VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

April 17, 2006

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555

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Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION UNITS 1 & 2 AND
INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI)
ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

Enclosed is the Annual Radiological Environmental Operating Report for the January 1, 2005 through December 31, 2005, reporting period. It is provided pursuant to North Anna Units 1 and 2, Technical Specifications 5.6.2, and North Anna Independent Spent Fuel Storage Installation Technical Specification 5.5.2c.

If you have any questions or require additional information, please contact Page Kemp at (540) 894-2295.

Very truly yours,

J. M. Davis
Site Vice President

Enclosure

Commitments made in this letter: None

IE25

cc: U. S. Nuclear Regulatory Commission
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Director, Nuclear Material Safety and Safeguards
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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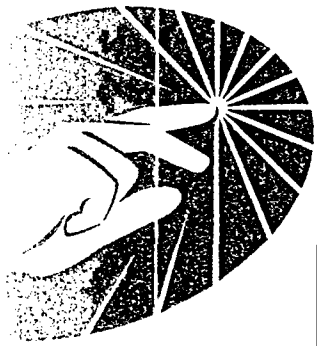
NRC Senior Resident Inspector
North Anna Power Station



Dominion℠

North Anna Power Station

2005 Annual Radiological Environmental Operating Report

Annual Radiological Environmental Operating Report

North Anna Power Station

January 1, 2005 to December 31, 2005

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1. EXECUTIVE SUMMARY

This document is a detailed report of the 2005 North Anna Nuclear Power Station Radiological Environmental Monitoring Program (REMP). It is submitted in accordance with North Anna Unit 1 and 2 Technical Specification 5.6.2 and North Anna Independent Spent Fuel Storage Installation (ISFSI) Technical Specification 5.5.2b. Radioactivity levels from January 1 through December 31, 2005, in water, silt, shoreline sediment, milk, aquatic biota, food products, vegetation, and direct exposure pathways have been analyzed, evaluated and summarized. The REMP is designed to confirm that radiological effluent releases are As Low As is Reasonably Achievable (ALARA), no undue environmental effects occur and the health and safety of the public are protected. The program also detects any unexpected environmental processes that could allow radiation accumulations in the environment or food pathway chains.

Radiation and radioactivity in the environment is monitored within a 25-mile radius of the station. North Anna Power Station personnel collect a variety of samples within this area. A number of sampling locations for each medium are selected using available meteorological, land use, and water use data. Two types of samples are obtained. The first type, control samples, are collected from areas that are beyond the measurable influence of North Anna Power Station or any other nuclear facility. These samples are used as reference data. Normal background radiation levels, or radiation present due to causes other than North Anna Power Station, can be compared to the environment surrounding the station. Indicator samples are the second sample type obtained. These samples show how much radiation is contributed to the environment by the station. Indicator samples are taken from areas close to the station where any station contribution will be at the highest concentration.

Prior to station operation, samples were collected and analyzed to determine the amount of radioactivity present in the area. The resulting values are used as a "pre-operational baseline." Analysis results from the indicator samples are compared to both current control sample values and the pre-operational baseline to determine if changes in radioactivity levels are attributable to station operations, or causes such as the Chernobyl accident or natural variation.

Global Dosimetry Solutions provided thermoluminescent dosimetry (TLD) services and AREVA Environmental Laboratory provided radioanalytical services. Participation in an Interlaboratory Comparison Program provides an independent check of sample measurement precision and accuracy. Typically, radioactivity levels in the environment are so low that analysis values frequently fall below the minimum detection limits of state-of-the-art measurement methods. Because of this, the Nuclear Regulatory Commission (NRC) requires that equipment used for radiological environmental monitoring must be able to detect specified minimum Lower Limits of Detection (LLDs). This ensures that analyses are as accurate as

possible. The NRC also mandates a reporting level for certain radionuclides. Licensed nuclear facilities must report the radionuclide activities in those environmental samples that are equal to or greater than the specified reporting level. Environmental radiation levels are sometimes referred to as a percent of the reporting level.

Analytical results are reported for all possible radiation exposure pathways to man. These pathways include airborne, water, aquatic, terrestrial, and direct radiation exposure. The airborne exposure pathway includes radioactive airborne iodine and particulates, and precipitation. The 2005 airborne results were similar to previous years. No plant related radioactivity was detected and fallout or natural radioactivity levels remained at levels consistent with past years' results.

Water and aquatic exposure pathway samples include surface, river and well water, silt and shoreline sediments, and fish. No plant related isotopes were detected in Lake Anna surface water except for tritium. The average tritium activity in surface water for 2005 was 3137 pCi/liter. Naturally occurring potassium-40 was detected at average environmental levels. River water collected from the North Anna River, 5.8 miles downstream of the site had an average tritium level of 3170 pCi/liter. No plant related radioisotopes were detected in well water. This trend is consistent throughout the environmental operational monitoring program. Both silt samples indicated the presence of naturally occurring thorium-228 at levels consistent with the natural background. Shoreline sediment, which may provide a direct exposure pathway, indicated the presence of Th-228 also at levels consistent with natural levels. Cs-137 was present in sediment at 205 pCi/kg. Cs-137 was likewise present in shoreline soil at 181 pCi/kg. In both cases these Cs-137 levels are consistent with historic levels. The terrestrial exposure pathway includes milk and food/vegetation products. Iodine-131 was not detected in any 2005 milk samples and has not been detected in milk prior to or since the 1986 Chernobyl accident. No plant related radioisotopes were detected in any milk samples. A ten-year activity trend continues to indicate the slow decrease in Sr-90 activity. Naturally occurring potassium-40 was detected at average environmental levels. Consistent with historical data, potassium-40 was detected. The direct exposure pathway measures environmental radiation doses by use of thermoluminescent dosimeters (TLDs). TLD results have remained essentially constant over the years.

During 2005, as in previous years, operation of the North Anna Power Station and the Independent Spent Fuel Storage Installation (ISFSI) created no adverse environmental effects or health hazards. The maximum dose calculated for a hypothetical individual at the station site boundary due to liquid and gaseous effluents released from the station during 2005 was 0.38 millirem. For reference, this dose may be compared to the 360 millirem average annual exposure to every person in the United States from natural and man-made sources. Natural sources in the environment provide approximately 82% of radiation exposure to man,

while nuclear power contributes less than 0.1%. These results demonstrate not only compliance with federal and state regulations but also demonstrate the adequacy of radioactive effluent control at North Anna Power Station.

2. PROGRAM DESCRIPTION

2.1 Introduction

This report documents the 2005 North Anna Power Station operational Radiological Environmental Monitoring Program (REMP).

The North Anna Power Station of Dominion Virginia Power Company is located on Lake Anna in Mineral, Virginia, approximately 35 miles southwest of Fredericksburg, Virginia. The site consists of two units, each with a pressurized water reactor (PWR) nuclear steam supply system and turbine generator furnished by Westinghouse Electric Corporation. Each unit was designed with a gross electrical output of 979 megawatts electric (MWe). Unit 1 achieved commercial operation on June 6, 1978 and Unit 2 on December 14, 1980. An independent spent fuel storage facility was licensed for dry cask storage of spent fuel in 1998.

The United States Nuclear Regulatory Commission (USNRC) regulations require that nuclear power plants be designed, constructed, and operated to keep levels of radioactive material in effluents to unrestricted areas as low as is reasonably achievable (ALARA). To ensure these criteria are met, the operating license for North Anna Power Station includes Technical Specifications, which address the release of radioactive effluents. In-plant monitoring is used to ensure release limits are not exceeded. As a precaution against unexpected or undefined environmental processes which might allow undue accumulation of radioactivity in the environment, a program for monitoring the plant environs is also included in North Anna Power Station Offsite Dose Calculation Manual (ODCM).

North Anna Power Station is responsible for collecting the various indicator and control environmental samples. Global Dosimetry Solutions is responsible for processing the TLDs. AREVA Environmental Laboratory is responsible for sample analyses. The results of the analyses are used to determine if changes in radioactivity levels may be attributable to station operations. Measured values are compared with control levels, which vary with time due to external events, such as cosmic ray bombardment, nuclear weapons test fallout and seasonal variations of naturally occurring radioisotopes. Data collected prior to station operation is used to indicate the degree of natural variation to be expected. This pre-operational data is compared with data collected during the operational phase to assist in evaluating any radiological impact of station operation.

Occasional samples of environment media show the presence of man-made isotopes. As a method of referencing the measured radionuclide concentrations in the sample media to a dose consequence to man, the data is compared to the reporting level concentrations listed in the USNRC Regulatory Guide 4.8 and North Anna's ODCM. These concentrations are based upon the annual dose commitment recommended by 10CFR50, Appendix I, to meet the criterion of "As

Low As Is Reasonably Achievable".

This report documents the results of the Radiological Environmental Monitoring Program for 2005 and satisfies the following objectives of the program:

- To provide measurements of radiation and of radioactive materials in those exposure pathways and for those radionuclides that lead to the highest potential radiation exposure of the maximum exposed member of the public resulting from station operations.

- To supplement the radiological effluent monitoring program by verifying that radioactive effluents are within allowable limits.

- To identify changes in radioactivity in the environment.

- To verify that station operations have no detrimental effect on the health and safety of the public.

2.2 Sampling and Analysis Program

Table 2-1 summarizes the 2005 sampling program for North Anna Power Station. All samples listed in Table 2-1 are taken at indicator locations except those labeled "control." The North Anna Radiological Monitoring Locations maps denote sample locations for North Anna Power Station. The locations are color coded to designate sample types. Table 2-2 summarizes the analysis program conducted by AREVA Environmental Laboratory for North Anna Power Station during the year 2005.

TABLE 2-1

North Anna Power Station - 2005
RADIOLOGICAL SAMPLING STATION
DISTANCE AND DIRECTION FROM UNIT NO. 1

Sample Media	Location	Station	Distance	Direction	Degrees	Collection Frequency	Remarks
Environmental	NAPS Sewage Treatment Plant	01	0.20	NE	42°	Quarterly & Annually	
Thermoluminescent	Fredericks Hall	02	5.30	SSW	203°	Quarterly & Annually	
Dosimetry (TLD)	Mineral, Va	03	7.10	WSW	243°	Quarterly & Annually	
	Wares Crossroads	04	5.10	WNW	287°	Quarterly & Annually	
	Route 752	05	4.20	NNE	20°	Quarterly & Annually	
	Sturgeon's Creek Marina	05A	2.04	N	11°	Quarterly & Annually	
	Levy, VA	06	4.70	ESE	115°	Quarterly & Annually	
	Bumpass, VA	07	7.30	SSE	167°	Quarterly & Annually	
	End of Route 685	21	1.00	WNW	301°	Quarterly & Annually	
	Route 700	22	1.00	WSW	242°	Quarterly & Annually	
	"Aspen Hills"	23	0.93	SSE	158°	Quarterly & Annually	
	Orange, VA	24	22.00	NW	325°	Quarterly & Annually	Control
	Bearing Cooling Tower	N-1/33	0.06	N	10°	Quarterly	
	Sturgeon's Creek Marina	N-2/34	2.04	N	11°	Quarterly	
	Parking Lot "C" (on-site)	NNE-3/35	0.24	NNE	32°	Quarterly	
	Good Hope Church	NNE-4/36	3.77	NNE	25°	Quarterly	
	Parking Lot "B"	NE-5/37	0.20	NE	42°	Quarterly	
	Lake Anna Marina (Bogg's Dr)	NE-6/38	1.46	NE	34°	Quarterly	
	Weather Tower Fence	ENE-7/39	0.36	ENE	74°	Quarterly	
	Route 689	ENE-8/40	2.43	ENE	65°	Quarterly	
	Near Training Facility	E-9/41	0.30	E	91°	Quarterly	
	"Morning Glory Hill"	E-10/42	2.85	E	93°	Quarterly	
	Island Dike	ESE-11/43	0.12	ESE	103°	Quarterly	
	Route 622	ESE-12/44	4.70	ESE	115°	Quarterly	
	DVP Biology Lab	SE-13/45	0.64	SE	138°	Quarterly	
	Route 701 (Dam Entrance)	SE-14/46	5.88	SE	137°	Quarterly	
	"Aspen Hills"	SSE-15/47	0.93	SSE	158°	Quarterly	
	Elk Creek	SSE-16/48	2.33	SSE	165°	Quarterly	
	NAPS Access Rd.	S-17/49	0.47	S	173°	Quarterly	

* In October 1991 the Surface Water Sample location at station 09 was moved to 09A.
** Shoreline soil was changed from station 09 to 08 effective with the August 1996 sample.

TABLE 2-1

North Anna Power Station - 2005
RADIOLOGICAL SAMPLING STATION
DISTANCE AND DIRECTION FROM UNIT NO. 1

Sample Media	Location	Station	Distance	Direction	Degrees	Collection Frequency	Remarks
Environmental	Elk Creek Church	S-18/50	1.55	S	178°	Quarterly	
Thermoluminescent	NAPS Access Rd.	SSW-19/51	0.42	SSW	197°	Quarterly	
Dosimetry (TLD)	Route 618	SSW-20/52	5.30	SSW	205°	Quarterly	
	500kv Tower	SW-21/53	0.6	SW	218°	Quarterly	
	Route 700	SW-22/54	3.96	SW	232°	Quarterly	
	NAPS Radio Tower	WSW-23/55	0.38	WSW	237°	Quarterly	
	Route 700 (Exclusion Boundary)	WSW-24/56	1.00	WSW	242°	Quarterly	
	South Gate Switchyard	W-25/57	0.32	W	279°	Quarterly	
	Route 685	W-26/58	1.55	W	274°	Quarterly	
	End of Route 685	WNW-27/59	1.00	WNW	301°	Quarterly	
	Route 685	WNW-28/60	1.40	WNW	303°	Quarterly	
	North Gate - Construction Side Laydown Area	NW-29/61	0.45	NW	321°	Quarterly	
	Lake Anna Campground	NW-30/62	2.54	NW	319°	Quarterly	
	#1/#2 Intake	NNW-31/63	0.07	NNW	349°	Quarterly	
	Route 208	NNW-32/64	2.21	NNW	344°	Quarterly	
	Bumpass Post Office	C-1/2	7.30	SSE	167°	Quarterly	Control
	Orange, VA	C-3/4	22.00	NW	325°	Quarterly	Control
	Mineral, VA	C-5/6	7.10	WSW	243°	Quarterly	Control
	Louisa, VA	C-7/8	11.54	WSW	257°	Quarterly	Control
Airborne Particulate	NAPS Sewage Treatment Plant	01	0.20	NE	42°	Weekly	
and Radioiodine	Fredericks Hall	02	5.30	SSW	203°	Weekly	
	Mineral, VA	03	7.10	WSW	243°	Weekly	
	Wares Crossroads	04	5.10	WNW	287°	Weekly	
	Route 752	05	4.20	NNE	20°	Weekly	
	Sturgeon's Creek Marina	05A	2.04	N	11°	Weekly	
	Levy, VA	06	4.70	ESE	115°	Weekly	
	Bumpass, VA	07	7.30	SSE	167°	Weekly	

* In October 1991 the Surface Water Sample location at station 09 was moved to 09A.
** Shoreline soil was changed from station 09 to 08 effective with the August 1996 sample.

TABLE 2-1

North Anna Power Station - 2005
RADIOLOGICAL SAMPLING STATION
DISTANCE AND DIRECTION FROM UNIT NO. 1

Sample Media	Location	Station	Distance	Direction	Degrees	Collection Frequency	Remarks
Airborne Particulate and Radioiodine	End of Route 685	21	1.00	WNW	301°	Weekly	
	Route 700	22	1.00	WSW	242°	Weekly	
	"Aspen Hills"	23	0.93	SSE	158°	Weekly	
	Orange, VA	24	22.00	NW	325°	Weekly	Control
Surface Water	Waste Heat Treatment Facility (Second Cooling Lagoon)	08	3.37	SSE	148°	Monthly	
	*Lake Anna (upstream) (Route 669 Bridge)	09A	12.90	WNW	295°	Monthly	Control
River Water	North Anna River (downstream)	11	5.80	SE	128°	Monthly	
Ground Water (Well Water)	Biology Lab	01A	0.64	SE	138°	Quarterly	
Precipitation	Biology Lab	01A	0.64	SE	138°	Monthly	
Aquatic Sediment	Waste Heat Treatment Facility (Second Cooling Lagoon)	08	3.37	SSE	148°	Semi-Annually	
	Lake Anna (upstream) (Route 669 Bridge)	09A	12.90	WNW	295°	Semi-Annually	Control
	North Anna River (downstream)	11	5.80	SE	128°	Semi-Annually	
Shoreline Soil	Waste Heat Treatment Facility (Second Cooling Lagoon)	08 **	3.37	SSE	148°	Semi-Annually	
Soil	NAPS Sewage Treatment Plant	01	0.20	NE	42°	Once/3 years	
	Fredericks Hall	02	5.30	SSW	203°	Once/3 years	
	Mineral, VA	03	7.10	WSW	243°	Once/3 years	
	Wares Crossroads	04	5.10	WNW	287°	Once/3 years	

* In October 1991 the Surface Water Sample location at station 09 was moved to 09A.
** Shoreline soil was changed from station 09 to 08 effective with the August 1996 sample.

TABLE 2-1
North Anna Power Station - 2005
RADIOLOGICAL SAMPLING STATION
DISTANCE AND DIRECTION FROM UNIT NO. 1

Sample Media	Location	Station	Distance	Direction	Degrees	Collection Frequency	Remarks
Soil	Route 752	05	4.20	NNE	20°	Once/3 years	
	Sturgeon's Creek Marina	05A	2.04	N	11°	Once/3 years	
	Levy, VA	06	4.70	ESE	115°	Once/3 years	
	Bumpass, VA	07	7.30	SSE	167°	Once/3 years	
	End of Route 685	21	1.00	WNW	301°	Once/3 years	
	Route 700 (Exclusion Boundary)	22	1.00	WSW	242°	Once/3 years	
	"Aspen Hills"	23	0.93	SSE	158°	Once/3 years	
	Orange, VA	24	22.00	NW	325°	Once/3 years	Control
Milk	Holladay Dairy (R.C. Goodwin)	12	8.30	NW	310°	Monthly	
	Terrell's Dairy (Fredericks Hall)	13	5.60	SSW	205°	Monthly	
	Anderson's Farm	27	2.49	ENE	66°	Monthly	
Fish	Waste Heat Treatment Facility (Second Cooling Lagoon)	08	3.37	SSE	148°	Semi-Annually	
	Lake Orange	25	16.5	NW	312°	Semi-Annually	Control
Food Products (Broadleaf Vegetation)	Bel Aire Plantation	14	1.20	NE	43°	Monthly if available or at harvest	
	Route 614	15	1.37	SE	133°	Monthly if available or at harvest	
	Route 629/522	16	12.60	NW	314°	Monthly if available or at harvest	Control
	Aspen Hills	23	0.93	SSE	158°	Monthly if available or at harvest	
	"Historic Lane"	26	1.15	S	172°	Monthly if available or at harvest	

* In October 1991 the Surface Water Sample location at station 09 was moved to 09A.
** Shoreline soil was changed from station 09 to 08 effective with the August 1996 sample.

TABLE 2-2
North Anna Power Station
SAMPLE ANALYSIS PROGRAM

SAMPLE MEDIA	FREQUENCY	ANALYSIS	LLD	REPORT UNITS
Thermoluminescent Dosimetry (TLD)				
(84 TLDs)	Quarterly	Gamma Dose	2 mR±2mR	mR/std. Month
(12 TLDs)	Annually	Gamma Dose	2 mR±2mR	mR/std. Month
Airborne Radioiodine	Weekly	I-131	0.07	pCi/m^3
Airborne Particulate	Weekly	Gross Beta	0.01	pCi/m^3
	Quarterly (a)	Gamma Isotopic		pCi/m^3
		Cs-134	0.05	
		Cs-137	0.06	
	2nd Quarter	Sr-89	(b)	pCi/m^3
	Composite	Sr-90	(b)	
Surface Water	Monthly	I-131	1(c)	pCi/L
		Gamma Isotopic		pCi/L
		Mn-54	15	
		Fe-59	30	
		Co-58	15	
		Co-60	15	
		Zn-65	30	
		Zr-95	30	
		Nb-95	15	
		Cs-134	15	
		Cs-137	18	
		Ba-140	60	
		La-140	15	
	Quarterly(a)	Tritium (H-3)	2000	pCi/L
	2nd Quarter	Sr-89	(b)	pCi/L
	Composite	Sr-90	(b)	
River Water	Monthly	I-131	1(c)	pCi/L
		Gamma Isotopic		pCi/L
		Mn-54	15	
		Fe-59	30	
		Co-58	15	
		Co-60	15	
		Zn-65	30	
		Zr-95	30	
		Nb-95	15	
		Cs-134	15	
		Cs-137	18	
		Ba-140	60	
		La-140	15	

*LLDs indicate those levels to which environmental samples are required to be analyzed. Actual analysis of samples may be lower than the these listed values.

(a) Quarterly composite of each location's samples are used for the required analysis

(b) There are no required LLDs for Sr-89/90

(c) LLD for non-drinking water is 10 pCi/liter.

TABLE 2-2
North Anna Power Station
SAMPLE ANALYSIS PROGRAM

SAMPLE MEDIA	FREQUENCY	ANALYSIS	LLD	REPORT UNITS
River Water	Quarterly(a)	Tritium (H-3)	2000	pCi/L
	2nd Quarter	Sr-89	(b)	pCi/L
	Composite	Sr-90	(b)	
Ground Water (Well Water)	Quarterly	Gamma Isotopic		pCi/L
		Mn-54	15	
		Fe-59	30	
		Co-58	15	
		Co-60	15	
		Zn-65	30	
		Zr-95	30	
		Nb-95	15	
		I-131	1(c)	
		Cs-134	15	
		Cs-137	18	
		Ba-140	60	
		La-140	15	
	Quarterly(a)	Tritium (H-3)	2000	pCi/L
	2nd Quarter	Sr-89	(b)	pCi/L
		Sr-90	(b)	
Aquatic Sediment	Semi-Annually	Gamma Isotopic		pCi/kg (dry)
		Cs-134	150	
		Cs-137	180	
	Annually	Sr-89	(b)	pCi/kg (dry)
		Sr-90	(b)	
Precipitation	Monthly	Gross Beta	4	pCi/L
	Semi-Annual	Gamma Isotopic		pCi/L
	Composite	Mn-54	15	
		Fe-59	30	
		Co-58	15	
		Co-60	15	
		Zn-65	30	
		Zr-95	30	
		Nb-95	15	
		I-131	1(c)	
		Cs-134	15	
		Cs-137	18	
		Ba-140	60	
		La-140	15	
Shoreline Soil	Semi-Annually	Gamma Isotopic		pCi/kg (dry)
		Cs-134	150	
		Cs-137	180	
	Annually	Sr-89	(b)	pCi/kg (dry)

*LLDs indicate those levels to which environmental samples are required to be analyzed. Actual analysis of samples may be lower than the these listed values.

(a) Quarterly composite of each location's samples are used for the required analysis

(b) There are no required LLDs for Sr-89/90

(c) LLD for non-drinking water is 10 pCi/liter.

TABLE 2-2
North Anna Power Station
SAMPLE ANALYSIS PROGRAM

SAMPLE MEDIA	FREQUENCY	ANALYSIS	LLD	REPORT UNITS
		Sr-90	(b)	
Soil	Once per 3 years	Gamma Isotopic		pCi/kg (dry)
		Cs-134	150	
		Cs-137	180	
		Sr-89	(b)	pCi/kg (dry)
		Sr-90	(b)	
Milk	Monthly	I-131	1	pCi/L
	Monthly	Gamma Isotopic		
		Cs-134	15	
		Cs-137	18	
		Ba-140	60	
		La-140	15	
	Quarterly	Sr-89	(b)	pCi/L
		Sr-90	(b)	
Fish	Semi-Annually	Gamma Isotopic		pCi/kg (wet)
		Mn-54	130	
		Fe-59	260	
		Co-58	130	
		Co-60	130	
		Zn-65	260	
		Cs-134	130	
		Cs-137	150	
Food Products (Broadleaf Vegetation)	Monthly if available or	Gamma Isotopic		pCi/kg (wet)
		Cs-134	60	
	at harvest	Cs-137	80	
		I-131	60	

*LLDs indicate those levels to which environmental samples are required to be analyzed. Actual analysis of samples may be lower than the these listed values.

(a) Quarterly composite of each location's samples are used for the required analysis

(b) There are no required LLDs for Sr-89/90

(c) LLD for non-drinking water is 10 pCi/liter.

Legend For The North Anna Power Station
Environmental Monitoring Stations Overview Maps

Map Designation	Environmental Station Identification	Map Designation	Environmental Station
1 (a)	01,NE-5/37	27	27-Milk
1A	01A,SE-13/45	7/8	C-7/8
2 (a)	02,SSW-20/52	1/33	N-1/33
3 (a)	03,C-5/6	31/63	NNW-31/63
4 (a)	04	29/61	NW-29/61
5 (a)	05	3/35	NNE-3/35
5A (a)	05A,N-2/34	7/39	ENE-7/39
6 (a)	06,ESE-12/44	9/41	E-9/41
7 (a)	07,C-1/2	11/43	ESE-11/43
8	08-Water, Fish Sediment,	17/49	S-17/49
	Shoreline Soil	19/51	SSW-19/51
9A	09A-Water sample, sediment	21/53	SW-21/53
11	11-River Water, Sediment	23/55	WSW-23/55
12	12-Milk	25/57	W-25/57
13	13-Milk	16/48	SSE-16/48
14	14-Vegetation, NE-6/38	18/50	S-18/50
15	Vegetation	14/46	SE-14/46
16	Vegetation	22/54	SW-22/54
21 (a)	21,WNW-27/59	26/58	W-26/58
22 (a)	22,WSW-24/56	28/60	WNW-28/60
23 (a)	23-SSE-15/47	32/64	NNW-32/64
24 (a)(b)	24,C-3/4	8/40	ENE-8/40
25 (c)	25-Fish	4/36	NNE-4/36
26	26-Vegetation	10/42	E-10/42

(a) Indicates air sample station, annual and quarterly TLD, Triennial soil.
(b) In Orange
(c) In Lake Orange

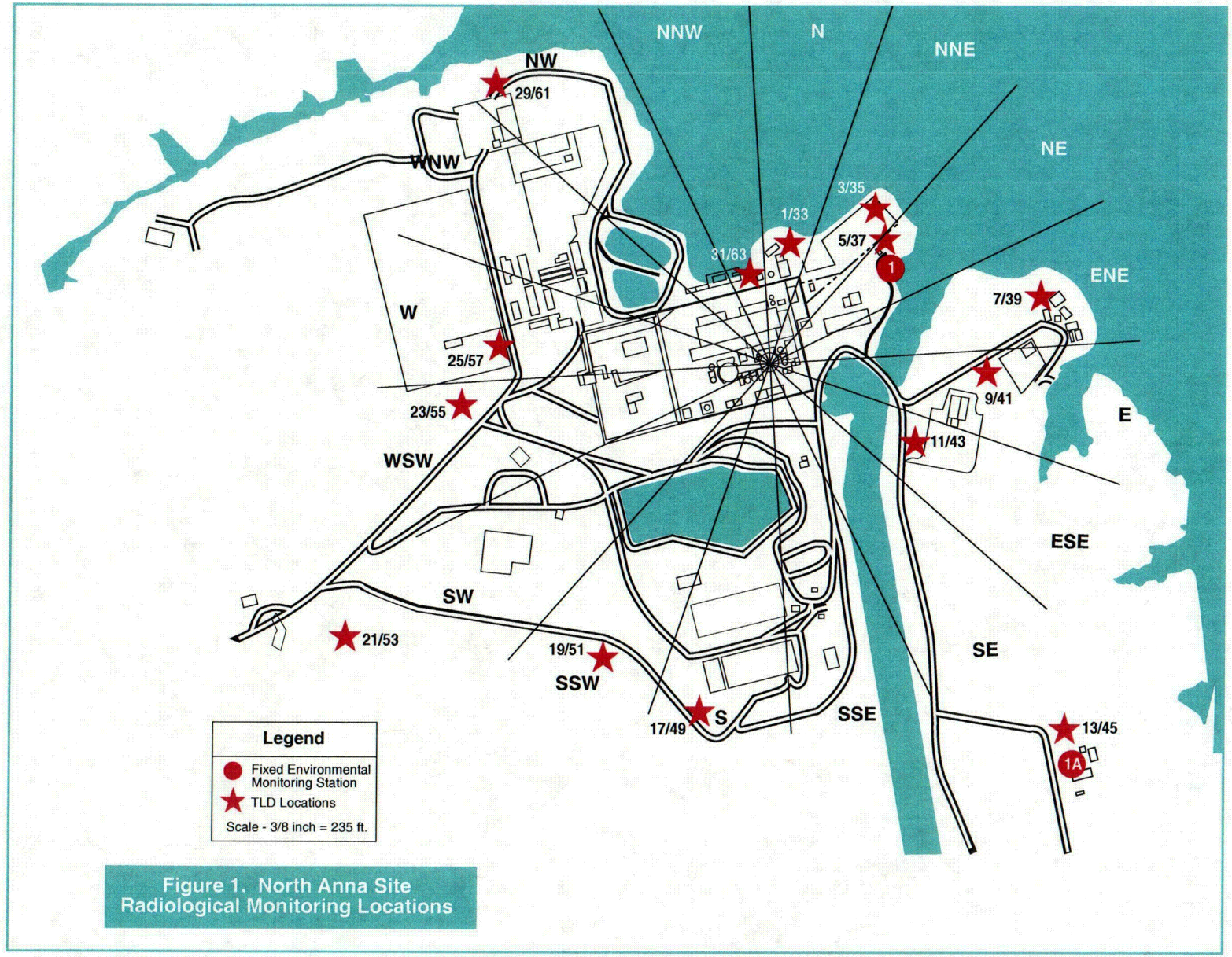
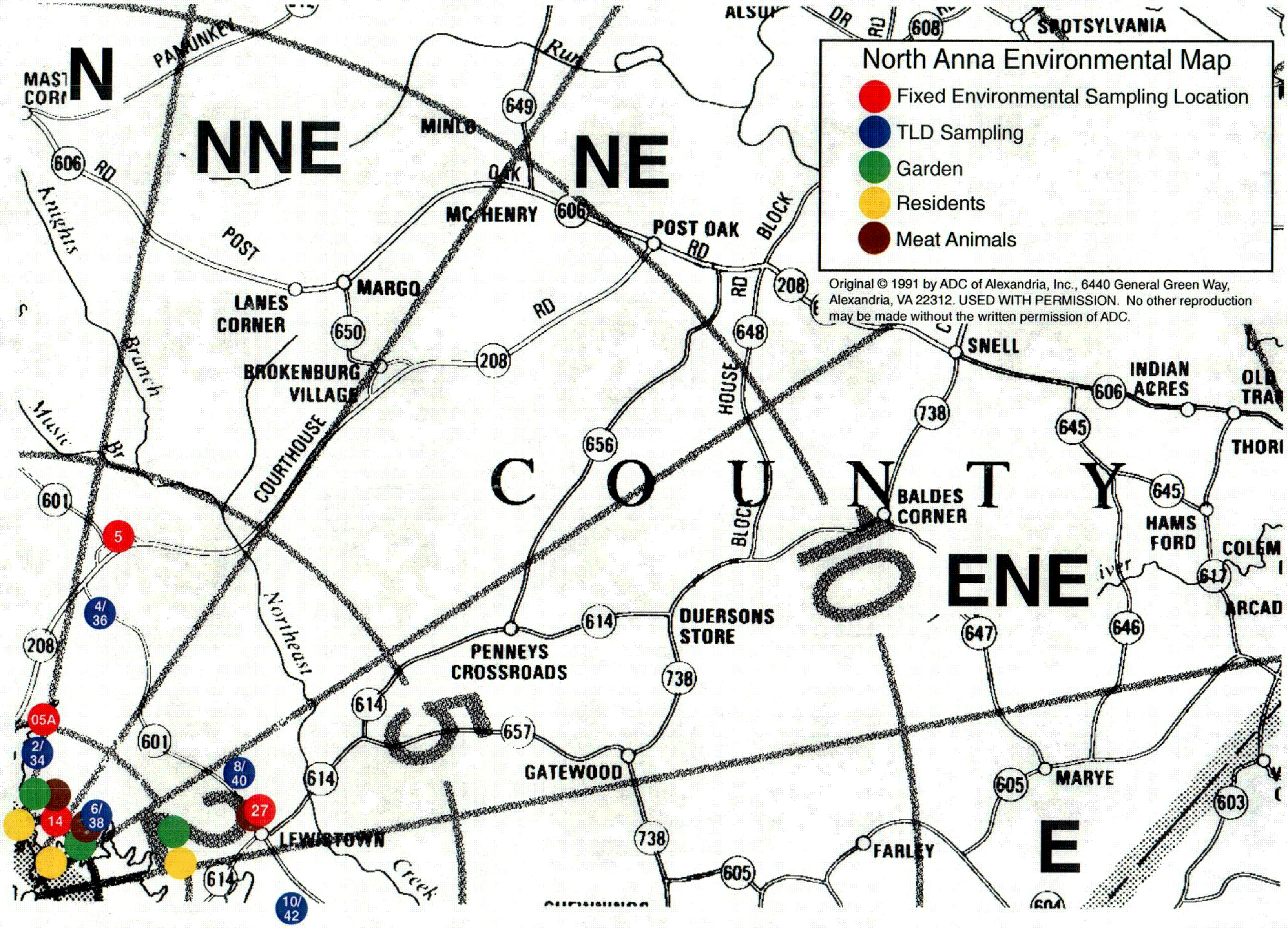


Figure 1. North Anna Site Radiological Monitoring Locations

SV6441

C01


North Anna Environmental Map
Fixed Environmental Sampling Location
TLD Sampling
Garden
Residents
Meat Animals
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N
NNE
NE
ENE
E
C O U N T Y
SPOTSYLVANIA
MINLO
OAK
MC HENRY
POST OAK
POST
RD
MARGO
LANES CORNER
BROKENBURG VILLAGE
COURTHOUSE
Knights
Branch
Music
Northeast
PENNEYS CROSSROADS
DUERSONS STORE
GATEWOOD
LEWISTOWN
Creek
FARLEY
MARYE
BALDES CORNER
SNELL
INDIAN ACRES
HAMS FORD
HOUSE
BLOCK
606
649
650
208
648
656
738
645
646
647
614
657
601
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4/36
6/38
8/40
10/42

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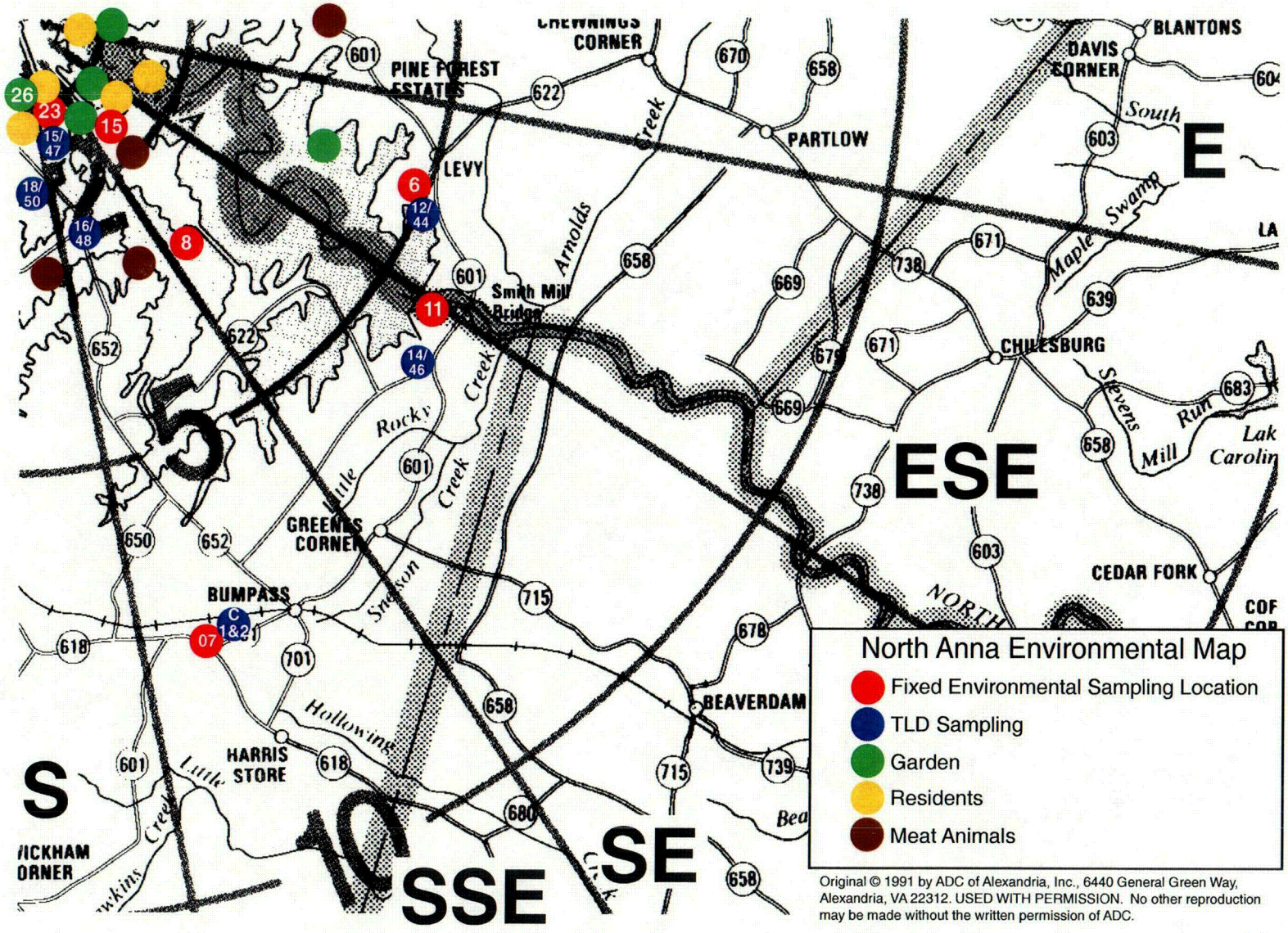
C02



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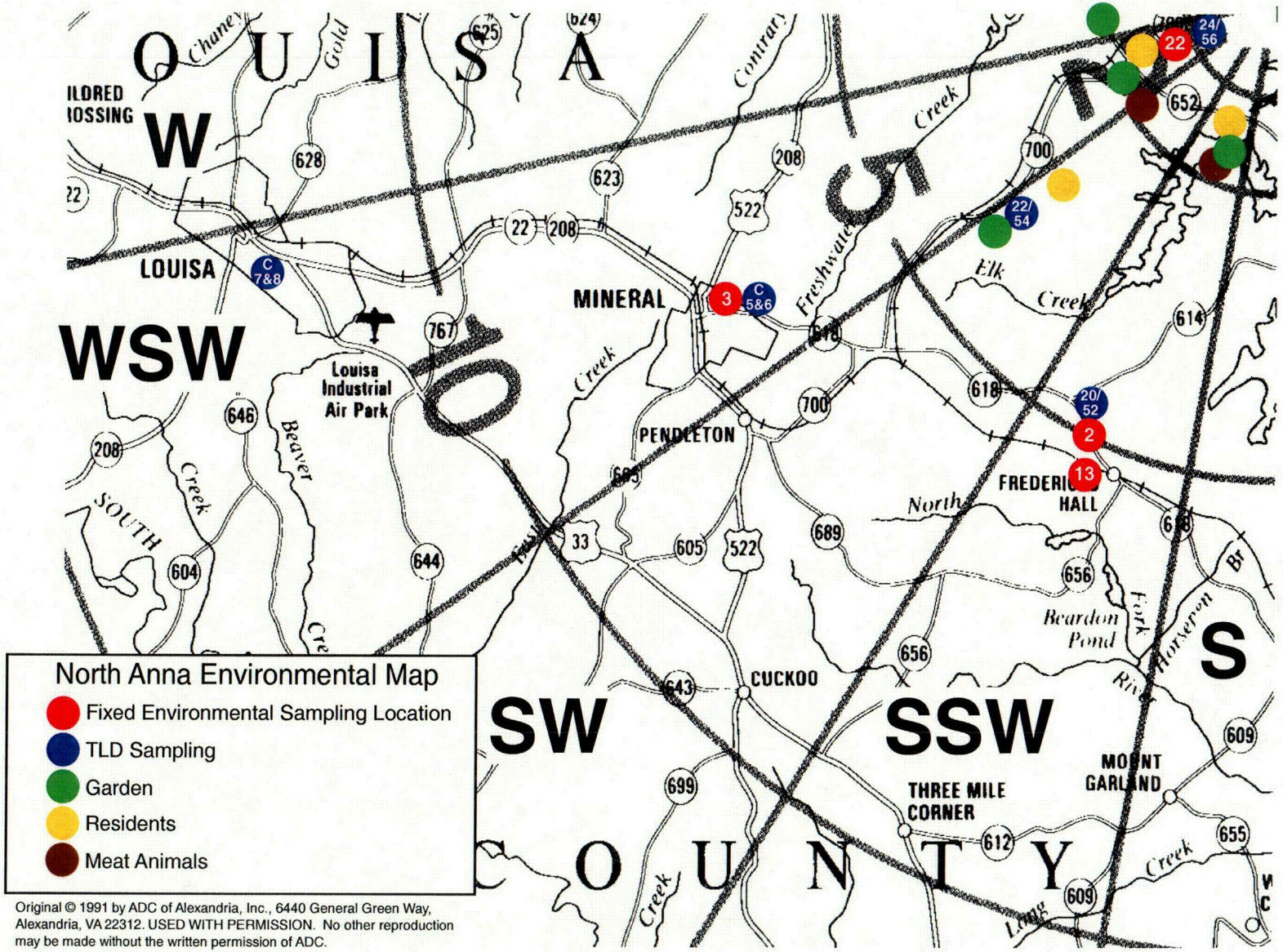

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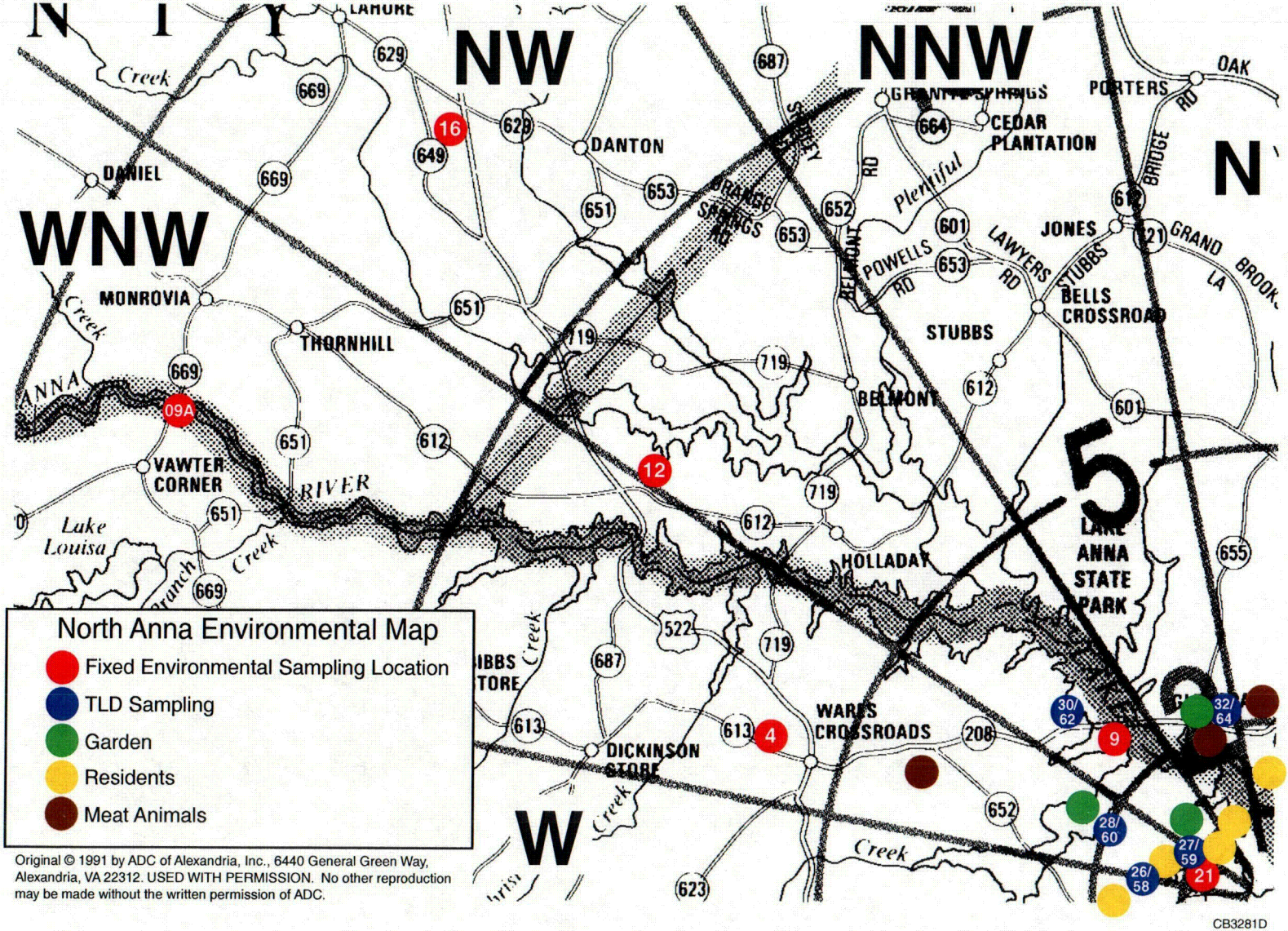

C05

3. ANALYTICAL RESULTS

3.1 Summary of Results

In accordance with the North Anna Offsite Dose Calculation Manual (ODCM), a summary table of the analytical results has been prepared and is presented in Table 3-1. This data is presented in accordance with the format of the USNRC Branch Technical Position, "Acceptable Radiological Environmental Monitoring Program", Rev. 1, November 1979. The LLD listed value is taken from the ODCM.

A more detailed analysis of the data is given in Section 4 where a discussion of the variations in the data explains many aspects that are not evident in the Summary Table because of the basic limitation of data summaries.

TABLE 3-1
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

North Anna Nuclear Power Station, Louisa County, Virginia – 2005

Docket No. 50-338/339 Page 1 of 9

Medium or Pathway Sampled (Unit)	Analysis Type	Analysis Total No.	LLD (pCi/unit)	All Indicator Locations Mean Range	Location with Highest Mean Name	Location with Highest Mean Distance Direction	Location with Highest Mean Mean Range	Control Location Mean Range	Non-routine Reported Measurements
Air Iodine (pCi/m^3)	I-131	624	0.07	(0/572)	N/A	N/A	N/A	(0/52)	0
Airborne Particulates (1E-03 pCi/m^3)	Gross Beta	624	0.01	22.8(572/572) (5.1-43.7)	01	0.20 mi. NE	24.5(52/52) (8.8-39.1)	23.1(52/52) (6.6-41.4)	0
	Gamma	48							
	Be-7	48	-	114(44/44) (85/160)	23	0.93 SSE	125(4/4) (111-160)	107(4/4) (104-109)	0
	Cs-134	48	0.05	(0/44)	N/A	N/A	N/A	(0/4)	0
	Cs-137	48	0.06	(0/44)	N/A	N/A	N/A	(0/4)	0
	Sr-89	12	-	(0/11)	N/A	N/A	N/A	(0/1)	0
	Sr-90	12	-	(0/11)	N/A	N/A	N/A	(0/1)	0
Ground Well Water (pCi/liter)	Tritium	4	2000	(0/4)	N/A	N/A	N/A	N/A	0
	Gamma	4							
	Mn-54	4	15	(0/4)	N/A	N/A	N/A	N/A	0
	Fe-59	4	30	(0/4)	N/A	N/A	N/A	N/A	0
	Co-58	4	15	(0/4)	N/A	N/A	N/A	N/A	0
	Co-60	4	15	(0/4)	N/A	N/A	N/A	N/A	0

TABLE 3-1
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
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Medium or Pathway Sampled (Unit)	Analysis Type	Analysis Total No.	LLD (pCi/unit)	All Indicator Locations Mean Range	Location with Highest Mean Name	Location with Highest Mean Distance Direction	Location with Highest Mean Mean Range	Control Location Mean Range	Non-routine Reported Measurements
Ground Well Water (pCi/liter)	Zn-65	4	30	(0/4)	N/A	N/A	N/A	N/A	0
	Zr-95	4	30	(0/4)	N/A	N/A	N/A	N/A	0
	Nb-95	4	15	(0/4)	N/A	N/A	N/A	N/A	0
	I-131	4	10	(0/4)	N/A	N/A	N/A	N/A	0
	Cs-134	4	15	(0/4)	N/A	N/A	N/A	N/A	0
	Cs-137	4	18	(0/4)	N/A	N/A	N/A	N/A	0
	Ba-140	4	60	(0/4)	N/A	N/A	N/A	N/A	0
	La-140	4	15	(0/4)	N/A	N/A	N/A	N/A	0
	Sr-89	1	-	(0/1)	N/A	N/A	N/A	N/A	0
	Sr-90	1	-	(0/1)	N/A	N/A	N/A	N/A	0
River Water (pCi/liter)	Tritium	4	2000	3170(4/4) (1500-5100)	11	5.80 mi. SE	3170(4/4) (1500-5100)	N/A	0
	Gamma	12							
	Mn-54	12	15	(0/12)	N/A	N/A	N/A	N/A	0
	Fe-59	12	30	(0/12)	N/A	N/A	N/A	N/A	0

TABLE 3-1
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
North Anna Nuclear Power Station, Louisa County, Virginia – 2005
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Medium or Pathway Sampled (Unit)	Analysis Type	Analysis Total No.	LLD (pCi/unit)	All Indicator Locations Mean Range	Location with Highest Mean Name	Location with Highest Mean Distance Direction	Location with Highest Mean Mean Range	Control Location Mean Range	Non-routine Reported Measurements
River Water (pCi/liter)	Co-58	12	15	(0/12)	N/A	N/A	N/A	N/A	0
	Co-60	12	15	(0/12)	N/A	N/A	N/A	N/A	0
	Zn-65	12	30	(0/12)	N/A	N/A	N/A	N/A	0
	Zr-95	12	30	(0/12)	N/A	N/A	N/A	N/A	0
	Nb-95	12	15	(0/12)	N/A	N/A	N/A	N/A	0
	I-131	12	1	(0/12)	N/A	N/A	N/A	N/A	0
	Cs-134	12	15	(0/12)	N/A	N/A	N/A	N/A	0
	Cs-137	12	18	(0/12)	N/A	N/A	N/A	N/A	0
	Ba-140	12	60	(0/12)	N/A	N/A	N/A	N/A	0
	La-140	12	15	(0/12)	N/A	N/A	N/A	N/A	0
	Sr-89	1	-	(0/1)	N/A	N/A	N/A	N/A	0
	Sr-90	1	-	(0/1)	N/A	N/A	N/A	N/A	0
Surface Water (pCi/liter)	Tritium	8	2000	3137(4/4) (1630-4000)	08	3.37 mi. SSE	3137(4/4) (1630-4000)	(0/4)	0
	Gamma	24							

TABLE 3-1
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
North Anna Nuclear Power Station, Louisa County, Virginia – 2005
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Medium or Pathway Sampled (Unit)	Analysis Type	Analysis Total No.	LLD (pCi/unit)	All Indicator Locations Mean Range	Location with Highest Mean Name	Location with Highest Mean Distance Direction	Location with Highest Mean Mean Range	Control Location Mean Range	Non-routine Reported Measure-ments
Surface Water (pCi/liter)	Mn-54	24	15	(0/12)	N/A	N/A	N/A	(0/12)	0
	Fe-59	24	30	(0/12)	N/A	N/A	N/A	(0/12)	0
	Co-58	24	15	(0/12)	N/A	N/A	N/A	(0/12)	0
	Co-60	24	15	(0/12)	N/A	N/A	N/A	(0/12)	0
	Zn-65	24	30	(0/12)	N/A	N/A	N/A	(0/12)	0
	Zr-95	24	30	(0/12)	N/A	N/A	N/A	(0/12)	0
	Nb-95	24	15	(0/12)	N/A	N/A	N/A	(0/12)	0
	I-131	24	1	(0/12)	N/A	N/A	N/A	(0/12)	0
	Cs-134	24	15	(0/12)	N/A	N/A	N/A	(0/12)	0
	Cs-137	24	18	(0/12)	N/A	N/A	N/A	(0/12)	0
	Ba-140	24	60	(0/12)	N/A	N/A	N/A	(0/12)	0
	La-140	24	15	(0/12)	N/A	N/A	N/A	(0/12)	0
	Sr-89	1	-	(0/1)	N/A	N/A	N/A	(0/1)	0
	Sr-90	1	-	(0/1)	N/A	N/A	N/A	(0/1)	0

TABLE 3-1
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
North Anna Nuclear Power Station, Louisa County, Virginia – 2005
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Medium or Pathway Sampled (Unit)	Analysis Type	Analysis Total No.	LLD (pCi/unit)	All Indicator Locations Mean Range	Location with Highest Mean Name	Location with Highest Mean Distance Direction	Location with Highest Mean Mean Range	Control Location Mean Range	Non-routine Reported Measurements
Precipitation (pCi/liter)	Monthly Gross Beta	12	4	5.9(10/12) (2.3-12.1)	01A	0.75 mi. SE	5.9(10/12) (2.3-12.1)	(0/0)	0
	Semiannually Gamma	2							
	Mn-54	2	15	(0/2)	N/A	N/A	N/A	N/A	0
	Fe-59	2	30	(0/2)	N/A	N/A	N/A	N/A	0
	Co-58	2	15	(0/2)	N/A	N/A	N/A	N/A	0
	Co-60	2	15	(0/2)	N/A	N/A	N/A	N/A	0
	Zn-65	2	30	(0/2)	N/A	N/A	N/A	N/A	0
	Zr-95	2	30	(0/2)	N/A	N/A	N/A	N/A	0
	Nb-95	2	15	(0/2)	N/A	N/A	N/A	N/A	0
	I-131	2	10	(0/2)	N/A	N/A	N/A	N/A	0
	Cs-134	2	15	(0/2)	N/A	N/A	N/A	N/A	0
	Cs-137	2	18	(0/2)	N/A	N/A	N/A	N/A	0
	Ba-140	2	60	(0/2)	N/A	N/A	N/A	N/A	0

TABLE 3-1
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
North Anna Nuclear Power Station, Louisa County, Virginia – 2005
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Medium or Pathway Sampled (Unit)	Analysis Type	Analysis Total No.	LLD (pCi/unit)	All Indicator Locations Mean Range	Location with Highest Mean Name	Location with Highest Mean Distance Direction	Location with Highest Mean Mean Range	Control Location Mean Range	Non-routine Reported Measurements
Precipitation (pCi/liter)	La-140	2	15	(0/2)	N/A	N/A	N/A	N/A	0
Sediment Silt (pCi/kg) (dry)	Gamma	6							
	K-40	6	-	14325(4/4) (1700-20700)	11	5.80 mi. SSE	17450(2/2) (17200-17500)	10620(2/2) (10300-19940)	0
	Cs-134	6	150	(0/4)	N/A	N/A	N/A	(0/2)	0
	Cs-137	6	180	205(2/4) (87-322)	11	5.80 mi. SSE	205(2/2) (87-322)	(0/2)	0
	Th-228	6	-	1178(4/4) (430-2010)	08	3.37 mi. SE	1220(2/2) (430-2010)	600(2/2) (509-690)	0
	Sr-89 (Annually)	3	-	(0/2)	N/A	N/A	N/A	(0/1)	0
	Sr-90 (Annually)	3	-	(0/2)	N/A	N/A	N/A	(0/1)	0
Soil (pCi/Kg) (dry)	Triennial Gamma	12							
	Cs-134	11	150	N/A	N/A	N/A	N/A	N/A	N/A
	Cs-137	11	180	N/A	N/A	N/A	N/A	N/A	N/A
	Th-228	11	-	N/A	N/A	N/A	N/A	N/A	N/A
	Sr-89	11	-	N/A	N/A	N/A	N/A	N/A	N/A
	Sr-90	11	-	N/A	N/A	N/A	N/A	N/A	N/A

TABLE 3-1

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

North Anna Nuclear Power Station, Louisa County, Virginia – 2005

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Medium or Pathway Sampled (Unit)	Analysis		LLD (pCi/unit)	All Indicator Locations	Location with Highest Mean			Control Location	Non-routine
	Type	Total No.		Mean Range	Name	Distance Direction	Mean Range	Mean Range	Reported Measure-ments
Shoreline Soil (pCi/kg) (dry)	Gamma	2							
	K-40	2	-	2455(2/2) (2100-2810)	8	3.37 mi. SSE	2455(2/2) (2100-2810)	N/A	0
	Th-228	2	-	458(2/2) (375-540)	8	3.37 mi. SSE	458(2/2) (375-540)	N/A	0
	Cs-134	2	150	(0/2)	N/A	N/A	N/A	N/A	0
	Cs-137	2	180	181(1/2) (N/A)	8	3.37 mi. SSE	181(1/2) (N/A)	N/A	0
	Sr-89 (Annually)	1	-	(0/1)	N/A	N/A	N/A	N/A	0
	Sr-90 (Annually)	1	-	(0/1)	N/A	N/A	N/A	N/A	0
Milk (pCi/liter)	Gamma	24							
	K-40	24	-	1370(24/24) (1250-1480)	12	8.3 mi. NW	1389(12/12) (1250-1453)	N/A	0
	I-131	24	1	(0/24)	N/A	N/A	N/A	N/A	0
	Cs-134	24	15	(0/24)	N/A	N/A	N/A	N/A	0
	Cs-137	24	18	(0/24)	N/A	N/A	N/A	N/A	0
	Ba-140	24	60	(0/24)	N/A	N/A	N/A	N/A	0

TABLE 3-1
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
North Anna Nuclear Power Station, Louisa County, Virginia – 2005
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Medium or Pathway Sampled (Unit)	Analysis Type	Analysis Total No.	LLD (pCi/unit)	All Indicator Locations Mean Range	Location with Highest Mean Name	Location with Highest Mean Distance Direction	Location with Highest Mean Mean Range	Control Location Mean Range	Non-routine Reported Measurements
Milk (pCi/liter)	La-140	24	15	(0/24)	N/A	N/A	N/A	N/A	0
	Sr-89 (Quarterly)	8	-	(0/8)	N/A	N/A	N/A	N/A	0
	Sr-90 (Quarterly)	8	-	(0/8)	N/A	N/A	N/A	N/A	0
Fish (pCi/kg) (wet)	Gamma	8							
	K-40	8	-	1388(4/4) (1070-1880)	08	3.37 mi. SSE	1388(4/4) (1070-1880)	1743(4/4) (1460-1950)	0
	Mn-54	8	130	(0/4)	N/A	N/A	N/A	(0/4)	0
	Fe-59	8	260	(0/4)	N/A	N/A	N/A	(0/4)	0
	Co-58	8	130	(0/4)	N/A	N/A	N/A	(0/4)	0
	Co-60	8	130	(0/4)	N/A	N/A	N/A	(0/4)	0
	Zn-65	8	260	(0/4)	N/A	N/A	N/A	(0/4)	0
	Cs-134	8	130	(0/4)	N/A	N/A	N/A	(0/4)	0
	Cs-137	8	150	(0/4)	N/A	N/A	N/A	(0/4)	0

TABLE 3-1
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
North Anna Nuclear Power Station, Louisa County, Virginia – 2005
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Medium or Pathway Sampled (Unit)	Analysis Type	Analysis Total No.	LLD (pCi/unit)	All Indicator Locations Mean Range	Location with Highest Mean Name	Location with Highest Mean Distance Direction	Location with Highest Mean Mean Range	Control Location Mean Range	Non-routine Reported Measurements
Food Vegetation (pCi/kg) (wet)	Gamma	20							
	Be-7	20	-	1248(16/16) (350-2720)	23	varies SSE	1273(4/4) (690-2210)	778(4/4) (330-1460)	0
	K-40	20	-	13346(16/16) (7240-24800)	26	varies S	13923(4/4) (10200-22100)	14550(4/4) (10200-20900)	0
	I-131	20	60	(0/24)	N/A	N/A	N/A	(0/5)	0
	Cs-134	20	60	(0/24)	N/A	N/A	N/A	(0/5)	0
	Cs-137	20	80	(0/25)	N/A	N/A	N/A	(0/5)	0
	Th-228	20	-	447(7/16) (223-954)	26	varies S	560(1/4)	235(2/4) (220-250)	0
Direct Radiation (mR/std. month) (Environmental TLDs)	Gamma Dose	48	2	3.7(44/44) (1.7-6.4)	23	0.93 mi. SSE	5.1(4/4) (4.4-6.2)	3.4(4/4) (2.6-4.3)	0
Direct Radiation (mR/std. Month) (Annual TLDs)	Gamma Dose	12	2	3.6(11/11) (1.7-5.4)	23	0.93 mi. SSE	5.4(1/1)	3.4(1/1)	0
Direct Radiation (mR/std. Month) (Sector TLDs)	Gamma Dose	256	2	5.2(256/256) (2.6-34.8)	19/51[1]	0.42 mi. SSW	33.5(8/8) (15.5-46.0)	3.3(32/32) (2.5-3.6)	0

(1) 19/51 located onsite.

3.2 Analytical Results of 2005 REMP Samples

Radiological analyses of environmental media characteristically approach and frequently fall below the detection limits of state-of-the-art measurement methods. The data reported in the following tables are strictly counting statistics. The reported error is two times the standard deviation (2σ) of the net activity. Unless otherwise noted, the overall error (counting, sample size, chemistry, errors, etc.) is estimated to be 2 to 5 times that listed. Results are considered positive when the measured value exceeds 1.5 times the listed 2σ error (i.e., the measured value exceeds 3σ).

Because of counting statistics, negative values, zeros and numbers below the Minimum Detectable Level (MDL) are statistically valid pieces of data[1]. For the purposes of this report all valid data are presented in order to indicate any background biases. AREVA Environmental Laboratory's analytical methods meet the Lower Limit of Detection (LLD) requirements given in Table 2 of the USNRC Branch Technical Position, "An Acceptable Radiological Environmental Monitoring Program", (November 1979, Revision 1) and the North Anna ODCM.

Data are given according to sample type as indicated below.

1. Gamma Exposure Rate
2. Air Particulates, Gross Beta Radioactivity
3. Air Particulates, Weekly I-131
4. Air Particulates, Quantitative Gamma Spectra
5. Air Particulate Strontium
6. Soil
7. Precipitation
8. Cow Milk
9. Food Products and Vegetation
10. Well Water
11. River Water
12. Surface Water
13. Bottom Sediment/Silt
14. Shoreline Soil
15. Fish

[1] Analytical results are handled as recommended by HASL (*"Reporting of Analytical Results from HASL,"* letter by Leo B. Higginbotham) and NUREG/CR-4007 (Sept. 1984).

TABLE #3-2

DIRECT RADIATION MEASURMENTS - SECTOR QUARTERLY TLD RESULTS

mR/Std. Month (30.4 days) ± 2 Sigma

Station Name	First Quarter 1/5/2005 4/6/2005	Second Quarter 4/6/2005 6/29/2005	Third Quarter 6/29/2005 9/28/2005	Fourth Quarter 9/28/2005 1/5/2006	Quarterly Average
N-1	5.0	3.8	4.7	5.1	4.6 ± 0.3
N-33	4.7	3.9	4.3	5.8	4.7 ± 1.6
N-2	3.2	2.4	3.1	3.7	3.1 ± 1.1
N-34	4.1	3.2	2.5	3.6	3.3 ± 1.3
NNE-3	8.4	6.9	4.6	7.3	6.8 ± 3.2
NNE-35	7.6	5.6	5.8	7.3	6.6 ± 2.1
NNE-4	5.6	4.6	4.3	5.1	4.9 ± 1.1
NNE 36	5.2	4.4	3.6	5.0	4.5 ± 1.4
NE-5	4.9	3.8	3.3	5.2	4.3 ± 1.8
NE-37	6.4	3.8	3.0	5.0	4.5 ± 2.9
NE-6	4.7	4.0	3.3	3.9	4.0 ± 1.1
NE-38	4.5	3.6	3.7	4.1	4.0 ± 0.8
ENE-7	4.8	4.7	4.5	5.1	4.8 ± 0.5
ENE-39	4.8	4.8	2.9	5.1	4.4 ± 2.0
ENE-8	4.2	3.0	3.3	3.9	3.6 ± 1.1
ENE-40	3.2	2.6	3.1	3.6	3.1 ± 0.8
E-9	6.6	5.0	4.7	5.9	5.5 ± 1.7
E-41	6.2	4.8	5.0	5.7	5.4 ± 1.3
E-10	5.9	4.8	4.2	4.6	4.9 ± 1.4
E-42	4.4	3.8	4.5	4.9	4.4 ± 0.9
ESE-11	4.5	3.4	4.4	5.1	4.4 ± 1.5
ESE-43	4.2	3.7	3.9	4.7	4.1 ± 0.8
ESE-12	5.6	4.8	4.4	5.5	5.1 ± 1.1
ESE-44	4.5	4.6	4.5	4.8	4.6 ± 0.3
SE-13	5.5	4.6	4.5	5.0	4.9 ± 0.9
SE-45	5.7	3.6	4.1	4.8	4.5 ± 1.8
SE-14	8.3	7.0	5.5	6.6	6.9 ± 2.3
SE-46	7.4	7.0	6.1	6.9	6.8 ± 1.1
SSE-15	6.4	4.8	4.7	5.5	5.4 ± 1.6
SSE-47	6.2	5.1	4.5	5.7	5.4 ± 1.4
SSE-16	4.8	2.4	2.9	3.4	3.4 ± 2.0
SSE-48	3.4	2.5	2.3	3.7	3.0 ± 1.3

TABLE #3-2

DIRECT RADIATION MEASURMENTS - SECTOR QUARTERLY TLD RESULTS

mR/Std. Month (30.4 days) ± 2 Sigma

Station Name	First Quarter 1/5/2005 4/6/2005	Second Quarter 4/6/2005 6/29/2005	Third Quarter 6/29/2005 9/28/2005	Fourth Quarter 9/28/2005 1/5/2006	Quarterly Average
S-17	9.1	7.9	6.8	8.2	8.0 ± 1.8
S-49	9.1	7.9	6.4	7.5	7.7 ± 2.3
S-18	2.6	2.6	2.7	3.1	2.7 ± 0.5
S-50	2.6	2.7	2.6	2.9	2.7 ± 0.3
SSW-19	42.1	15.5	24.9	46.0	32.1 ± 28.7
SSW-51	31.2	32.9	39.6	35.5	34.8 ± 7.3
SSW-20	2.5	2.6	2.3	3.0	2.6 ± 0.5
SSW-52	3.4	2.6	2.2	2.9	2.8 ± 1.0
SW-21	3.4	4.1	4.7	4.8	4.6 ± 1.7
SW-53	5.1	3.2	4.0	5.2	4.4 ± 1.9
SW-22	5.6	4.5	4.2	5.3	4.9 ± 1.4
SW-54	5.7	4.8	4.4	5.0	5.0 ± 1.1
WSW-23	6.6	5.4	4.8	6.0	5.7 ± 1.5
WSW-55	6.6	5.6	4.9	5.8	5.7 ± 1.4
WSW-24	5.9	4.8	4.1	4.9	4.9 ± 1.5
WSW-56	4.7	4.7	4.0	4.9	4.6 ± 0.8
W-25	7.3	6.2	6.2	6.9	6.7 ± 1.1
W-57	8.0	5.2	6.2	7.0	6.6 ± 2.3
W-26	2.8	2.9	2.9	3.4	3.0 ± 0.6
W-58	2.7	3.0	2.1	3.3	2.8 ± 1.1
WNW-27	4.4	3.3	3.2	3.7	3.6 ± 1.1
WNW-59	4.8	2.6	3.2	3.4	3.5 ± 1.8
WNW-28	3.4	2.1	3.0	3.4	3.0 ± 1.3
WNW-60	3.0	3.4	2.7	3.5	3.2 ± 0.8
NW-29	7.0	6.5	5.9	6.7	6.5 ± 1.0
NW-61	6.8	6.6	5.6	6.4	6.4 ± 1.0
NW-30	3.6	2.3	1.8	2.8	2.6 ± 1.6
NW-62	3.3	2.9	2.6	2.5	2.8 ± 0.7
NNW-31	5.6	2.8	2.5	4.0	3.7 ± 2.8
NNW-63	4.9	3.9	3.4	3.7	4.0 ± 1.3
NNW-32	5.1	3.9	3.8	4.1	4.2 ± 1.2
NNW-64	4.2	3.2	3.8	4.4	3.9 ± 1.0

TABLE #3-2

DIRECT RADIATION MEASURMENTS - SECTOR QUARTERLY TLD RESULTS

mR/Std. Month (30.4 days) ± 2 Sigma

Station Name	First Quarter 1/5/2005 4/6/2005	Second Quarter 4/6/2005 6/29/2005	Third Quarter 6/29/2005 9/28/2005	Fourth Quarter 9/28/2005 1/5/2006	Quarterly Average
C-1	4.0	3.5	3.5	3.4	3.6 ± 0.6
C-2	3.8	3.6	3.4	3.2	3.5 ± 0.5
C-3	3.3	2.7	3.1	3.6	3.2 ± 0.7
C-4	4.3	3.6	3.3	3.6	3.7 ± 0.9
C-5	2.3	3.0	1.8	2.7	2.5 ± 1.0
C-6	3.3	2.5	2.6	2.6	2.8 ± 0.7
C-7	3.0	3.0	3.5	3.9	3.3 ± 0.9
C-8	3.8	3.2	3.3	3.9	3.5 ± 0.7
EPSA-01**	5.9	4.9	4.5	5.5	5.2 ± 1.2
EPSA-02**	6.1	3.9	3.6	5.2	4.7 ± 2.3
EPSF-03**	5.5	5.0	3.1	4.6	4.6 ± 2.0
EPSF-04**	5.6	4.9	4.2	5.0	4.9 ± 1.2
EPSR-05**	6.3	5.2	3.3	5.4	5.1 ± 2.5
EPSR-06**	6.7	4.4	3.7	5.6	5.1 ± 2.7
EPSJ-07**	4.2	4.0	2.9	4.3	3.8 ± 1.3
EPSJ-08**	5.4	4.4	3.6	4.5	4.5 ± 1.5
EPSP-09**	9.8	7.8	6.3	8.4	8.1 ± 3.1
EPSP-10**	9.0	7.8	6.8	7.9	7.9 ± 1.8
Average ± 2 s.d.	5.9 ± 11.1	4.6 ± 7.8	4.7 ± 10.0	5.7 ± 12.4	5.2 ± 10.5

*- Refer tc "Section III, REMP Exceptions for Scheduled Sampling and Analysis During 2004

** Emergency Plan TLDs. Included for informational purposes only. Not included in average

TABLE #3-2

DIRECT RADIATION MEASURMENTS - SECTOR QUARTERLY TLD RESULTS

mR/Std. Month (30.4 days) ± 2 Sigma

Station Name	First Quarter 1/5/2005 4/6/2005	Second Quarter 4/6/2005 6/29/2005	Third Quarter 6/29/2005 9/28/2005	Fourth Quarter 9/28/2005 1/5/2006	Quarterly Average	Annual TLD
STA-01	6.4	3.8	3.1	5.3	4.7 ± 3.0	4.5
STA-02	3.1	3.1	1.7	2.9	2.4 ± 1.4	2.5
STA-03	3.0	1.9	2.0	2.5	2.4 ± 1.0	1.7
STA-04	2.6	2.7	2.6	2.9	2.7 ± 0.3	1.9
STA-05	4.6	4.3	3.7	3.9	4.1 ± 0.8	3.7
STA-05A	4.3	2.7	2.6	3.4	3.2 ± 1.5	3.3
STA-06	5.4	4.6	4.5	4.9	4.9 ± 0.9	4.9
STA-07	4.0	3.5	3.2	3.5	3.5 ± 0.6	3.6
STA-21	3.8	3.3	3.3	3.3	3.4 ± 0.5	3.7
STA-22	5.2	5.0	4.5	4.7	4.9 ± 0.6	4.8
STA-23	6.2	4.5	4.4	5.2	5.1 ± 1.7	5.4
STA-24	4.3	2.6	3.2	3.5	3.4 ± 1.4	3.4
Average ± 2 s.d.	4.4 ± 2.4	3.5 ± 1.9	3.2 ± 1.8	3.8 ± 1.9	3.7 ± 1.9	3.6 ± 2.3

Table 3-3
Air Particulate
Gross Beta Radioactivity
[pCi x 10^{-3}/m3]

Period Ending	Station 01	Station 02	Station 03	Station 04	Station 05	Station 05A	Station 06
01/05/05	29.3 +/- 5.0	23.1 +/- 4.7	36.2 +/- 5.3	40.1 +/- 5.5	33.6 +/- 5.2	36.8 +/- 5.3	34.1 +/- 5.2
01/12/05	16.5 +/- 2.2	16.2 +/- 2.2	18.7 +/- 2.3	19.2 +/- 2.3	15.9 +/- 2.2	16.5 +/- 2.2	16.5 +/- 2.2
01/19/05	19.7 +/- 4.6	19.2 +/- 4.6	22.7 +/- 4.8	27.2 +/- 5.0	24.4 +/- 4.8	23.0 +/- 4.8	23.8 +/- 4.8
01/26/05	29.6 +/- 5.0	29.1 +/- 5.0	29.0 +/- 4.9	30.8 +/- 5.0	30.3 +/- 5.1	30.7 +/- 5.1	29.3 +/- 5.1
02/02/05	25.3 +/- 4.8	16.2 +/- 4.3	21.1 +/- 4.6	23.1 +/- 4.6	23.6 +/- 4.7	22.2 +/- 4.6	19.9 +/- 4.5
02/09/05	29.8 +/- 4.6	26.4 +/- 4.4	24.3 +/- 4.4	27.8 +/- 4.5	25.6 +/- 4.4	26.2 +/- 4.4	27.0 +/- 4.5
02/17/05	21.1 +/- 4.0	17.3 +/- 3.9	22.5 +/- 4.1	21.4 +/- 4.0	20.2 +/- 4.0	17.7 +/- 3.8	19.9 +/- 3.9
02/23/05	24.1 +/- 5.3	22.6 +/- 5.2	19.7 +/- 5.1	26.5 +/- 5.4	29.4 +/- 5.6	23.3 +/- 5.3	25.6 +/- 5.4
03/02/05	24.1 +/- 4.8	17.2 +/- 4.5	23.1 +/- 4.7	19.6 +/- 4.6	19.9 +/- 4.6	21.7 +/- 4.7	18.3 +/- 4.5
03/09/05	23.0 +/- 4.5	21.9 +/- 4.4	27.8 +/- 4.7	23.5 +/- 4.5	24.0 +/- 4.5	22.8 +/- 4.5	19.1 +/- 4.3
03/16/05	16.6 +/- 2.9	17.4 +/- 2.9	16.4 +/- 2.9	19.7 +/- 3.0	17.6 +/- 2.9	16.9 +/- 2.9	14.9 +/- 2.8
03/23/05	24.9 +/- 4.7	23.5 +/- 4.6	28.0 +/- 4.9	25.0 +/- 4.7	18.9 +/- 4.4	22.3 +/- 4.6	20.3 +/- 4.5
03/30/05	11.8 +/- 3.9	11.9 +/- 3.9	8.4 +/- 3.7	9.6 +/- 3.8	11.3 +/- 3.9	7.9 +/- 3.7	10.3 +/- 3.8
04/06/05	15.9 +/- 4.3	11.9 +/- 4.1	14.8 +/- 4.3	17.2 +/- 4.4	13.7 +/- 4.2	9.1 +/- 3.9	10.2 +/- 4.0
04/14/05	21.2 +/- 3.7	17.7 +/- 3.6	20.8 +/- 3.7	23.4 +/- 3.9	21.2 +/- 3.7	15.3 +/- 3.4	22.1 +/- 3.8
04/20/05	25.8 +/- 5.5	20.7 +/- 5.0	22.7 +/- 5.2	25.1 +/- 5.3	23.0 +/- 5.3	22.6 +/- 5.3	28.1 +/- 5.5
04/28/05	18.1 +/- 3.9	15.3 +/- 3.8	19.9 +/- 4.0	17.6 +/- 3.9	18.8 +/- 4.0	18.9 +/- 4.0	17.1 +/- 3.9
05/04/05	25.8 +/- 5.2	18.3 +/- 4.8	20.3 +/- 4.9	22.9 +/- 5.1	18.7 +/- 4.8	23.8 +/- 5.1	19.1 +/- 4.8
05/11/05	21.9 +/- 3.2	23.7 +/- 3.3	22.4 +/- 3.3	21.8 +/- 3.2	18.9 +/- 3.1	26.1 +/- 4.1	20.0 +/- 3.1
05/18/05	19.1 +/- 4.3	20.9 +/- 4.3	18.9 +/- 4.2	22.1 +/- 4.4	17.1 +/- 4.1	20.0 +/- 4.2	26.1 +/- 4.6
05/25/05	18.0 +/- 4.0	15.3 +/- 3.8	12.8 +/- 3.8	15.1 +/- 3.9	13.7 +/- 3.8	11.1 +/- 3.6	14.1 +/- 3.8
06/02/05	14.8 +/- 3.4	19.8 +/- 3.7	19.0 +/- 3.6	18.8 +/- 3.6	14.9 +/- 3.4	18.9 +/- 3.6	15.6 +/- 3.4
06/08/05	13.4 +/- 4.2	9.4 +/- 3.9	12.5 +/- 4.2	9.3 +/- 4.0	12.7 +/- 4.2	10.4 +/- 4.0	15.5 +/- 4.3
06/15/05	14.5 +/- 4.0	18.6 +/- 4.3	20.4 +/- 4.4	18.2 +/- 4.4	15.8 +/- 4.2	20.4 +/- 4.4	18.3 +/- 4.3
06/22/05	14.2 +/- 4.0	13.2 +/- 3.9	15.7 +/- 4.0	14.2 +/- 4.0	16.2 +/- 4.1	13.7 +/- 3.9	10.6 +/- 3.7
06/29/05	25.2 +/- 4.6	20.5 +/- 4.4	24.2 +/- 4.6	28.5 +/- 4.8	24.8 +/- 4.6	24.3 +/- 4.6	19.2 +/- 4.3

Table 3-3
Air Particulate
Gross Beta Radioactivity
[pCi x 10^{-3}/m3]

Period Ending	Station 07	Station 21	Station 22	Station 23	Station 24
01/05/05	32.1 +/- 5.1	38.3 +/- 5.4	33.1 +/- 5.1	27.5 +/- 4.9	34.8 +/- 5.2
01/12/05	15.1 +/- 2.2	18.0 +/- 2.3	9.7 +/- 2.0	-2.6 +/- 5.3	15.9 +/- 2.2
01/19/05	18.3 +/- 4.5	21.1 +/- 4.7	23.4 +/- 4.8	31.4 +/- 5.2	22.8 +/- 4.7
01/26/05	23.2 +/- 4.8	29.5 +/- 5.0	23.1 +/- 4.7	39.2 +/- 5.4	30.4 +/- 5.0
02/02/05	20.6 +/- 4.5	23.1 +/- 4.7	16.6 +/- 4.3	25.5 +/- 4.8	24.4 +/- 4.7
02/09/05	23.0 +/- 4.2	27.3 +/- 4.5	22.6 +/- 4.3	33.6 +/- 4.8	25.1 +/- 4.4
02/17/05	16.6 +/- 3.8	22.9 +/- 4.1	21.0 +/- 4.0	28.0 +/- 4.3	19.6 +/- 3.9
02/23/05	20.7 +/- 5.2	29.4 +/- 5.5	25.2 +/- 5.4	29.6 +/- 5.6	22.5 +/- 5.2
03/02/05	16.5 +/- 4.5	19.3 +/- 4.6	21.9 +/- 4.7	20.9 +/- 4.7	22.2 +/- 4.7
03/09/05	16.9 +/- 4.2	24.0 +/- 4.5	22.0 +/- 4.4	20.8 +/- 4.3	22.0 +/- 4.4
03/16/05	24.9 +/- 4.9	16.6 +/- 2.9	15.6 +/- 2.9	15.5 +/- 2.9	16.6 +/- 2.9
03/23/05	18.5 +/- 4.4	24.6 +/- 4.7	25.3 +/- 4.7	23.7 +/- 4.6	21.4 +/- 4.6
03/30/05	6.1 +/- 3.6	7.4 +/- 3.7	8.6 +/- 3.7	8.5 +/- 3.8	6.6 +/- 3.6
04/06/05	12.2 +/- 4.1	15.1 +/- 4.3	11.8 +/- 4.1	14.1 +/- 4.2	12.4 +/- 4.2
04/14/05	17.8 +/- 3.5	17.9 +/- 3.5	20.7 +/- 3.7	23.4 +/- 3.9	19.6 +/- 3.6
04/20/05	26.0 +/- 5.4	24.2 +/- 5.3	20.2 +/- 5.1	26.1 +/- 5.3	27.1 +/- 5.5
04/28/05	15.4 +/- 3.8	15.7 +/- 3.8	16.0 +/- 3.8	13.6 +/- 3.8	16.6 +/- 3.8
05/04/05	22.2 +/- 5.0	18.4 +/- 4.8	20.3 +/- 4.9	15.6 +/- 4.7	17.2 +/- 4.7
05/11/05	21.3 +/- 3.2	21.4 +/- 3.2	20.0 +/- 3.1	21.1 +/- 3.1	22.1 +/- 3.2
05/18/05	18.3 +/- 4.2	18.3 +/- 4.2	21.0 +/- 4.4	22.8 +/- 4.6	21.7 +/- 4.4
05/25/05	13.2 +/- 3.7	16.6 +/- 3.9	13.6 +/- 3.7	13.3 +/- 3.6	11.6 +/- 3.6
06/02/05	13.6 +/- 3.3	18.1 +/- 3.6	14.9 +/- 3.4	21.2 +/- 3.7	17.4 +/- 3.5
06/08/05	10.3 +/- 4.0	14.0 +/- 4.3	17.6 +/- 4.5	13.0 +/- 4.2	10.9 +/- 4.1
06/15/05	16.7 +/- 4.2	19.5 +/- 4.3	17.8 +/- 4.2	18.5 +/- 4.3	20.0 +/- 4.3
06/22/05	14.1 +/- 3.9	12.9 +/- 3.9	13.8 +/- 3.9	10.9 +/- 3.8	14.9 +/- 4.0
06/29/05	20.8 +/- 4.4	24.3 +/- 4.6	27.4 +/- 4.7	27.4 +/- 4.7	24.2 +/- 4.6

Table 3-3
Air Particulate
Gross Beta Radioactivity
[pCi x 10^{-3}/m3]

Period Ending	Station 01	Station 02	Station 03	Station 04	Station 05	Station 05A	Station 06
07/07/05	22.2 +/- 3.8	19.1 +/- 3.6	22.6 +/- 3.8	21.4 +/- 3.8	22.4 +/- 3.8	20.9 +/- 3.8	21.6 +/- 3.8
07/13/05	28.5 +/- 5.0	21.6 +/- 4.7	24.6 +/- 4.8	25.9 +/- 4.9	21.5 +/- 4.6	24.6 +/- 4.7	25.2 +/- 4.8
07/20/05	16.4 +/- 3.8	12.2 +/- 3.5	15.9 +/- 3.8	16.8 +/- 3.8	14.5 +/- 3.7	17.8 +/- 3.9	11.4 +/- 3.5
07/27/05	33.3 +/- 4.7	31.2 +/- 4.6	28.4 +/- 4.5	25.5 +/- 4.3	22.3 +/- 4.1	29.7 +/- 4.6	29.2 +/- 4.5
08/03/05	31.3 +/- 4.7	21.1 +/- 4.2	25.5 +/- 4.3	25.0 +/- 4.4	24.7 +/- 4.3	23.4 +/- 4.3	20.6 +/- 4.1
08/10/05	29.5 +/- 4.5	30.0 +/- 4.6	33.3 +/- 4.8	39.2 +/- 5.1	36.2 +/- 4.9	41.8 +/- 5.2	32.3 +/- 4.7
08/17/05	30.0 +/- 4.6	19.2 +/- 3.9	23.7 +/- 4.2	24.7 +/- 4.2	28.0 +/- 4.4	29.0 +/- 4.5	26.0 +/- 4.3
08/24/05	33.1 +/- 4.8	27.9 +/- 4.5	25.3 +/- 4.4	25.6 +/- 4.4	30.6 +/- 4.6	22.8 +/- 4.2	27.3 +/- 4.5
08/30/25	22.9 +/- 4.6	16.7 +/- 4.2	24.3 +/- 4.7	20.2 +/- 4.4	18.6 +/- 4.3	19.9 +/- 4.4	17.3 +/- 4.2
09/07/05	24.1 +/- 4.0	17.7 +/- 3.6	17.9 +/- 3.6	23.6 +/- 3.9	15.5 +/- 3.4	17.5 +/- 3.6	21.3 +/- 3.8
09/14/05	35.9 +/- 5.4	24.8 +/- 4.9	31.4 +/- 5.2	31.8 +/- 5.2	32.0 +/- 5.2	29.7 +/- 5.1	26.2 +/- 4.9
09/21/05	34.4 +/- 5.1	29.5 +/- 4.8	26.8 +/- 4.8	29.7 +/- 4.9	28.4 +/- 4.9	30.1 +/- 4.9	28.5 +/- 4.8
09/28/05	37.5 +/- 5.3	31.1 +/- 5.0	31.6 +/- 5.9	36.0 +/- 5.2	34.3 +/- 5.1	29.3 +/- 4.9	32.4 +/- 5.1
10/05/05	27.5 +/- 4.7	23.5 +/- 4.5	22.1 +/- 4.5	28.5 +/- 4.8	18.6 +/- 4.3	23.7 +/- 4.5	30.2 +/- 4.8
10/12/05	8.8 +/- 3.9	10.9 +/- 4.0	6.0 +/- 3.7	10.1 +/- 4.0	9.5 +/- 3.9	7.3 +/- 3.8	7.5 +/- 3.8
10/19/05	21.6 +/- 4.7	20.8 +/- 4.6	18.9 +/- 4.5	17.5 +/- 4.5	21.9 +/- 4.7	18.7 +/- 4.5	19.1 +/- 4.5
10/26/05	24.8 +/- 4.6	22.2 +/- 4.6	23.2 +/- 4.6	23.1 +/- 4.6	24.0 +/- 4.6	20.5 +/- 4.5	22.4 +/- 4.6
11/02/05	24.2 +/- 4.7	18.4 +/- 4.4	21.9 +/- 4.5	22.5 +/- 4.6	21.9 +/- 4.5	22.6 +/- 4.6	19.9 +/- 4.4
11/09/05	39.1 +/- 5.2	43.7 +/- 5.4	41.9 +/- 5.3	39.9 +/- 5.2	42.9 +/- 5.3	37.7 +/- 5.1	39.2 +/- 5.2
11/16/05	25.9 +/- 4.9	20.5 +/- 4.7	18.3 +/- 4.6	27.2 +/- 5.0	24.6 +/- 4.8	18.5 +/- 4.6	26.1 +/- 4.9
11/23/05	27.0 +/- 4.9	25.6 +/- 4.8	12.9 +/- 4.2	32.2 +/- 5.1	33.0 +/- 5.1	26.0 +/- 4.8	30.0 +/- 5.0
11/30/05	22.7 +/- 4.3	25.4 +/- 4.5	25.2 +/- 4.4	22.9 +/- 4.3	24.8 +/- 4.4	27.6 +/- 4.5	23.9 +/- 4.3
12/07/05	27.1 +/- 4.5	24.8 +/- 4.4	27.9 +/- 4.6	29.4 +/- 4.6	33.0 +/- 4.8	27.1 +/- 4.5	28.6 +/- 4.6
12/14/05	37.7 +/- 5.6	29.6 +/- 5.2	32.4 +/- 5.3	32.2 +/- 5.4	38.3 +/- 5.5	29.6 +/- 5.1	27.2 +/- 5.1
12/21/05	31.6 +/- 5.2	24.5 +/- 5.0	27.0 +/- 5.1	33.6 +/- 5.3	33.3 +/- 5.4	27.8 +/- 5.2	32.2 +/- 5.3
12/28/05	34.3 +/- 5.0	31.1 +/- 4.8	34.8 +/- 5.0	33.5 +/- 5.0	35.9 +/- 5.1	27.7 +/- 4.7	33.7 +/- 5.0

Table 3-3
Air Particulate
Gross Beta Radioactivity
[pCi x 10^{-3}/m3]

Period Ending	Station 07	Station 21	Station 22	Station 23	Station 24
07/07/05	17.1 +/- 3.5	18.9 +/- 3.7	21.7 +/- 3.8	22.0 +/- 3.8	21.2 +/- 3.8
07/13/05	19.5 +/- 4.5	22.4 +/- 4.6	23.4 +/- 4.7	21.1 +/- 4.6	21.3 +/- 4.5
07/20/05	15.3 +/- 3.8	15.6 +/- 3.7	16.0 +/- 3.8	20.1 +/- 4.0	16.7 +/- 3.8
07/27/05	28.9 +/- 4.5	28.6 +/- 4.5	31.7 +/- 4.7	33.9 +/- 4.7	24.2 +/- 4.3
08/03/05	19.4 +/- 4.1	24.7 +/- 4.3	25.5 +/- 4.3	25.3 +/- 4.4	22.5 +/- 4.2
08/10/05	36.5 +/- 4.9	35.4 +/- 4.8	38.5 +/- 5.0	35.0 +/- 4.8	38.4 +/- 5.0
08/17/05	27.3 +/- 4.4	29.6 +/- 4.4	26.0 +/- 4.3	21.8 +/- 4.1	29.0 +/- 4.4
08/24/05	23.6 +/- 4.3	31.4 +/- 4.3	24.5 +/- 4.3	23.8 +/- 4.3	27.1 +/- 4.5
08/30/25	14.6 +/- 4.1	20.2 +/- 4.4	20.6 +/- 4.5	22.1 +/- 4.6	19.9 +/- 4.4
09/07/05	17.5 +/- 3.6	18.8 +/- 3.6	22.3 +/- 3.9	20.9 +/- 3.8	21.0 +/- 3.8
09/14/05	26.1 +/- 4.9	28.5 +/- 5.1	26.9 +/- 5.0	33.6 +/- 5.2	16.1 +/- 5.7
09/21/05	22.0 +/- 4.5	25.1 +/- 4.7	28.1 +/- 4.8	31.9 +/- 5.0	23.6 +/- 4.7
09/28/05	30.9 +/- 5.0	33.8 +/- 5.1	33.5 +/- 5.1	31.5 +/- 5.1	31.4 +/- 5.0
10/05/05	20.4 +/- 4.3	26.6 +/- 4.7	23.0 +/- 4.5	25.8 +/- 4.6	26.6 +/- 4.7
10/12/05	5.1 +/- 3.6	10.9 +/- 4.0	7.8 +/- 3.8	7.5 +/- 3.8	7.4 +/- 3.8
10/19/05	20.5 +/- 4.6	18.7 +/- 4.5	18.9 +/- 4.5	19.6 +/- 4.5	18.6 +/- 4.5
10/26/05	15.5 +/- 4.2	25.6 +/- 4.7	21.0 +/- 4.5	22.5 +/- 4.6	22.0 +/- 4.5
11/02/05	22.6 +/- 4.6	23.8 +/- 4.7	17.8 +/- 4.3	24.4 +/- 4.7	21.8 +/- 4.6
11/09/05	34.0 +/- 5.0	40.8 +/- 5.3	36.2 +/- 5.1	38.6 +/- 5.2	41.1 +/- 5.3
11/16/05	23.8 +/- 4.8	25.0 +/- 4.9	22.2 +/- 4.9	25.5 +/- 4.9	29.8 +/- 5.0
11/23/05	36.8 +/- 7.3	26.7 +/- 4.8	23.8 +/- 4.7	24.7 +/- 4.7	33.5 +/- 5.2
11/30/05	25.3 +/- 4.4	15.6 +/- 3.9	20.8 +/- 4.2	20.6 +/- 4.2	28.5 +/- 4.6
12/07/05	21.3 +/- 4.2	28.4 +/- 4.6	25.6 +/- 4.4	26.7 +/- 4.5	31.0 +/- 4.7
12/14/05	29.5 +/- 5.2	32.1 +/- 5.4	32.9 +/- 5.4	31.1 +/- 5.3	41.4 +/- 5.7
12/21/05	24.8 +/- 5.0	29.4 +/- 5.1	21.2 +/- 4.7	29.6 +/- 5.2	28.8 +/- 5.0
12/28/05	28.5 +/- 4.7	31.7 +/- 4.9	29.4 +/- 4.7	28.2 +/- 4.6	40.3 +/- 5.3

Table 3-4
Airborne Iodine
I - 131
[pCi x 10^{-3}/m3]

Period Ending	Station 01	Station 02	Station 03	Station 04	Station 05	Station 05A	Station 06
01/05/05	6.0 +/- 13.0	-1.0 +/- 14.0	-6.0 +/- 13.0	7.0 +/- 13.0	-4.0 +/- 13.0	-3.0 +/- 13.0	7.0 +/- 13.0
01/12/05	-8.0 +/- 13.0	-2.0 +/- 15.0	3.0 +/- 13.0	-15.0 +/- 16.0	-5.0 +/- 14.0	3.0 +/- 13.0	9.0 +/- 13.0
01/19/05	3.0 +/- 15.0	-11.0 +/- 15.0	0.0 +/- 11.0	4.0 +/- 14.0	-11.0 +/- 14.0	0.0 +/- 14.0	-16.0 +/- 14.0
01/26/05	6.0 +/- 18.0	12.0 +/- 24.0	-2.0 +/- 19.0	2.0 +/- 16.0	0.0 +/- 20.0	-8.0 +/- 17.0	6.0 +/- 17.0
02/02/05	-3.0 +/- 14.0	6.0 +/- 16.0	8.0 +/- 15.0	-2.0 +/- 14.0	-5.0 +/- 15.0	12.0 +/- 15.0	-5.0 +/- 16.0
02/09/05	0.0 +/- 14.0	-3.0 +/- 14.0	11.0 +/- 16.0	-9.0 +/- 16.0	6.0 +/- 14.0	-14.0 +/- 15.0	11.0 +/- 15.0
02/17/05	9.0 +/- 16.0	13.0 +/- 14.0	0.0 +/- 17.0	3.0 +/- 15.0	11.0 +/- 14.0	-1.0 +/- 14.0	4.0 +/- 17.0
02/23/05	5.0 +/- 16.0	5.0 +/- 18.0	0.0 +/- 14.0	-10.0 +/- 19.0	12.0 +/- 17.0	-2.0 +/- 19.0	-14.0 +/- 20.0
03/02/05	-11.0 +/- 13.0	-5.0 +/- 16.0	-3.0 +/- 13.0	-3.0 +/- 16.0	6.0 +/- 13.0	2.0 +/- 16.0	8.0 +/- 15.0
03/09/05	0.0 +/- 14.0	-17.0 +/- 16.0	-15.0 +/- 16.0	-6.0 +/- 16.0	-2.0 +/- 18.0	-6.0 +/- 16.0	5.0 +/- 17.0
03/16/05	4.0 +/- 17.0	-1.0 +/- 12.0	-1.0 +/- 14.0	-1.0 +/- 16.0	-1.0 +/- 15.0	6.0 +/- 16.0	-3.0 +/- 14.0
03/23/05	2.0 +/- 13.0	3.0 +/- 14.0	0.0 +/- 13.0	9.0 +/- 17.0	-11.0 +/- 14.0	8.0 +/- 12.0	0.0 +/- 15.0
03/30/05	7.0 +/- 11.0	-3.0 +/- 14.0	7.0 +/- 14.0	-6.0 +/- 12.0	-15.0 +/- 14.0	7.0 +/- 14.0	-7.0 +/- 15.0
04/06/05	-5.0 +/- 14.0	-5.0 +/- 16.0	-3.0 +/- 15.0	14.0 +/- 15.0	-3.0 +/- 16.0	6.0 +/- 17.0	8.0 +/- 13.0
04/14/05	0.0 +/- 15.0	5.0 +/- 15.0	12.0 +/- 13.0	3.0 +/- 17.0	15.0 +/- 15.0	-10.0 +/- 12.0	-2.0 +/- 15.0
04/20/05	-6.0 +/- 14.0	2.0 +/- 15.0	0.0 +/- 18.0	-3.0 +/- 16.0	-5.0 +/- 17.0	-7.0 +/- 15.0	6.0 +/- 15.0
04/28/05	-1.0 +/- 12.0	1.0 +/- 12.0	-5.0 +/- 13.0	-4.0 +/- 14.0	-5.0 +/- 14.0	-12.0 +/- 14.0	-5.0 +/- 15.0
05/04/05	-12.0 +/- 15.0	-1.0 +/- 15.0	-6.0 +/- 16.0	-7.0 +/- 17.0	3.0 +/- 18.0	-2.0 +/- 15.0	-5.0 +/- 16.0
05/11/05	-16.0 +/- 16.0	-8.0 +/- 16.0	-4.0 +/- 16.0	-1.0 +/- 15.0	3.0 +/- 16.0	-5.0 +/- 25.0	-5.0 +/- 16.0
05/18/05	-7.0 +/- 16.0	4.0 +/- 16.0	8.0 +/- 16.0	11.0 +/- 19.0	13.0 +/- 15.0	14.0 +/- 16.0	0.0 +/- 17.0
05/25/05	9.0 +/- 12.0	-9.0 +/- 19.0	-11.0 +/- 15.0	2.0 +/- 14.0	-9.0 +/- 17.0	11.0 +/- 18.0	-6.0 +/- 16.0
06/02/05	0.0 +/- 16.0	0.0 +/- 13.0	11.0 +/- 15.0	2.0 +/- 14.0	0.0 +/- 14.0	2.0 +/- 15.0	-2.0 +/- 12.0
06/08/05	0.0 +/- 17.0	-7.0 +/- 20.0	2.0 +/- 19.0	12.0 +/- 16.0	0.0 +/- 19.0	-12.0 +/- 17.0	-2.0 +/- 16.0
06/15/05	-2.0 +/- 15.0	11.0 +/- 15.0	-3.0 +/- 16.0	2.0 +/- 10.0	-3.0 +/- 14.0	2.0 +/- 15.0	-9.0 +/- 16.0
06/22/05	-1.0 +/- 16.0	-1.0 +/- 14.0	13.0 +/- 15.0	4.0 +/- 14.0	0.0 +/- 14.0	-9.0 +/- 11.0	4.0 +/- 15.0
06/29/05	3.0 +/- 14.0	-1.5 +/- 7.4	3.0 +/- 13.0	3.0 +/- 13.0	-3.0 +/- 12.0	-4.0 +/- 11.0	7.0 +/- 11.0

Table 3-4
Airborne Iodine
I - 131
[pCi x 10^{-3}/m3]

Period Ending	Station 07			Station 21			Station 22			Station 23			Station 24		
01/05/05	-19.0	+/-	14.0	-3.0	+/-	14.0	9.0	+/-	13.0	2.0	+/-	14.0	-2.0	+/-	12.0
01/12/05	0.0	+/-	12.0	-9.0	+/-	13.0	-6.0	+/-	11.0	20.0	+/-	23.0	-2.0	+/-	15.0
01/19/05	4.0	+/-	15.0	-4.0	+/-	14.0	0.0	+/-	15.0	7.0	+/-	13.0	3.0	+/-	14.0
01/26/05	-4.0	+/-	21.0	0.0	+/-	20.0	-2.0	+/-	19.0	0.0	+/-	19.0	6.0	+/-	19.0
02/02/05	-13.0	+/-	14.0	2.0	+/-	14.0	-2.0	+/-	14.0	6.0	+/-	14.0	3.0	+/-	11.0
02/09/05	6.0	+/-	15.0	14.0	+/-	16.0	-11.0	+/-	13.0	-2.0	+/-	15.0	-8.0	+/-	16.0
02/17/05	3.0	+/-	12.0	-4.0	+/-	14.0	3.0	+/-	13.0	9.0	+/-	16.0	-4.0	+/-	17.0
02/23/05	-16.0	+/-	19.0	5.0	+/-	19.0	12.0	+/-	21.0	-3.0	+/-	19.0	2.0	+/-	21.0
03/02/05	6.0	+/-	16.0	-5.0	+/-	18.0	-5.0	+/-	18.0	0.0	+/-	17.0	-3.0	+/-	14.0
03/09/05	-2.0	+/-	16.0	8.0	+/-	16.0	2.0	+/-	18.0	9.0	+/-	15.0	-9.0	+/-	16.0
03/16/05	2.0	+/-	24.0	-3.0	+/-	12.0	4.0	+/-	16.0	-9.0	+/-	16.0	-4.0	+/-	13.0
03/23/05	-11.0	+/-	15.0	-5.0	+/-	16.0	-5.0	+/-	15.0	-5.0	+/-	11.0	-8.0	+/-	16.0
03/30/05	4.0	+/-	13.0	-1.0	+/-	12.0	-16.0	+/-	14.0	0.0	+/-	13.0	1.0	+/-	13.0
04/06/05	5.0	+/-	14.0	-5.0	+/-	14.0	-8.0	+/-	16.0	-15.0	+/-	16.0	3.0	+/-	15.0
04/14/05	3.0	+/-	13.0	7.0	+/-	14.0	-10.0	+/-	17.0	5.0	+/-	14.0	-1.0	+/-	15.0
04/20/05	3.0	+/-	17.0	10.0	+/-	17.0	-8.0	+/-	16.0	2.0	+/-	14.0	15.0	+/-	15.0
04/28/05	0.0	+/-	12.0	-5.0	+/-	11.0	7.0	+/-	11.0	-4.0	+/-	18.0	7.0	+/-	11.0
05/04/05	7.0	+/-	14.0	-1.0	+/-	15.0	-9.0	+/-	12.0	5.0	+/-	18.0	1.0	+/-	17.0
05/11/05	2.0	+/-	14.0	2.0	+/-	13.0	1.0	+/-	16.0	3.0	+/-	15.0	0.0	+/-	18.0
05/18/05	7.0	+/-	17.0	5.0	+/-	18.0	3.0	+/-	17.0	-4.0	+/-	20.0	-16.0	+/-	19.0
05/25/05	-20.0	+/-	18.0	0.0	+/-	19.0	9.0	+/-	18.0	2.0	+/-	18.0	-13.0	+/-	17.0
06/02/05	-2.0	+/-	13.0	-5.0	+/-	13.0	-18.0	+/-	16.0	6.0	+/-	13.0	-8.0	+/-	15.0
06/08/05	0.0	+/-	14.0	-2.8	+/-	7.3	7.0	+/-	12.0	-20.0	+/-	19.0	-4.0	+/-	16.0
06/15/05	12.0	+/-	15.0	8.0	+/-	12.0	9.0	+/-	16.0	14.0	+/-	14.0	11.0	+/-	15.0
06/22/05	1.0	+/-	13.0	-7.0	+/-	13.0	0.0	+/-	11.0	-1.0	+/-	14.0	7.0	+/-	13.0
06/29/05	4.0	+/-	13.0	-4.0	+/-	13.0	-1.0	+/-	12.0	-4.0	+/-	12.0	-1.0	+/-	10.0

Table 3-4

Airborne Iodine

I - 131

[pCi x 10^{-3}/m3]

Period Ending	Station 01	Station 02	Station 03	Station 04	Station 05	Station 05A	Station 06
07/07/05	-1.0 +/- 13.0	-3.0 +/- 15.0	6.0 +/- 11.0	1.0 +/- 13.0	-1.0 +/- 12.0	0.0 +/- 15.0	0.0 +/- 12.0
07/13/05	0.0 +/- 18.0	-7.0 +/- 15.0	2.0 +/- 18.0	0.0 +/- 15.0	-7.0 +/- 17.0	-17.0 +/- 18.0	19.0 +/- 16.0
07/20/05	-8.0 +/- 14.0	-7.0 +/- 13.0	5.0 +/- 16.0	5.0 +/- 16.0	3.0 +/- 16.0	0.0 +/- 15.0	0.0 +/- 18.0
07/27/05	-7.0 +/- 14.0	-2.0 +/- 17.0	19.0 +/- 18.0	-2.0 +/- 16.0	19.0 +/- 16.0	0.0 +/- 13.0	9.0 +/- 16.0
08/03/05	-8.0 +/- 14.0	5.0 +/- 14.0	11.0 +/- 11.0	-9.0 +/- 16.0	3.0 +/- 15.0	-2.0 +/- 14.0	5.0 +/- 17.0
08/10/05	-10.0 +/- 12.0	-6.0 +/- 16.0	-6.0 +/- 11.0	1.0 +/- 11.0	3.0 +/- 15.0	3.0 +/- 12.0	-12.0 +/- 14.0
08/17/05	7.0 +/- 15.0	0.0 +/- 13.0	0.0 +/- 13.0	4.0 +/- 15.0	-1.0 +/- 15.0	-7.0 +/- 13.0	-12.0 +/- 15.0
08/24/05	-9.0 +/- 12.0	-12.0 +/- 15.0	-2.0 +/- 14.0	3.0 +/- 17.0	-11.0 +/- 14.0	6.0 +/- 16.0	-5.0 +/- 14.0
08/30/05	-11.0 +/- 17.0	0.0 +/- 18.0	-13.0 +/- 15.0	-6.0 +/- 15.0	-19.0 +/- 16.0	0.0 +/- 20.0	-8.0 +/- 15.0
09/07/05	9.0 +/- 14.0	12.0 +/- 14.0	9.0 +/- 13.0	3.0 +/- 14.0	-8.0 +/- 10.0	-1.0 +/- 11.0	3.0 +/- 14.0
09/14/05	3.0 +/- 12.0	1.0 +/- 11.0	1.0 +/- 11.0	0.0 +/- 11.0	-8.0 +/- 12.0	-1.0 +/- 12.0	-7.0 +/- 11.0
09/21/05	14.0 +/- 16.0	14.0 +/- 13.0	-2.0 +/- 15.0	0.0 +/- 13.0	0.0 +/- 15.0	3.0 +/- 12.0	2.0 +/- 16.0
09/28/05	-10.0 +/- 15.0	5.0 +/- 16.0	-4.0 +/- 22.0	-15.0 +/- 15.0	3.0 +/- 19.0	-5.0 +/- 17.0	-3.0 +/- 15.0
10/05/05	-3.0 +/- 15.0	-2.0 +/- 14.0	3.0 +/- 15.0	9.0 +/- 12.0	18.0 +/- 16.0	2.0 +/- 15.0	6.0 +/- 14.0
10/12/05	2.0 +/- 16.0	0.0 +/- 14.0	-5.0 +/- 17.0	2.0 +/- 16.0	7.0 +/- 17.0	2.0 +/- 14.0	-3.0 +/- 16.0
10/19/05	1.0 +/- 16.0	9.0 +/- 14.0	-7.0 +/- 14.0	-9.0 +/- 13.0	-7.0 +/- 16.0	-19.0 +/- 12.0	7.0 +/- 15.0
10/26/05	5.0 +/- 16.0	-9.0 +/- 19.0	14.0 +/- 18.0	10.0 +/- 19.0	7.0 +/- 15.0	-7.0 +/- 15.0	3.0 +/- 18.0
11/02/05	10.0 +/- 17.0	8.0 +/- 15.0	2.0 +/- 18.0	0.0 +/- 24.0	-3.0 +/- 14.0	-10.0 +/- 14.0	-5.0 +/- 15.0
11/09/05	-20.0 +/- 16.0	-8.0 +/- 14.0	-2.0 +/- 14.0	5.0 +/- 15.0	0.0 +/- 18.0	-6.0 +/- 14.0	-3.0 +/- 14.0
11/16/05	4.0 +/- 16.0	-4.0 +/- 14.0	-1.0 +/- 17.0	1.0 +/- 13.0	4.0 +/- 13.0	-4.0 +/- 15.0	-9.0 +/- 14.0
11/23/05	-8.0 +/- 13.0	-13.0 +/- 16.0	-14.0 +/- 17.0	-2.0 +/- 18.0	21.0 +/- 19.0	5.0 +/- 16.0	14.0 +/- 14.0
11/30/05	11.0 +/- 18.0	-5.0 +/- 19.0	-6.0 +/- 19.0	-16.0 +/- 17.0	13.0 +/- 18.0	3.0 +/- 18.0	0.0 +/- 16.0
12/07/05	6.0 +/- 15.0	0.0 +/- 17.0	-5.0 +/- 16.0	3.0 +/- 14.0	6.0 +/- 16.0	13.0 +/- 18.0	-5.0 +/- 12.0
12/14/05	8.0 +/- 18.0	-5.0 +/- 17.0	-2.0 +/- 16.0	2.0 +/- 15.0	-7.0 +/- 14.0	-3.0 +/- 16.0	-3.0 +/- 17.0
12/21/05	4.0 +/- 22.0	-2.0 +/- 19.0	4.0 +/- 23.0	-8.0 +/- 22.0	-2.0 +/- 22.0	-4.0 +/- 24.0	-2.0 +/- 16.0
12/28/05	0.0 +/- 17.0	13.0 +/- 23.0	4.0 +/- 17.0	-4.0 +/- 17.0	17.0 +/- 19.0	-7.0 +/- 20.0	-15.0 +/- 18.0

Table 3-4
Airborne Iodine
I - 131
[pCi x 10^{-3}/m3]

Period Ending	Station 07			Station 21			Station 22			Station 23			Station 24		
07/07/05	0.0	+/-	15.0	3.0	+/-	12.0	-1.0	+/-	14.0	6.0	+/-	11.0	-4.0	+/-	14.0
07/13/05	-1.0	+/-	11.0	-3.0	+/-	15.0	-7.0	+/-	15.0	0.0	+/-	14.0	-7.0	+/-	14.0
07/20/05	-17.0	+/-	14.0	2.0	+/-	18.0	9.0	+/-	14.0	12.0	+/-	14.0	-3.0	+/-	15.0
07/27/05	0.0	+/-	16.0	15.0	+/-	19.0	9.0	+/-	16.0	-15.0	+/-	15.0	-17.0	+/-	18.0
08/03/05	-3.0	+/-	16.0	10.0	+/-	14.0	12.0	+/-	19.0	-3.0	+/-	16.0	10.0	+/-	15.0
08/10/05	7.0	+/-	14.0	6.0	+/-	11.0	10.0	+/-	12.0	1.0	+/-	11.0	0.0	+/-	15.0
08/17/05	6.0	+/-	14.0	-1.0	+/-	12.0	-4.0	+/-	12.0	6.0	+/-	13.0	0.0	+/-	11.0
08/24/05	0.0	+/-	13.0	16.0	+/-	18.0	-10.0	+/-	14.0	8.0	+/-	15.0	5.0	+/-	15.0
08/30/05	-10.0	+/-	17.0	-6.0	+/-	21.0	-2.0	+/-	18.0	4.0	+/-	14.0	10.0	+/-	17.0
09/07/05	3.0	+/-	13.0	1.0	+/-	13.0	0.0	+/-	13.0	-3.0	+/-	12.0	-3.0	+/-	13.0
09/14/05	3.0	+/-	12.0	-12.0	+/-	12.0	2.0	+/-	12.0	4.0	+/-	12.0	-3.0	+/-	3.2
09/21/05	-8.0	+/-	16.0	0.0	+/-	13.0	10.0	+/-	16.0	-3.0	+/-	17.0	5.0	+/-	17.0
09/28/05	-14.0	+/-	16.0	10.0	+/-	16.0	2.0	+/-	18.0	14.0	+/-	16.0	12.0	+/-	16.0
10/05/05	2.0	+/-	15.0	-5.0	+/-	14.0	-14.0	+/-	15.0	5.0	+/-	13.0	-13.0	+/-	15.0
10/12/05	9.0	+/-	16.0	-2.0	+/-	15.0	15.0	+/-	18.0	-3.0	+/-	17.0	5.0	+/-	18.0
10/19/05	9.0	+/-	14.0	-6.0	+/-	16.0	-6.0	+/-	15.0	-1.0	+/-	14.0	-9.0	+/-	14.0
10/26/05	4.0	+/-	20.0	-7.0	+/-	16.0	12.0	+/-	14.0	-16.0	+/-	14.0	9.0	+/-	17.0
11/02/05	-18.0	+/-	17.0	5.0	+/-	16.0	0.0	+/-	16.0	8.0	+/-	17.0	-7.0	+/-	15.0
11/09/05	0.0	+/-	14.0	-8.0	+/-	16.0	2.0	+/-	15.0	6.0	+/-	13.0	-19.0	+/-	16.0
11/16/05	9.0	+/-	14.0	9.0	+/-	15.0	-6.0	+/-	15.0	7.0	+/-	14.0	0.0	+/-	13.0
11/23/05	4.0	+/-	21.0	9.0	+/-	18.0	-5.0	+/-	14.0	7.0	+/-	18.0	-4.0	+/-	11.0
11/30/05	11.0	+/-	17.0	-8.0	+/-	16.0	0.0	+/-	21.0	10.0	+/-	18.0	2.0	+/-	16.0
12/07/05	0.0	+/-	14.0	14.0	+/-	15.0	5.0	+/-	17.0	-3.0	+/-	12.0	-5.0	+/-	17.0
12/14/05	5.0	+/-	15.0	-2.0	+/-	15.0	0.0	+/-	18.0	-10.0	+/-	15.0	-10.0	+/-	18.0
12/21/05	-2.0	+/-	17.0	0.0	+/-	19.0	6.0	+/-	18.0	0.0	+/-	21.0	-4.0	+/-	21.0
12/28/05	-7.0	+/-	20.0	15.0	+/-	18.0	-11.0	+/-	21.0	2.0	+/-	19.0	21.0	+/-	22.0

Table 3-5
Airborne Particulate
Gamma Spectra and Strontium
[pCi x10^{-3}/m3]

Quarter 1

Sampling Location	Be-7			K-40			Cs-134			Cs-137		
01	105.0	+/-	22.0	-0.4	+/-	7.1	0.2	+/-	0.6	0.2	+/-	0.5
02	103.0	+/-	22.0	-0.4	+/-	5.2	0.1	+/-	0.4	-0.1	+/-	0.3
03	125.0	+/-	24.0	-1.4	+/-	4.5	0.3	+/-	0.6	0.2	+/-	0.2
04	125.0	+/-	25.0	-2.7	+/-	7.3	0.2	+/-	0.8	-0.4	+/-	0.4
05	108.0	+/-	25.0	0.6	+/-	7.1	-0.1	+/-	0.6	0.1	+/-	0.4
05A	89.0	+/-	22.0	5.3	+/-	8.9	-0.2	+/-	0.7	0.1	+/-	0.4
06	101.0	+/-	24.0	0.8	+/-	5.4	0.1	+/-	0.5	-0.1	+/-	0.5
07	98.0	+/-	27.0	2.3	+/-	8.0	0.1	+/-	0.4	0.0	+/-	0.4
21	116.0	+/-	29.0	-1.3	+/-	6.9	0.3	+/-	0.7	-0.1	+/-	0.6
22	95.0	+/-	28.0	0.4	+/-	9.2	-0.1	+/-	0.7	0.8	+/-	0.7
23	160.0	+/-	34.0	4.4	+/-	7.7	0.9	+/-	0.9	-0.4	+/-	0.7
24	108.0	+/-	22.0	-3.1	+/-	3.6	-0.1	+/-	0.5	0.2	+/-	0.5

Quarter 2

Sampling Location	Be-7			K-40			Cs-134			Cs-137			Sr-89			Sr-90		
01	92.0	+/-	30.0	-3.0	+/-	10.0	0.4	+/-	0.7	0.2	+/-	0.5	-3.0	+/-	11.0	0.3	+/-	0.3
02	100.0	+/-	27.0	-4.5	+/-	7.4	-0.2	+/-	0.8	-0.9	+/-	0.8	-12.9	+/-	0.8	1.8	+/-	1.7
03	117.0	+/-	30.0	5.3	+/-	9.8	-0.1	+/-	0.7	0.9	+/-	0.7	-5.0	+/-	11.0	1.4	+/-	2.8
04	99.0	+/-	27.0	1.1	+/-	8.5	-0.7	+/-	0.7	-0.3	+/-	0.6	-5.0	+/-	8.1	1.6	+/-	1.4
05	110.0	+/-	29.0	-5.7	+/-	7.8	-0.5	+/-	0.6	-0.2	+/-	0.7	5.0	+/-	14.0	1.1	+/-	3.0
05A	114.0	+/-	31.0	-3.2	+/-	8.3	0.1	+/-	0.8	0.0	+/-	0.7	-3.5	+/-	9.4	1.0	+/-	1.6
06	110.0	+/-	28.0	2.5	+/-	8.9	0.0	+/-	0.5	-0.4	+/-	0.6	-2.0	+/-	10.0	1.4	+/-	2.5
07	89.0	+/-	26.0	-1.5	+/-	9.2	0.1	+/-	0.7	-0.1	+/-	0.5	-6.0	+/-	10.0	2.3	+/-	1.9
21	143.0	+/-	31.0	-0.5	+/-	7.0	-0.2	+/-	0.7	-0.2	+/-	0.7	-7.6	+/-	8.4	2.3	+/-	1.6
22	93.0	+/-	28.0	4.0	+/-	10.0	-0.3	+/-	0.6	0.0	+/-	0.8	-7.9	+/-	9.2	2.3	+/-	1.8
23	113.0	+/-	28.0	7.0	+/-	10.0	0.4	+/-	0.5	-0.3	+/-	0.6	0.0	+/-	10.0	1.8	+/-	1.7
24	107.0	+/-	30.0	1.2	+/-	9.3	-0.2	+/-	0.4	0.1	+/-	0.7	-7.0	+/-	2.4	1.4	+/-	2.4

Sr-89/90 sampled in 2nd Qtr.

Table 3-5
Airborne Particulate and Strontium
Gamma Spectra
[pCi x10^{-3}/m3]

Quarter 3

Sampling Location	Be-7			K-40			Cs-134			Cs-137		
01	149.0	+/-	30.0	0.8	+/-	9.3	0.1	+/-	0.7	-0.2	+/-	0.7
02	126.0	+/-	27.0	1.9	+/-	8.1	-0.2	+/-	0.6	-0.1	+/-	0.8
03	125.0	+/-	32.0	-3.4	+/-	8.9	-0.3	+/-	0.9	-0.5	+/-	0.8
04	130.0	+/-	30.0	0.6	+/-	8.5	0.4	+/-	0.5	0.2	+/-	0.6
05	117.0	+/-	28.0	-16.7	+/-	9.2	-0.2	+/-	0.6	-0.6	+/-	0.7
05A	138.0	+/-	29.0	-0.9	+/-	7.0	0.4	+/-	0.6	-0.1	+/-	0.7
06	112.0	+/-	28.0	-0.9	+/-	7.0	0.6	+/-	0.7	-0.4	+/-	0.7
07	111.0	+/-	28.0	2.2	+/-	9.7	-0.2	+/-	0.7	0.0	+/-	0.6
21	143.0	+/-	29.0	12.0	+/-	12.0	-0.2	+/-	0.9	-0.4	+/-	0.8
22	91.0	+/-	25.0	-4.9	+/-	7.4	0.4	+/-	0.6	-0.2	+/-	0.7
23	111.0	+/-	29.0	-3.6	+/-	6.9	0.3	+/-	0.9	0.2	+/-	0.7
24	109.0	+/-	28.0	7.0	+/-	12.0	-0.2	+/-	0.6	-0.1	+/-	0.6

Quarter 4

Sampling Location	Be-7			K-40			Cs-134			Cs-137		
01	124.0	+/-	30.0	8.1	+/-	7.6	0.1	+/-	0.7	-0.2	+/-	0.7
02	109.0	+/-	31.0	5.0	+/-	10.0	0.0	+/-	0.8	-0.1	+/-	0.7
03	112.0	+/-	31.0	5.7	+/-	9.2	-0.5	+/-	0.8	-0.1	+/-	0.7
04	140.0	+/-	34.0	9.7	+/-	8.9	0.1	+/-	0.6	-0.6	+/-	0.6
05	110.0	+/-	30.0	4.4	+/-	9.6	-0.2	+/-	0.7	0.4	+/-	0.6
05A	121.0	+/-	31.0	13.0	+/-	11.0	-0.3	+/-	0.8	-0.5	+/-	0.7
06	121.0	+/-	31.0	1.6	+/-	8.7	-0.1	+/-	0.7	0.4	+/-	0.6
07	132.0	+/-	34.0	1.2	+/-	5.8	-0.5	+/-	0.9	-0.3	+/-	0.6
21	85.0	+/-	29.0	6.8	+/-	8.0	0.4	+/-	0.7	-0.5	+/-	0.6
22	92.0	+/-	28.0	-5.6	+/-	4.6	0.3	+/-	0.6	0.1	+/-	0.6
23	115.0	+/-	32.0	2.0	+/-	10.0	-0.2	+/-	0.5	-0.6	+/-	0.7
24	104.0	+/-	32.0	6.0	+/-	10.0	-0.4	+/-	0.7	-0.1	+/-	0.6

Table 3-6
Soil
Gamma Spectra and Strontium
[pCi/kg]

Station	Sr-89	Sr-90	Be-7	K-40	Cs-134	Cs-137	Th-228
01							
02		Soil Not Collected 2005					
03							
04							
05							
05A							
06							
07							
21							
22							
23							
24							

Table 3-7
Precipitation
Gamma Spectra
[pCi/L]

06/28/2005

Sampling Location	Be-7	K-40	Cr-51	Mn-54	Fe-59	Co-58	Co-60
01A	3.0 +/- 19.0	37.0 +/- 29.0	-14.0 +/- 19.0	1.6 +/- 2.4	-0.2 +/- 7.5	-0.4 +/- 2.6	0.7 +/- 2.7

	Zn-65	Zr-95	Nb-95	Ru-103	Ru-106	Sb-125	I-131
01A	8.0 +/- 10.0	-1.7 +/- 4.5	-1.3 +/- 2.9	-2.1 +/- 2.6	11.0 +/- 21.0	3.1 +/- 6.3	-0.9 +/- 2.5

	Cs-134	Cs-137	Ba-140	La-140	Th-228
01A	-0.2 +/- 2.8	0.2 +/- 2.0	2.2 +/- 4.0	2.5 +/- 4.6	4.0 +/- 11.0

12/28/2005

Sampling Location	Be-7	K-40	Cr-51	Mn-54	Fe-59	Co-58	Co-60
01A	24.0 +/- 10.0	-4.0 +/- 11.0	5.0 +/- 13.0	-0.4 +/- 0.7	1.1 +/- 2.1	0.6 +/- 1.2	0.6 +/- 0.7

	Zn-65	Zr-95	Nb-95	Ru-103	Ru-106	Sb-125	I-131
01A	-0.4 +/- 2.2	0.0 +/- 1.5	-0.7 +/- 1.2	-1.3 +/- 1.7	-5.6 +/- 6.6	-1.1 +/- 1.9	0.2 +/- 0.5

	Cs-134	Cs-137	Ba-140	La-140	Th-228
01A	-0.4 +/- 0.7	0.1 +/- 0.8	-0.2 +/- 4.2	-0.2 +/- 4.9	1.8 +/- 3.8

Table 3-7
Precipitation
Gross Beta
[pCi/L]

Sampling Date	Gross Beta	Rainfall (inches)
01/26/05	5.2 +/- 2.1	2.91
02/23/05	12.1 +/- 2.8	1.62
03/30/05	3.5 +/- 2.0	4.50
04/28/05	11.1 +/- 2.7	1.59
05/25/05	8.2 +/- 2.3	3.69
06/28/05	no sample	0.88
07/27/05	2.3 +/- 1.7	4.25
08/30/05	3.4 +/- 1.9	5.04
09/28/05	no sample	0.46
10/26/05	4.6 +/- 2.1	7.88
11/30/05	4.7 +/- 2.1	2.94
12/28/05	4.2 +/- 2.1	3.81
		Total =39.57"

Table 3-8
Milk
Gamma Spectra and Strontium
[pCi/L]

Station 12

Date	K-40	Sr-89	Sr-90	I-131	Cs-134	Cs-137	Ba-140	La-140
01/19/05	1390.0 +/- 110.0	[a]	[a]	-0.03 +/- 0.20	-1.0 +/- 2.8	-0.9 +/- 3.1	1.9 +/- 5.6	2.2 +/- 6.4
02/17/05	1290.0 +/- 160.0	[a]	[a]	-0.13 +/- 0.05	-1.9 +/- 4.7	-1.3 +/- 4.1	2.3 +/- 7.0	2.6 +/- 8.1
03/23/05	1480.0 +/- 170.0	-0.2 +/- 4.5	0.4 +/- 1.0	0.19 +/- 0.34	0.3 +/- 4.6	3.7 +/- 3.6	2.6 +/- 5.6	3.0 +/- 6.4
04/14/05	1380.0 +/- 140.0	[a]	[a]	-0.14 +/- 0.05	-0.7 +/- 4.2	-2.4 +/- 3.6	-1.7 +/- 5.1	-1.9 +/- 5.8
05/11/05	1410.0 +/- 130.0	[a]	[a]	0.01 +/- 0.25	2.8 +/- 3.7	0.9 +/- 3.9	0.0 +/- 4.9	0.0 +/- 5.7
06/15/05	1360.0 +/- 170.0	-2.6 +/- 4.4	0.0 +/- 1.1	-0.16 +/- 0.06	2.6 +/- 4.7	-2.5 +/- 4.3	2.9 +/- 6.6	3.3 +/- 7.6
07/13/05	1410.0 +/- 110.0	[a]	[a]	0.31 +/- 0.40	0.3 +/- 3.4	0.8 +/- 2.8	2.5 +/- 3.6	2.9 +/- 4.2
08/10/05	1370.0 +/- 120.0	[a]	[a]	-0.01 +/- 0.15	-0.2 +/- 3.5	1.6 +/- 3.4	-1.6 +/- 5.3	-1.8 +/- 6.1
09/14/05	1310.0 +/- 120.0	0.1 +/- 5.6	1.3 +/- 1.0	-0.05 +/- 0.29	1.6 +/- 3.2	1.8 +/- 3.4	-1.4 +/- 4.8	-1.6 +/- 5.5
10/19/05	1430.0 +/- 140.0	[a]	[a]	-0.16 +/- 0.06	0.8 +/- 3.7	-1.6 +/- 3.6	-1.0 +/- 5.5	-1.1 +/- 6.3
11/16/05	1440.0 +/- 130.0	[a]	[a]	-0.06 +/- 0.18	2.1 +/- 3.6	1.7 +/- 3.2	1.9 +/- 6.3	2.2 +/- 7.3
12/21/05	1401.0 +/- 95.0	1.5 +/- 4.2	-0.2 +/- 0.9	0.03 +/- 0.33	2.6 +/- 2.8	-0.2 +/- 2.3	-2.1 +/- 4.7	-2.4 +/- 5.4

Station 13

Date	K-40	Sr-89	Sr-90	I-131	Cs-134	Cs-137	Ba-140	La-140
01/19/05	1250.0 +/- 110.0	[a]	[a]	0.21 +/- 0.47	3.1 +/- 3.3	2.8 +/- 2.7	3.1 +/- 4.8	3.6 +/- 5.6
02/17/05	1400.0 +/- 160.0	[a]	[a]	-0.12 +/- 0.04	-0.3 +/- 4.2	3.3 +/- 4.5	-2.3 +/- 5.8	-2.6 +/- 6.7
03/23/05	1390.0 +/- 150.0	3.0 +/- 5.4	1.4 +/- 1.0	-0.06 +/- 0.03	-0.3 +/- 4.0	-1.3 +/- 4.2	2.1 +/- 5.1	2.4 +/- 5.9
04/14/05	1360.0 +/- 130.0	[a]	[a]	-0.11 +/- 0.04	0.9 +/- 3.8	0.4 +/- 3.6	-3.0 +/- 6.1	-3.5 +/- 7.0
05/11/05	1330.0 +/- 130.0	[a]	[a]	0.01 +/- 0.26	-2.6 +/- 3.8	-0.7 +/- 3.1	-5.1 +/- 5.3	-5.9 +/- 6.1
06/15/05	1310.0 +/- 170.0	-1.1 +/- 4.4	-0.9 +/- 1.0	-0.17 +/- 0.06	1.1 +/- 4.3	3.8 +/- 4.3	0.1 +/- 6.4	0.2 +/- 7.4
07/13/05	1400.0 +/- 130.0	[a]	[a]	0.02 +/- 0.23	-0.9 +/- 3.7	-2.2 +/- 3.2	-1.0 +/- 4.4	-1.1 +/- 5.1
08/10/05	1453.0 +/- 90.0	[a]	[a]	-0.06 +/- 0.02	0.4 +/- 2.4	0.7 +/- 2.6	-3.9 +/- 4.7	-4.4 +/- 5.4
09/14/05	1290.0 +/- 140.0	0.9 +/- 5.1	0.0 +/- 1.0	-0.17 +/- 0.06	-2.1 +/- 4.8	-1.4 +/- 3.9	-5.2 +/- 4.6	-5.9 +/- 5.3
10/19/05	1250.0 +/- 130.0	[a]	[a]	0.07 +/- 0.35	-2.8 +/- 4.6	-1.7 +/- 3.3	0.0 +/- 5.9	0.0 +/- 6.7
11/16/05	1400.0 +/- 120.0	[a]	[a]	-0.05 +/- 0.21	1.3 +/- 3.2	3.7 +/- 3.3	-1.1 +/- 5.2	-1.3 +/- 5.9
12/21/05	1364.0 +/- 99.0	3.4 +/- 4.6	0.2 +/- 0.9	0.30 +/- 0.53	-1.7 +/- 3.0	0.7 +/- 2.6	2.4 +/- 5.1	2.8 +/- 5.9

[a] Sr-89/90 analyses performed on the last monthly sample of each quarter.

Table 3-9
Food and Vegetation
Gamma Spectra
[pCi/kg]

Sampling Location	Sampling Date	Be-7			K-40			I-131			Cs-134			Cs-137			Th-228		
14	05/18/05	830.0	+/-	410.0	16500	+/-	1100.0	2.0	+/-	16.0	-18.0	+/-	29.0	-6.0	+/-	26.0	50.0	+/-	130.0
	06/22/05	360.0	+/-	320.0	12500	+/-	1300.0	4.0	+/-	25.0	44.0	+/-	35.0	-7.0	+/-	28.0	80.0	+/-	130.0
	07/20/05	1280.0	+/-	350.0	8500	+/-	1000.0	-8.0	+/-	22.0	31.0	+/-	31.0	10.0	+/-	24.0	60.0	+/-	120.0
	08/24/25	770.0	+/-	210.0	12340	+/-	760.0	2.0	+/-	22.0	27.0	+/-	21.0	21.0	+/-	17.0	270.0	+/-	71.0
		Be-7			K-40			I-131			Cs-134			Cs-137			Th-228		
15	05/18/05	1710.0	+/-	320.0	24800	+/-	720.0	-10.1	+/-	3.7	2.0	+/-	23.0	17.0	+/-	16.0	355.0	+/-	60.0
	06/22/05	480.0	+/-	230.0	11510	+/-	710.0	-14.0	+/-	18.0	9.0	+/-	20.0	12.0	+/-	18.0	145.0	+/-	77.0
	07/20/05	1920.0	+/-	290.0	7240	+/-	540.0	10.0	+/-	26.0	13.0	+/-	24.0	2.0	+/-	19.0	110.0	+/-	100.0
	08/24/25	2720.0	+/-	260.0	11680	+/-	540.0	-5.0	+/-	19.0	7.0	+/-	22.0	5.0	+/-	16.0	954.0	+/-	65.0
		Be-7			K-40			I-131			Cs-134			Cs-137			Th-228		
16	05/18/05	1460.0	+/-	520.0	20900	+/-	1200.0	3.0	+/-	22.0	4.0	+/-	28.0	27.0	+/-	31.0	250.0	+/-	140.0
	06/22/05	500.0	+/-	290.0	11800	+/-	1300.0	14.0	+/-	31.0	10.0	+/-	33.0	-16.0	+/-	24.0	90.0	+/-	140.0
	07/20/05	330.0	+/-	330.0	15300	+/-	1100.0	-3.0	+/-	21.0	15.0	+/-	27.0	11.0	+/-	23.0	50.0	+/-	100.0
	08/24/25	820.0	+/-	400.0	10200	+/-	1300.0	-3.0	+/-	18.0	8.0	+/-	28.0	0.0	+/-	25.0	220.0	+/-	110.0

Table 3-9
Food and Vegetation
Gamma Spectra
[pCi/kg]

Sampling Location	Sampling Date	Be-7			K-40			I-131			Cs-134			Cs-137			Th-228		
23	05/18/05	2210.0	+/-	350.0	21560	+/-	960.0	-10.7	+/-	4.0	16.0	+/-	26.0	17.0	+/-	19.0	625.0	+/-	76.0
	06/22/05	690.0	+/-	300.0	7870	+/-	670.0	-6.0	+/-	22.0	28.0	+/-	23.0	-2.0	+/-	20.0	80.0	+/-	110.0
	07/20/05	760.0	+/-	220.0	9950	+/-	730.0	3.0	+/-	28.0	21.0	+/-	19.0	9.0	+/-	16.0	223.0	+/-	63.0
	08/24/25	1430.0	+/-	430.0	13400	+/-	1200.0	14.0	+/-	24.0	7.0	+/-	34.0	-5.0	+/-	26.0	190.0	+/-	140.0

		Be-7			K-40			I-131			Cs-134			Cs-137			Th-228		
26	05/18/05	1870.0	+/-	650.0	22100	+/-	1400.0	-3.0	+/-	16.0	52.0	+/-	38.0	22.0	+/-	36.0	560.0	+/-	140.0
	06/22/05	350.0	+/-	290.0	10800	+/-	1300.0	-14.0	+/-	17.0	9.0	+/-	32.0	-4.0	+/-	25.0	-20.0	+/-	100.0
	07/20/05	1310.0	+/-	350.0	10200	+/-	1100.0	23.0	+/-	30.0	12.0	+/-	30.0	8.0	+/-	24.0	130.0	+/-	130.0
	08/24/25	1270.0	+/-	370.0	12590	+/-	920.0	-7.0	+/-	14.0	27.0	+/-	28.0	-2.0	+/-	23.0	120.0	+/-	120.0

Table 3-10
Well Water
Gamma Spectra, Strontium, and Tritium
[pCi/L]

Sampling Date	Station 01A																							
	H-3			Be-7			K-40			Sr-89			Sr-90			I-131			Ba-140			Th-228		
03/30/05	250.0	+/-	600.0	-7.0	+/-	26.0	-10.0	+/-	42.0	[a]			[a]			5.0	+/-	6.0	3.0	+/-	5.4	0.0	+/-	11.0
06/28/05	-30.0	+/-	750.0	3.0	+/-	19.0	37.0	+/-	29.0	3.3	+/-	4.9	0.5	+/-	1.1	-5.4	+/-	4.0	2.2	+/-	4.0	4.0	+/-	11.0
09/28/05	-350.0	+/-	910.0	3.0	+/-	16.0	-23.0	+/-	25.0	[a]			[a]			1.7	+/-	4.6	1.4	+/-	3.4	7.4	+/-	6.1
12/28/05	730.0	+/-	990.0	-4.0	+/-	15.0	19.0	+/-	31.0	[a]			[a]			-3.9	+/-	4.8	-2.2	+/-	4.0	7.1	+/-	6.0

[a] Sr-89/90 analyses performed on the second quarter sample.

Table 3-11
River Water
Gamma Spectra, Strontium, and Tritium
[pCi/L]

Sampling Date	H-3	Be-7	K-40	Sr-89	Sr-90	I-131	Cs-137	Ba-140	Station 11 Th-228
01/13/05	[b]	-8.0 +/- 20.0	7.0 +/- 27.0	[a]	[a]	0.2 +/- 0.4	-0.1 +/- 2.3	-1.2 +/- 5.1	1.5 +/- 9.2
02/17/05	[b]	1.0 +/- 13.0	-13.0 +/- 20.0	[a]	[a]	-0.1 +/- 0.2	0.5 +/- 1.3	0.6 +/- 3.2	1.8 +/- 5.7
03/14/05	3050.0 +/- 740.0	10.0 +/- 11.0	-2.0 +/- 19.0	[a]	[a]	0.2 +/- 0.4	0.5 +/- 1.2	-1.0 +/- 2.2	1.9 +/- 5.9
04/11/05	[b]	-10.0 +/- 12.0	-12.0 +/- 17.0	[a]	[a]	0.2 +/- 0.4	0.3 +/- 1.3	0.4 +/- 3.1	1.1 +/- 4.7
05/16/05	[b]	-9.0 +/- 16.0	2.0 +/- 31.0	[a]	[a]	-0.2 +/- 0.1	0.1 +/- 1.9	-1.8 +/- 3.6	-1.6 +/- 8.6
06/13/05	1500.0 +/- 1100.0	-11.0 +/- 19.0	-18.0 +/- 29.0	3.0 +/- 5.8	0.6 +/- 0.9	0.1 +/- 0.4	0.0 +/- 2.3	0.9 +/- 3.8	2.5 +/- 7.9
07/14/05	[b]	8.0 +/- 18.0	31.0 +/- 37.0	[a]	[a]	0.0 +/- 0.2	-0.2 +/- 2.1	-0.6 +/- 5.2	4.0 +/- 10.0
08/15/05	[b]	2.1 +/- 7.6	-6.0 +/- 14.0	[a]	[a]	0.0 +/- 0.2	0.4 +/- 0.7	1.1 +/- 2.6	2.8 +/- 4.4
09/15/05	3030.0 +/- 890.0	0.0 +/- 14.0	-7.0 +/- 23.0	[a]	[a]	0.1 +/- 0.4	0.2 +/- 1.2	-2.0 +/- 2.9	-1.2 +/- 7.2
10/19/05	[b]	-6.0 +/- 13.0	-4.0 +/- 27.0	[a]	[a]	0.1 +/- 0.3	0.7 +/- 1.6	-0.3 +/- 3.4	3.0 +/- 7.5
11/14/05	[b]	3.0 +/- 25.0	50.0 +/- 34.0	[a]	[a]	-0.1 +/- 0.2	-2.4 +/- 2.9	1.0 +/- 4.7	8.0 +/- 13.0
12/16/05	5100.0 +/- 1100.0	-5.9 +/- 6.5	-1.0 +/- 11.0	[a]	[a]	0.0 +/- 0.3	0.5 +/- 0.8	-0.8 +/- 1.7	-0.4 +/- 3.0

[a] Sr-89/90 analyses performed on the second quarter sample.

[b] Tritium analyses on quarterly composite.

Table 3-12

Surface Water

Gamma Spectra, Strontium, Tritium

[pCi/L]

Station 08

Date	H-3	Sr-89	Sr-90	Be-7	K-40	I-131	Cs-137	Ba-140	Th-228
01/19/05	[b]	[a]	[a]	-3.0 +/- 16.0	-18.0 +/- 23.0	0.1 +/- 0.3	-1.8 +/- 1.8	-0.8 +/- 3.6	0.5 +/- 7.2
02/17/05	[b]	[a]	[a]	22.0 +/- 17.0	7.0 +/- 26.0	0.2 +/- 0.4	-0.3 +/- 2.0	0.7 +/- 3.7	-5.3 +/- 7.3
03/14/05	2990.0 +/- 730.0	[a]	[a]	-13.0 +/- 27.0	-3.0 +/- 42.0	0.1 +/- 0.4	-0.6 +/- 3.1	-0.3 +/- 5.0	-2.6 +/- 9.8
04/11/05	[b]	[a]	[a]	14.0 +/- 19.0	-17.0 +/- 25.0	-0.3 +/- 0.3	1.0 +/- 1.8	3.1 +/- 5.7	3.5 +/- 7.5
05/16/05	[b]	[a]	[a]	-10.0 +/- 21.0	-23.0 +/- 39.0	-0.1 +/- 0.0	0.9 +/- 3.0	-0.7 +/- 5.2	12.0 +/- 10.0
06/13/05	1630.0 +/- 680.0	-0.5 +/- 5.2	0.9 +/- 0.9	12.0 +/- 24.0	40.0 +/- 46.0	0.2 +/- 0.5	0.9 +/- 2.6	-3.6 +/- 5.7	4.0 +/- 12.0
07/14/05	[b]	[a]	[a]	3.0 +/- 15.0	45.0 +/- 33.0	0.1 +/- 0.3	-0.1 +/- 1.7	3.0 +/- 5.0	1.5 +/- 8.2
08/15/05	[b]	[a]	[a]	-8.0 +/- 16.0	9.0 +/- 30.0	0.2 +/- 0.4	0.7 +/- 1.7	-4.9 +/- 6.6	-4.0 +/- 5.9
09/15/05	3930.0 +/- 930.0	[a]	[a]	-29.0 +/- 31.0	-13.0 +/- 40.0	-0.2 +/- 0.1	-2.1 +/- 2.9	-1.8 +/- 6.6	4.0 +/- 12.0
10/19/05	[b]	[a]	[a]	21.00 +/- 28.00	-13.0 +/- 67.0	-0.1 +/- 0.0	0.0 +/- 3.2	1.8 +/- 7.2	0.0 +/- 14.0
11/14/05	[b]	[a]	[a]	-9.00 +/- 27.00	-9.0 +/- 39.0	-0.1 +/- 0.2	1.5 +/- 3.3	0.0 +/- 5.3	-8.0 +/- 12.0
12/16/05	4000.0 +/- 1100.0	[a]	[a]	10.00 +/- 20.00	-5.0 +/- 27.0	0.0 +/- 0.4	0.2 +/- 2.2	-2.3 +/- 5.5	2.5 +/- 7.4

Station 09A

Date	H-3	Sr-89	Sr-90	Be-7	K-40	I-131	Cs-137	Ba-140	Th-228
01/19/05	[b]	[a]	[a]	-12.0 +/- 26.0	-12.0 +/- 40.0	-0.1 +/- 0.1	-1.3 +/- 3.2	2.4 +/- 6.9	-4.7 +/- 9.8
02/17/05	[b]	[a]	[a]	-17.0 +/- 22.0	14.0 +/- 34.0	-0.1 +/- 0.2	-0.1 +/- 2.2	0.0 +/- 5.2	-1.4 +/- 9.9
03/14/05	390.0 +/- 610.0	[a]	[a]	-6.0 +/- 24.0	-30.0 +/- 42.0	0.3 +/- 0.4	-0.6 +/- 3.1	-3.1 +/- 5.2	0.0 +/- 13.0
04/11/05	[b]	[a]	[a]	-13.00 +/- 20.0	-6.0 +/- 30.0	-0.2 +/- 0.2	0.7 +/- 2.2	0.0 +/- 5.0	-3.0 +/- 9.8
05/16/05	[b]	[a]	[a]	3.00 +/- 22.0	-30.0 +/- 40.0	-0.1 +/- 0.0	0.4 +/- 2.6	-0.7 +/- 5.5	6.0 +/- 13.0
06/13/05	-420.0 +/- 750.0	4.0 +/- 5.3	0.3 +/- 0.9	4.00 +/- 25.0	-10.0 +/- 40.0	-0.1 +/- 0.3	2.5 +/- 2.8	-0.2 +/- 5.6	-3.0 +/- 11.0
07/14/05	[b]	[a]	[a]	-9.00 +/- 18.0	-2.0 +/- 35.0	0.1 +/- 0.3	-0.6 +/- 2.3	-0.9 +/- 5.7	10.5 +/- 8.7
08/15/05	[b]	[a]	[a]	-2.00 +/- 11.0	-12.0 +/- 17.0	-0.1 +/- 0.0	0.0 +/- 1.0	-0.6 +/- 3.8	-1.4 +/- 4.8
09/15/05	-140.0 +/- 760.0	[a]	[a]	-11.00 +/- 22.0	-1.0 +/- 38.0	0.0 +/- 0.2	-1.5 +/- 2.3	-4.2 +/- 5.5	-2.0 +/- 10.0
10/19/05	[b]	[a]	[a]	1.00 +/- 21.0	7.0 +/- 39.0	0.0 +/- 0.2	0.1 +/- 2.5	-0.8 +/- 5.0	2.6 +/- 9.7
11/14/05	[b]	[a]	[a]	0.00 +/- 30.0	-66.0 +/- 55.0	0.0 +/- 0.2	1.1 +/- 3.3	4.0 +/- 6.4	5.0 +/- 14.0
12/16/05	-20.0 +/- 900.0	[a]	[a]	4.90 +/- 8.9	8.0 +/- 15.0	0.1 +/- 0.4	-0.3 +/- 0.9	0.8 +/- 2.6	-0.6 +/- 3.5

[a] Sr-89/90 analyses performed on the second quarter sample.

[b] Tritium analyses on quarterly composite.

Table 3-13
Sediment Silt
Gamma Spectra and Strontium
[pCi/Kg]

Date	Sr-89			Sr-90			Be-7			K-40			Mn-54		
04/11/2005															
Station 08	170.0	+/-	180.0	-50.0	+/-	150.0	150.0	+/-	220.0	1700.0	+/-	440.0	-14.0	+/-	22.0
Station 09A	-90.0	+/-	150.0	50.0	+/-	120.0	-140.0	+/-	280.0	10300.0	+/-	1100.0	9.0	+/-	28.0
Station 11	-130.0	+/-	170.0	80.0	+/-	140.0	-30.0	+/-	330.0	17700.0	+/-	1400.0	-10.0	+/-	33.0

Date	Sr-89	Sr-90	Be-7			K-40			Mn-54		
10/19/2005											
Station 08	[a]	[a]	0.0	+/-	270.0	20700.0	+/-	1300.0	15.0	+/-	33.0
Station 09A	[a]	[a]	-50.0	+/-	190.0	10940.0	+/-	880.0	8.0	+/-	21.0
Station 11	[a]	[a]	110.0	+/-	200.0	17200.0	+/-	1000.0	-7.0	+/-	28.0

Date	Co-58			Co-60			Cs-134			Cs-137			Th-228		
04/11/2005															
Station 08	-9.0	+/-	21.0	6.0	+/-	16.0	-5.0	+/-	22.0	-11.0	+/-	27.0	430.0	+/-	120.0
Station 09A	0.0	+/-	31.0	-24.0	+/-	31.0	-12.0	+/-	25.0	23.0	+/-	30.0	690.0	+/-	120.0
Station 11	6.0	+/-	36.0	10.0	+/-	38.0	3.0	+/-	32.0	322.0	+/-	61.0	930.0	+/-	140.0

Date	Co-58			Co-60			Cs-134			Cs-137			Th-228		
10/19/2005															
Station 08	-18.0	+/-	32.0	-1.0	+/-	31.0	9.0	+/-	26.0	-10.0	+/-	31.0	2010.0	+/-	140.0
Station 09A	-13.0	+/-	22.0	-3.0	+/-	24.0	10.0	+/-	20.0	11.0	+/-	26.0	509.0	+/-	95.0
Station 11	-9.0	+/-	26.0	3.0	+/-	26.0	-8.0	+/-	21.0	87.0	+/-	37.0	1340.0	+/-	110.0

[a] Sr-89/90 analyses performed annually.

Table 3-14

Shoreline Soil

Gamma Spectra and Strontium

[pCi/Kg]

Sample Date	Sr-89			Sr-90			Be-7			K-40			Mn-54		
04/11/2005 Station 08	-130.0	+/-	160.0	-40.0	+/-	130.0	0.0	+/-	150.0	2810.0	+/-	360.0	8.0	+/-	13.0
10/19/2005 Station 08	[a]	+/-	[a]	41.0	+/-	98.0	-60.0	+/-	160.0	2100.0	+/-	410.0	-6.0	+/-	16.0

Sample Date	Co-58			Co-60			Cs-134			Cs-137			Th-228		
04/11/2005 Station 08	-10.0	+/-	15.0	5.0	+/-	15.0	1.0	+/-	14.0	181.0	+/-	30.0	375.0	+/-	64.0
10/19/2005 4 Station 08	-5.0	+/-	19.0	16.0	+/-	21.0	28.0	+/-	85.0	-16.0	+/-	22.0	540.0	+/-	84.0

[a] Sr-89/90 analyses performed annually.

Table 3-15
Fish
Gamma Spectra
[pCi/Kg]

Fish [a] Station 08

Sampling Date	K-40	Mn-54	Fe-59	Co-58	Co-60	Zn-65	Cs-134	Cs-137
04/14/05	1070.0 +/- 640.0	7.0 +/- 21.0	70.0 +/- 100.0	18.0 +/- 24.0	-8.0 +/- 29.0	0.0 +/- 58.0	-3.0 +/- 17.0	-1.0 +/- 29.0
10/18/05	1880.0 +/- 580.0	-7.0 +/- 23.0	-14.0 +/- 56.0	-13.0 +/- 26.0	13.0 +/- 24.0	-12.0 +/- 54.0	16.0 +/- 25.0	33.0 +/- 25.0

Fish [a] Station 25

Sampling Date	K-40	Mn-54	Fe-59	Co-58	Co-60	Zn-65	Cs-134	Cs-137
04/12/05	1670.0 +/- 460.0	13.0 +/- 15.0	-29.0 +/- 58.0	0.0 +/- 15.0	7.0 +/- 25.0	-22.0 +/- 39.0	-3.0 +/- 18.0	12.0 +/- 15.0
10/18/05	1890.0 +/- 550.0	7.0 +/- 22.0	-55.0 +/- 53.0	11.0 +/- 23.0	5.0 +/- 17.0	-48.0 +/- 55.0	6.0 +/- 28.0	0.0 +/- 17.0

Catfish [b] Station 08

Sampling Date	K-40	Mn-54	Fe-59	Co-58	Co-60	Zn-65	Cs-134	Cs-137
04/13/05	1340.0 +/- 460.0	0.0 +/- 17.0	32.0 +/- 58.0	5.0 +/- 18.0	1.0 +/- 19.0	9.0 +/- 37.0	2.0 +/- 19.0	1.0 +/- 18.0
10/18/05	1260.0 +/- 460.0	-7.0 +/- 19.0	-22.0 +/- 56.0	-11.0 +/- 18.0	-8.0 +/- 22.0	-19.0 +/- 40.0	10.0 +/- 22.0	18.0 +/- 23.0

Catfish [b] Station 25

Sampling Date	K-40	Mn-54	Fe-59	Co-58	Co-60	Zn-65	Cs-134	Cs-137
04/12/05	1460.0 +/- 550.0	-5.0 +/- 22.0	-30.0 +/- 81.0	-21.0 +/- 24.0	19.0 +/- 27.0	-6.0 +/- 47.0	-16.0 +/- 14.0	7.0 +/- 25.0
10/18/05	1950.0 +/- 530.0	-2.0 +/- 19.0	-36.0 +/- 55.0	-13.0 +/- 24.0	-1.0 +/- 22.0	-22.0 +/- 50.0	-8.0 +/- 18.0	7.0 +/- 19.0

[a] Non-bottom dwelling species of gamefish.

[b] Bottom dwelling species of fish.

4. DISCUSSION OF RESULTS

Data from the radiological analyses of environmental media collected during 2005 and tabulated in Section 3, are discussed below. Except for TLDs, AREVA Environmental Laboratory analyzed all samples throughout the year. The procedures and specifications followed for these analyses are as required in the AREVA Environmental Laboratory quality assurance manuals and laboratory procedures. In addition to internal quality control measurements performed by each laboratory, they also participate in an Interlaboratory Comparison Program. Participation in this program ensures that independent checks on the precision and accuracy of the measurements of radioactive material in environmental samples are performed. The results of the Interlaboratory Comparison Programs are provided in Appendix B.

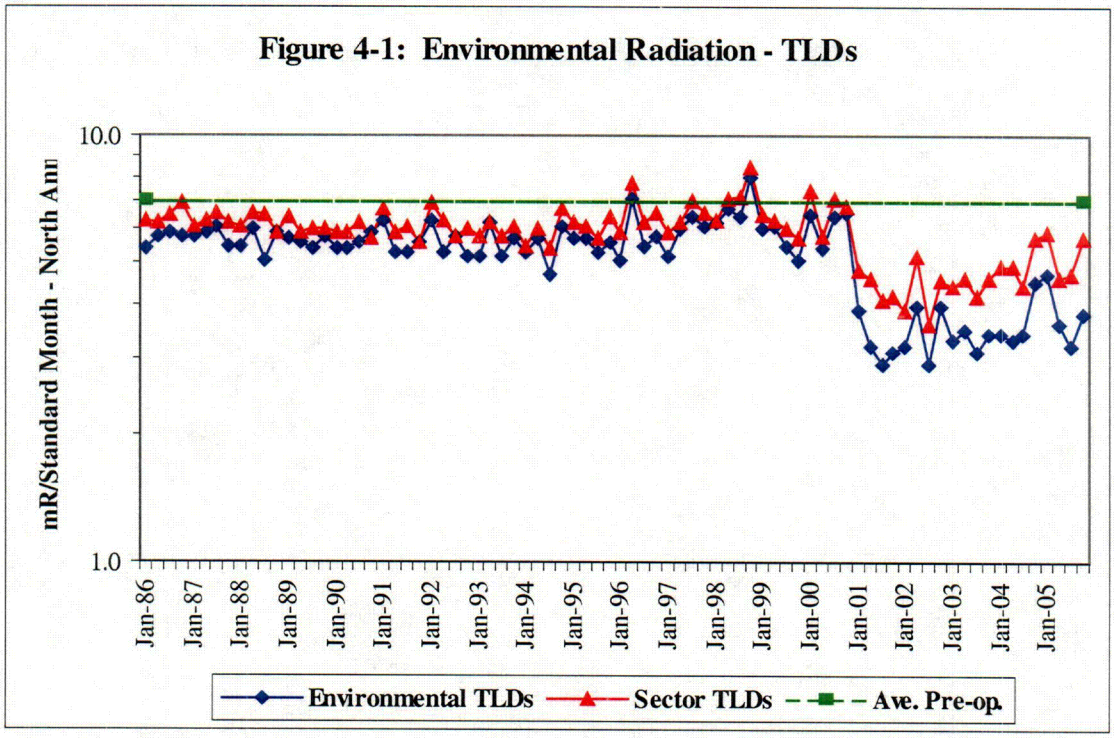
The predominant radioactivity detected throughout 2005 was that from external sources, such as fallout from nuclear weapons tests and naturally occurring radionuclides. Naturally occurring nuclides such as Be-7, K-40, and Th-228 were detected in numerous samples. Th-228 results were variable and are generally at levels higher than plant related radionuclides.

The following is a discussion and summary of the results of the environmental measurements taken during the 2005 reporting period.

4.1 Gamma Exposure Rate

A thermoluminescent dosimeter (TLD) is an inorganic crystal used to detect ambient radiation. TLDs are placed in two concentric rings around the station. The inner ring is located at the site boundary, and the outer ring is located at approximately five miles from the station. TLDs are also placed in special interest areas, such as population areas and nearby residences. Additional TLDs serve as controls. Ambient radiation comes from naturally occurring radioisotopes in the air and soil, radiation from cosmic origin, fallout from nuclear weapons testing, station effluents and direct radiation from the station.

The results of the analyses are presented in Table 3-2. Figure 4-1 shows a historical trend of TLD exposure rate measurements. Control and indicator averages indicate a steady relationship. Two dosimeters made of CaF and LiF sensitive elements are deployed at each sampling location. These TLDs replaced the previously used CaSO4:Dy in Teflon TLDs in January 2001. The dose with the replacement TLDs is lower than that of the previously used TLDs. This will continue to be monitored.



Sector TLDs are deployed quarterly at thirty-two locations in the environs of the North Anna site. Two badges are placed at each location. The average level of the 32 locations (two badges at each location) was 5.2 mR/standard month with a range of 2.6 to 34.8 mR/standard month. The highest quarterly average reading and highest single quarter average for any single location were obtained at location SSW-19/51. These values were 32.1 mR/standard month and 34.8 mR/standard month, respectively. This location is on site directly across the access road from the Independent Spent Fuel Storage Facility. The higher values can thus be attributed to the spent fuel stored in the ISFSI. Quarterly and annual TLDs are also located at each of the twelve environmental air sampling stations. For the eleven locations within 10 miles of the station the average quarterly reading was 3.7 mR/standard month with a range of 1.7 to 6.4 mR/standard month. The average annual reading for these locations was 3.6 mR/standard month with a range of from 1.7 to 5.4 mR/standard month. The control location showed a quarterly average of 3.4 mR/standard month with a range of 2.6 to 4.3 mR/standard month. Its annual reading was 3.4 mR/standard month. Eight other TLDs, designated C-1 thru C-8, were collected quarterly from four locations and showed an average reading of 3.3 mR/standard month with a range of 2.5 to 3.7 mR/standard month. During the pre-operational period (starting in 1977) the doses were measured between 4.3 and 8.8 mR/standard month.

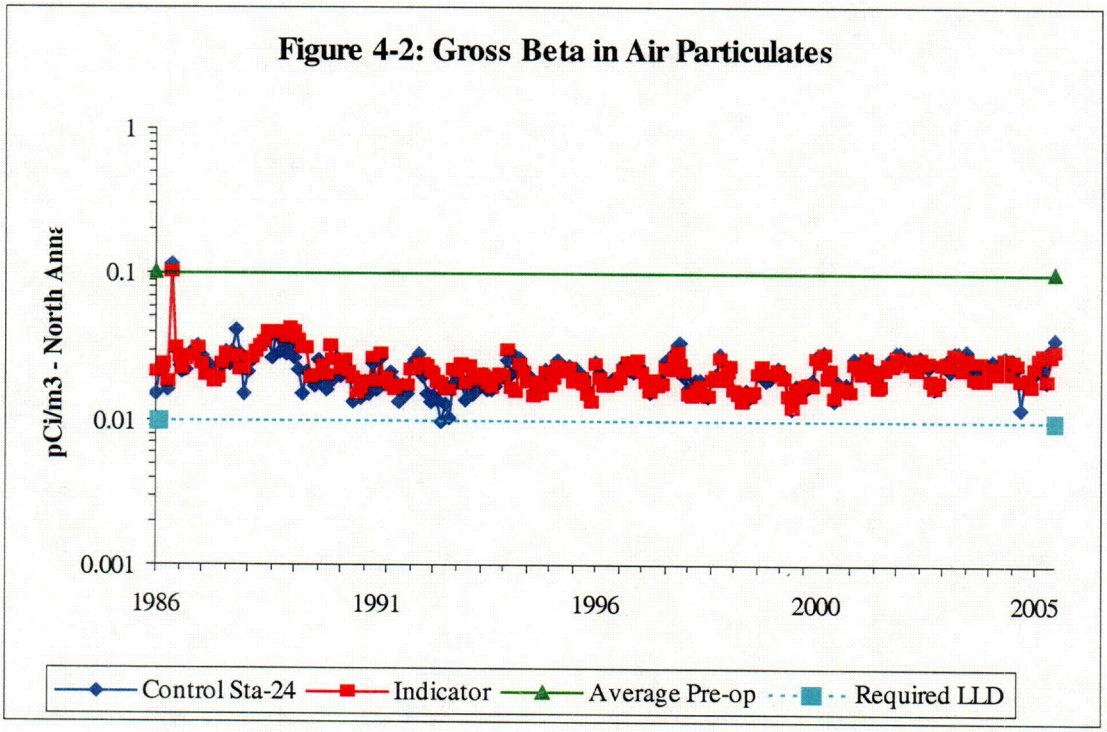
C06

4.2 Airborne Gross Beta

Results of the weekly gross beta analyses are presented in Table 3-3. A review of the historical plot in Figure 4-2, indicates gross beta activity levels have remained relatively unchanged. Inner and outer ring monitoring locations continue to show no significant variation in measured activities (see Figure 4-3). This indicates that any station contribution is not measurable.

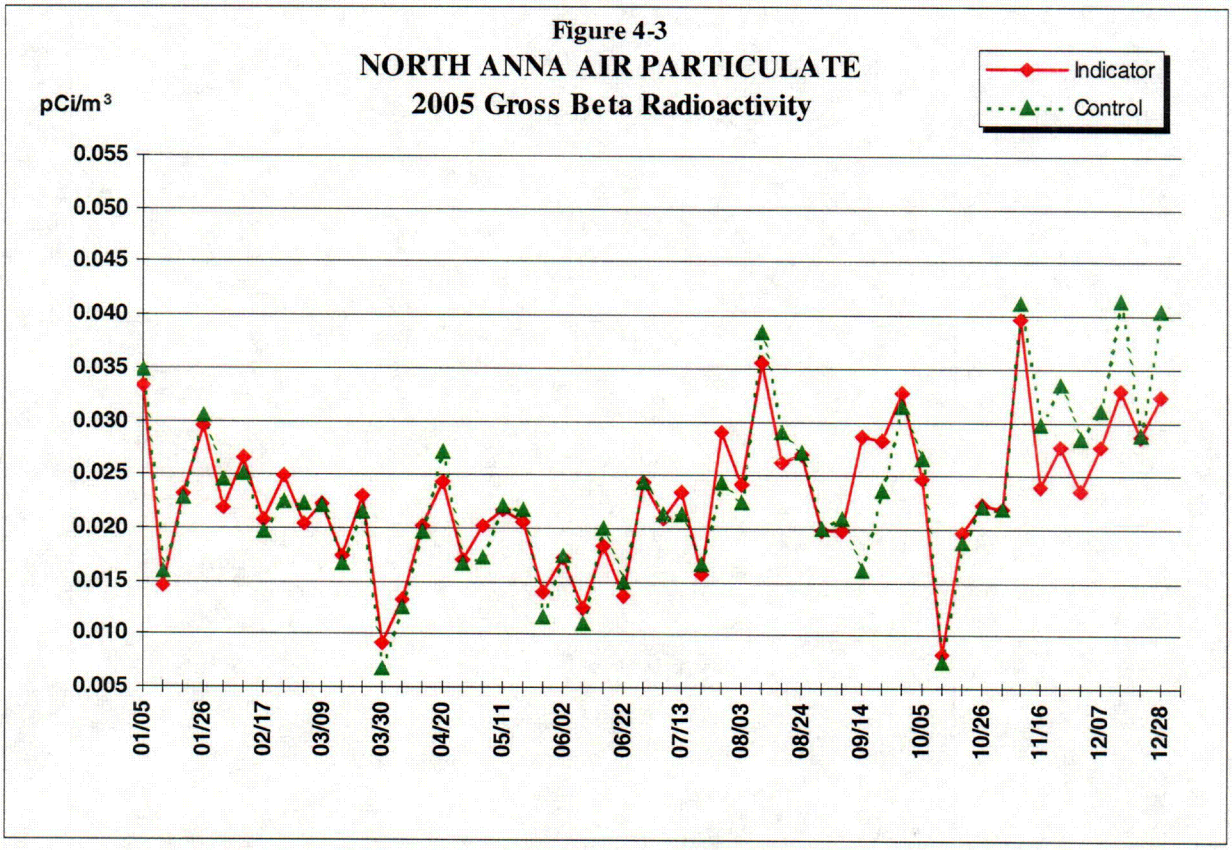
Gross beta activity found during the pre-operational and early operating period of North Anna Power Station was higher because of nuclear weapons testing. During that time, nearly 740 nuclear weapons were tested worldwide. In 1985 weapons testing ceased, and with the exception of the Chernobyl accident in 1986, airborne gross beta results have remained steady. During the preoperational period of July 1, 1974 through March 31, 1978 gross beta activities ranged from a low of 0.005 pCi/m^3 to a high of 0.75 pCi/m^3.

Figure 4-2: Gross Beta in Air Particulates



C07

Figure 4-3



4.3 Airborne Radioiodine

Charcoal cartridges are used to collect airborne radioiodine. Once a week the samples are collected and analyzed. The results of the analyses are presented in Table 3-4. All results are below the lower limit of detection with no positive activity detected. These results are similar to pre-operational data and the results of samples taken prior to and after the 1986 accident in the Soviet Union at Chernobyl.

4.4 Air Particulate Gamma

The air particulate filters that are utilized for the weekly gross beta analyses are composited by location and analyzed quarterly by gamma spectrometry. The results are listed in Table 3-5. The results indicate the presence of naturally occurring Be-7, which is produced by cosmic processes. Examination of pre-operational data indicates comparable measurements of Be-7, as would be expected. No other positive results were seen. These analyses indicate the lack of station effects.

C08

4.5 Air Particulate Strontium

Strontium-89 and 90 analyses were performed on the second quarter composites of air particulate filters from all twelve monitoring stations. The results are listed in Table 3-5. There was no detection of these fission products at any of the indicator or control stations.

4.6 Soil

Soil samples, which are collected every three years from twelve stations, were collected in 2004 and therefore not collected in 2005.

4.7 Precipitation

A sample of rain water was collected monthly at on-site station 01A and analyzed for gross beta activity. The results are presented in Table 3-7. Ten precipitation samples were obtained with no samples available for two months due to drought. All ten precipitation samples showed positive results in 2005. The average annual gross beta activity was 5.9 pCi/liter with a range from 2.3 to 12.1 pCi/liter. Semi-annual composites were prepared and analyzed for gamma emitting isotopes and tritium. No positive indications of gamma emitting radioisotopes were observed in the semi-annual composite samples for 2005. During the pre-operational period gross beta activity in rain water was expressed in nCi per square meter of the collector surface, thus a direct comparison can not be made to the 2005 period. During the pre-operational period, tritium was measured in over half of the few quarterly composites made. This tritium activity ranged from 100 to 330 pCi/liter.

4.8 Cow Milk

Analysis of milk samples is generally the most sensitive indicator of fission product existence in the terrestrial environment. This, in combination with the fact that consumption of milk is significant, results in this pathway usually being the most critical from the plant release viewpoint. This pathway also shows measurable amounts of nuclear weapons testing fallout. Therefore, this media needs to be evaluated very carefully when trying to determine if there is any plant effect.

Analysis results for cow milk are contained in Table 3-8. All results show no detectable I-131 above the LLD of 1 pCi/l. Results of gamma ray spectroscopy indicate no detectable plant related radioactivity in the milk samples. In years past, Cs-137 has been detected sporadically. The occurrences were attributed to residual global fallout from past atmospheric weapons testing. Cs-137 was not detected at a level above the LLD in 2005.

Once each quarter a sample from each of the two collection stations is analyzed for strontium-89 and strontium-90. Neither Sr-89 not Sr-90 were detected. Sr-90 has been observed in the past. Pre-operational levels of 2.2 to 5.4 pCi/liter were measured for Sr-90. There has been a long-term activity trend for Sr-90 showing a continuous decline. It should be noted that strontium-90 is not a part of station effluents. Its detection is the product of nuclear weapons testing fallout. This conclusion can be made based upon the fact that Sr-89 and Sr-90 have not been detected in effluents released from the station in many years, and the trend of consistent declining levels since the pre-operational period.

4.9 Food Products and Vegetation

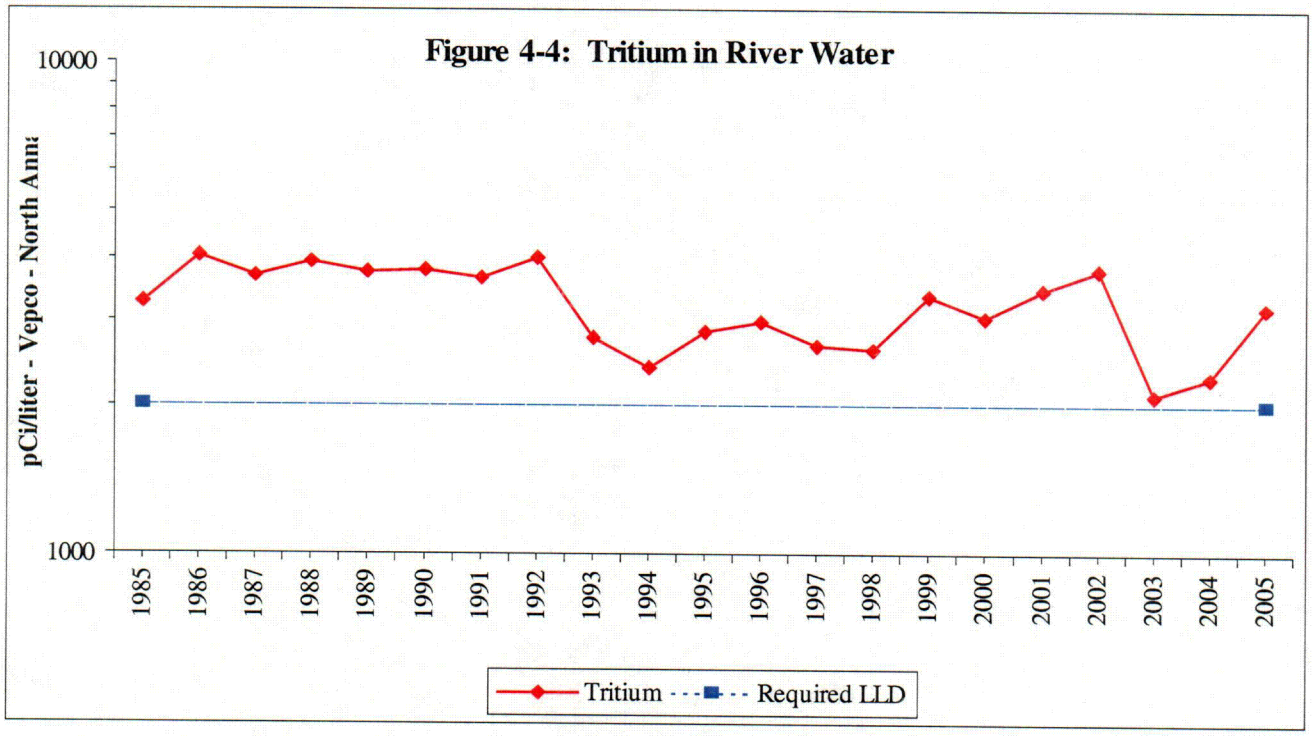
Twenty food/vegetation samples were collected from five locations and analyzed by gamma spectrometry. The results of the analyses are presented in Table 3-9. As expected, naturally occurring potassium-40 was detected in all samples, cosmogenic beryllium-7 was detected in most samples, and thorium-228 was detected in some samples. No other man-made gamma emitters were detected.

4.10 Well Water

Water was sampled quarterly from the on site well at the metrology laboratory. These samples were analyzed for gamma radiation and for tritium. The second quarter sample was analyzed for strontium-89 and strontium-90. The results of these analyses are presented in Table 3-10. Consistent with past monitoring, no plant related radioactivity was detected. No gamma emitting isotopes were detected during the pre-operational period.

4.11 River Water

A sample of water from the North Anna River was collected monthly, the analyses are presented in Table 3-11. All monthly samples are analyzed by gamma spectroscopy. The monthly samples were composited quarterly and analyzed for tritium, the second quarter samples were additionally analyzed for strontium-89 and strontium-90. No gamma emitting radioisotopes were detected in any of the samples. There was no measured activity of strontium-89 or strontium-90. Tritium was measured in all four samples with an average annual concentration of 3170 pCi/liter and a range of 1500 to 5100 pCi/liter. These levels are comparable to those observed in previous years, see Figure 4-4. No river water samples were collected during the pre-operational period.



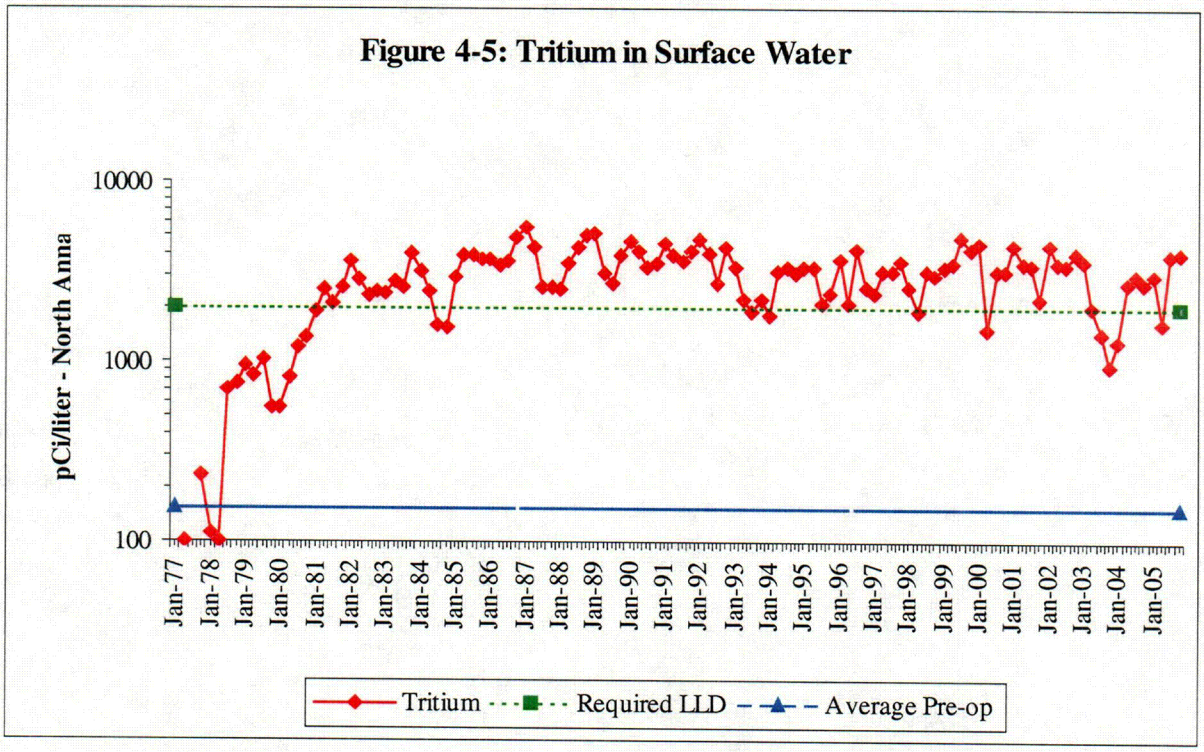
4.12 Surface Water

Samples of surface water were collected monthly from two stations, an indicator station located at the discharge lagoon and a control station located 12.9 miles WNW. The samples were analyzed by gamma ray spectrometry and for iodine-131 by radiochemical separation. A quarterly composite from each station was prepared and analyzed for tritium, and the second quarter samples were additionally analyzed for strontium-89 and strontium-90. The results are presented in Table 3-12.

C09

No gamma emitting radioisotopes nor iodine were detected in any of the samples. The average level of tritium activity at the indicator station was 3137 pCi/liter with a range of 1630 to 4000 pCi/liter. Levels of tritium have been increasing since 1978 when the average level was below 300 pCi/liter. Levels measured at the indicator location (Station 8) are comparable to those measured since 1986, see Figure 4-5. During the pre-operational period tritium was measured in several samples with concentrations between 90 and 250 pCi/liter.

Figure 4-5: Tritium in Surface Water

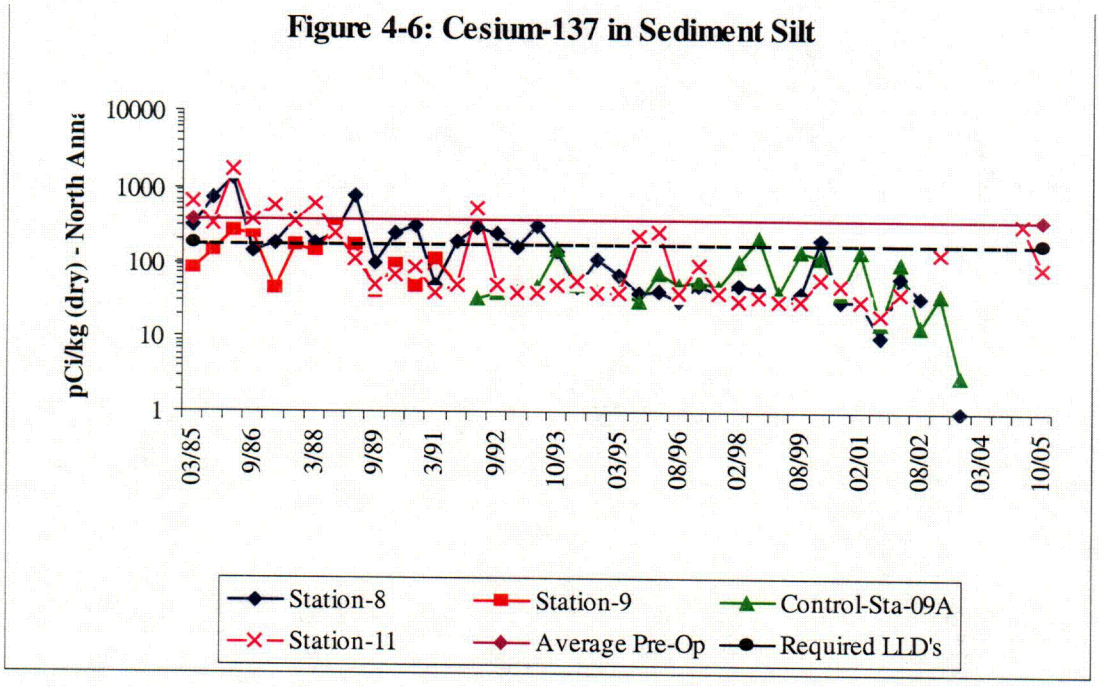


4.13 Bottom Sediment

Bottom sediment or silt is sampled to evaluate any buildup of radionuclides in the environment due to the operation of the station. Buildup of radionuclides in bottom sediment could indirectly lead to increasing radioactivity levels in fish.

Sediment samples were collected during March and October from each of three locations and were analyzed by gamma spectrometry. The October samples were analyzed for strontium-89 and strontium-90. The results are presented in Table 3-13. Figure 4-6 shows the historical trend of Cs-137 in sediments.

Figure 4-6: Cesium-137 in Sediment Silt



Cesium-137 was detected in the sediment samples in 2005 at an average of 205 pCi/kg. This level is consistent with the historical trend. The detection of Cs-137 in bottom sediment is historically common with positive indications usually apparent in both indicator and control samples. The detection of Cs-137 is the result of accumulation and runoff into the lake of residual weapons testing fallout; its global presence has been well documented. During the pre-operational period sediment samples were analyzed by gamma ray spectroscopy.

There was no measurable amount of strontium-89 or 90 in aquatic sediment/silt. A number of naturally occurring radioisotopes were detected in these samples at background levels.

4.14 Shoreline Soil

Shoreline soil/sediment, unlike bottom sediment, may provide a direct dose to humans. Buildup of radioisotopes along the shoreline may provide a source of direct exposure for those using the area for commercial and recreational uses. A sample of shoreline sediment was collected in March and October from indicator station 08. The samples were analyzed by gamma ray spectrometry. The September sample was analyzed for strontium-89 and strontium-90. The results are presented in Table 3-14.

Naturally occurring radioisotopes were detected at concentrations equivalent to normal background activities. The activities of these radioisotopes indicate a steady trend. Cesium-137 was detected in one sample collected with a concentration of 181 pCi/kg (dry weight). No Strontium was detected. Strontium-90 is normally detected in this media, however as discussed previously, the presence of Sr-90 and Cs-137 is attributed to accumulation of residual global fallout from past atmospheric weapons testing.

C11

4.15 Fish

Four sample sets of fish, two from Lake Anna and two from the control station, Lake Orange, were collected during 2005 and analyzed by gamma spectroscopy. Each sample set consisted of a sample of game species and a sample of bottom-dwelling species, which were analyzed separately. The results are presented in Table 3-15. Except for naturally occurring K-40, no other nuclide was observed in this media in 2005. Only Cs-137 was measured in pre-operational environmental fish samples.

5. PROGRAM EXCEPTIONS

REMP Exceptions for Scheduled Sampling and Analysis During 2005 – North Anna

Location	Description	Date of Sampling	Reason(s) for Loss/Exception
Sta. 23	Air Iodine and Particulate	01/12/05	Low Volume - pump stopped. LLD achieved.
Sta. 14-16, 23, 26	Vegetation	01/26/05	Seasonal Unavailability.
Sta. 14-16, 23, 26	Vegetation	02/23/05	Seasonal Unavailability.
Sta. 14-16, 23, 26	Vegetation	03/16/05	Seasonal Unavailability.
Sta. 07	Air Iodine and Particulate	03/16/05	Low Volume – power loss. LLD achieved.
Sta. 14-16, 23, 26	Vegetation	04/20/05	Seasonal Unavailability.
Sta. 05A	Air Iodine and Particulate	05/11/05	Low Volume – breaker tipped. LLD achieved.
Sta. 01A	Precipitation	06/29/05	No Sample – no rain.
Sta. 24	Air Iodine and Particulate	08/14/05	Low Volume – blown fuse. LLD achieved.
Sta. 14-16, 23, 26	Vegetation	09/21/05	No sample - drought.
Sta. 01A	Precipitation	09/28/05	No Sample – no rain.
Sta. 14-16, 23, 26	Vegetation	10/05/05	No sample - drought.
Sta. 14-16, 23, 26	Vegetation	11/15/05	Seasonal Unavailability.
Sta. 27	Milch	11/16/05	No sample – animal no longer present.
Sta. 07	Air Iodine and Particulate	11/23/05	Low Volume – power loss. LLD achieved.
Sta. 27	Milch	12/21/05	Seasonal Unavailability.
Sta. 14-16,23, 26	Vegetation	12/21/05	Seasonal Unavailability.

REMP Exceptions for 2004 – North Anna

Several typographical errors were identified in the 2004 North Anna REMP following distribution.

- Table 3-5, Air Particulate; Gamma Spectra results: The reported value for Be-7 at station 03 of "93 +/-30 pCi/m^3 x 10^{-3} " appearing on page 47 was incorrectly reported as of "930 +/-30 pCi/m^3 x 10^{-3} "
- Table 3-3, Air Particulate; Gross Beta results: The reported values for stations 07, 21, 22, 23, and 24 for the collection periods of 01/14/04 through 06/30/04 appearing on page 39 were incorrectly assigned dates for "periods ending" 07/07/04 through 12/29/04.
- Table 3-4, Air Particulate; Iodine results: The reported values for all stations for the collection period ending 07/14/04 appearing on pages 44 and 45 were incorrectly assigned the date 07/21/04.

REFERENCES

References

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2. Dominion, North Anna Power Station Independent Spent Fuel Storage Installation Technical Specifications.

3. Dominion, Station Administrative Procedure, VPAP-2103N, "Offsite Dose Calculation Manual".

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6. United States Nuclear Regulatory Commission Regulatory Guide 1.109, Rev. 1, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10CFR50, Appendix I", October, 1977.

7. United States Nuclear Regulatory Commission, Regulatory Guide 4.8 "Environmental Technical Specifications for Nuclear Power Plants", December 1975.

8. USNRC Branch Technical Position, "Acceptable Radiological Environmental Monitoring Program", Rev. 1, November 1979.

9. NUREG 0472, "Radiological Effluent Technical Specifications for PWRs", Rev. 3, March 1982.

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11. HASL-300, Environmental Measurements Laboratory, "EML Procedures Manual," 27th Edition, Volume 1, February 1992.

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APPENDICES

APPENDIX A: LAND USE CENSUS

Year 2005

LAND USE CENSUS

North Anna Power Station
North Anna County, Virginia

January 1 to December 31, 2005

Direction	Distance *(miles)*					
	Nearest Site Boundary	Nearest Resident	Nearest Garden (> 50m^2)	Nearest Meat Animal	Nearest Milch Cow	Nearest Milch Goat
N	0.9	1.5	1.5	*None*	*None*	*None*
NNE	0.9	0.9	1.4	1.5	*None*	*None*
NE	0.8	0.9	0.9	1.5	*None*	*None*
ENE	0.8	2.1	2.1	2.5	*None*	2.5
E	0.8	1.3	1.3	3.5	*None*	*None*
ESE	0.9	1.7	1.7	*None*	*None*	*None*
SE	0.9	1.4	1.4	1.5	*None*	*None*
SSE	0.9	1.0	1.0	2.8	*None*	*None*
S	0.9	1.1	1.2	*2.8*	*None*	*None*
SSW	1.0	1.4	*None*	1.9	*None*	*None*
SW	1.1	3.1	3.1	*None*	*None*	*None*
WSW	1.1	1.6	1.6	1.6	*None*	*None*
W	1.1	1.5	1.5	None	*None*	*None*
WNW	1.0	1.1	2.5	3.9	*None*	*None*
NW	1.0	1.0	1.1	*None*	*None*	*None*
NNW	0.9	1.0	1.1	*None*	*None*	*None*

2004 to 2005 Land Use Census Changes			
Nearest	**Direction**	**2004 Distance**	**2005 Distance**
Site Boundary	*None*		
Resident	*None*		
Garden	*NW*	1.3 mi	1.1 mi
Meat Animal	*None*		
Milch Cow	*None*		
Milch Goat	*None*		

APPENDIX B: SUMMARY OF INTERLABORATORY COMPARISONS

YEAR 2005

INTRODUCTION

This appendix covers the Intercomparison Program of the AREVA ANP Environmental Laboratory as required by technical specifications for each Millstone unit. Framatome uses QA/QC samples provided by Analytics, Inc to monitor the quality of analytical processing associated with the Radiological Environmental Monitoring Program (REMP). The suite of Analytics QA/QC samples are designed to be comparable with the pre-1996 US EPA Interlaboratory Cross-Check Program in terms of sample number, matrices, and nuclides. It was modified to more closely match the media mix presently being processed by Framatome and includes:

- milk for gamma (10 nuclides) and low-level (LL) Iodine-131 analyses once per quarter,
- milk for Sr-89 and Sr-90 analyses during the 1st and 3rd quarters,
- water for gamma (10 nuclides) and low-level (LL) Iodine-131 analyses during the 1st and 3rd quarters,
- water for Sr-89 and Sr-90 analyses during the 4th quarter,
- water tritium analysis during the 2nd and 4th quarters,
- air filter for gamma (9 nuclides) analyses during the 2nd quarter, and
- air filter for gross beta analysis during the 1st and 3rd quarters.

In addition to the Analytics Intercomparison Program, AREVA ANP also participates in other intercomparsion programs which include radionuclides and media similar to those required by the Millstone program. These programs are the National Institute of Standards and Technology (NIST) Measurement Assurance Program (MAP), the Environmental Resource Associates (ERA) Proficiency Test (PT) Program, the Department of Energy (DOE) Quality Assessment Program (QAP), and the Mixed Analyte Performance Evaluation Program (MAPEP).

RESULTS

Intercomparison program results are evaluated using AREVA ANP's internal bias acceptance criterion. The criterion is defined as within 25% of the known strontium value for samples containing both Sr-89 and Sr-90 and within 15% of the known value for other radionuclides, or within two sigma of the known value. Any sample analysis result that does not pass the criteria is investigated by AREVA ANP.

Analytics Intercomparison Program results are included on pages 78 through 82 for the first quarter of 2005 through the fourth quarter of 2005. A total of 104 analysis results were obtained with 103 initially passing acceptance criteria, a 99.0% success rate. During analysis of water in conjunction with DOE, Ni-63 yielded a 'false negative' result [01/01/2005]. An investigation [CR 05-14] identified no specific cause: "No apparent cause identified for false negative result. Four samples of lower activities were analyzed concurrently and all passed the acceptance criteria." A review of the CR indicates that sample preparation is the

most likely cause since equipment performance is effectively ruled-out. A review of the CR identified that the direct spike samples are described as being contaminated although the specific contaminant is not identified.

FRAMATOME ANP 2005 ENVIRONMENTAL LABORATORY
ANALYTICS RADIOLOGICAL ENVIRONMENTAL CROSS-CHECK
PERFORMANCE EVALUATION

Sample Number	Quarter/ Year	Sample Media	Nuclide	Units	Reported Value	Known Value	Ratio E-LAB/ Analytics	Evaluation
E4459-162	1st/2005	Water	Gross Alpha	pCi/L	39.9	40.8	0.98	Agreement
E4459-162	1st/2005	Water	Gross Beta	pCi/L	279	292	0.96	Agreement
E4460-162	1st/2005	Water	I-131LL	pCi/L	66.2	65.9	1	Agreement
E4460-162	1st/2005	Water	I-131	pCi/L	69.3	65.9	1.05	Agreement
E4460-162	1st/2005	Water	Ce-141	pCi/L	219	221	0.99	Agreement
E4460-162	1st/2005	Water	Cr-51	pCi/L	346	322	1.07	Agreement
E4460-162	1st/2005	Water	Cs-134	pCi/L	130	134	0.97	Agreement
E4460-162	1st/2005	Water	Cs-137	pCi/L	127	125	1.01	Agreement
E4460-162	1st/2005	Water	Co-58	pCi/L	108	111	0.97	Agreement
E4460-162	1st/2005	Water	Mn-54	pCi/L	160	154	1.04	Agreement
E4460-162	1st/2005	Water	Fe-59	pCi/L	114	107	1.07	Agreement
E4460-162	1st/2005	Water	Zn-65	pCi/L	192	191	1.01	Agreement
E4460-162	1st/2005	Water	Co-60	pCi/L	138	139	1	Agreement
E4461-162	1st/2005	Water	Sr-89	pCi/L	94.6	103	0.92	Agreement
E4461-162	1st/2005	Water	Sr-90	pCi/L	15.6	17.2	0.9	Agreement
E4462-162	1st/2005	Filter	Gross Alpha	pCi	20.8	21.9	0.95	Agreement
E4462-162	1st/2005	Filter	Gross Beta	pCi	162	157	1.04	Agreement
E4463-162	1st/2005	Milk	I-131LL	pCi/L	91.2	92.3	0.99	Agreement
E4463-162	1st/2005	Milk	I-131	pCi/L	95.9	92.3	1.04	Agreement
E4463-162	1st/2005	Milk	Ce-141	pCi/L	229	229	1	Agreement
E4463-162	1st/2005	Milk	Cr-51	pCi/L	334	334	1	Agreement
E4463-162	1st/2005	Milk	Cs-134	pCi/L	137	139	0.99	Agreement
E4463-162	1st/2005	Milk	Cs-137	pCi/L	133	130	1.03	Agreement
E4463-162	1st/2005	Milk	Co-58	pCi/L	118	115	1.02	Agreement
E4463-162	1st/2005	Milk	Mn-54	pCi/L	166	160	1.04	Agreement
E4463-162	1st/2005	Milk	Fe-59	pCi/L	117	111	1.05	Agreement
E4463-162	1st/2005	Milk	Zn-65	pCi/L	203	198	1.03	Agreement
E4463-162	1st/2005	Milk	Co-60	pCi/L	145	144	1.01	Agreement
E4464-162	1st/2005	Milk	Sr-89	pCi/L	93.8	107	0.88	Agreement
E4464-162	1st/2005	Milk	Sr-90	pCi/L	16.1	17.9	0.9	Agreement

FRAMATOME ANP 2005 ENVIRONMENTAL LABORATORY
ANALYTICS ENVIRONMENTAL CROSS CHECK PROGRAM
PERFORMANCE EVALUATION

Sample Number	Quarter/ Year	Sample Media	Nuclide	Units	Reported Value	Known Value	Ratio E-LAB/ Analytics	Evaluation
E4599-162	2nd/2005	Water	H-3	pCi/L	9060	9100	1	Agreement
E4600-162	2nd/2005	Filter	Gross Alpha	pCi	31.9	30.9	1.03	Agreement
E4600-162	2nd/2005	Filter	Gross Beta	pCi	125	127	0.99	Agreement
E4601-162	2nd/2005	Filter	Ce-141	pCi/L	59.3	58.9	1.01	Agreement
E4601-162	2nd/2005	Filter	Cr-51	pCi/L	207	193	1.07	Agreement
E4601-162	2nd/2005	Filter	Cs-134	pCi/L	59.1	60.6	0.98	Agreement
E4601-162	2nd/2005	Filter	Cs-137	pCi/L	131	120	1.09	Agreement
E4601-162	2nd/2005	Filter	Co-58	pCi/L	3.55	3.4	1.04	Agreement
E4601-162	2nd/2005	Filter	Mn-54	pCi/L	88.6	79.7	1.11	Agreement
E4601-162	2nd/2005	Filter	Fe-59	pCi/L	40.1	40.7	0.99	Agreement
E4601-162	2nd/2005	Filter	Zn-65	pCi/L	112	98.8	1.13	Agreement
E4601-162	2nd/2005	Filter	Co-60	pCi/L	89.4	92.3	0.97	Agreement
E4602-162	2nd/2005	Filter	Sr-89	pCi/L	90.5	97.5	0.93	Agreement
E4602-162	2nd/2005	Filter	Sr-90	pCi/L	13	12.6	1.03	Agreement
E4603-162	2nd/2005	Milk	I-131LL	pCi/L	85.7	86.9	0.99	Agreement
E4603-162	2nd/2005	Milk	I-131	pCi/L	86.8	86.9	1	Agreement
E4603-162	2nd/2005	Milk	Ce-141	pCi/L	96.3	92.4	1.04	Agreement
E4603-162	2nd/2005	Milk	Cr-51	pCi/L	295	303	0.98	Agreement
E4603-162	2nd/2005	Milk	Cs-134	pCi/L	87.7	95	0.92	Agreement
E4603-162	2nd/2005	Milk	Cs-137	pCi/L	186	189	0.98	Agreement
E4603-162	2nd/2005	Milk	Co-58	pCi/L	5.83	5.3	1.1	Agreement
E4603-162	2nd/2005	Milk	Mn-54	pCi/L	124	125	0.99	Agreement
E4603-162	2nd/2005	Milk	Fe-59	pCi/L	67	63.9	1.05	Agreement
E4603-162	2nd/2005	Milk	Zn-65	pCi/L	149	155	0.96	Agreement
E4603-162	2nd/2005	Milk	Co-60	pCi/L	138	145	0.96	Agreement

FRAMATOME ANP 2005 ENVIRONMENTAL LABORATORY
ANALYTICS RADIOLOGICAL ENVIRONMENTAL CROSS-CHECK
PERFORMANCE EVALUATION

Sample Number	Quarter/ Year	Sample Media	Nuclide	Units	Reported Value	Known Value	Ratio E-LAB/ Analytics	Evaluation
E4686-162	3rd/2005	Water	Gross Alpha	pCi/L	42.3	41.6	1.02	Agreement
E4686-162	3rd/2005	Water	Gross Beta	pCi/L	128.5	123	1.05	Agreement
E4687-162	3rd/2005	Water	I-131LL	pCi/L	78.3	78.2	1	Agreement
E4687-162	3rd/2005	Water	I-131	pCi/L	77.2	78.2	0.99	Agreement
E4687-162	3rd/2005	Water	Ce-141	pCi/L	276.4	282	0.98	Agreement
E4687-162	3rd/2005	Water	Cr-51	pCi/L	353.7	408	0.87	Agreement
E4687-162	3rd/2005	Water	Cs-134	pCi/L	137.3	148	0.93	Agreement
E4687-162	3rd/2005	Water	Cs-137	pCi/L	231.1	235	0.98	Agreement
E4687-162	3rd/2005	Water	Co-58	pCi/L	72.5	77	0.94	Agreement
E4687-162	3rd/2005	Water	Mn-54	pCi/L	113.2	111	1.02	Agreement
E4687-162	3rd/2005	Water	Fe-59	pCi/L	74.7	74	1.01	Agreement
E4687-162	3rd/2005	Water	Zn-65	pCi/L	152.3	149	1.02	Agreement
E4687-162	3rd/2005	Water	Co-60	pCi/L	192.1	202	0.95	Agreement
E4688-162	3rd/2005	Charcoal	I-131	pCi	61	62.7	0.97	Agreement
E4689-162	3rd/2005	Filter	Gross Alpha	pCi	39.3	38	1.04	Agreement
E4689-162	3rd/2005	Filter	Gross Beta	pCi	120.8	112	1.08	Agreement
E4690-162	3rd/2005	Milk	I-131LL	pCi/L	99	94.3	1.05	Agreement
E4690-162	3rd/2005	Milk	I-131	pCi/L	90	94.3	0.95	Agreement
E4690-162	3rd/2005	Milk	Ce-141	pCi/L	228.5	233	0.98	Agreement
E4690-162	3rd/2005	Milk	Cr-51	pCi/L	306.3	338	0.91	Agreement
E4690-162	3rd/2005	Milk	Cs-134	pCi/L	118.3	122	0.97	Agreement
E4690-162	3rd/2005	Milk	Cs-137	pCi/L	196.5	195	1.01	Agreement
E4690-162	3rd/2005	Milk	Co-58	pCi/L	64	63.4	1.01	Agreement
E4690-162	3rd/2005	Milk	Mn-54	pCi/L	94.7	92	1.03	Agreement
E4690-162	3rd/2005	Milk	Fe-59	pCi/L	63.3	61	1.04	Agreement
E4690-162	3rd/2005	Milk	Zn-65	pCi/L	121.7	123	0.9	Agreement
E4690-162	3rd/2005	Milk	Co-60	pCi/L	165.2	167	0.99	Agreement
E4691-162	3rd/2005	Milk	Sr-89	pCi/L	139.6	146	0.96	Agreement
E4691-162	3rd/2005	Milk	Sr-90	pCi/L	10.8	11.5	0.94	Agreement

DEPARTMENT OF ENERGY MIXED ANALYTE PERFORMANCE EVALUATION PROGRAM (MAPEP-05-14)

MATRIX/	REFERENCE	RADIO-	E-LAB	MAPEP	BIAS	
UNITS	DATE	NUCLIDE	MEAN VALUE	VALUE	%	Evaluation
Filter (Bq total)	01-Jul-05	Am-241	0.1359	0.158	-14	Agreement
Filter (Bq total)	01-Jul-05	Cs-134	3.828	3.85	-0.6	Agreement
Filter (Bq total)	01-Jul-05	Cs-137	3.396	3.23	5.1	Agreement
Filter (Bq total)	01-Jul-05	Co-57	6.506	6.2	4.9	Agreement
Filter (Bq total)	01-Jul-05	Co-60	2.924	2.85	2.6	Agreement
Filter (Bq total)	01-Jul-05	Mn-54	4.55	4.37	4.1	Agreement
Filter (Bq total)	01-Jul-05	Pu-238	0.1059	0.0969	9.3	Agreement
Filter (Bq total)	01-Jul-05	Pu-239/240	0.096	0.0898	6.9	Agreement
Filter (Bq total)	01-Jul-05	Sr-90	2.037	2.25	-9.5	Agreement
Filter (Bq total)	01-Jul-05	Zn-65	4.81	4.33	11.1	Agreement
Soil (Bq/kg)	01-Jul-05	Cs-134	594	568	4.6	Agreement
Soil (Bq/kg)	01-Jul-05	Cs-137	468	439	6.6	Agreement
Soil (Bq/kg)	01-Jul-05	Co-57	546	524	4.2	Agreement
Soil (Bq/kg)	01-Jul-05	Co-60	300	287	4.4	Agreement
Soil (Bq/kg)	01-Jul-05	Mn-54	475	439	8.2	Agreement
Soil (Bq/kg)	01-Jul-05	K-40	650	604	7.6	Agreement
Soil (Bq/kg)	01-Jul-05	Sr-90	663	757	-12.4	Agreement
Soil (Bq/kg)	01-Jul-05	Zn-65	881	823	7	Agreement
Vegetation (Bq total)	01-Jul-05	Am-241	0.251	0.23	-10.8	Agreement
Vegetation (Bq total)	01-Jul-05	Pu-238	0.00111+/- 0.00054	False Postive Test	N/A	Agreement
Vegetation (Bq total)	01-Jul-05	Pu-239/240	0.1675	0.164	2.1	Agreement
Vegetation (Bq total)	01-Jul-05	Sr-90	2.28	2.42	-5.8	Agreement
Water (Bq/L)	01-Jul-05	Am-241	1.849	2.23	-17.1	Agreement
Water (Bq/L)	01-Jul-05	Cs-134	160.7	167	-3.8	Agreement
Water (Bq/L)	01-Jul-05	Cs-137	306	333	-8.1	Agreement
Water (Bq/L)	01-Jul-05	Co-57	257	272	-5.6	Agreement
Water (Bq/L)	01-Jul-05	Co-60	248	261	-4.8	Agreement
Water (Bq/L)	01-Jul-05	H-3	571	527	8.3	Agreement
Water (Bq/L)	01-Jul-05	Fe-55	208	196	6	Agreement
Water (Bq/L)	01-Jul-05	Mn-54	392	418	-6.3	Agreement
Water (Bq/L)	01-Jul-05	Ni-63	93.5	100	-6.5	Agreement
Water (Bq/L)	01-Jul-05	Pu-238	1.659	1.91	-13.1	Agreement
Water (Bq/L)	01-Jul-05	Pu-239/240	2.305	2.75	-16.2	Agreement
Water (Bq/L)	01-Jul-05	Tc-99	60.8	66.5	-8.6	Agreement
Water (Bq/L)	01-Jul-05	Zn-65	326	330	-1.2	Agreement

FAMATOME ANP ENVIRONMENTAL LABORATORY
ANALYTICS RADIOCHEMISTRY CROSS CHECK
PERFORMANCE EVALUATION

Sample Number	Quarter/ Year	Sample Media	Nuclide	Units	Mean Reported Value	Known Value	Ratio E-LAB/ Analytics	Evaluation
A19215-162	2nd/2005	Liquid	Fe-55	uCi/cc	1.38E-03	1.34E-03	1.03	Agreement
A19216-162	2nd/2005	Liquid	Sr-89	uCi/cc	1.04E-03	1.08E-03	0.96	Agreement
A19216-162	2nd/2005	Liquid	Sr-90	uCi/cc	9.14E-05	9.63E-05	0.95	Agreement
A19666-162	2nd/2005	Liquid	Fe-55	uCi/cc	2.44E-04	2.34E-04	1.04	Agreement *
A19539-162	3rd/2005	Liquid	Fe-55	uCi/cc	1.23E-04	1.17E-04	1.05	Agreement
A19540-162	3rd/2005	Liquid	Sr-89	uCi/cc	3.62E-03	3.71E-03	0.98	Agreement
A19540-162	3rd/2005	Liquid	Sr-90	uCi/cc	1.99E-04	2.01E-04	0.99	Agreement
A19843-162	4th/2005	Liquid	Fe-55	uCi/cc	1.30E-04	1.16E-04	1.12	Agreement
A19844-162	4th/2005	Liquid	Sr-89	uCi/cc	3.38E-03	3.69E-03	0.92	Agreement
A19844-162	4th/2005	Liquid	Sr-90	uCi/cc	1.88E-04	2.06E-04	0.91	Agreement

* - Special Fe-55 sample for CR 05-16 investigation