0.30 E+00
3	0.7 MI N - MICROWAVE TOWER	1.30 ± 0.30 E+00
4	0.4 MI ESE - SPILLWAY	1.00 ± 0.30 E+00
5	0.9 MI ENE - JOHNSON'S LANDING	1.20 ± 0.30 E+00
6	0.3 MI SW - INFORMATION CENTER	1.10 ± 0.40 E+00
7	6.3 MI ESE - HARTSVILLE CP&L SUBSTATION	1.20 ± 0.30 E+00
8	0.8 MI SSE - POWER POLES FROM HBR	9.00 ± 3.00 E-01
9	1.0 MI S - POWER POLE NEAR HWY 151	1.60 ± 0.30 E+00
10	1.0 MI WSW - CHURCH OF GOD CEMETERY	1.20 ± 0.30 E+00
11	1.0 MI SW - POWER POLE AT OLD CAMDEN RD	9.00 ± 3.00 E-01
12	1.2 MI SSW-PINE TREE AT 2ND INT DIRT RD	9.00 ± 3.00 E-01
13	1.0 MI W-PINE TREE WHERE DIRT RD SPLITS	9.00 ± 3.00 E-01
14	0.9 MI WNW - HWY 151 AT PINE RIDGE CH	1.00 ± 0.30 E+00
15	1.0 MI NW -DIRT RD NEAR ASH POND	9.00 ± 3.00 E-01
16	1.0 MI NNW - DARLINGTON IC TURBINE PLANT	1.10 ± 0.30 E+00
17	1.1 MI N - DIS CANAL RD AT UNIT 1 WEIR	1.40 ± 0.30 E+00
18	0.7 MI SE - TRAIN TRESTLE OVER BLACK CR	1.00 ± 0.30 E+00
19	1.0 MI E - RD S-16-23	1.10 ± 0.30 E+00
20	1.3 MI ENE - RD S-16-39 NORTH	1.10 ± 0.30 E+00
21	ATKINSON'S BOAT LANDING	1.20 ± 0.30 E+00

ENVIRONMENTAL TLD
(MILLIROENTGEN PER WEEK)

THIRD QUARTER, 1990

	STATION	MILLIROENTGEN PER WEEK
	CONTROL	(1.30 ± 0.30 E+00)
22	1.9 MI NNE - SHADY REST NEAR DOCK	1.10 ± 0.30 E+00
23	1.2 MI ESE - INT RD 41E-5 AND S-16-39	1.00 ± 0.30 E+00
24	5.0 MI NW - S-13-711 PAST PEACH FARM	1.20 ± 0.30 E+00
25	4.6 MI NNW - RD S-13-346 OFF 151 NORTH	1.00 ± 0.30 E+00
26	5.0 MI N - RD S-13-346	1.30 ± 0.30 E+00
27	5.0 MI NNE - RD S-13-763 NEAR INTER	1.10 ± 0.30 E+00
28	4.8 MI NE - NEAR DUMPSTER RD S-13-39	1.30 ± 0.30 E+00
29	RD S-16-20 SOUTH OF LOOKOUT TOWER	1.40 ± 0.30 E+00
30	4.6 MI E - RD S-16-20 JOHNSON FENCE CO	1.00 ± 0.30 E+00
31	4.6 MI ESE - LAKESHORE DRIVE	1.20 ± 0.30 E+00
32	4.5 MI SE - END OF KALBER DRIVE	1.00 ± 0.30 E+00
33	4.6 MI SSE-RD S16-493 NEAR SEGAR'S ENTR	1.20 ± 0.30 E+00
34	4.6 MI S - RD S-16-772	9.00 ± 3.00 E-01
35	4.4 MI SSW - INT RD S-31-51 & S-16-12	1.90 ± 0.30 E+00
36	4.7 MI SW - PAVED RD OFF RD S-16-85	1.40 ± 0.30 E+00
37	5.0 MI WSW - TRANS TOWER NEAR CLAY RD	1.30 ± 0.30 E+00
38	4.9 MI W - RD S-16-231 AT UNION CHURCH	1.10 ± 0.30 E+00
39	5.0 MI WNW - POWER POLE IN FIELD	1.00 ± 0.30 E+00
55	0.3 MI SSE - SITE BOUNDARY	1.10 ± 0.30 E+00
56	300 FT N OF ISFSI	1.00 ± 0.30 E+00

ENVIRONMENTAL TLD
(MILLIROENTGEN PER WEEK)

FOURTH QUARTER, 1990

	STATION	MILLIROENTGEN PER WEEK
	CONTROL	(9.00 ± 1.00 E-01)
1	26 MI ESE - FLORENCE - CONTROL	9.00 ± 1.00 E-01
2	0.2 MI S - INFORMATION CENTER	1.00 ± 0.20 E+00
3	0.7 MI N - MICROWAVE TOWER	1.10 ± 0.10 E+00
4	0.4 MI ESE - SPILLWAY	9.00 ± 2.00 E-01
5	0.9 MI ENE - JOHNSON'S LANDING	9.00 ± 1.00 E-01
7	6.3 MI ESE - HARTSVILLE CP&L SUBSTATION	9.00 ± 2.00 E-01
8	0.8 MI SSE - POWER POLES FROM HBR	8.00 ± 1.00 E-01
9	1.0 MI S - POWER POLE NEAR HWY 151	1.40 ± 0.20 E+00
10	1.0 MI WSW - CHURCH OF GOD CEMETERY	9.00 ± 2.00 E-01
11	1.0 MI SW - POWER POLE AT OLD CAMDEN RD	9.00 ± 1.00 E-01
12	1.2 MI SSW-PINE TREE AT 2ND INT DIRT RD	1.00 ± 0.10 E+00
13	1.0 MI W-PINE TREE WHERE DIRT RD SPLITS	8.00 ± 2.00 E-01
14	0.9 MI WNW - HWY 151 AT PINE RIDGE CH	9.00 ± 1.00 E-01
15	1.0 MI NW -DIRT RD NEAR ASH POND	9.00 ± 1.00 E-01
16	1.0 MI NNW - DARLINGTON IC TURBINE PLANT	1.00 ± 0.10 E+00
17	1.1 MI N - DIS CANAL RD AT UNIT 1 WEIR	1.30 ± 0.20 E+00
18	0.7 MI SE - TRAIN TRESTLE OVER BLACK CR	9.00 ± 1.00 E-01
19	1.0 MI E - RD S-16-23	9.00 ± 2.00 E-01
20	1.3 MI ENE - RD S-16-39 NORTH	1.00 ± 0.10 E+00
21	ATKINSON'S BOAT LANDING	1.10 ± 0.20 E+00
22	1.9 MI NNE - SHADY REST NEAR DOCK	9.00 ± 1.00 E-01

ENVIRONMENTAL TLD
(MILLIROENTGEN PER WEEK)

FOURTH QUARTER, 1990

	STATION	MILLIROENTGEN PER WEEK
	CONTROL	(9.00 ± 1.00 E-01)
23	1.2 MI ESE - INT RD 41E-5 AND S-16-39	1.00 ± 0.20 E+00
24	5.0 MI NW - S-13-711 PAST PEACH FARM	1.20 ± 0.10 E+00
25	4.6 MI NNW - RD S-13-346 OFF 151 NORTH	1.00 ± 0.10 E+00
26	5.0 MI N - RD S-13-346	1.20 ± 0.10 E+00
27	5.0 MI NNE - RD S-13-763 NEAR INTER	1.00 ± 0.20 E+00
29	RD S-16-20 SOUTH OF LOOKOUT TOWER	1.20 ± 0.10 E+00
30	4.6 MI E - RD S-16-20 JOHNSON FENCE CO	1.00 ± 0.10 E+00
31	4.6 MI ESE - LAKESHORE DRIVE	1.10 ± 0.10 E+00
32	4.5 MI SE - END OF KALBER DRIVE	1.00 ± 0.20 E+00
33	4.6 MI SSE-RD S16-493 NEAR SEGAR'S ENTR	1.20 ± 0.20 E+00
34	4.6 MI S - RD S-16-772	8.00 ± 1.00 E-01
35	4.4 MI SSW - INT RD S-31-51 & S-16-12	1.80 ± 0.20 E+00
36	4.7 MI SW - PAVED RD OFF RD S-16-85	1.40 ± 0.20 E+00
37	5.0 MI WSW - TRANS TOWER NEAR CLAY RD	1.30 ± 0.20 E+00
38	4.9 MI W - RD S-16-231 AT UNION CHURCH	1.10 ± 0.20 E+00
39	5.0 MI WNW - POWER POLE IN FIELD	1.00 ± 0.10 E+00
55	0.3 MI SSE - SITE BOUNDARY	1.10 ± 0.10 E+00
56	300 FT N OF ISFSI	1.00 ± 0.20 E+00