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North Anna Power Station
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United States Nuclear Regulatory Commission
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VIRGINIA ELECTRIC AND POWER COMPANY (DOMINION ENERGY VIRGINIA)
NORTH ANNA POWER STATION UNIT NOS. 1 AND 2
INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI)
ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

In accordance with North Anna Units 1 and 2 Technical Specification 5.6.2 and the North Anna Independent Spent Fuel Storage Installation Technical Specification 5.5.2, enclosed is the 2025 Annual Radiological Environmental Operating Report. The Radiological Environmental Operating Report provides the details associated with the Radiological Environmental Monitoring Program.

If you have any questions or require additional information, please contact Mr. Matthew A. Hayes at (540) 894-2100.

Very truly yours,

James Jenkins
Site Vice President

Enclosure

Commitments made in this letter: None

cc: Julio Lara – Region II
Director, Division of Spent Fuel Management
NRC Senior Resident Inspector North Anna Power Station

Dominion Energy

North Anna Power Station

Radiological Environmental Monitoring Program

January 1, 2025 to December 31, 2025

Prepared by

Dominion Energy, North Anna Power Station

Annual Radiological Environmental Operating Report

North Anna Power Station

January 1, 2025 to December 31, 2025

Prepared by: _____

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1. EXECUTIVE SUMMARY

This document is a detailed report of the 2025 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 5.5.2. Radioactivity levels from January 1 through December 31, 2025, in water, silt, shoreline sediment, 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 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 are monitored within a 25-mile radius of the station. North Anna Power Station (NAPS) 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. Control samples are collected from areas that are beyond the measurable influence of North Anna Power Station (NAPS) 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 (NAPS), 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, Fukushima Daiichi or natural variation.

Radiation Detection Company provided thermoluminescent dosimetry (TLD) services and Teledyne Brown Engineering Environmental Services 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 equipment used for radiological environmental monitoring 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 2025 airborne results were similar to previous years. Fallout or natural radioactivity levels remained at levels consistent with past years' results.

Water and aquatic exposure pathway samples include precipitation, surface, river and well water, silt and shoreline sediments, and fish. The average tritium activity in surface water for 2025 was 6228 pCi/liter. No other plant related isotopes were reported in any surface or river water. River water collected from the North Anna River, 5.8 miles downstream of the site had an average tritium level of 6165 pCi/liter. No plant related isotopes were detected in quarterly precipitation samples. Silt samples indicated the presence of naturally

occurring potassium-40 and thorium and uranium decay daughters at levels consistent with the natural background. Plant related isotope, Cs-137, was not identified in any indicator sample during the reporting period. The detection of Cs-137 in bottom sediment is historically common with positive indication usually apparent in both indicator and control samples. During the pre-operational period sediment samples were also analyzed by gamma spectroscopy. Levels during this phase varied by location and date and averaged 360 pCi/kg. Shoreline soil, which may provide a direct exposure pathway, indicated the presence of potassium-40 and thorium and uranium decay daughters also at levels consistent with natural levels. No plant related isotope was detected in the indicator or control locations in shoreline soil. No plant related isotope was detected in fish samples from either Lake Anna or the control location, Lake Orange.

Soil samples, which are collected every three years from twelve stations, were collected in 2025. Plant related isotope, Cs-137, was detected in 3 of 11 indicator samples during the period with an average concentration of 258.67 pCi/kg and a range of 170.90 pCi/kg to 361.30 pCi/kg. Plant isotope, Cs-137 was detected in the control sample with a concentration of 255.50 pCi/kg. During the preoperational phase Cs-137 was routinely detected and was attributed to fallout. Levels during this phase varied by location and date and ranged from 88 to 1390 pCi/Kg. The average was 645 pCi/kg.

The terrestrial exposure pathway includes milk and food/vegetation products. No milk samples were obtained during the reporting period since the last operating dairy farm within the sampling area closed on 01/01/2018 rendering milk samples unavailable. No plant related isotope was detected in any vegetation sample.

The direct exposure pathway measures environmental radiation doses by use of thermoluminescent dosimeters (TLDs). TLD results have remained essentially constant over the years.

During 2025, 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 total body dose calculated for a hypothetical individual at the station site boundary due to liquid and gaseous effluents released from the station during 2025 was 0.794 millirem. For reference, this dose may be compared to the 620 millirem average annual exposure to every person in the United States from natural and man-made sources. Natural background sources in the environment provide approximately 50% of radiation exposure to man, while medical uses provide approximately 48%. By comparison, 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 2025 North Anna Power Station operational Radiological Environmental Monitoring Program (REMP).

The North Anna Power Station of Virginia Electric and Power Company (Dominion Energy) 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 has a gross electrical output of 1029 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 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 the North Anna Power Station Offsite Dose Calculation Manual (ODCM).

North Anna Power Station is responsible for collecting the various indicator and control environmental samples. Radiation Detection Company is utilized for processing the TLDs. Teledyne Brown Engineering Environmental Services (TBE) is utilized 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. The pre-operational data is compared with data collected during the operational phase to assist in evaluating any radiological impact of station operation.

Occasionally samples of environmental 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 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 2025 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 2025 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 TBE for North Anna Power Station during the year 2025.

TABLE 2-1

North Anna Power Station – 2025

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	
Dosimetry (TLD)	Fredericks Hall	02	5.30	SSW	203°	Quarterly & Annually	
	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	0.36	S	173°	Quarterly	

TABLE 2-1

North Anna Power Station – 2025

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	0.24	SSW	197°	Quarterly	
Dosimetry (TLD)	Route 618	SSW-20/52	5.30	SSW	205°	Quarterly	
	500kv Tower	SW-21/53	0.60	SW	218°	Quarterly	
	Route 700	SW-22/54	3.96	SW	232°	Quarterly	
	NAPS SE Switchyard	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 - Laydown Area	NW-29/61	0.52	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	
	Orange, VA	C-3/4	22.00	NW	325°	Quarterly	Control
	Mineral, VA	C-5/6	7.10	WSW	243°	Quarterly	
	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	Biology Lab	01A	0.64	SE	138°	Weekly	
	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	

TABLE 2-1

North Anna Power Station – 2025

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	
	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	

TABLE 2-1

North Anna Power Station – 2025

RADIOLOGICAL SAMPLING STATION

DISTANCE AND DIRECTION FROM UNIT NO. 1

Sample Media	Location	Station	Distance	Direction	Degrees	Collection Frequency	Remarks
	Bumpass, VA	07	7.30	SSE	167°	Once/3 years	
Soil	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
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							
(Vegetation)	Stagecoach Road	14B	1.22	NNE	40°	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	

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 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
(d) LLD applied are those for water samples. However, since this is a semi-annual composite no LLD is applied for these nuclides due to their short half-lives.

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	10(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	(d)	
		Cs-134	15	
		Cs-137	18	
		Ba-140	(d)	
		La-140	(d)	
Shoreline Soil	Semi-Annually	Gamma Isotopic		pCi/kg (dry)
		Cs-134	150	
		Cs-137	180	
	Annually	Sr-89	(b)	pCi/kg (dry)
		Sr-90	(b)	

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

(d) LLD applied are those for water samples. However, since this is a semi-annual composite no LLD is applied for these nuclides due to their short half-lives.

TABLE 2-2
North Anna Power Station
SAMPLE ANALYSIS PROGRAM

SAMPLE MEDIA	FREQUENCY	ANALYSIS	LLD	REPORT UNITS
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, if available	I-131	1	pCi/L
	Monthly, if available	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 at harvest	Gamma Isotopic		pCi/kg (wet)
		Cs-134	60	
		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 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
(d) LLD applied are those for water samples. However, since this is a semi-annual composite no LLD is applied for these nuclides due to their short half-lives.

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

Map Designation	Environmental Station Identification	Map Designation	Environmental Station Identification
1 (a)	01,NE-5/37	7/8	C-7/8
1A	01A,SE-13/45	1/33	N-1/33
2 (a)	02,SSW-20/52	31/63	NNW-31/63
3 (a)	03,C-5/6	29/61	NW-29/61
4 (a)	04	3/35	NNE-3/35
5 (a)	05	7/39	ENE-7/39
5A (a)	05A,N-2/34	9/41	E-9/41
6 (a)	06,ESE-12/44	11/43	ESE-11/43
7 (a)	07, C-1/2	17/49	S-17/49
8	08-Water, Fish, Sediment,	19/51	SSW-19/51
	Shoreline Soil	21/53	SW-21/53
9A	09A-Water sample, Sediment	23/55	WSW-23/55
11	11-River Water, Sediment		
14B	14B-Vegetation	16/48	SSE-16/48
15	15-Vegetation	14/46	SE-14/46
16	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,Vegetation	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

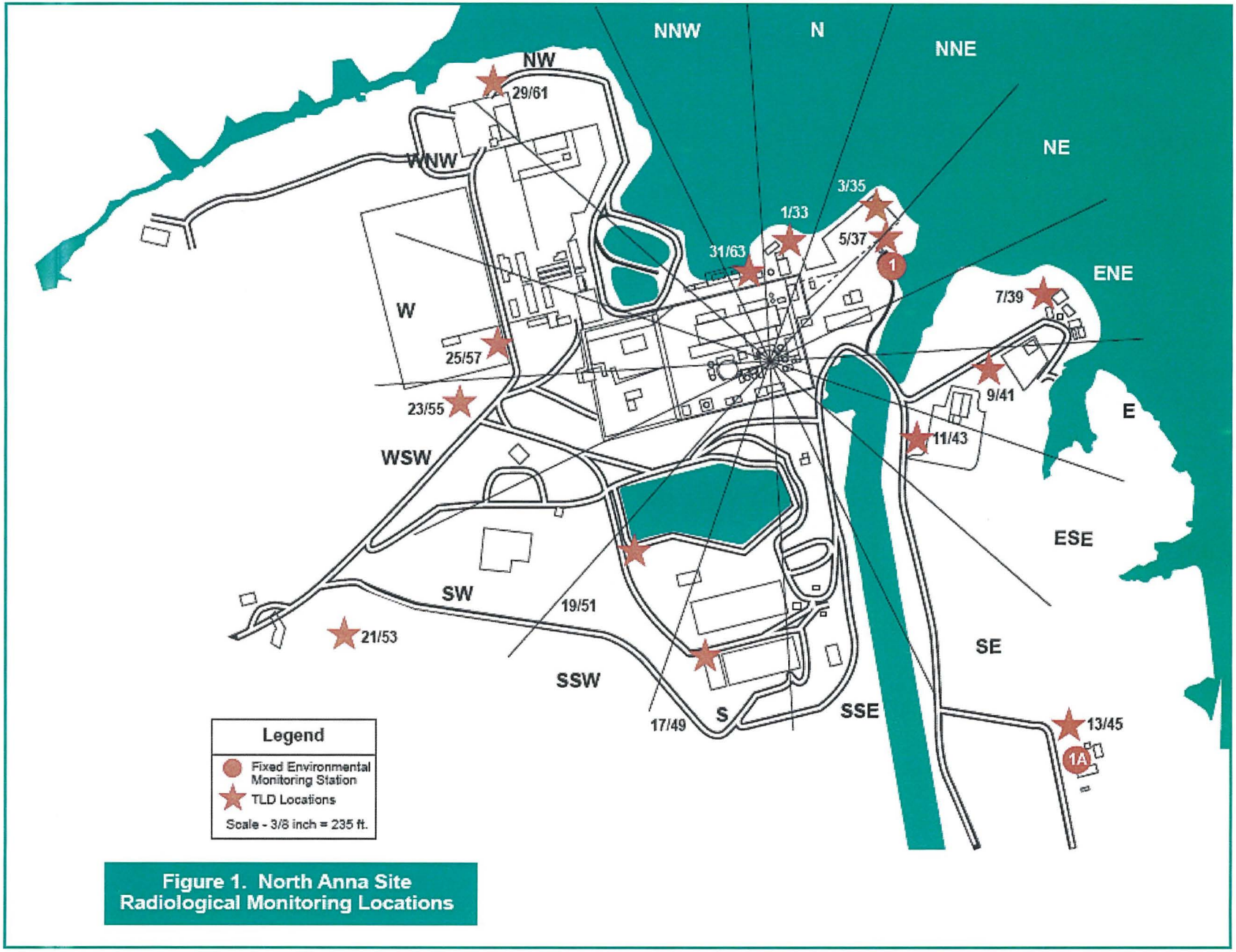
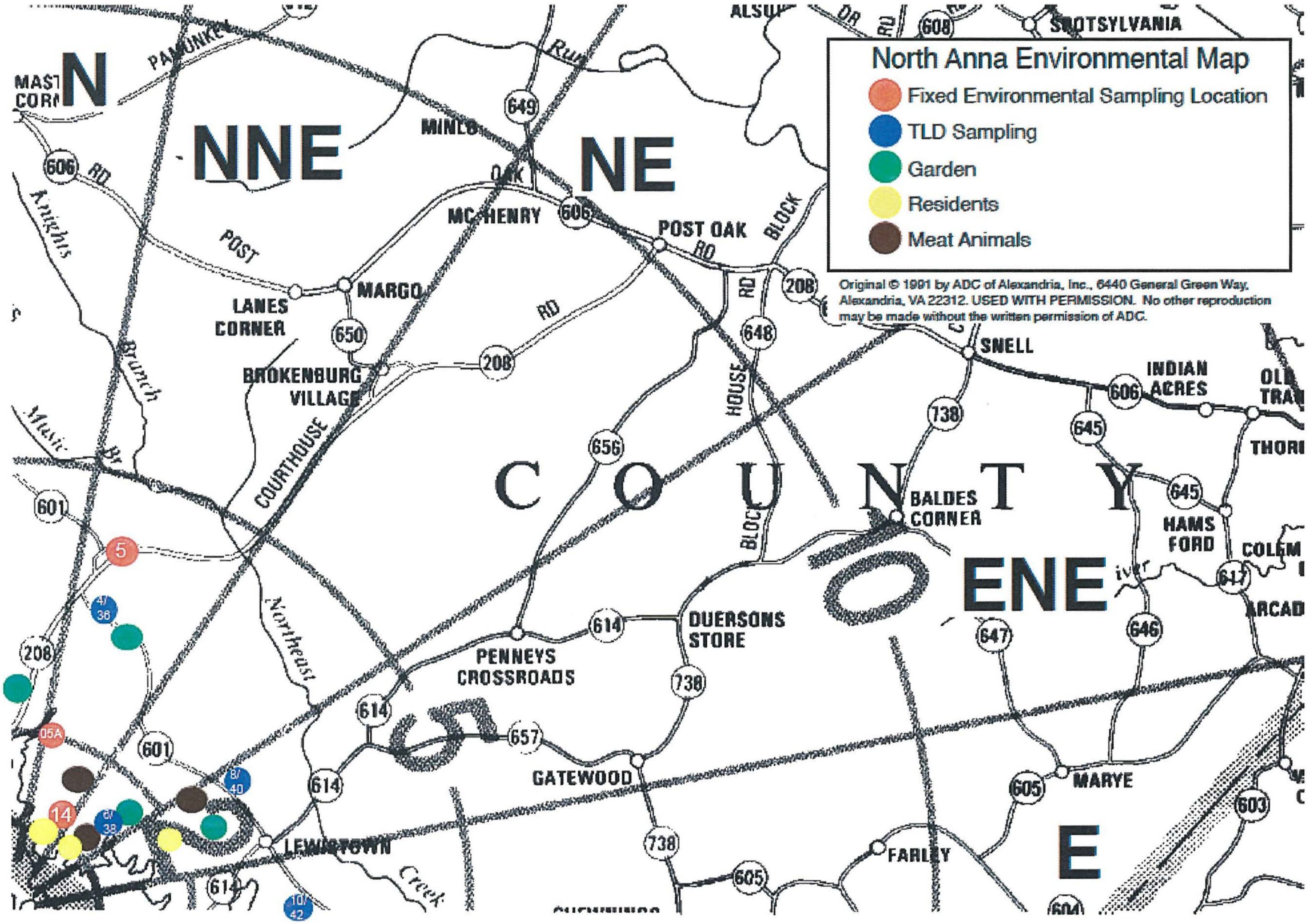
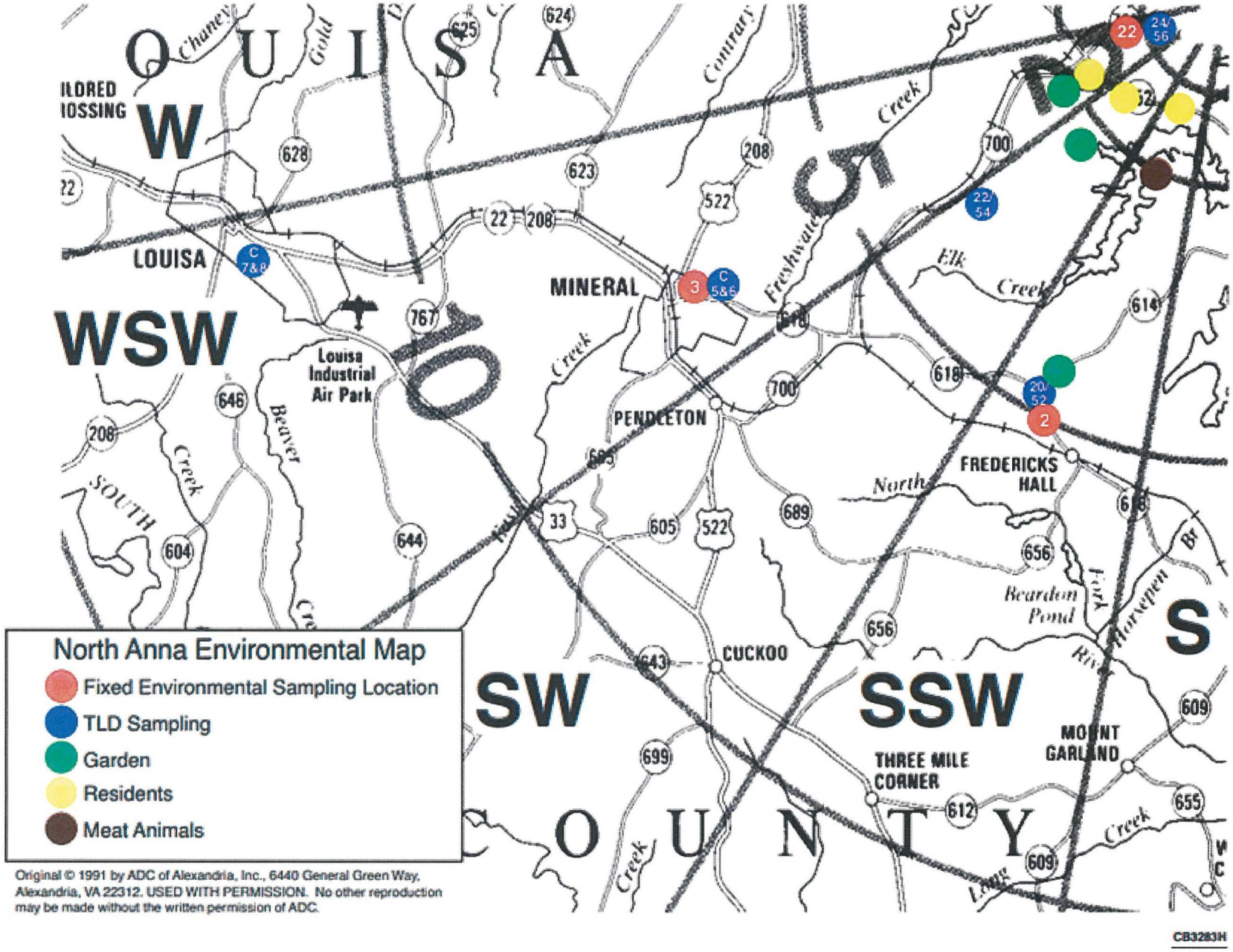


Figure 1. North Anna Site Radiological Monitoring Locations


North Anna Environmental Map
Fixed Environmental Sampling Location
TLD Sampling
Garden
Residents
Meat Animals
Original © 1991 by ADC of Alexandria, Inc., 6440 General Green Way, Alexandria, VA 22312. USED WITH PERMISSION. No other reproduction may be made without the written permission of ADC.
N
NNE
NE
ENE
E
C O U N T Y
SPOTSYLVANIA
MC HENRY
POST OAK RD
LANES CORNER
MARGO
BROKENBURG VILLAGE
COURTHOUSE
SNELL
INDIAN ACRES
BALDES CORNER
HAMS FORD
DUERSONS STORE
PENNEYS CROSSROADS
GATEWOOD
MARYE
LEWISTOWN
FARLEY
5
14
05A
4/36
6/38
8/40
10/42
CB3280H


LOUISA
MINERAL
PENDLETON
FREDERICKS HALL
CUCKOO
THREE MILE CORNER
Louisa Industrial Air Park
WSW
SW
SSW
North Anna Environmental Map
Fixed Environmental Sampling Location
TLD Sampling
Garden
Residents
Meat Animals
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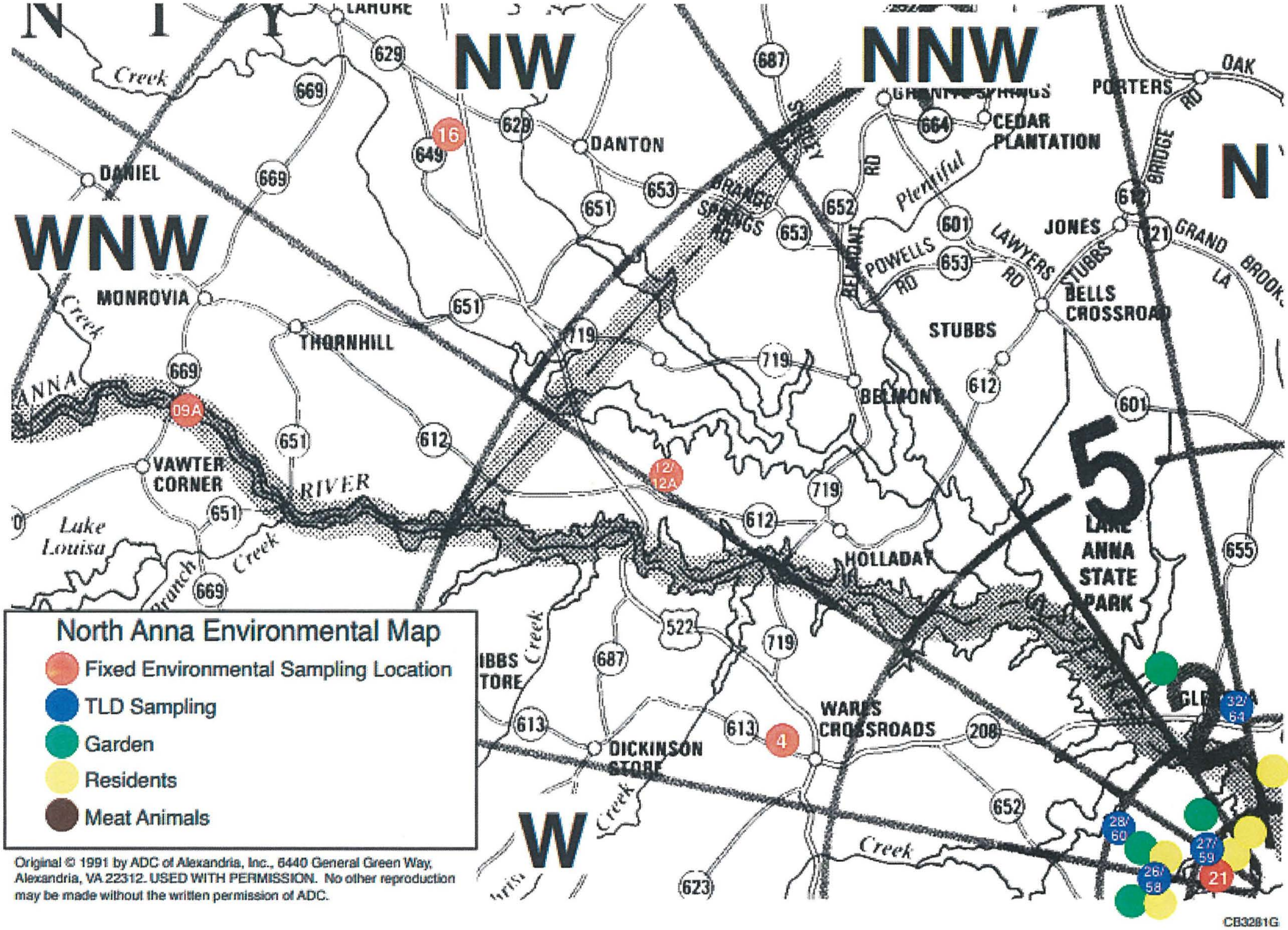
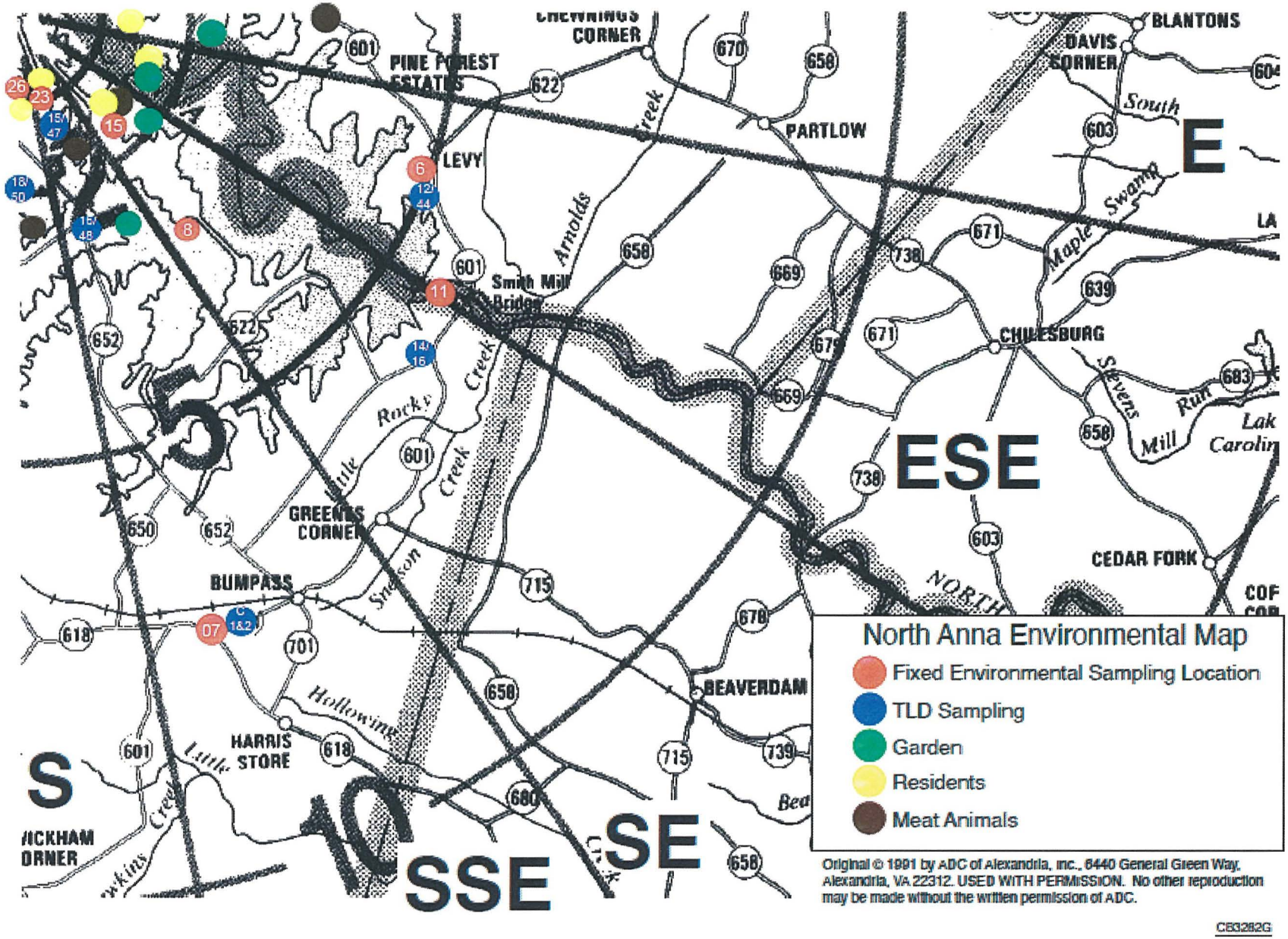
CB3283H


North Anna Environmental Map
Fixed Environmental Sampling Location
TLD Sampling
Garden
Residents
Meat Animals
Original © 1991 by ADC of Alexandria, Inc., 6440 General Green Way, Alexandria, VA 22312. USED WITH PERMISSION. No other reproduction may be made without the written permission of ADC.
NW
NNW
WNW
N
W
DANIEL
MONROVIA
THORNHILL
VAWTER CORNER
DANTON
CEDAR PLANTATION
PORTERS
JONES
BELLS CROSSROAD
STUBBS
BELMONT
HOLLADAY
LAKE ANNA STATE PARK
WARES CROSSROADS
DICKINSON STORE
RIVER
Lake Louisa
16
09A
12/12A
4
21
28/60
27/59
26/58
32/64
CB3281G



CB3282G

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. For radioanalytic analyses, the values listed in the columns indicated as "Mean/Range" include any results above the Minimum Detectable Concentration, MDC. Results are considered true positives when the measured value exceeds both the MDC and the $2\sum$ error. For TLDs the mean and range include all values.

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.

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Medium or Pathway Sampled (Units)	Analysis Type	Total Number	LLD*	Indicator Locations	Indicator Location with Highest Mean			Control Locations	Non-Routine Reported Measurement
				Mean (Range)	Number	Distance Direction	Mean (Range)	Mean (Range)	
Direct Radiation *(mR.std. Month)* *(Sector TLDs)*	Gamma Dose	256	2	5.9 (256/256) (2.7-11.0)	29/61	0.52 Mi. NW	9.6 (8/8) (8.4-11.0)	4.8 (16/16) (3.7-5.9)	0
*** C3/4, -7/8 used for control locations*									
Direct Radiation *(mR.std. Month)* *(Pre-operational TLDs)*	Gamma Dose	32	2	4.3 (16/16) (3.0-7.3)	C-1/2	7.30 Mi. SSE	4.9 (8/8) (4.0-7.3)	4.8 (16/16) (3.7-5.9)	0
*** C3/4, -7/8 used for control locations*									
Direct Radiation *(mR.std. Month)* *(Emergency Sector TLDs)*	Gamma Dose	40	2	6.7 (40/40) (4.3-9.8)	EPSR 05/06	0.2 Mi. NNW	8.8 (8/8) (7.3-9.8)	4.8 (16/16) (3.7-5.9)	0
*** C3/4, -7/8 used for control locations*									
Direct Radiation *(mR.std. Month)* *(Environmental TLDs)*	Gamma Dose	48	2	4.9 (44/44) (3.3-7.4)	STA-23	0.93 Mi. SSE	6.9 (4/4) (6.7-7.4)	4.2 (4/4) (4.0-4.6)	0
Direct Radiation *(mR.std. Month)* *(Annual TLDs)*	Gamma Dose	12	2	4.4 (11/11) (2.8-6.9)	STA-23	0.93 Mi. SSE	6.9 (1/1) (6.9)	3.9 (1/1) (3.9)	0
Air Particulate *($10e^{-3}$ pCi/m^3)*	GR-B	676	0.01	16.5 (622/624) (4.82-42.0)	05A	2.04 Mi. N	18.0 (52/52) (5.85-42.0)	17.7 (52/52) (5.85-36.6)	0
	GAMMA	52							
	BE-7	52	NA	107.4 (48/48) (79.7-166.0)	05A	2.04 Mi. N	126.7 (4/4) (80.3-166.0)	111.6 (4/4) (95.3-138.7)	0
	Cs-134	52	0.05	(0/48)	N/A	N/A	N/A	(0/4)	0
	Cs-137	52	0.06	(0/48)	N/A	N/A	N/A	(0/4)	0
	Sr-89	13	0.01	(0/48)	N/A	N/A	N/A	(0/4)	0
	Sr-90	13	0.01	(0/48)	N/A	N/A	N/A	(0/4)	0
Air Iodine *($10e^{-3}$ pCi/m^3)*	I-131	676	0.07	(0/624)	N/A	N/A	N/A	(0/52)	0
Soil***	GAMMA	12							
(pCi/kg dry wt.)	K-40	12	-	12041 (11/11) (4637-25060)	23	0.93 Mi. SSE	25060 (1/1) (25060)	4399.0 (1/1) (4399.0)	0
	CS-134	12	150	(0/11)	N/A	N/A	N/A	(0/1)	0
	CS-137	12	180	258.67 (3/11) (170.90-361.30)	2	5.3 Mi SSW	361.30 (1/1) (361.30)	255.50 (1/1) (255.50)	0
	Ra-226	12	-	3694.3 (3/11) (2096.0-5481.0)	23	0.93 Mi. SSE	5481.0 (1/1) (5481.0)	(0/1)	0

*** LLD identifed in ODCM**
****C-3/4,-7/8 used as control locations**

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				Mean (Range)	Number	Distance Direction	Mean (Range)	Mean (Range)	
Soil* (cont'd)** *(pCi/kg dry wt.)*	Th-228	12	-	1209.3 (11/11) **(429.20-2210.0)**	23	0.93 Mi. SSE	2210.0 (1/1) **(2210.0)**	1187.0 (1/1) **(1187.0)**	0
	Th-232	12	-	1034.6 (10/11) **(422.50-1849.0)**	23	0.93 Mi. SSE	1849.0 (1/1) **(1849.0)**	1338.0 (1/1) **(1338.0)**	0
	Ac-228	12		1318.3 (3/11) **(960.80-1953.0)**	06	4.7 Mi. ESE	1953.0 (1/1) **(1953.0)**	1263.0 (1/1) **(1263.0)**	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
***Soil samples are obtained triennially.									
Precipitation *(pCi/liter)*	GR-B	13	4	7.4 (8/13) **(2.9-16.2)**	01A	0.64 Mi. SE	7.4 (8/13) **(2.9-16.2)**	NA	0
	H-3	12	2000	**(0/12)**	N/A	N/A	N/A	N/A	0
	GAMMA	2							
	Be-7	2	-	**(0/2)**	N/A	N/A	N/A	N/A	0
	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
	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
	La-140	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

* LLD identifed in ODCM

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Medium or Pathway Sampled (Units)	Analysis Type	Total Number	LLD*	Indicator Locations	Indicator Location with Highest Mean			Control Locations	Non-Routine Reported Measurement
				Mean (Range)	Number	Distance Direction	Mean (Range)	Mean (Range)	
Precipitation (cont'd) *(pCi/liter)*	Th-228	2	-	(0/2)	N/A	N/A	N/A	N/A	0
Fruits & Vegetables *(pCi/kg wet wt.)*	GAMMA	35							
	Be-7	35	-	1127.9 (25/28) (342.9-2444)	23	0.93 Mi. SSE	1354.1 (6/7) (579.4-2444)	1243.1 (7/7) (356-2780)	0
	K-40	35	-	4070.8 (28/28) (1634-6234)	14B	1.22 Mi.N NE	4689.9 (7/7) (3609-6234)	4452.1 (7/7) (2828-6163)	0
	I-131	35	60	(0/28)	N/A	N/A	N/A	(0/7)	0
	Cs-134	35	60	(0/28)	N/A	N/A	N/A	(0/7)	0
	Cs-137	35	80	(0/28)	N/A	N/A	N/A	(0/7)	0
	Ra-226	35	-	938.5 (1/28) (938.5)	23	0.93 Mi. SSE	938.5 (1/7) (938.5)	<LLD	0
	Th-228	35	-	72.28 (3/28) (52.16-89.71)	23	0.93 Mi. SSE	72.28 (3/7) (52.16-89.71)	61.95 (1/7) (61.95)	0
	Th-232	35	-	159.9 (2/28) (149.2-170.5)	23	0.93 Mi. SSE	159.9 (2/7) (149.2-170.5)	<LLD	0
	Ac-228	35	-	383.6 (2/28) (223.7-543.5)	23	0.93 Mi. SSE	383.6 (2/7) (223.7-543.5)	<LLD	0
Well Water *(pCi/liter)*	H-3	3	2000	(0/3)	N/A	N/A	N/A	N/A	0
	GAMMA	3							
	Mn-54	3	15	(0/3)	N/A	N/A	N/A	N/A	0
	Fe-59	3	30	(0/3)	N/A	N/A	N/A	N/A	0
	Co-58	3	15	(0/3)	N/A	N/A	N/A	N/A	0
	Co-60	3	15	(0/3)	N/A	N/A	N/A	N/A	0
	Zn-65	3	30	(0/3)	N/A	N/A	N/A	N/A	0
	Zr-95	3	30	(0/3)	N/A	N/A	N/A	N/A	0
	Nb-95	3	15	(0/3)	N/A	N/A	N/A	N/A	0
	I-131	3	10	(0/3)	N/A	N/A	N/A	N/A	0
	Cs-134	3	15	(0/3)	N/A	N/A	N/A	N/A	0
	Cs-137	3	18	(0/3)	N/A	N/A	N/A	N/A	0

* LLD identifed in ODCM

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Docket No. 50-338/339 2023

Medium or Pathway Sampled (Units)	Analysis Type	Total Number	LLD*	Indicator Locations	Indicator Location with Highest Mean			Control Locations	Non-Routine Reported Measurement
				Mean (Range)	Number	Distance Direction	Mean (Range)	Mean (Range)	
Well Water (cont'd) *(pCi/liter)*	Ba-140	3	60	(0/3)	N/A	N/A	N/A	N/A	0
	La-140	3	15	(0/3)	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)*	H-3	4	2000	6165 (4/4) (5840-6910)	11	5.80 Mi. SE	6165 (4/4) (5840-6910)	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
	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

* LLD identifed in ODCM

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Medium or Pathway Sampled (Units)	Analysis Type	Total Number	LLD*	Indicator Locations	Indicator Location with Highest Mean			Control Locations	Non-Routine Reported Measurement
				Mean (Range)	Number	Distance Direction	Mean (Range)	Mean (Range)	
Surface Water *(pCi/liter)*	H-3	8	2000	6228 (4/4) (5330-7130)	08	3.37 Mi. SSE	6228 (4/4) (5330-7130)	(0/4)	0
	GAMMA	24							
	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	30	(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	2	-	(0/1)	N/A	N/A	N/A	(0/1)	0
	Sr-90	2	-	(0/1)	N/A	N/A	N/A	(0/1)	0
Sediment Silt *(pCi/kg dry wt.)*	**GAMMA**	6							
	K-40	6	-	12234 (4/4) (1488-26160)	11	5.80 Mi. SE	22385 (2/2) (18610-26160)	15870 (2/2) (14030-17710)	0
	Cs-134	6	150	(0/4)	N/A	N/A	N/A	(0/2)	0
	Cs-137	6	180	(0/4)	N/A	N/A	N/A	(0/2)	0
	Ra-226	6	-	(0/4)	N/A	N/A	N/A	(0/2)	0

* LLD identifed in ODCM

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				Mean (Range)	Number	Distance Direction	Mean (Range)	Mean (Range)	
Sediment Silt (cont'd) *(pCi/kg dry wt.)*	Th-228	6	-	705.9 (3/4) **(262.4-1116)**	11	5.80 Mi. SE	927.7 (2/2) **(739.3-1116)**	398.4 (2/2) **(290.7-506)**	0
	Th-232	6	-	1126 (2/4) **(958.5-1293)**	11	5.80 Mi. SE	1126 (2/2) **(958.5-1293)**	**(0/2)**	0
	Ac-228	6		1087 (1/4) **(1087)**	11	5.80 Mi. SE	1087 (1/4) **(1087)**	**(0/2)**	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
Shoreline Soil *(pCi/kg dry wt.)*	**GAMMA**	2							
	K-40	2	-	1239 (2/2) **(1147-1331)**	08	3.37 Mi. SSE	1239 (2/2) **(1147-1331)**	N/A	0
	Cs-134	2	150	**(0/2)**	N/A	N/A	N/A	N/A	0
	Cs-137	2	180	**(0/2)**	N/A	N/A	N/A	N/A	0
	Ra-226	2	-	**(0/2)**	N/A	N/A	N/A	N/A	0
	Th-228	2	-	180.2 (1/2) **(180.2)**	08	3.37 Mi. SSE	180.2 (1/2) **(180.2)**	N/A	0
	Th-232	2	-	**(0/2)**	N/A	N/A	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
Fish - Other *(pCi/kg wet wt.)*	**GAMMA**	8							
	K-40	8	-	1960 (4/4) **(1414-2291)**	08	3.37 Mi. SSE	1960 (4/4) **(1414-2291)**	2357 (4/4) **(1910-3103)**	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

* LLD identifed in ODCM

3.2 Analytical Results of 2025 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 true positives when the measured value exceeds both the MDC and the $2\sum$ error.

Because of counting statistics, negative values, zeros and numbers below the Minimum Detectable Level (MDL) are statistically valid pieces of data[1]. For clarity of this report only detectable results are presented. TBE'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

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[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
QUARTERLY
GAMMA EXPOSURE RATE
(mR/Std. Month) ± 2 Sigma

Station	First Quarter 1/8/2025- 4/2/2025	Second Quarter 4/2/2025- 7/2/2025	Third Quarter 7/2/2025- 10/8/2025	Fourth Quarter 10/8/2025- 1/6/2026	Quarterly Average* (+/-) 2 S.D.
N-1	7.4	6.0	7.4	6.9	6.5 (+/-) 1.3
N-33	6.0	5.7	6.7	6.2	
N-2	4.5	3.7	4.3	4.6	4.5 (+/-) 1.4
N-34	4.5	3.7	4.9	5.9	
NNE-3	7.4	7.7	8.6	8.6	8.0 (+/-) 1.4
NNE-35	8.5	6.7	8.3	8.3	
NNE-4	5.6	5.3	6.4	5.6	5.8 (+/-) 1.1
NNE-36	6.0	5.0	6.4	6.2	
NE-5	7.1	5.7	6.7	7.3	6.6 (+/-) 1.2
NE-37	7.1	5.7	6.7	6.9	
NE-6	6.0	4.3	5.2	5.6	5.1 (+/-) 1.2
NE-38	5.2	4.3	4.6	5.2	
ENE-7	7.4	7.0	7.1	7.9	7.6 (+/-) 1.2
ENE-39	7.8	6.7	8.3	8.3	
ENE-8	3.8	3.0	4.0	4.9	4.0 (+/-) 1.4
ENE-40	3.4	3.3	4.3	4.9	
E-9	6.7	6.0	7.7	11.0	7.6 (+/-) 3.4
E-41	7.4	5.7	8.9	7.3	
E-10	5.6	6.7	5.8	5.6	5.7 (+/-) 1.2
E-42	6.0	5.3	4.6	5.9	
ESE-11	6.7	5.0	4.9	5.6	5.9 (+/-) 1.7
ESE-43	6.3	5.3	6.7	6.9	
ESE-12	6.7	5.0	6.7	7.3	6.1 (+/-) 2.0
ESE-44	6.3	4.3	6.7	5.9	
SE-13	6.0	5.7	6.1	5.6	5.7 (+/-) 0.9
SE-45	6.0	5.3	6.1	4.9	
SE-14	8.1	7.0	6.4	8.6	7.5 (+/-) 1.7
SE-46	7.8	6.3	7.7	8.3	
SSE-15	7.4	7.0	6.4	7.3	6.8 (+/-) 1.1
SSE-47	7.1	5.7	6.7	6.9	
SSE-16	4.5	4.7	4.0	3.2	4.3 (+/-) 1.1
SSE-48	4.2	4.3	4.6	4.9	
S-17	7.4	6.0	7.1	7.6	7.0 (+/-) 2.0
S-49	6.7	5.3	7.4	8.6	

*Average of collocated TLDs

TABLE 3-2
QUARTERLY
GAMMA EXPOSURE RATE
(mR/Std. Month) ± 2 Sigma

Station	First Quarter 1/8/2025- 4/2/2025	Second Quarter 4/2/2025- 7/2/2025	Third Quarter 7/2/2025- 10/8/2025	Fourth Quarter 10/8/2025- 1/6/2026	Quarterly Average* (+/-) 2 S.D.
S-18	3.8	4.0	3.6	4.6	4.2 (+/-) 1.8
S-50	3.8	6.0	3.0	4.9	
SSW-19	8.5	7.7	8.3	9.0	8.3 (+/-) 1.6
SSW-51	8.9	6.7	8.3	9.3	
SSW-20	4.2	3.3	2.7	4.2	3.8 (+/-) 1.2
SSW-52	4.2	3.3	3.6	4.6	
SW-21	6.0	6.0	6.4	6.9	6.0 (+/-) 1.3
SW-53	6.3	4.7	6.1	5.6	
SW-22	5.6	6.0	6.1	5.6	5.9 (+/-) 0.8
SW-54	6.7	6.0	5.8	5.6	
WSW-23	7.1	6.0	6.7	7.3	6.3 (+/-) 1.3
WSW-55	6.0	5.3	5.8	5.9	
WSW-24	6.0	4.7	5.8	5.2	5.6 (+/-) 1.3
WSW-56	6.7	5.3	5.2	6.2	
W-25	7.1	5.3	7.1	5.6	6.3 (+/-) 1.8
W-57	7.1	5.0	6.1	7.3	
W-26	3.8	3.7	4.6	4.6	4.1 (+/-) 1.2
W-58	4.2	3.0	4.3	4.9	
WNW-27	4.9	4.7	4.6	5.9	5.0 (+/-) 1.5
WNW-59	4.9	4.0	4.9	6.2	
WNW-28	4.2	3.7	4.9	4.9	4.4 (+/-) 1.0
WNW-60	4.5	3.7	4.6	4.9	
NW-29	9.6	8.7	10.2	11.0	9.6 (+/-) 1.8
NW-61	9.2	8.4	9.5	10.6	
NW-30	4.2	3.7	3.3	5.6	4.4 (+/-) 1.8
NW-62	4.9	3.7	4.0	5.6	
NNW-31	6.7	5.3	5.2	4.9	5.6 (+/-) 2.2
NNW-63	6.0	4.3	4.6	7.6	
NNW-32	5.6	4.7	6.1	5.2	5.2 (+/-) 1.5
NNW-64	5.6	3.7	5.5	5.2	
				Mean	5.9 (+/-) 3.1

*Average of collocated TLDs

TABLE 3-2
QUARTERLY
GAMMA EXPOSURE RATE
(mR/Std. Month) ± 2 Sigma

Station	First Quarter 1/8/2025- 4/2/2025	Second Quarter 4/2/2025- 7/2/2025	Third Quarter 7/2/2025- 10/8/2025	Fourth Quarter 10/8/2025- 1/6/2026	Quarterly Average* (+/-) 2 S.D.
C-1	5.6	4.0	4.6	7.3	4.9 (+/-) 2.1
C-2	4.5	4.3	4.6	4.6	
C-3**	4.2	3.7	4.0	5.9	4.6 (+/-) 1.7
C-4**	4.9	4.0	4.6	5.9	
C-5	3.8	3.0	4.0	3.5	3.7 (+/-) 0.8
C-6	3.4	3.3	4.0	4.2	
C-7**	4.9	5.0	4.9	5.2	4.9 (+/-) 1.2
C-8**	5.6	3.7	5.2	4.6	
				Indicator Mean	4.3 (+/-) 2.0
				Control Mean	4.8 (+/-) 1.5
EPSA-01***	7.1	6.0	5.8	8.6	6.7 (+/-) 2.0
EPSA-02***	7.4	5.7	6.7	6.2	
EPSF-03***	5.2	5.0	6.1	5.9	5.9 (+/-) 1.3
EPSF-04***	6.0	5.3	6.7	6.6	
EPSR-05***	8.9	7.7	9.5	9.6	8.8 (+/-) 1.8
EPSR-06***	8.9	7.3	9.8	8.6	
EPSJ-07***	5.6	4.3	6.1	6.6	5.7 (+/-) 1.4
EPSJ-08***	6.0	5.0	6.1	5.6	
EPSP-09***	6.0	5.3	5.8	8.3	6.3 (+/-) 1.8
EPSP-10***	6.0	5.7	6.4	6.6	
				Mean	6.7 (+/-) 2.8

*Average of collocated TLDs
** Control Location
***Emergency Plan TLDs.

TABLE 3-2
QUARTERLY
GAMMA EXPOSURE RATE
(mR/Std. Month) ± 2 Sigma

Station	First Quarter 1/8/2025- 4/2/2025	Second Quarter 4/2/2025- 7/2/2025	Third Quarter 7/2/2025- 10/8/2025	Fourth Quarter 10/8/2025- 1/6/2026	Quarterly Average* (+/-) 2 S.D.	Annual TLD
STA-01	6.7	6.0	5.8	6.2	6.2 (+/-) 0.8	5.8
STA-02	3.4	3.3	4.3	4.6	3.9 (+/-) 1.2	2.8
STA-03	3.8	3.7	3.3	4.2	3.8 (+/-) 0.7	3.1
STA-04	3.8	3.7	4.6	3.9	4.0 (+/-) 0.8	3.4
STA-05	4.5	4.3	4.6	5.6	4.8 (+/-) 1.1	4.4
STA-05A	4.2	3.7	4.0	4.6	4.1 (+/-) 0.7	3.1
STA-06	6.0	5.7	6.7	5.9	6.1 (+/-) 0.9	5.4
STA-07	4.5	4.0	4.9	5.2	4.7 (+/-) 1.0	4.9
STA-21	4.5	4.3	4.6	4.2	4.4 (+/-) 0.3	4.4
STA-22	5.2	6.0	5.2	5.6	5.5 (+/-) 0.8	4.6
STA-23	7.4	6.7	6.7	6.9	6.9 (+/-) 0.7	6.9
STA-24**	4.2	4.0	4.6	4.2	4.2 (+/-) 0.5	3.9
				Mean Indicator Locations	4.9 (+/-) 2.2	4.4 (+/-) 2.6

*Average of collocated TLDs
** Control

TABLE 3-3
AIR PARTICULATES
GROSS BETA RADIOACTIVITY
(10^{-3} pCi/m^3)

PERIOD ENDING	LOCATIONS															
	01		02		03		04		05		06		07		21	
		(+/-)		(+/-)		(+/-)		(+/-)		(+/-)		(+/-)		(+/-)		(+/-)
01/08/25	12.10	2.430	10.80	2.350	16.40	2.600	13.50	2.470	13.50	2.490	13.30	2.480	14.40	2.540	14.70	2.550
01/15/25	22.80	2.990	20.20	2.870	25.50	3.170	22.30	2.990	24.40	3.060	22.80	2.990	24.70	3.080	23.70	3.030
01/22/25	16.50	2.910	19.10	3.040	25.10	3.310	19.70	3.070	22.90	3.230	21.30	3.150	21.60	3.160	20.20	3.100
01/28/25	27.60	3.720	30.30	4.010	36.10	4.250	30.00	3.820	36.40	4.260	30.30	4.010	33.20	4.140	30.00	3.820
02/04/25	16.60	2.750	17.50	2.800	24.40	3.270	18.10	2.820	24.60	3.260	20.90	3.080	23.00	3.190	21.00	2.970
02/10/25	18.50	3.120	19.90	3.190	28.30	3.740	21.90	3.290	22.00	3.430	23.90	3.520	24.10	3.540	22.30	3.320
02/18/25	9.750	2.310	9.660	2.300	17.90	2.720	11.80	2.420	15.30	2.600	12.40	2.460	12.60	2.460	13.70	2.540
02/26/25	16.60	2.550	15.50	2.490	15.70	2.500	21.80	2.790	15.30	2.480	17.40	2.590	18.40	2.640	18.00	2.620
03/05/25	14.40	2.760	12.90	2.680	13.70	2.720	16.30	2.860	15.30	2.810	13.00	2.690	12.00	2.630	7.660	2.380
03/11/25	16.00	3.080	13.00	2.920	9.790	2.740	10.80	2.780	9.750	2.720	9.920	2.730	10.50	2.780	12.40	2.890
03/19/25	13.70	2.380	13.70	2.370	15.20	2.450	16.00	2.500	14.90	2.440	14.70	2.430	14.50	2.410	13.70	2.370
03/26/25	17.80	2.460	19.30	2.550	18.60	2.510	19.20	2.540	20.20	2.600	18.60	2.510	17.60	2.450	18.00	2.470
04/02/25	12.00	2.630	10.10	2.530	9.250	2.480	14.60	2.780	12.90	2.690	11.40	2.610	9.390	2.490	13.20	2.700
04/08/25	7.810	2.760	9.980	2.860	9.830	2.780	8.960	2.760	8.020	2.730	7.950	2.740	7.300	2.700	9.260	2.830
04/15/25	14.10	2.670	14.10	2.660	13.20	2.650	17.10	2.850	16.30	2.770	11.40	2.490	12.50	2.570	16.40	2.770
04/22/25	16.40	2.900	16.90	2.820	16.20	2.780	13.50	2.640	19.40	2.950	16.90	2.820	13.50	2.640	17.20	2.830
04/29/25	15.20	2.730	16.70	2.810	15.70	2.760	13.70	2.650	12.70	2.600	13.90	2.670	12.70	2.600	14.70	2.700
05/06/25	16.50	2.640	16.20	2.630	16.70	2.660	14.50	2.540	16.20	2.630	17.40	2.690	13.60	2.480	14.30	2.520
05/13/25	15.80	2.600	17.80	2.700	15.50	2.570	15.50	2.570	13.80	2.460	15.30	2.550	13.70	2.470	14.30	2.500
05/20/25	10.40	2.420	12.40	2.530	11.90	2.500	10.30	2.450	11.50	2.500	11.00	2.500	10.60	2.430	(a)	< 15.00
05/28/25	6.000	1.910	6.610	1.960	8.480	2.080	4.820	1.840	7.640	2.030	6.170	1.930	5.270	1.870	6.930	2.900
06/03/25	10.70	2.670	12.50	2.770	11.70	2.730	9.040	2.560	9.350	2.580	8.690	2.540	11.80	2.740	10.60	2.750
06/10/25	12.60	2.690	14.70	2.790	12.60	2.670	12.20	2.650	13.00	2.690	9.180	2.480	15.10	2.810	13.30	2.710
06/17/25	13.30	2.640	13.30	2.640	13.00	2.630	10.40	2.480	11.70	2.550	12.10	2.570	11.90	2.560	10.10	2.460
06/24/25	18.90	2.970	14.60	2.740	17.70	2.900	14.90	2.760	12.60	2.640	17.00	2.870	18.10	2.920	16.70	2.850

(a) Sampler malfuntion, did not meet 400 m3.

TABLE 3-3
AIR PARTICULATES
GROSS BETA RADIOACTIVITY
(10^{-3} pCi/m^3)

LOCATIONS

PERIOD ENDING	01	(+/-)	02	(+/-)	03	(+/-)	04	(+/-)	05	(+/-)	06	(+/-)	07	(+/-)	21	(+/-)
07/02/25	21.30	3.050	17.30	2.840	22.50	3.100	19.40	2.950	14.70	2.710	20.60	3.020	18.80	2.920	16.20	2.790
07/08/25	12.00	3.050	12.80	3.000	16.60	3.280	15.40	3.190	11.40	2.930	14.70	3.110	14.80	3.110	16.10	3.180
07/15/25	15.40	2.630	15.40	2.630	15.40	2.630	16.50	2.690	13.50	2.510	6.800	2.090	16.50	2.680	16.50	2.690
07/22/25	10.50	2.410	12.90	2.560	11.70	2.490	13.60	2.600	12.00	2.520	9.220	2.350	12.90	2.560	11.40	2.470
07/29/25	19.10	2.960	17.90	2.890	13.80	2.700	20.70	3.050	18.10	2.900	14.90	2.730	20.90	3.040	17.60	2.880
08/05/25	12.50	2.650	14.90	2.790	19.00	3.000	14.70	2.780	14.50	2.770	13.40	2.720	17.60	2.930	12.40	2.660
08/12/25	14.70	2.700	14.20	2.670	15.40	2.740	15.40	2.740	17.60	2.840	13.30	2.620	14.90	2.710	13.90	2.650
08/20/25	(a)	< 13.30	10.90	2.330	13.90	2.480	12.80	2.430	10.20	2.290	9.980	2.280	11.10	2.330	12.20	2.400
08/26/25	17.00	3.030	16.20	2.980	15.30	2.930	15.30	2.930	10.50	2.650	14.00	2.860	16.50	3.000	11.60	2.710
09/03/25	19.20	2.620	16.80	2.510	17.80	2.560	17.90	2.560	16.60	2.500	15.40	2.440	19.10	2.630	16.30	2.480
09/09/25	23.40	3.440	22.80	3.380	25.20	3.500	22.70	3.400	22.80	3.380	20.20	3.260	19.10	3.190	19.90	3.240
09/17/25	8.070	1.790	10.60	1.970	9.670	1.910	9.780	1.930	9.210	1.880	10.30	1.960	9.930	1.930	10.60	1.970
09/23/25	22.90	3.500	18.50	3.280	26.00	3.650	25.50	3.620	20.30	3.390	24.10	3.570	21.70	3.440	23.20	3.520
09/30/25	34.50	3.600	28.30	3.340	32.70	3.520	24.40	3.170	29.60	3.400	24.20	3.170	27.80	3.320	28.30	3.340
10/08/25	21.20	2.700	22.30	2.740	20.90	2.640	19.70	2.600	20.30	2.640	18.70	2.570	22.10	2.730	19.70	2.620
10/14/25	14.10	2.850	14.00	2.860	12.50	2.830	15.40	2.960	9.97	2.600	11.80	2.720	13.20	2.810	12.50	2.760
10/22/25	20.70	2.690	19.80	2.650	19.60	2.640	16.70	2.500	17.40	2.540	18.60	2.600	18.60	2.590	16.60	2.490
10/28/25	18.20	3.150	16.70	3.070	15.00	2.970	12.10	6.030	14.70	2.950	12.20	2.810	14.90	2.960	14.90	2.970
11/04/25	16.40	2.810	16.20	2.800	14.40	2.700	12.20	2.880	14.00	2.670	13.50	2.650	14.00	2.670	13.00	2.620
11/12/25	15.70	2.530	15.70	2.530	17.90	2.640	15.40	2.550	17.60	2.610	18.20	2.630	6.030	2.330	16.10	2.550
11/18/25	19.50	3.350	13.90	3.060	21.30	3.440	17.20	3.240	16.80	3.240	20.90	3.450	15.50	3.170	15.90	3.170
11/25/25	22.70	3.240	20.50	3.140	24.60	3.320	17.50	3.000	15.30	2.890	21.20	3.170	17.00	2.970	14.60	2.860
12/03/25	15.90	2.460	16.30	2.480	17.20	2.520	13.10	2.310	11.20	2.200	17.70	2.550	13.40	2.330	15.20	2.420
12/10/25	20.20	2.920	20.10	2.920	17.80	2.800	16.90	2.760	15.30	2.660	20.70	2.950	18.20	2.820	17.30	2.770
12/17/25	23.20	3.140	19.20	2.960	22.30	3.100	16.90	2.840	12.80	2.620	22.80	3.120	23.90	3.180	17.60	2.870
12/23/25	23.90	3.540	17.50	3.070	22.70	3.340	15.10	2.930	17.20	3.050	20.50	3.240	19.10	3.280	16.70	3.060
12/30/25	19.90	2.830	19.20	2.800	20.10	2.850	17.30	2.700	15.20	2.590	19.90	2.840	23.10	3.000	21.20	2.900
Mean	16.75	2.810	16.13	2.774	17.69	2.855	15.97	2.831	15.74	2.753	15.86	2.761	16.21	2.787	15.88	2.777

(a) Sampler was not operating.

TABLE 3-3
AIR PARTICULATES
GROSS BETA RADIOACTIVITY
(10^{-3} pCi/m^3)

PERIOD ENDING	LOCATIONS									
	22		23		24*		01A		05A	
		(+/-)		(+/-)		(+/-)		(+/-)		(+/-)
01/08/25	13.20	2.480	12.80	2.450	14.00	2.510	11.10	2.380	19.40	2.890
01/15/25	20.00	2.860	21.90	2.960	21.10	2.910	18.20	2.760	29.30	3.410
01/22/25	17.80	2.980	21.80	3.160	14.30	2.820	17.00	2.940	29.50	3.660
01/28/25	27.90	3.900	30.60	3.850	27.90	3.720	31.00	4.040	42.00	4.500
02/04/25	20.80	3.100	19.40	2.890	16.40	2.750	19.50	2.900	29.70	3.530
02/10/25	18.10	3.100	26.10	3.630	18.00	3.080	19.20	3.150	32.40	3.950
02/18/25	12.20	2.450	13.80	2.520	10.90	2.380	10.80	2.380	20.80	3.000
02/26/25	20.50	2.730	19.00	2.660	16.30	2.530	14.90	2.460	23.20	2.870
03/05/25	16.30	2.860	15.40	2.820	14.90	2.790	14.50	2.770	16.60	2.880
03/11/25	11.00	2.810	14.20	2.990	12.70	2.910	13.00	2.920	14.80	3.010
03/19/25	15.30	2.460	13.20	2.340	16.50	2.520	12.70	2.320	15.00	2.440
03/26/25	18.20	2.490	20.10	2.590	20.70	2.620	17.80	2.470	17.70	2.450
04/02/25	13.20	2.690	10.60	2.630	12.90	2.690	16.50	3.130	12.30	2.660
04/08/25	7.730	2.730	8.970	2.800	8.870	2.770	7.810	2.760	8.44	2.760
04/15/25	12.90	2.580	14.30	2.670	15.70	2.740	13.70	2.620	13.50	2.620
04/22/25	16.20	2.790	16.70	2.810	16.90	2.830	17.50	2.840	18.30	2.890
04/29/25	16.30	2.790	13.10	2.610	17.40	2.850	16.30	2.790	13.40	2.640
05/06/25	13.80	2.490	13.70	2.490	15.80	2.600	17.70	2.710	14.70	2.540
05/13/25	15.40	2.570	14.60	2.530	16.30	2.600	13.80	2.480	13.60	2.450
05/20/25	12.70	2.550	10.60	2.430	11.50	2.510	11.10	2.460	9.340	2.370
05/28/25	8.240	2.050	7.090	1.980	5.850	1.910	7.930	2.090	5.850	1.910
06/03/25	11.20	2.710	11.80	2.740	13.40	2.840	11.20	2.710	11.00	2.680
06/10/25	15.40	2.830	12.40	2.670	12.10	2.640	16.50	2.890	14.00	2.750
06/17/25	12.20	2.580	11.40	2.530	11.70	2.550	12.40	2.590	10.70	2.490
06/24/25	16.60	2.840	16.30	2.830	19.00	2.970	17.10	2.870	20.00	3.020

*Control Station

TABLE 3-3
AIR PARTICULATES
GROSS BETA RADIOACTIVITY
(10^{-3} pCi/m^3)

PERIOD ENDING	LOCATIONS									
	22		23		24*		01A		05A	
		(+/-)		(+/-)		(+/-)		(+/-)		(+/-)
07/02/25	20.00	2.980	15.10	2.730	18.40	2.910	19.80	2.970	16.60	2.820
07/08/25	17.00	3.230	19.30	3.360	17.80	3.280	16.00	3.170	16.60	3.210
07/15/25	16.10	2.670	15.30	2.620	17.40	2.720	12.60	2.520	17.00	2.700
07/22/25	11.80	2.490	14.40	2.640	15.50	2.730	11.60	2.480	11.60	2.500
07/29/25	19.90	3.000	20.10	3.010	20.40	3.010	21.20	3.060	17.50	2.870
08/05/25	19.10	2.990	15.70	2.830	19.00	3.000	14.60	2.770	18.20	2.960
08/12/25	13.40	2.630	12.20	2.570	15.10	2.710	15.20	2.730	14.60	2.690
08/20/25	13.30	2.540	7.68	2.140	12.50	2.410	12.00	2.380	13.50	2.460
08/26/25	16.00	3.150	13.80	2.840	14.70	2.900	13.60	2.830	16.10	2.990
09/03/25	21.30	2.730	17.00	2.520	20.50	2.690	18.20	2.580	15.60	2.450
09/09/25	25.80	3.630	22.90	3.400	26.10	3.560	20.10	3.270	24.00	3.440
09/17/25	7.180	1.730	8.730	1.840	10.10	1.940	9.290	1.880	10.50	1.980
09/23/25	29.00	3.820	21.60	3.440	25.90	3.700	19.20	3.320	21.90	3.570
09/30/25	32.00	3.490	35.20	3.620	36.60	3.680	29.30	3.380	21.00	3.010
10/08/25	20.20	2.640	20.90	2.670	22.40	2.740	21.30	2.700	22.10	2.730
10/14/25	15.20	2.930	13.70	2.850	15.40	2.930	12.70	2.780	15.40	2.930
10/22/25	19.40	2.630	19.70	2.640	21.90	2.760	18.40	2.570	18.50	2.590
10/28/25	17.60	3.110	15.70	3.010	16.10	3.030	12.70	2.840	14.50	2.940
11/04/25	15.90	2.780	14.10	2.680	15.10	2.730	11.70	2.550	16.50	2.800
11/12/25	19.40	2.710	16.70	2.580	16.40	2.550	14.50	2.470	16.90	2.570
11/18/25	14.20	3.070	16.90	3.240	22.10	3.520	16.40	3.190	20.50	3.440
11/25/25	20.20	3.120	20.80	3.150	25.10	3.350	18.70	3.060	26.40	3.400
12/03/25	14.30	2.370	15.90	2.460	19.80	2.650	14.50	2.390	12.80	2.290
12/10/25	19.90	2.910	19.50	2.920	23.60	3.090	18.40	2.830	20.10	2.920
12/17/25	21.20	3.050	19.20	2.960	22.20	3.080	18.20	2.900	19.20	2.950
12/23/25	22.80	3.500	21.50	3.290	26.60	3.670	18.00	3.100	20.60	3.240
12/30/25	19.80	2.830	22.00	2.940	22.80	2.990	20.60	2.870	23.00	3.000
Mean	17.02	2.830	16.64	2.799	17.70	2.853	15.92	2.770	18.01	2.881
							Mean all Indicator locations		16.49	2.802

*Control Station

TABLE 3-4
AIRBORNE IODINE
(10^{-3} pCi/m^3)

PERIOD ENDING	LOCATIONS 01	02	03	04	05	06	07	21
01/08/25	< 29.05	< 59.78	< 58.61	< 59.14	< 59.78	< 28.38	< 43.01	< 43.01
01/15/25	< 32.92	< 33.10	< 33.87	< 33.51	< 13.93	< 23.56	< 23.69	< 23.65
01/22/25	< 25.59	< 25.59	< 19.49	< 25.59	< 25.77	< 12.52	< 26.25	< 26.30
01/28/25	< 24.05	< 12.18	< 25.56	< 23.95	< 25.50	< 12.01	< 17.96	< 16.79
02/04/25	< 24.22	< 24.30	< 18.70	< 24.26	< 25.75	< 22.24	< 22.24	< 20.95
02/10/25	< 14.92	< 14.92	< 15.79	< 24.93	< 11.16	< 26.26	< 26.38	< 24.93
02/18/25	< 9.141	< 19.21	< 19.21	< 19.24	< 19.27	< 23.38	< 23.27	< 17.95
02/26/25	< 34.19	< 34.24	< 34.24	< 22.93	< 22.97	< 11.73	< 22.97	< 22.93
03/05/25	< 12.38	< 26.10	< 26.10	< 26.05	< 26.10	< 12.05	< 28.48	< 28.48
03/11/25	< 30.08	< 20.20	< 30.20	< 30.02	< 30.08	< 26.84	< 20.53	< 26.90
03/19/25	< 20.52	< 28.18	< 28.18	< 28.18	< 28.23	< 9.641	< 20.26	< 20.26
03/26/25	< 37.37	< 33.74	< 33.74	< 33.74	< 33.74	< 36.08	< 18.43	< 36.14
04/02/25	< 28.68	< 12.22	< 28.88	< 28.88	< 28.88	< 28.40	< 28.40	< 28.35
04/08/25	< 28.27	< 27.92	< 29.95	< 27.37	< 27.81	< 35.28	< 35.35	< 15.01
04/15/25	< 21.27	< 21.08	< 21.66	< 16.53	< 22.45	< 22.37	< 22.49	< 22.37
04/22/25	< 11.80	< 24.52	< 24.52	< 24.56	< 24.61	< 13.46	< 31.71	< 31.76
04/29/25	< 22.60	< 22.64	< 22.64	< 22.60	< 17.27	< 18.96	< 26.21	< 26.07
05/06/25	< 28.88	< 28.93	< 28.93	< 14.80	< 28.88	< 23.48	< 32.46	< 32.46
05/13/25	< 37.64	< 37.45	< 37.45	< 26.65	< 36.59	< 36.65	< 36.78	< 36.84
05/20/25	< 23.32	< 23.28	< 23.28	< 11.24	< 23.45	< 24.19	< 23.60	(a) < 65.03
05/28/25	< 21.83	< 21.93	< 9.993	< 21.96	< 21.96	< 26.42	< 26.42	< 18.00
06/03/25	< 51.59	< 46.40	< 46.40	< 46.49	< 46.40	< 54.73	< 54.73	< 24.17
06/10/25	< 10.82	< 25.43	< 25.43	< 25.48	< 25.34	< 33.40	< 33.40	< 33.40
06/17/25	< 37.47	< 27.20	< 37.60	< 37.60	< 37.53	< 34.00	< 37.78	< 34.12
06/24/25	< 27.44	< 35.84	< 35.90	< 35.90	< 36.02	< 33.59	< 46.27	< 46.35

(a) Sampler malfuntion, did not meet 400 m3.

TABLE 3-4
AIRBORNE IODINE
(10^{-3} pCi/m^3)

PERIOD ENDING	LOCATIONS 01	02	03	04	05	06	07	21
07/02/25	< 33.74	< 33.56	< 33.62	< 28.35	< 14.53	< 28.45	< 28.35	< 28.40
07/08/25	< 11.48	< 24.19	< 24.91	< 24.65	< 24.29	< 33.33	< 33.33	< 33.20
07/15/25	< 31.13	< 42.81	< 42.88	< 42.88	< 42.51	< 34.30	< 34.54	< 34.60
07/22/25	< 28.33	< 28.43	< 28.43	< 28.43	< 13.05	< 17.39	< 33.82	< 33.76
07/29/25	< 21.27	< 21.19	< 10.18	< 21.38	< 21.19	< 21.84	< 21.87	< 21.87
08/05/25	< 53.78	< 54.06	< 54.06	< 60.05	< 54.22	< 54.22	< 54.22	< 54.12
08/12/25	< 21.25	< 21.22	< 21.22	< 31.28	< 31.17	< 31.23	< 16.00	< 31.28
08/20/25	(a) < 215.2	< 59.68	< 59.77	< 59.77	< 59.77	< 41.63	< 45.90	< 41.70
08/26/25	< 68.07	< 68.07	< 68.07	< 68.07	< 49.45	< 35.51	< 35.51	< 35.36
09/03/25	< 31.70	< 31.74	< 31.74	< 31.74	< 24.22	< 12.74	< 27.99	< 27.99
09/09/25	< 58.09	< 57.50	< 57.50	< 57.97	< 29.25	< 59.62	< 59.38	< 59.50
09/17/25	< 35.62	< 35.84	< 35.84	< 39.88	< 35.79	< 31.99	< 41.87	< 41.87
09/23/25	< 31.55	< 31.55	< 31.55	< 31.55	< 16.21	< 37.14	< 36.91	< 36.91
09/30/25	< 10.44	< 22.91	< 22.91	< 22.91	< 22.91	< 19.70	< 25.72	< 25.68
10/08/25	< 32.57	< 42.50	< 41.55	< 42.11	< 42.50	< 40.09	< 40.09	< 30.58
10/14/25	< 57.87	< 58.11	< 66.39	< 58.83	< 57.87	< 67.43	< 67.70	< 67.57
10/22/25	< 41.67	< 41.80	< 41.80	< 41.80	< 31.99	< 35.45	< 31.91	< 31.91
10/28/25	< 65.42	< 65.42	< 65.28	< 69.14	< 65.42	< 32.55	< 63.74	< 63.74
11/04/25	< 66.90	< 66.78	< 66.78	< 35.24	< 66.55	< 50.46	< 50.46	< 50.46
11/12/25	< 35.57	< 35.68	< 35.68	< 12.68	< 35.46	< 29.81	< 34.26	< 27.17
11/18/25	< 63.30	< 63.43	< 63.43	< 63.43	< 60.38	< 60.25	< 60.13	< 59.63
11/25/25	< 37.25	< 37.25	< 37.25	< 29.48	< 37.25	< 22.96	< 44.95	< 44.95
12/03/25	< 16.21	< 30.70	< 30.70	< 30.70	< 30.70	< 29.89	< 29.89	< 29.89
12/10/25	< 65.68	< 22.95	< 65.92	< 65.92	< 65.92	< 52.82	< 52.82	< 52.82
12/17/25	< 32.46	< 68.43	< 68.43	< 68.43	< 68.19	< 68.26	< 36.07	< 68.50
12/23/25	< 57.37	< 48.84	< 48.84	< 48.84	< 48.84	< 56.79	< 60.11	< 57.73
12/30/25	< 25.23	< 33.24	< 33.24	< 33.24	< 33.36	< 18.91	< 39.88	< 39.88

(a) Sampler was not operating.

TABLE 3-4
AIRBORNE IODINE
(10^{-3} pCi/m^3)

PERIOD ENDING	LOCATIONS 22	23	24*	01A	05A
01/08/25	< 43.01	< 42.88	< 62.93	< 63.32	< 31.79
01/15/25	< 23.73	< 15.90	< 33.70	< 33.70	< 35.89
01/22/25	< 26.25	< 26.25	< 31.67	< 31.45	< 33.69
01/28/25	< 17.96	< 16.79	< 16.32	< 17.49	< 17.49
02/04/25	< 14.99	< 20.95	< 21.14	< 21.10	< 22.70
02/10/25	< 29.35	< 31.06	< 13.27	< 29.35	< 31.33
02/18/25	< 23.35	< 23.31	< 24.45	< 24.52	< 26.30
02/26/25	< 24.18	< 24.22	< 24.26	< 16.15	< 24.41
03/05/25	< 28.48	< 28.48	< 23.85	< 23.89	< 23.89
03/11/25	< 26.90	< 26.90	< 32.50	< 32.44	< 32.37
03/19/25	< 20.29	< 20.26	< 23.10	< 23.14	< 23.10
03/26/25	< 36.14	< 36.14	< 28.12	< 28.22	< 28.17
04/02/25	< 20.44	< 29.39	< 19.91	< 22.36	< 19.88
04/08/25	< 35.42	< 35.35	< 33.51	< 34.34	< 33.78
04/15/25	< 23.59	< 23.67	< 23.71	< 12.00	< 23.63
04/22/25	< 31.76	< 31.76	< 27.91	< 27.62	< 27.81
04/29/25	< 26.07	< 26.07	< 31.54	< 31.43	< 31.54
05/06/25	< 32.46	< 32.46	< 24.12	< 24.12	< 24.12
05/13/25	< 33.55	< 33.49	< 25.20	< 33.55	< 33.20
05/20/25	< 23.60	< 23.64	< 21.09	< 20.87	< 20.98
05/28/25	< 26.25	< 26.25	< 23.71	< 24.35	< 23.67
06/03/25	< 54.95	< 54.95	< 60.11	< 60.11	< 59.87
06/10/25	< 24.29	< 33.52	< 25.63	< 25.95	< 25.72
06/17/25	< 34.00	< 34.06	< 34.59	< 34.47	< 34.53
06/24/25	< 46.27	< 46.27	< 40.24	< 40.03	< 40.24

*Control Station

TABLE 3-4
AIRBORNE IODINE
(10^{-3} pCi/m^3)

PERIOD ENDING	LOCATIONS 22	23	24*	01A	05A
07/02/25	< 35.37	< 35.37	< 35.50	< 26.90	< 35.50
07/08/25	< 33.33	< 15.20	< 34.57	< 34.36	< 34.50
07/15/25	< 38.45	< 34.60	< 37.46	< 39.08	< 37.52
07/22/25	< 33.76	< 33.76	< 25.04	< 24.73	< 24.95
07/29/25	< 11.19	< 21.91	< 34.94	< 35.00	< 34.94
08/05/25	< 51.07	< 51.16	< 51.34	< 24.27	< 51.34
08/12/25	< 34.87	< 34.87	< 34.69	< 34.87	< 25.10
08/20/25	< 43.50	< 41.57	< 59.00	< 58.91	< 59.00
08/26/25	< 38.43	< 16.09	< 56.56	< 56.33	< 56.56
09/03/25	< 27.99	< 27.99	< 41.01	< 40.95	< 41.07
09/09/25	< 47.14	< 59.74	< 51.57	< 51.78	< 51.26
09/17/25	< 41.61	< 41.67	< 55.69	< 55.35	< 56.13
09/23/25	< 17.76	< 36.91	< 31.45	< 30.75	< 32.19
09/30/25	< 25.68	< 25.68	< 42.75	< 42.75	< 42.98
10/08/25	< 40.09	< 40.03	< 37.41	< 37.53	< 37.47
10/14/25	< 67.98	< 49.28	< 66.26	< 66.67	< 66.40
10/22/25	< 31.91	< 31.86	< 50.19	< 49.73	< 50.12
10/28/25	< 63.74	< 63.74	< 64.52	< 64.52	< 64.52
11/04/25	< 26.61	< 50.55	< 34.30	< 67.39	< 67.16
11/12/25	< 27.17	< 27.17	< 26.96	< 28.42	< 50.86
11/18/25	< 44.63	< 45.00	< 45.37	< 44.63	< 50.15
11/25/25	< 44.95	< 44.95	< 50.48	< 50.48	< 50.48
12/03/25	< 22.80	< 29.89	< 29.40	< 29.44	< 29.40
12/10/25	< 52.73	< 18.69	< 44.82	< 44.74	< 44.82
12/17/25	< 68.50	< 68.50	< 67.62	< 68.10	< 67.86
12/23/25	< 47.70	< 56.67	< 60.55	< 57.08	< 56.96
12/30/25	< 39.74	< 39.74	< 37.42	< 37.22	< 37.49

*Control Station

TABLE 3-5
AIR PARTICULATES
(10^{-3} pCi/m^3)

GAMMA SPECTRA - QTR 1 (12/31/24 - 03/26/25)

LOCATION	Be-7	(+/-)	Cs-134	Cs-137
01	143.00	27.260	< 1.6470	< 1.2860
02	125.00	22.950	< 0.9690	< 0.8441
03	110.80	20.200	< 1.1500	< 0.7581
04	90.560	20.760	< 1.2700	< 1.2410
05	83.450	25.790	< 1.3520	< 1.3600
06	102.00	22.760	< 1.1570	< 1.1520
07	112.50	21.730	< 1.5450	< 1.4170
21	110.10	22.380	< 1.6550	< 1.3760
22	107.00	24.230	< 1.7590	< 1.7830
23	119.70	20.990	< 1.5060	< 1.0920
24*	138.70	22.960	< 1.1650	< 0.9189
01A	101.20	21.250	< 1.4540	< 0.8585
05A	166.00	29.040	< 1.5640	< 1.5640

GAMMA SPECTRA AND STRONTIUM 89/90- QTR 2 (03/26/25 - 06/24/25)

LOCATION	Be-7	(+/-)	Cs-134	Cs-137	Sr-89	Sr-90
01	113.00	25.010	< 1.1110	< 0.8547	< 7.6900	< 3.1900
02	126.40	19.240	< 1.0950	< 0.8847	< 7.4800	< 2.7800
03	126.70	26.120	< 1.4260	< 1.3370	< 9.1000	< 4.3300
04	110.00	26.390	< 1.6430	< 1.5290	< 7.6000	< 2.2400
05	111.70	21.660	< 0.9245	< 0.7101	< 8.6200	< 2.3800
06	92.940	21.850	< 1.5530	< 1.0300	< 7.9900	< 3.0800
07	112.90	24.380	< 1.3720	< 1.3790	< 6.7300	< 3.9100
21	121.50	28.420	< 1.6930	< 1.4850	< 7.6400	< 2.8300
22	109.30	20.830	< 1.4760	< 0.9627	< 8.5800	< 2.7600
23	113.50	22.220	< 1.1080	< 1.0860	< 9.1400	< 2.0900
24*	116.60	25.410	< 2.0970	< 1.5330	< 8.0500	< 3.1300
01A	93.310	26.740	< 1.4500	< 1.1230	< 8.4700	< 3.2400
05A	114.30	20.830	< 1.1810	< 1.1390	< 9.1700	< 2.6800

* Control Location

TABLE 3-5
AIR PARTICULATES
(10^{-3} pCi/m^3)

GAMMA SPECTRA - QTR 3 (06/24/25 - 09/30/25)

LOCATION	Be-7	(+/-)	Cs-134	Cs-137
01	137.30	36.020	< 1.6550	< 1.4970
02	134.50	36.900	< 2.0010	< 1.5540
03	110.70	27.620	< 1.1620	< 1.2270
04	87.580	23.230	< 0.8803	< 0.9709
05	125.60	29.120	< 1.4310	< 1.3770
06	80.230	37.220	< 1.1330	< 1.9000
07	105.20	34.630	< 1.1540	< 0.8556
21	99.880	25.550	< 1.1320	< 0.7332
22	118.90	24.280	< 1.3150	< 1.2700
23	102.50	23.530	< 1.0920	< 0.8523
24*	95.680	29.190	< 1.4300	< 1.3010
01A	113.70	24.010	< 1.3780	< 0.9688
05A	146.10	34.960	< 2.0450	< 1.8790

GAMMA SPECTRA - QTR 4 (09/30/25 - 12/30/25)

LOCATION	Be-7	(+/-)	Cs-134	Cs-137	Annual Mean Be-7	(+/-)
01	80.160	20.220	< 1.9940	< 1.7080	118.37	27.13
02	88.400	20.880	< 0.9895	< 1.2310	118.58	24.99
03	92.660	21.350	< 1.3870	< 1.4300	110.22	23.82
04	109.10	26.330	< 1.9630	< 1.1890	99.310	24.18
05	89.570	24.900	< 2.0770	< 1.2550	102.58	25.37
06	79.660	27.060	< 1.5990	< 1.3260	88.708	27.22
07	85.120	20.090	< 1.5490	< 1.0900	103.93	25.21
21	93.340	19.810	< 0.8213	< 0.9484	106.21	24.04
22	96.750	22.880	< 1.2320	< 1.1130	107.99	23.06
23	80.580	25.210	< 1.3990	< 1.4450	104.07	22.99
24*	95.280	25.720	< 1.3920	< 1.0720	111.57	25.82
01A	101.40	25.390	< 1.4500	< 1.1430	102.40	24.35
05A	80.300	25.260	< 2.2290	< 1.6360	126.68	27.52
				Mean of All Indicator Locations	107.42	24.99

* Control Location

TABLE 3-6
Soil
(pCi/kg dry wt.)

LOCATION	COLLECTION DATE	Sr-89	Sr-90	K-40	(+/-)	Cs-134	Cs-137	(+/-)	Ra-226	(+/-)
01	07/02/25	< 1060.0	< 42.000	19110	1610.0	< 115.00	< 109.40		< 2229.0	
02	07/02/25	< 2150.0	< 40.600	7743.0	1267.0	< 74.360	361.30	80.650	< 1670.0	
03	07/02/25	< 1570.0	< 45.400	5042.0	1178.0	< 96.190	< 111.10		< 2168.0	
04	07/02/25	< 1280.0	< 37.000	4637.0	950.30	< 78.620	243.80	80.640	< 1213.0	
05	07/02/25	< 2860.0	< 36.700	13640	1434.0	< 104.80	170.90	64.970	2096.0	1316.0
06	07/02/25	< 1150.0	< 41.700	7204.0	1521.0	< 143.30	< 143.90		3506.0	1803.0
07	07/02/25	< 1530.0	< 38.800	6613.0	1632.0	< 114.40	< 134.20		< 2408.0	
21	07/02/25	< 981.00	< 33.700	13650	1990.0	< 146.00	< 133.50		< 3034.0	
22	07/02/25	< 1330.0	< 40.200	16880	2197.0	< 123.60	< 123.50		< 3040.0	
23	07/02/25	< 2080.0	< 36.200	25060	2108.0	< 130.90	< 121.10		5481.0	2629.0
24*	07/02/25	< 3910.0	< 35.700	4399.0	1294.0	< 137.30	255.50	137.10	< 2738.0	
05A	07/02/25	< 1970.0	< 44.000	12870	2158.0	< 119.40	< 128.30		< 2080.0	
Mean		-	-	11404	1611.6	-	257.88	113.28	3694.3	1916.0

LOCATION	COLLECTION DATE	Th-228	(+/-)	Th-232	(+/-)	Ac-228	(+/-)
01	07/02/25	1051.0	175.30	1020.0	191.00	< 583.80	
02	07/02/25	429.20	111.80	422.50	136.50	< 429.00	
03	07/02/25	912.00	207.60	601.20	194.80	< 453.80	
04	07/02/25	631.60	98.990	598.90	114.10	< 356.50	
05	07/02/25	1278.0	150.70	1410.0	185.70	< 530.80	
06	07/02/25	2033.0	203.40	1496.0	313.60	1953.0	672.30
07	07/02/25	708.40	232.50	< 693.60		1041.0	301.50
21	07/02/25	1164.0	301.40	1048.0	278.80	< 678.20	
22	07/02/25	1730.0	283.20	1261.0	267.80	< 701.40	
23	07/02/25	2210.0	189.30	1849.0	250.70	< 753.40	
24*	07/02/25	1187.0	228.10	1338.0	336.40	1263.0	332.00
05A	07/02/25	1155.0	157.80	639.80	369.60	960.80	260.70
Mean		1207.4	195.01	1062.2	239.91	1304.5	391.63

* Control Location

TABLE 3-7
Precipitation
(pCi/L)

LOCATION 01A

COLLECTION DATE		Gr-B	(+/-)	H-3		Rainfall (inches)
01/28/25		9.6	1.8	< 1010		1.12
02/26/25		< 1.6		< 959		5.10
03/26/25		4.1	1.8	< 962		1.55
04/29/25		3.1	1.2	< 968		4.92
05/28/25		< 2.1		< 1220		7.26
06/24/25		< 3.2		< 958		4.37
07/29/25		< 1.7		< 969		8.71
08/26/25		6.5	1.7	< 1170		0.77
09/30/25		< 1.8		< 1050		2.12
10/28/25		3.9	1.3	< 1020		0.89
11/25/25		2.9	1.2	< 1070		1.89
12/30/25		12.6	1.9	< 1030		3.77
12/30/25	(a)	16.2	2.0	-		-
Mean		7.4	1.6	-	Total	42.47

(a) Gr-B re-analysis performed on the December sample.

TABLE 3-7
Precipitation
(pCi/L)

LOCATION 01A

COLLECTION DATE	Be-7	Mn-54	Fe-59	Co-58	Co-60	Zn-65	Zr-95
06/24/25	< 45.39	< 1.970	< 14.59	< 3.985	< 1.763	< 4.390	< 7.033
12/30/25	< 45.10	< 1.760	< 13.61	< 3.687	< 1.542	< 3.813	< 6.473
Mean	-	-	-	-	-	-	-

COLLECTION DATE	Nb-95	Cs-134	Cs-137	Ba-140	La-140	I-131	Th-228
06/24/25	< 4.210	< 1.916	< 1.647	< 1022	< 332.6	< 6485	< 3.058
12/30/25	< 4.060	< 1.678	< 1.429	< 1434	< 527.1	< 13210	< 2.941
Mean	-	-	-	-	-	-	-

TABLE 3-8
MILK
(pCi/L)

LOCATION	COLLECTION DATE	K-40 (+/-)	Sr-89	Sr-90	I-131*	Cs-134*	Cs-137*	Ba-140*	La-140*

***Milk samples could not be obtained in 2025 due to the lack of dairy farms within the sampling area.**

* LLD Identified in ODCM

TABLE 3-9
Food and Vegetation
(pCi/kg wet wt.)

LOCATION 14B

COLLECTION DATE	Be-7	(+/-)	K-40	(+/-)	I-131**	Cs-134**	Cs-137**
04/08/25	1854	344.1	6234	672.5	< 45.00	< 37.27	< 27.97
05/13/25	395.5	145.5	3609	426.4	< 30.40	< 20.21	< 19.99
06/10/25	1217	241.1	4240	534.2	< 32.60	< 27.78	< 24.93
07/08/25	1211	277.3	4559	593.3	< 32.30	< 25.66	< 23.56
08/12/25	788.7	214.0	5502	511.8	< 36.60	< 23.02	< 25.93
09/09/25	765.9	227.2	3788	633.3	< 35.30	< 38.35	< 28.79
10/14/25	1906	315.0	4897	562.8	< 37.70	< 26.55	< 24.53
Mean	1163	252.0	4690	562.0	-	-	-

LOCATION 15

COLLECTION DATE	Be-7	(+/-)	K-40	(+/-)	I-131**	Cs-134**	Cs-137**
04/08/25	961.1	192.7	4097	478.7	< 49.10	< 22.15	< 19.68
05/13/25	522.5	226.1	4138	566.4	< 36.00	< 25.65	< 23.65
06/10/25	1455	274.3	5923	604.7	< 31.10	< 27.85	< 27.10
07/08/25	469.7	236.6	3927	593.3	< 50.90	< 38.03	< 34.69
08/12/25	857.7	233.0	3676	493.1	< 47.60	< 27.29	< 28.78
09/09/25	1590	331.4	4666	654.3	< 38.30	< 38.53	< 34.87
10/14/25	1064	223.1	5451	622.1	< 32.50	< 26.09	< 26.14
Mean	988.6	245.3	4554	573.2	-	-	-

LOCATION 16*

COLLECTION DATE	Be-7	(+/-)	K-40	(+/-)	I-131**	Cs-134**	Cs-137**	Th-228	(+/-)
04/08/25	356.0	169.2	4285	491.6	< 38.70	< 24.92	< 23.37	< 41.47	
05/13/25	541.7	206.3	2828	575.5	< 37.60	< 36.09	< 28.58	< 44.42	
06/10/25	1970	354.3	4771	798.3	< 45.70	< 29.16	< 27.07	< 58.54	
07/08/25	1072	170.2	3909	404.1	< 52.90	< 19.69	< 19.84	61.95	32.48
08/12/25	1179	359.3	6163	816.0	< 48.90	< 38.83	< 28.42	< 61.14	
09/09/25	802.7	210.9	4032	531.7	< 47.20	< 29.51	< 27.63	< 43.89	
10/14/25	2780	407.3	5177	711.6	< 46.50	< 35.06	< 28.97	< 55.43	
Mean	1243	268.2	4452	618.4	-	-	-	61.95	32.48

*Control Station
** LLD identified in ODCM

TABLE 3-9
Food and Vegetation
(pCi/kg wet wt.)

LOCATION 23

COLLECTION DATE	Be-7	(+/-)	K-40	(+/-)	I-131**	Cs-134**	Cs-137**	Th-228	(+/-)	Th-232	(+/-)	Ra-226	(+/-)
04/08/25	984.0	± 192.9	5126	± 516.4	< 44.70	< 26.12	< 27.54	< 47.49		< 106.8		< 661.1	
05/13/25	< 277.6		2879	± 437.1	< 51.00	< 32.13	< 28.50	89.71	± 47.88	170.5	± 48.41	< 685.0	
06/10/25	1814	± 329.1	4944	± 672.7	< 45.30	< 45.28	< 36.84	52.16	± 41.35	< 264.2		938.5	± 687.5
07/08/25	579.4	± 148.2	5358	± 411.7	< 37.30	< 24.92	< 21.05	74.98	± 34.00	< 106.4		< 398.6	
08/12/25	842.4	± 258.8	6062	± 708.9	< 33.10	< 28.72	< 22.35	< 45.48		< 148.4		< 498.7	
09/09/25	1461	± 266.1	4624	± 570.2	< 54.70	< 29.34	< 28.14	< 45.95		149.2	± 80.27	< 593.9	
10/14/25	2444	± 332.4	3710	± 568.1	< 29.30	< 39.24	< 26.21	< 50.38		< 154.4		< 577.8	
Mean	1354	254.6	4672	555.0	-	-	-	72.28	41.08	159.9	64.34	938.5	687.5

LOCATION 23 CONT'D

COLLECTION DATE	Ac-228	(+/-)
04/08/25	< 106.9	
05/13/25	< 179.5	
06/10/25	543.5	± 112.7
07/08/25	223.7	± 66.85
08/12/25	< 148.7	
09/09/25	< 142.1	
10/14/25	< 154.8	
Mean	383.6	89.78

** LLD identified in ODCM

TABLE 3-9
Food and Vegetation
(pCi/kg wet wt.)

LOCATION 26

COLLECTION DATE	Be-7	(+/-)	K-40	(+/-)	I-131**	Cs-134**	Cs-137**
04/08/25	342.9 ±	212.1	1903 ±	403.3	< 49.20	< 28.75	< 29.02
05/13/25	<	386.2	1634 ±	412.3	< 50.00	< 31.20	< 32.75
06/10/25	<	361.5	1901 ±	508.0	< 46.90	< 41.63	< 47.88
07/08/25	1520 ±	175.7	2234 ±	310.1	< 42.70	< 19.79	< 16.20
08/12/25	585.0 ±	246.0	2375 ±	445.5	< 32.60	< 37.03	< 28.68
09/09/25	729.0 ±	319.2	2958 ±	595.4	< 36.20	< 26.95	< 34.04
10/14/25	1838 ±	281.2	3567 ±	513.1	< 38.50	< 24.10	< 24.25
Mean	1003	246.8	2367	455.4	-	-	-

	Be-7	(+/-)	K-40	(+/-)	I-131**	Cs-134**	Cs-137**	Th-228	(+/-)	Th-232	(+/-)	Ra-226	(+/-)
All Indicator Mean	1128	249.7	4071	536.4	-	-	-	72.28	41.08	159.9	64.34	938.5	687.5

Ac-228	(+/-)
383.6	89.78

** LLD identified in ODCM

TABLE 3-10
WELL WATER
(pCi/L)

LOCATION	COLLECTION DATE	H-3	Sr-89	Sr-90	Mn-54	Fe-59	Co-58	Co-60	Zn-65
01A	03/26/25	< 958	(a)	(a)	< 6.21	< 14.2	< 6.32	< 6.76	< 14.9
	06/24/25	< 939	< 2.67	< 0.892	< 4.71	< 10.3	< 5.79	< 5.36	< 11.9
	09/30/25	< 1040	(a)	(a)	< 5.17	< 11.8	< 6.44	< 7.06	< 11.7
	12/30/25	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
	Mean	-	-	-	-	-	-	-	-

LOCATION	COLLECTION DATE	Zr-95	Nb-95	I-131	Cs-134	Cs-137	Ba-140	La-140
01A	03/26/25	< 12.2	< 8.16	< 9.84	< 7.81	< 7.11	< 28.5	< 8.21
	06/24/25	< 9.21	< 7.04	< 9.88	< 5.55	< 4.92	< 26.7	< 11.2
	09/30/25	< 10.8	< 6.62	< 7.60	< 5.90	< 5.59	< 23.9	< 9.12
	12/30/25	(b)	(b)	(b)	(b)	(b)	(b)	(b)
	Mean	-	-	-	-	-	-	-

(a) Sr-89/90 analyses performed on the second quarter sample.
(b) Missed collection for the fourth quarter sample.

TABLE 3-11
River Water
(pCi/L)

LOCATION 11

COLLECTION DATE	H-3	(+/-)	Sr-89	Sr-90	Mn-54*	Fe-59*	Co-58*	Co-60*	Zn-65*
01/15/25	(a)		(b)	(b)	< 5.737	< 10.68	< 5.936	< 6.330	< 13.87
02/10/25	(a)		(b)	(b)	< 4.108	< 9.870	< 3.815	< 4.954	< 9.301
03/11/25	5900	926.0	(b)	(b)	< 5.209	< 8.965	< 5.507	< 6.356	< 11.05
04/15/25	(a)		(b)	(b)	< 5.348	< 11.23	< 4.986	< 5.290	< 8.812
05/13/25	(a)		(b)	(b)	< 6.504	< 10.43	< 5.277	< 7.469	< 13.29
06/17/25	5840	1020	< 4.210	< 0.802	< 6.496	< 12.89	< 5.758	< 4.862	< 16.86
07/15/25	(a)		(b)	(b)	< 6.691	< 17.59	< 7.665	< 7.767	< 11.98
08/12/25	(a)		(b)	(b)	< 5.750	< 14.59	< 5.820	< 8.033	< 10.47
09/17/25	6010	1050	(b)	(b)	< 6.493	< 10.36	< 6.611	< 9.630	< 17.80
10/14/25	(a)		(b)	(b)	< 5.298	< 10.94	< 3.561	< 8.685	< 11.53
11/12/25	(a)		(b)	(b)	< 6.757	< 11.99	< 4.713	< 5.678	< 12.50
12/17/25	6910	989.0	(b)	(b)	< 4.829	< 9.186	< 5.660	< 5.825	< 10.69
Mean	6165	996.3	-	-	-	-	-	-	-

	Nb-95*	Zr-95*	I-131*	Cs-134*	Cs-137*	Ba-140*	La-140*
01/15/25	< 5.543	< 9.203	< 0.656	< 4.856	< 5.142	< 20.76	< 7.072
02/10/25	< 4.039	< 7.234	< 0.589	< 4.375	< 3.877	< 15.01	< 5.781
03/11/25	< 6.238	< 8.792	< 0.854	< 6.583	< 6.553	< 25.32	< 10.44
04/15/25	< 5.649	< 8.843	< 0.870	< 6.458	< 4.837	< 22.66	< 6.937
05/13/25	< 6.194	< 11.42	< 0.858	< 6.508	< 6.308	< 26.99	< 9.450
06/17/25	< 7.803	< 10.93	< 0.769	< 6.882	< 5.983	< 26.33	< 7.917
07/15/25	< 5.756	< 13.11	< 0.868	< 6.263	< 5.684	< 33.56	< 9.043
08/12/25	< 7.101	< 13.42	< 0.880	< 7.866	< 6.868	< 26.17	< 8.016
09/17/25	< 7.541	< 11.97	< 0.842	< 6.131	< 6.363	< 29.06	< 10.91
10/14/25	< 5.644	< 9.350	< 0.845	< 7.967	< 8.365	< 26.40	< 4.996
11/12/25	< 6.496	< 9.959	< 0.866	< 7.006	< 5.345	< 28.50	< 9.203
12/17/25	< 7.416	< 8.309	< 0.692	< 5.452	< 4.984	< 21.24	< 8.286
Mean	-	-	-	-	-	-	-

* LLD identified in ODCM.
(a) Tritium analyses on quarterly composite.
(b) Sr-89/90 performed on 2nd quarter composite sample.

TABLE 3-12
Surface Water
(pCi/L)

LOCATION 08

COLLECTION DATE	H-3	(+/-)	Sr-89	Sr-90	Mn-54*	Fe-59*	Co-58*	Co-60*	Zn-65*
01/15/25	(a)		(b)	(b)	< 3.822	< 11.09	< 3.903	< 4.824	< 11.86
02/10/25	(a)		(b)	(b)	< 3.313	< 7.175	< 4.005	< 3.659	< 8.737
03/11/25	5560	911.0	(b)	(b)	< 7.612	< 15.05	< 5.550	< 7.247	< 13.81
04/15/25	(a)		(b)	(b)	< 3.217	< 7.422	< 2.992	< 3.252	< 7.338
05/13/25	(a)		(b)	(b)	< 5.611	< 11.59	< 4.465	< 5.963	< 10.32
06/17/25	6890	1050	< 4.110	< 0.875	< 7.942	< 14.26	< 7.391	< 7.750	< 15.69
07/15/25	(a)		(b)	(b)	< 6.787	< 11.47	< 6.155	< 5.938	< 12.10
08/12/25	(a)		(b)	(b)	< 4.122	< 10.96	< 5.859	< 7.415	< 13.13
09/17/25	5330	1020	(b)	(b)	< 6.277	< 10.36	< 7.433	< 5.113	< 7.902
10/14/25	(a)		(b)	(b)	< 7.569	< 10.40	< 6.996	< 6.551	< 13.79
11/12/25	(a)		(b)	(b)	< 3.922	< 9.691	< 4.142	< 4.798	< 9.521
12/17/25	7130	1000			< 6.082	< 15.34	< 5.753	< 9.540	< 13.62
Mean	6228	995.3	-	-	-	-	-	-	-

	Nb-95*	Zr-95*	I-131*	Cs-134*	Cs-137*	Ba-140*	La-140*
01/15/25	< 3.602	< 7.242	< 0.639	< 4.830	< 4.175	< 20.13	< 8.417
02/10/25	< 4.278	< 6.932	< 0.723	< 4.451	< 3.954	< 15.57	< 3.838
03/11/25	< 7.110	< 11.57	< 0.734	< 9.076	< 7.286	< 25.30	< 11.90
04/15/25	< 3.321	< 6.233	< 0.894	< 3.447	< 3.452	< 14.53	< 4.784
05/13/25	< 6.371	< 9.860	< 0.873	< 5.442	< 6.228	< 22.40	< 7.984
06/17/25	< 7.284	< 11.74	< 0.862	< 7.325	< 7.299	< 25.19	< 10.33
07/15/25	< 5.627	< 10.76	< 0.797	< 6.397	< 7.884	< 26.21	< 10.94
08/12/25	< 7.596	< 12.01	< 0.807	< 7.988	< 6.025	< 31.06	< 7.176
09/17/25	< 6.448	< 9.949	< 0.862	< 6.817	< 6.915	< 29.62	< 11.02
10/14/25	< 5.550	< 10.64	< 0.671	< 7.170	< 4.910	< 29.69	< 7.972
11/12/25	< 4.749	< 7.417	< 0.928	< 4.826	< 4.681	< 23.48	< 7.559
12/17/25	< 6.622	< 10.99	< 0.854	< 6.243	< 7.505	< 27.43	< 10.99
Mean	-	-	-	-	-	-	-

* LLD identified in ODCM.
(a) Tritium analyses on quarterly composite.
(b) Sr-89/90 performed on 2nd quarter composite sample.

TABLE 3-12
Surface Water
(pCi/L)

LOCATION 09A**

COLLECTION DATE	H-3	Sr-89	Sr-90	Mn-54*	Fe-59*	Co-58*	Co-60*	Zn-65*
01/15/25	(a)	(b)	(b)	< 4.904	< 13.38	< 3.747	< 4.708	< 15.10
02/10/25	(a)	(b)	(b)	< 4.443	< 9.130	< 4.298	< 5.148	< 8.885
03/11/25	< 1090	(b)	(b)	< 6.417	< 13.14	< 6.254	< 9.242	< 14.87
04/15/25	(a)	(b)	(b)	< 4.742	< 10.07	< 4.924	< 5.596	< 10.45
05/13/25	(a)	(b)	(b)	< 8.557	< 13.68	< 7.058	< 6.249	< 16.88
06/17/25	< 1250	< 4.680	< 0.905	< 5.782	< 13.95	< 6.948	< 7.227	< 11.58
07/15/25	(a)	(b)	(b)	< 4.575	< 11.24	< 4.794	< 6.123	< 9.714
08/12/25	(a)	(b)	(b)	< 5.710	< 15.18	< 6.196	< 5.414	< 10.06
09/17/25	< 1320	(b)	(b)	< 5.825	< 10.53	< 6.439	< 5.510	< 11.18
10/14/25	(a)	(b)	(b)	< 6.501	< 12.77	< 5.439	< 8.322	< 11.46
11/12/25	(a)	(b)	(b)	< 6.461	< 11.84	< 5.421	< 5.212	< 12.02
12/17/25	< 1030			< 4.438	< 9.894	< 5.042	< 4.171	< 10.35
Mean	-	-	-	-	-	-	-	-

	Nb-95*	Zr-95*	I-131*	Cs-134*	Cs-137*	Ba-140*	La-140*
01/15/25	< 6.775	< 12.56	< 0.811	< 7.779	< 7.457	< 29.85	< 10.73
02/10/25	< 3.690	< 6.916	< 0.722	< 4.696	< 4.824	< 16.34	< 6.561
03/11/25	< 5.671	< 10.69	< 0.910	< 6.322	< 7.266	< 24.45	< 8.808
04/15/25	< 4.742	< 7.456	< 0.840	< 5.522	< 5.366	< 20.21	< 6.474
05/13/25	< 5.910	< 10.23	< 0.837	< 6.526	< 5.154	< 23.94	< 6.896
06/17/25	< 7.589	< 8.674	< 0.488	< 6.216	< 6.849	< 22.11	< 6.230
07/15/25	< 4.508	< 9.508	< 0.907	< 5.302	< 5.716	< 22.77	< 8.972
08/12/25	< 6.342	< 9.613	< 0.919	< 7.440	< 6.254	< 21.02	< 6.486
09/17/25	< 4.743	< 9.569	< 0.901	< 7.852	< 5.668	< 26.85	< 11.62
10/14/25	< 5.632	< 8.865	< 0.745	< 7.129	< 6.126	< 23.48	< 9.502
11/12/25	< 6.341	< 7.622	< 0.541	< 5.472	< 5.353	< 25.41	< 10.86
12/17/25	< 5.108	< 8.682	< 0.844	< 5.240	< 4.148	< 20.56	< 7.374
Mean	-	-	-	-	-	-	-

* LLD identified in ODCM.
**Control location.
(a) Tritium analyses on quarterly composite.
(b) Sr-89/90 performed on 2nd quarter composite sample.

TABLE 3-13
Sediment Silt
(pCi/kg dry wt.)

LOCATION	COLLECTION DATE	Sr-89	Sr-90	K-40	(+/-)	Cs-134	Cs-137	Ra-226
08	04/03/25	(a)	(a)	1488	698.7	< 71.04	< 74.55	< 1758
09A*	04/03/25	(a)	(a)	14030	1586	< 83.85	< 74.18	< 1554
11	04/03/25	(a)	(a)	18610	2154	< 121.1	< 106.3	< 2499
08	10/20/25	< 658.0	< 41.40	2679	886.0	< 78.38	< 69.92	< 1590
09A*	10/20/25	< 465.0	< 43.90	17710	1719	< 92.13	< 68.79	< 1608
11	10/20/25	< 542.0	< 43.20	26160	2523	< 113.6	< 85.12	< 1645
	Indicator Mean	-	-	12234	1565	-	-	-
	Control Mean	-	-	15870	1653	-	-	-

LOCATION	COLLECTION DATE	Th-228	(+/-)	Th-232	(+/-)	Ac-228	(+/-)
08	04/03/25		< 148.8		< 293.4		< 294.4
09A*	04/03/25	506.0	160.2		< 328.5		< 329.6
11	04/03/25	1116	260.0	1293	249.4		< 715.6
08	10/20/25	262.4	152.5		< 331.5		< 334.8
09A*	10/20/25	290.7	153.9		< 368.3		< 371.8
11	10/20/25	739.3	159.0	958.5	293.5	1087	316.2
	Indicator Mean	705.9	190.5	1126	271.5	1087	316.2
	Control Mean	398.4	157.1		-		-

(a) Sr-89/90 analyses performed annually.
* Control location, Background location

TABLE 3-14
Shoreline Soil
(pCi/kg dry wt.)

LOCATIONS

LOCATION	COLLECTION DATE	Sr-89	Sr-90	K-40	(+/-)	Cs-134*	Cs-137*	Ra-226
08	04/03/25	(a)	(a)	1147	573.1	< 52.70	< 45.47	< 1015
08	10/20/25	< 434.0	< 47.70	1331	677.8	< 54.67	< 54.47	< 1045
	Mean	-	-	1239	625.5	-	-	-

LOCATION	COLLECTION DATE	Th-228	(+/-)	Th-232
08	04/03/25	< 73.97		< 224.2
08	10/20/25	180.2	56.04	< 260.6
	Mean	180.2	56.04	-

* LLD identified on ODCM
(a) Sr-89/90 analyses performed annually.

TABLE 3-15
Fish
(pCi/kg wet wt.)

LOCATION	Fish Type	COLLECTION DATE	K-40	(+/-)	Mn-54*	Fe-59*	Co-58*	Co-60*	Zn-65*
08	(a)	05/07/25	1414	631.2	< 51.28	< 127.7	< 41.94	< 48.61	< 125.6
	(b)	05/07/25	2028	841.6	< 47.66	< 131.4	< 49.54	< 58.51	< 137.0
	(a)	11/03/25	2291	1197	< 96.56	< 236.5	< 90.89	< 113.8	< 182.7
	(b)	11/04/25	2107	809.8	< 38.83	< 141.7	< 60.92	< 48.11	< 101.9
25**	(a)	05/29/25	2291	1003	< 79.27	< 188.7	< 83.08	< 79.79	< 141.6
	(b)	05/29/25	3103	1147	< 89.07	< 255.6	< 112.6	< 108.3	< 191.0
	(a)	11/13/25	2124	1261	< 80.23	< 220.7	< 87.77	< 69.81	< 194.1
	(b)	11/13/25	1910	929.5	< 77.11	< 194.4	< 74.78	< 88.40	< 140.0
		Mean	2159	977.5	-	-	-	-	-
		Indicator Mean	1960	869.9	-	-	-	-	-
		Control Mean	2357	1085	-	-	-	-	-

LOCATION		COLLECTION DATE	Cs-134*	Cs-137*
08	(a)	05/07/25	< 54.26	< 51.73
	(b)	05/07/25	< 84.85	< 53.78
	(a)	11/03/25	< 98.23	< 88.46
	(b)	11/04/25	< 60.34	< 60.16
25**	(a)	05/29/25	< 82.86	< 76.85
	(b)	05/29/25	< 100.8	< 83.73
	(a)	11/13/25	< 77.65	< 63.78
	(b)	11/13/25	< 89.15	< 66.65
		Mean	-	-
		Indicator Mean	-	-
		Control Mean	-	-

* LLD identified in ODCM
**Control Station
(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 2025 and tabulated in Section 3, are discussed below. Except for TLDs, Teledyne Brown Engineering analyzed all samples throughout the year. The procedures and specifications followed for these analyses are as required in the TBE 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 2025 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, Th-228 and Th-232 were detected in numerous samples. Th-228 & Th-232 results were variable and are generally at levels higher than plant related radionuclides. In the past, Cs-137, a plant related nuclide, has been detected in soil and aquatic sediment samples at levels corresponding to levels associated with fallout from nuclear weapons tests.

The following is a discussion and summary of the results of the environmental measurements taken during the 2025 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 the historical trend of TLD exposure rate measurements. Control and indicator averages indicate a steady relationship. Prior to January 2001 TLDs made of CaSO4:Dy in Teflon were used. From January 2001 until 2024 two TLDs made of CaF and LiF sensitive elements were deployed at each sampling location. Starting with the 2024 sampling period, the CaF and LiF TLDs were replaced with dosimeters using the same type CaSO4:Dy elements that were in the dosimeters prior to January 2001. The dose with the replacement TLDs is higher than that of the TLDs used from 2001 until 2024. This will continue to be monitored.

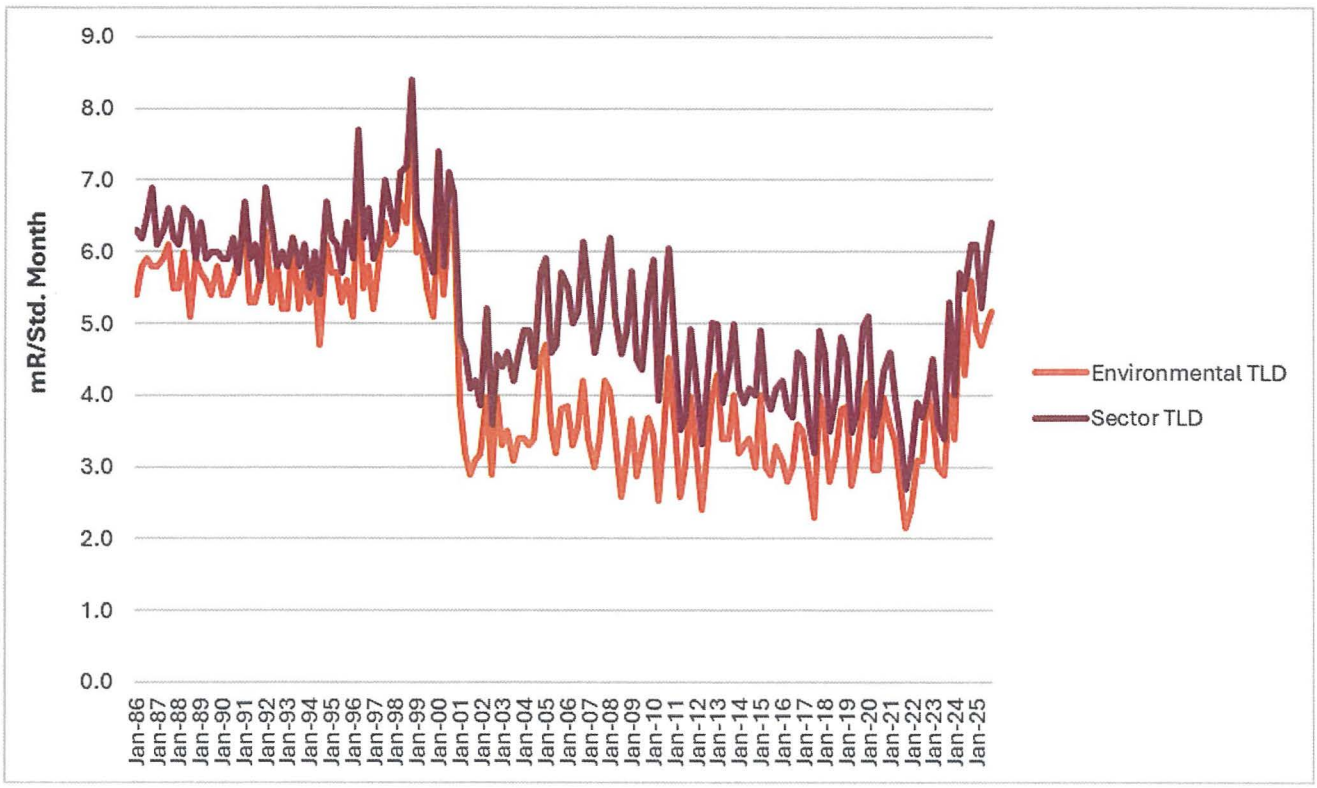

Figure 4-1 TLD (mrem/Standard Month)

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 these 32 sector TLD locations (two badges at each location) was 5.9 mR/standard month with a range of 2.7 to 11.0 mR/standard month. The highest quarterly average reading for any single location was obtained at location NW-29/61. This value was 9.6 mR/standard month. This location is on site on the Laydown Area north gate. Quarterly and annual TLDs are also located at twelve environmental air sampling stations. For the eleven indicator locations within 10 miles of the station the average quarterly reading was 4.9 mR/standard month with a range of 1.7 to 6.0 mR/standard month. The average annual reading for these locations was 3.0 mR/standard month with a range from 3.3 to 7.4 mR/standard month. The control location showed a quarterly average of 4.2 mR/standard month with a range of 4.0 to 4.6 mR/standard month. Its annual reading was 3.9 mR/standard month. 10 emergency sector TLDs, which are all located onsite had a quarterly average of 6.7 mR/standard month with EPSR-5/6 having the highest quarterly average of 8.8 mR/standard month. Eight other TLDs, designated C-1 thru C-8, which were pre-operational controls, were collected quarterly from four locations. Stations C-3/4 and C-7/8 are designated controls. These had a quarterly average of 4.8 mR/ standard month, while Station C-1/2 and C-5/6 had a quarterly average of 4.3 mR/standard month with a range of 3.0 to 7.3 mR/standard month. During the pre-operational period (starting in 1977) the doses were measured between 4.3 and 8.8 mR/standard month.

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. The drop indicated in 2009 is a function of a return to the vendor used from 1988 until 2001. 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.

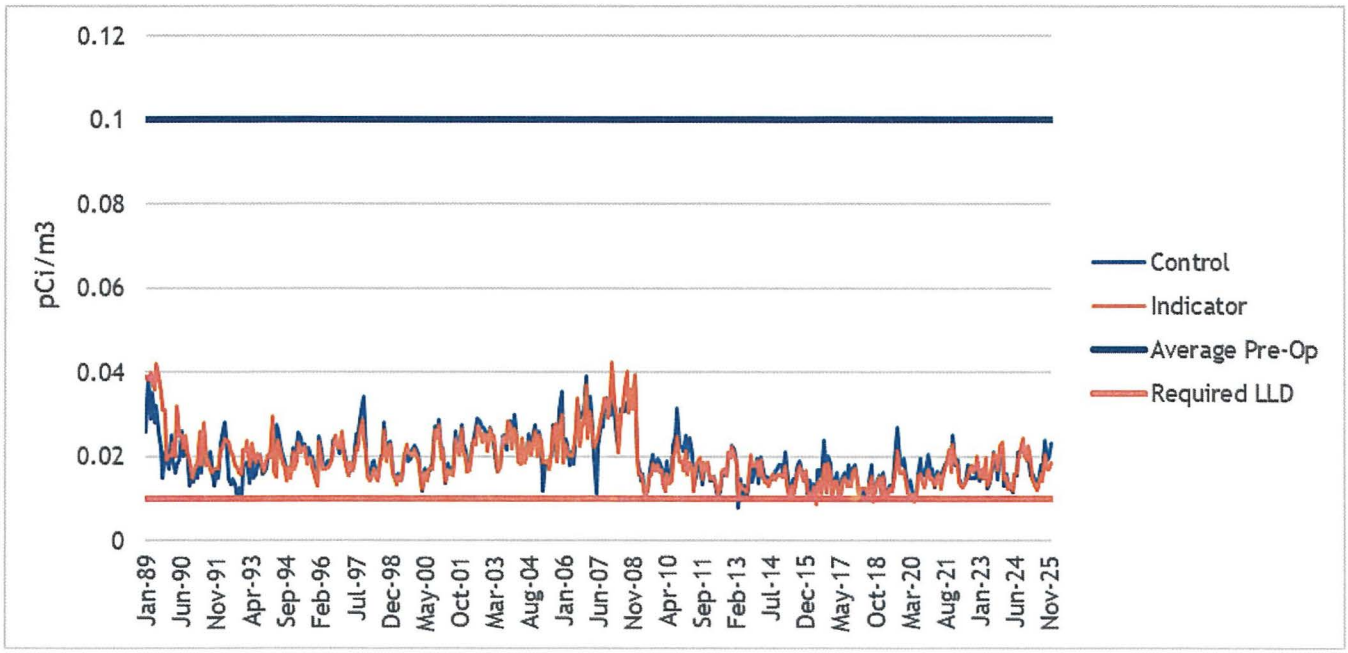

Figure 4-2 Historical Gross Beta in Air Particulates

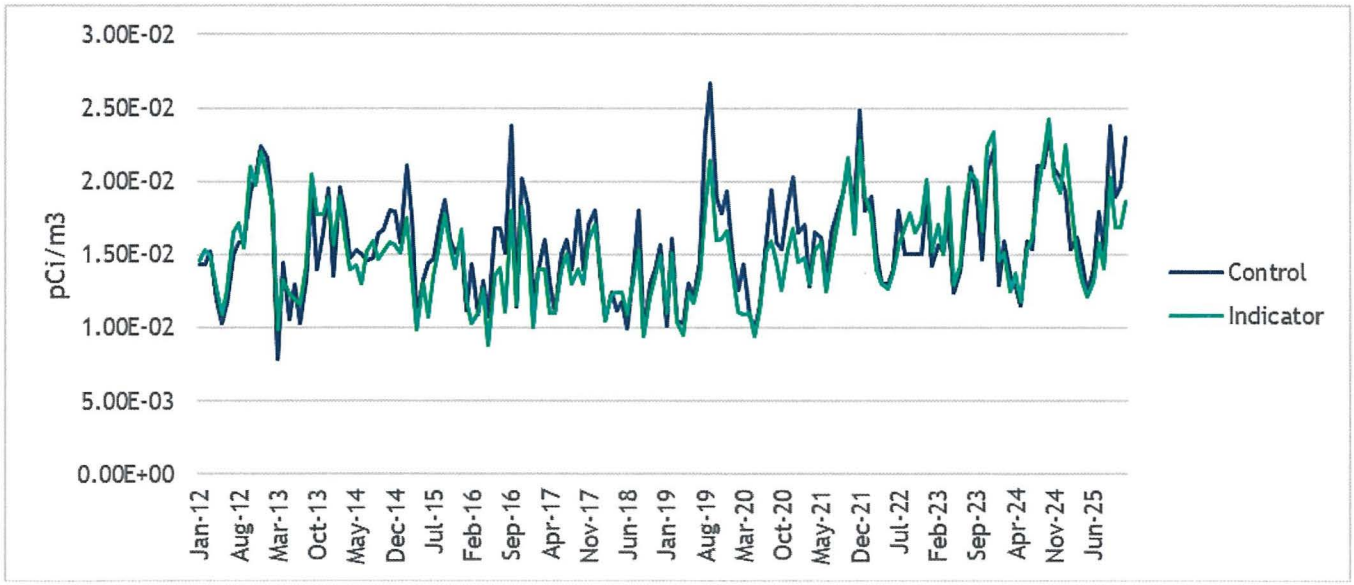

Figure 4-3 2022 Gross Beta in Air Particulates (pCi/m^3)

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. 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 and the effect of the Fukushima Daiichi event.

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 spectroscopy. 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. The results of these analyses indicate the lack of station effects on the environment.

4.5 Air Particulate Strontium

Strontium-89 and 90 analyses are performed on the second quarter composites of air particulate filters from all monitoring stations. There has been no detection of these fission products at any of the indicator or control stations in recent years.

4.6 Soil

Soil samples, which are collected every three years from twelve stations, were collected in 2025. During the preoperational phase Cs-137 was routinely detected and was attributed to fallout. Levels during this phase varied by location and date and ranged from 88 to 1390 pCi/Kg. The average was 645 pCi/kg. Cs-137 was detected in samples at three (3) indicator locations during the reporting period. The average Cs-137 concentration for indicator sampling locations was 258.67 pCi/kg with a range of 170.90 pCi/kg to 361.30 pCi/kg. Cs-137 was also detected in a sample from the control sampling location. The Cs-137 concentration at the control station was 255.50 pCi/kg. The current levels are also varied significantly by location and date. The decrease in the average, and the fact that the averages for the control location and the indicator locations are similar is indicative of fallout.

4.7 Precipitation

A sample of rain water was collected monthly, when available, at on-site station 01A and analyzed for gross beta activity and H-3. The results are presented in Table 3-7. Twelve precipitation samples were obtained in 2025. Semi-annual composites are prepared and analyzed for gamma emitting isotopes in accordance with program requirements. No plant related isotopes were reported in any precipitation water sample at the indicator location. No positive H-3 result was reported. 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 cannot be made to the 2025 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

Milk samples were unavailable during the reporting period due to the closure of the final operating dairy within the sampling area on 1/1/18.

4.9 Food Products and Vegetation

Food/vegetation samples were collected from five locations and analyzed by gamma spectroscopy. The results of the analyses are presented in Table 3-9. Low levels of Cs-137, attributable to fallout, have been seen periodically in vegetation samples. Cosmogenic beryllium-7 was detected in thirty two of thirty five samples. Naturally occurring potassium-40 was detected in all samples. Naturally occurring thorium-228 was detected in four of thirty five samples. Naturally occurring radium-226 was detected in one of thirty five samples and naturally occurring radionuclides actinium-228 and thorium-232 were detected in two of thirty five samples. No plant related isotopes were identified in any vegetation sample during 2025.

4.10 Well Water

Water was sampled quarterly for the first thru third quarters of 2025. The fourth quarter sample was inadvertently missed as it was not collcted within the allowable sampling timeframe. Well water samples are obtained from the onsite well at the metrology laboratory. These samples were analyzed for gamma radiation and for tritium. The second quarter sample was analyzed by vendor for Sr-89, Sr-90, H-3, I-131, and gamma emitters. The results of these analyses are presented in Table 3-10. No plant related isotopes were detected. No gamma emitting isotopes were detected during the pre-operational period.

4.11 River Water

Samples of water from the North Anna River were collected monthly. The analyses are presented in Table 3-11. All monthly samples are analyzed by gamma spectroscopy. The monthly samples are composited quarterly and analyzed for tritium. Additionally, the second quarter samples are analyzed for strontium-89 and strontium-90 in accordance with program requirements. There has been no detection of these fission products at any of the indicator or control stations in recent years.

No gamma emitting radioisotopes were positively identified 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 6165 pCi/liter and a range of 5840 to 6910 pCi/liter , see Figure 4-4. No river water samples were collected during the pre-operational period.

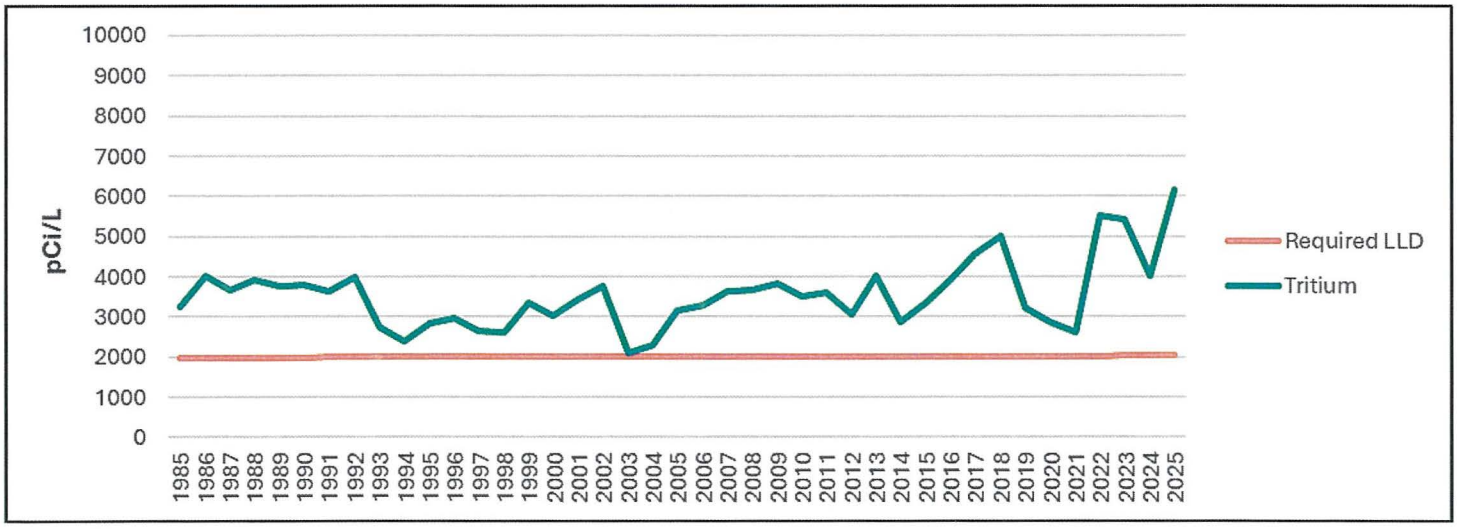

Figure 4-4 Tritium in River water

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 spectroscopy and for iodine-131 by radiochemical separation. A quarterly composite from each station was prepared and analyzed for tritium. Additionally, the second quarter samples are analyzed for strontium-89 and strontium-90. There has been no positive indication of these fission products at any of the indicator or control stations in recent years. The results are presented in Table 3-12.

No non-naturally occurring gamma emitting radioisotopes, including iodine were detected in any of the samples. Tritium

was not detected in any sample at the control location. The average level of tritium activity at the indicator location was 6228 pCi/L with a range of 5330to 7130 pCi/L.

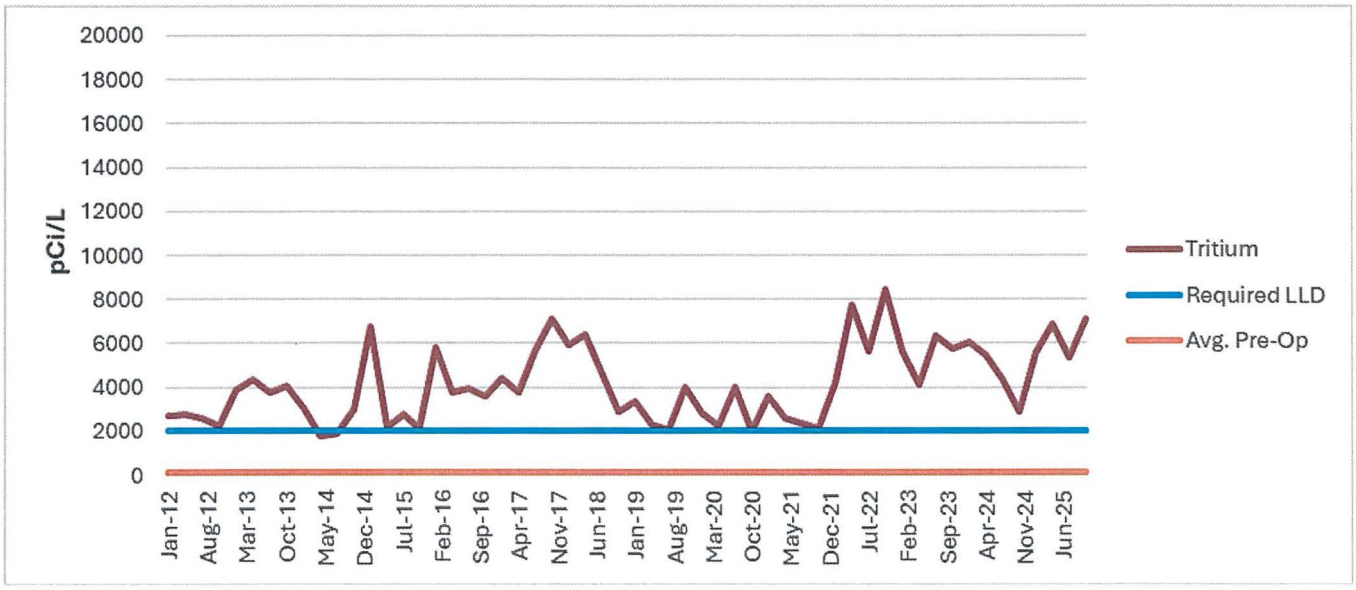

Figure 4.5 Tritium in Surface Water

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 April and October from each of three locations and were analyzed by gamma spectroscopy. The October samples were analyzed for strontium-89 and strontium-90. The results are presented in Table 3-13.

Cs-137 which historically has been detected periodically in sediment samples was not detected in any bottom sediment sample during 2025. 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 also analyzed by gamma spectroscopy. Levels during this phase varied by location and date and averaged 360 pCi/kg. Figure 4-6 shows the historical trend of Cs-137 in sediments.

Neither Strontium-89 nor Strontium-90 was detected in any samples of aquatic sediment/silt in 2025. Strontium-90 has been detected occasionally in the past at both the indicator and control locations and is attributable to fallout from past bomb tests. Several naturally occurring radioisotopes were detected in these samples at background levels.

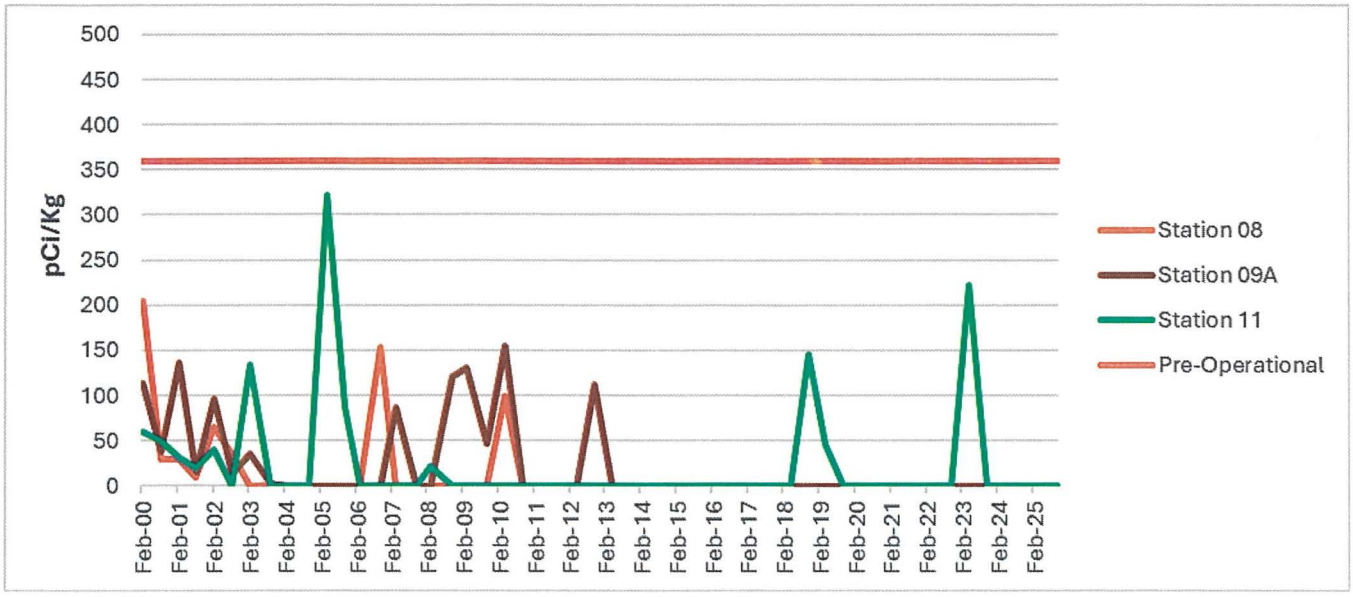

Figure 4-6 Cs-137 in Sediment/Silt

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. Samples of shoreline soil were collected in April and October from indicator station 08. The samples were analyzed by gamma spectroscopy. The October 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. No plant related isotopes were detected in any indicator samples analyzed. Strontium-90 is often 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.

4.15 Fish

Four sample sets of fish, two from Lake Anna and two from the control station, Lake Orange, were collected during 2025 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. Naturally occurring K-40 was detected in all samples. No plant related isotopes were detected. Cs-137 was measured in pre-operational environmental fish samples.

5. PROGRAM EXCEPTIONS

REMP Exceptions for Scheduled Sampling and Analysis during 2025 – North Anna

Location	Description	Date of Sampling	Reason(s) for Loss/Exception
14B,15,16,23,26	Vegetation	01/15/25	Seasonal unavailability
14B,15,16,23,26	Vegetation	02/11/25	Seasonal unavailability
14B,15,16,23,26	Vegetation	03/11/25	Seasonal unavailability
21	AP/ Charcoal	05/20/25	Sampler lost power. Minimum volume not met. Sample LLD not met
01	AP/ Charcoal	08/20/25	Sampler not running, reset GFCI. Minimum volume not met. Sample LLD not met.
07	AP/ Charcoal	11/12/25	Sampler not running. Sampler was replaced. Sample LLD met.
14B,15,16,23,26	Vegetation	11/12/25	Seasonal unavailability
14B,15,16,23,26	Vegetation	12/09/25	Seasonal unavailability
*01A	Well Water	02/11/26	Sample was missed on 12/30/25

* The scheduled well water sample was not collected due to a misunderstanding of the applicable sampling requirements. The issue has been entered into the corrective action program, and clarifications have been communicated to ensure proper sampling is performed going forward.

REFERENCES

Dominion, North Anna Power Station Technical Specifications, Units 1 and 2.

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

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

Virginia Electric and Power Company, North Anna Technical Procedure, HP-3051.010, "Radiological Environmental Monitoring Program".

Title 10 Code of Federal Regulation, Part 50 (10CFR50), "Domestic Licensing of Production and Utilization Facilities".

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.

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

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

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

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

NUREG/CR-4007, "Lower Limit of Detection: Definition and Elaboration of a Proposed Position for Radiological Effluent and Environmental Measurements," September 1984.

APPENDICES

APPENDIX A: LAND USE CENSUS

Year 2025

LAND USE CENSUS

North Anna Power Station

Louisa County, Virginia

January 1 to December 31, 2025

Direction	*Distance (miles)*					
	Nearest Site Boundary	*Nearest Resident*	*Nearest Garden (> 50m²)*	*Nearest Meat Animal*	*Nearest Milch Cow*	*Nearest Milch Goat*
N	0.87	1.3	2.75	NONE	*NONE*	*NONE*
NNE	0.85	0.9	3.25	1.6	*NONE*	*NONE*
NE	0.82	0.9	1.6	1.6	*NONE*	*NONE*
ENE	0.81	2.37	2.43	2.49	*NONE*	*NONE*
E	0.83	1.25	2.05	3.5	*NONE*	*NONE*
ESE	0.85	1.53	1.7	NONE	*NONE*	*NONE*
SE	0.88	1.4	1.9	1.4	*NONE*	*NONE*
SSE	0.91	1.0	2.66	1.6	*NONE*	*NONE*
S	0.94	1.03	1.48	2.0	*NONE*	*NONE*
SSW	1.01	1.11	4.65	2.0	*NONE*	*NONE*
SW	1.06	1.56	2.16	NONE	*NONE*	*NONE*
WSW	1.09	1.60	2.26	NONE	*NONE*	*NONE*
W	1.06	1.41	1.96	NONE	*NONE*	*NONE*
WNW	1.02	1.1	1.56	NONE	*NONE*	*NONE*
NW	0.97	0.98	1.09	NONE	*NONE*	*NONE*
NNW	0.90	1.0	1.33	NONE	*NONE*	*NONE*

2024 to 2025 Land Use Census Changes

Nearest	Direction	2024 Distance	2025 Distance
Resident	WSW	1.62	1.60
Site Boundary	NONE		
Garden	SSW	2.00	4.65
Meat Animal	NONE		
Milch Cow	NONE		
Milch Goat	NONE		

All listed distances are in miles

2025 Summary of Results – Inter-laboratory Comparison Program (ICP)

The Teledyne Brown Engineering Environmental Services (TBE-ES) laboratory analyzed Performance Evaluation (PE) samples of air particulate (AP), milk, soil, vegetation, and water matrices that represent test and matrix combinations available for REMP programs. The PE samples supplied by Eckert & Ziegler (E&Z) Analytics Inc., Environmental Resource Associates (ERA), and Department of Energy (DOE) Mixed Analyte Performance Evaluation Program (MAPEP), were evaluated against the following pre-set acceptance criteria:

A. E&Z Analytics Evaluation Criteria

Analytics' evaluation report provides a ratio of TBE's result and E&Z Analytics' known value. Since flag values are not assigned by E&Z Analytics, TBE evaluates the reported ratios based on internal QC requirements based on the DOE MAPEP criteria.

1. A = Acceptable - reported result falls within ratio limits of 0.80-1.20
2. W = Acceptable with warning - reported result falls within 0.70-0.80 or 1.20-1.30
3. N = Not Acceptable - reported result falls outside the ratio limits of < 0.70 and > 1.30

B. ERA Evaluation Criteria

ERA's evaluation report provides an acceptance range for control and warning limits with associated flag values. ERA's acceptance limits are established per the US EPA, National Environmental Laboratory Accreditation Conference (NELAC), state-specific Performance Testing (PT) program requirements or ERA's SOP for the Generation of Performance Acceptance Limits, as applicable. The acceptance limits are either determined by a regression equation specific to each analyte or a fixed percentage limit promulgated under the appropriate regulatory document.

1. A = Acceptable - Reported value falls within the Acceptance Limits
2. N = Not Acceptable - Reported value falls outside of the Acceptance Limits

C. DOE Evaluation Criteria

MAPEP's evaluation report provides an acceptance range with associated flag values. MAPEP defines three levels of performance:

1. Acceptable (flag = "A") - result within ± 20% of the reference value
2. Acceptable with Warning (flag = "W") - result falls in the ± 20% to ± 30% of the reference value
3. Not Acceptable (flag = "N") - bias is greater than 30% of the reference value

Note: The Department of Energy (DOE) Mixed Analyte Performance Evaluation Program (MAPEP) samples are created to mimic conditions found at DOE sites which do not always resemble typical environmental samples obtained at commercial nuclear power facilities.

The Inter-Laboratory Comparison Program provides evidence of "in control" counting systems and methods, and that the laboratories are producing accurate and reliable data. For the TBE laboratory, 157 out of 164 analyses performed met the specified acceptance criteria. Seven analyses did not meet the specified acceptance criteria and were addressed through the TBE Corrective Action Program. A summary is found below:

A. NCR 25-04: MAPEP 25, RdV52 vegetation study for Sr-90 evaluated as "Not Acceptable." Possible sample interference issue. Study results stated 8 out of 18 participants passed the study. All internal data reviewed and deemed accurate with internal quality control measures for sample also passing. The laboratory performed testing with Sr-85 spike with successful outcomes. The following provider study, RdV53, returned with passing results.

B. NCR 25-05: Interlaboratory crosscheck failure: MAPEP 25-MaS52 Ni-63 in soil. A manual data-entry error in the carrier volume for one nuclide/matrix led to an incorrect LIMS value. Manual verification showed that the crosscheck would have passed with the correct volume. The procedure has been revised with more prominent notation to assist technicians. No recurrence identified and the following crosscheck study did not result in repeated error supporting effectiveness of corrective action.

C. NCR 25-06: Interlaboratory crosscheck failure: ERA RAD141 Gr-A in water. The provider's acceptance range was 10.0–21.2, and their reported value of 15.6 fell within this interval. TBE-ES obtained 22.2 ± 3.76, which satisfied internal QC criteria and would have aligned with the acceptance range if error margins had been considered. The QC duplicate result of 17.8 met internal requirements, and the 22% RPD demonstrated internal consistency. The provider's Gr-A samples have historically been the lowest spiked. No internal failures identified so no corrective action deemed necessary. The following ERA RAD143 study's performance evaluation results returned acceptable/passing.

D. NCR 25-10: *IN-PROGRESS* Interlaboratory crosscheck failure: ERA MRAD 43, PU-239/240 (AS) in Air Particulate (filter).

E. NCR 25-11: Interlaboratory crosscheck failure: ERA RAD-143 crosscheck failure of Uranium in water. Provider acceptance range: 48.0 – 60.0. TBE-ES result of 47.1 with internal acceptance ratio of 87.2 and no prior failures. No corrective action deemed necessary.

F. NCR 25-12: *IN-PROGRESS* Interlaboratory crosscheck failure: MAPEP Series 53, Ni-63 in Soil.

G. NCR 25-13: *IN-PROGRESS* Interlaboratory crosscheck failure: MAPEP Series 53, Th-232 in Soil.

DOE Mixed Analyte Performance Evaluation Program (MAPEP)

Teledyne Brown Engineering - Environmental Services

Month/Year	Identification Number	Matrix	Nuclide	Units	TBE Reported Value	Known Value [a]	Acceptance Range	Acceptance Ratio (%)	Evaluation [b]
Mar 2025	25-MaS52	Soil	Ni-63	Bq/kg	964	1560	1092-2028	61.8	N(1)
Mar 2025	25-MaS52	Soil	Tc-99	Bq/kg	659	725	508-943	90.9	A
Mar 2025	25-MaS52	Soil	Th-228	Bq/kg	44.3	44.4	31.1-57.7	99.8	A
Mar 2025	25-MaS52	Soil	Th-230	Bq/kg	46.4	47	32.9-61.1	98.7	A
Mar 2025	25-MaS52	Soil	Th-232	Bq/kg	39.9	41.4	29.0-53.8	96.4	A
Mar 2025	25-MaSU52	Urine	Cs-134	Bq/L	-0.0104	False Positive		N/A	A
Mar 2025	25-MaSU52	Urine	Cs-137	Bq/L	0.497	0.608	0.426-0.490	81.7	A
Mar 2025	25-MaSU52	Urine	Co-57	Bq/L	0.0472	False Positive		N/A	A
Mar 2025	25-MaSU52	Urine	Co-60	Bq/L	0.104	0.0765	Sensitivity Eval	N/A	A
Mar 2025	25-MaSU52	Urine	Mn-54	Bq/L	0.0365	False Positive		N/A	A
Mar 2025	25-MaSU52	Urine	U-234	Bq/L	0.0963	0.105	0.074-0.137	91.7	A
Mar 2025	25-MaSU52	Urine	U-238	Bq/L	0.108	0.109	0.076-0.142	99.1	A
Mar 2025	25-MaSU52	Urine	Zn-65	Bq/L	-0.278	False Positive		N/A	A
Mar 2025	25-MaW52	Water	Ni-63	Bq/L	37.3	38.9	27.2-50.6	95.9	A
Mar 2025	25-MaW52	Water	Tc-99	Bq/L	6.64	6.34	4.44-8.24	104.7	A
Mar 2025	25-RdV52	Vegetation	Cs-134	Bq/sample	0.0452	False Positive		N/A	A
Mar 2025	25-RdV52	Vegetation	Cs-137	Bq/sample	0.558	0.707	0.495-0.919	78.9	W
Mar 2025	25-RdV52	Vegetation	Co-57	Bq/sample	2.86	3.40	2.38-4.42	84.1	A
Mar 2025	25-RdV52	Vegetation	Co-60	Bq/sample	0.0284	False Positive		N/A	A
Mar 2025	25-RdV52	Vegetation	Mn-54	Bq/sample	2.22	2.72	1.90-3.54	81.6	A
Mar 2025	25-RdV52	Vegetation	Sr-90	Bq/sample	0.222	0.370	0.259-0.481	60.0	N(2)
Mar 2025	25-RdV52	Vegetation	Zn-65	Bq/sample	1.5	1.87	1.31-2.43	80.2	A
Mar 2025	25-RdV52 (R)	Vegetation	Sr-90	Bq/sample	0.356	0.370	0.259-0.481	96.2	A
Mar 2025	25-RdV52 (R)	Vegetation	Sr-90	Bq/sample	0.4	0.370	0.259-0.481	108.1	A
Sep 2025	25-MaS53	Soil	Ni-63	Bq/kg	865	1474	1032-1916	58.7	N(3)
Sep 2025	25-MaS53	Soil	Tc-99	Bq/kg	314	370	259-481	84.9	A
Sep 2025	25-MaS53	Soil	Th-228	Bq/kg	51.2	41.7	29.2-54.2	123	W
Sep 2025	25-MaS53	Soil	Th-230	Bq/kg	54.8	45.6	31.9-59.3	120	W
Sep 2025	25-MaS53	Soil	Th-232	Bq/kg	50.4	38.7	27.1-50.3	130	N(4)
Sep 2025	25-MaW53	Water	Ni-63	Bq/L	23.0	25.0	17.5-32.5	92	A
Sep 2025	25-MaW53	Water	Tc-99	Bq/L	0.17	*False Pos*		N/A	A
Sep 2025	25-RdV53	Vegetation	Cs-134	Bq/sample	0.1051	*False Pos*		N/A	A
Sep 2025	25-RdV53	Vegetation	Cs-137	Bq/sample	0.9581	0.986	0.69-1.282	97	A
Sep 2025	25-RdV53	Vegetation	Co-57	Bq/sample	4.54	4.47	3.13-5.81	102	A
Sep 2025	25-RdV53	Vegetation	Co-60	Bq/sample	2.08	2.3	1.61-2.99	90	A
Sep 2025	25-RdV53	Vegetation	Mn-54	Bq/sample	2.64	3.1	2.17-4.03	85	A
Sep 2025	25-RdV53	Vegetation	Sr-90	Bq/sample	1.5	1.43	1.00-1.86	105	A
Sep 2025	25-RdV53	Vegetation	Zn-65	Bq/sample	8.39	9.29	6.50-12.08	90	A

KEY

(a) The MAPEP known value is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation.

(b) DOE/MAPEP evaluation:

A = Acceptable - reported result falls within ratio limits of 0.80-1.20

W = Acceptable with warning - reported result falls within 0.70-0.80 or 1.20-1.30

N = Not Acceptable - reported result falls outside the ratio limits of < 0.70 and > 1.30

Results Flags:

A = Result acceptable.....|Bias| <= 20%

W = Result acceptable with warning.....20% < |Bias| <= 30%

N = Result not acceptable.....|Bias| > 30%

RW = Report Warning

NR = Not Reported

Uncertainty Flags:

NOT ACCEPTABLE.....RP < 2%

ACCEPTABLE.....2% <= RP <= 15%

ACCEPTABLE WITH WARNING.....15% < RP <= 30%

NOT ACCEPTABLE.....RP > 30%

Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

N(1) = NCR 25-05

N(2) = NCR 25-04

(R)= Additional Study for N(2) failure

N(3) = NCR 25-12

N(4) = NCR 25-13

ERA
Environmental Radioactivity Crosscheck Program
Teledyne Brown Engineering - Environmental Services

Month Year	Identification Number	Matrix	Nuclide	Units	TBE Reported Value	Known Value [a]	Acceptance Range	Acceptance Ratio (%)	Evaluation [b]
Mar 2025	MRAD-42	Soil	Am-241	pCi/kg	955	1060	572-1500	90.1	A
Mar 2025	MRAD-42	Soil	Pu-238	pCi/kg	1010	1070	534-1630	94.4	A
Mar 2025	MRAD-42	Soil	Pu-239	pCi/kg	1020	1150	627-1650	88.7	A
Mar 2025	MRAD-42	Soil	Sr-90	pCi/kg	3540	5710	1780-8890	62.0	A
Mar 2025	MRAD-42	Soil	U-234	pCi/kg	3598	3500	1640-4590	103	A
Mar 2025	MRAD-42	Soil	U-238	pCi/kg	3857	3470	1900-4660	111	A
Mar 2025	MRAD-42	AP	Am-241	pCi/Filter	73.5	67.7	48.3-90.3	109	A
Mar 2025	MRAD-42	AP	Fe-55	pCi/Filter	224	181	66.1-289	124	A
Mar 2025	MRAD-42	AP	Pu-238	pCi/Filter	41.7	40.2	30.4-49.4	104	A
Mar 2025	MRAD-42	AP	Pu-239	pCi/Filter	64.5	62.3	46.6-75.2	104	A
Mar 2025	MRAD-42	AP	U-234	pCi/Filter	30.8	34.2	25.4-40.1	90.1	A
Mar 2025	MRAD-42	AP	U-238	pCi/Filter	29.4	33.9	25.6-40.4	86.7	A
Mar 2025	MRAD-42	AP	Gr-A (Th-230)	pCi/Filter	44.8	39.5	20.6-65.1	113	A
Mar 2025	MRAD-42	AP	Gr-B (Cs-137)	pCi/Filter	62.6	55.2	33.5-83.4	113	A
Mar 2025	MRAD-42	Water	Am-241	pCi/L	40.5	39.5	27.1-50.5	103	A
Mar 2025	MRAD-42	Water	Fe-55	pCi/L	892.6	1460	858-2120	61.1	A
Mar 2025	MRAD-42	Water	Pu-238	pCi/L	74.9	77.2	46.4-100	97.0	A
Mar 2025	MRAD-42	Water	Pu-239	pCi/L	59.2	58.4	36.1-72.0	101	A
Apr 2025	RAD-141	Water	Ba-133	pCi/L	42.7	48.3	34.3-62.3	88.4	A
Apr 2025	RAD-141	Water	Cs-134	pCi/L	19.5	16.5	5.65-27.4	118	A
Apr 2025	RAD-141	Water	Cs-137	pCi/L	47.3	50.8	27.3-74.3	93.1	A
Apr 2025	RAD-141	Water	Co-60	pCi/L	99.2	104	84.4-124	95.4	A
Apr 2025	RAD-141	Water	Zn-65	pCi/L	317	341	279-403	93.0	A
Apr 2025	RAD-141	Water	GR-A	pCi/L	22.2	15.6	10.0-21.2	142.3	N[1]
Apr 2025	RAD-141	Water	GR-B	pCi/L	21.6	22.9	15.0-30.8	94.3	A
Apr 2025	RAD-141	Water	H-3	pCi/L	19900	21200	18200-24200	93.9	A
Apr 2025	RAD-141	Water	I-131 (Low Level)	pCi/L	26.1	26.8	23.2-30.4	97.4	A
Apr 2025	RAD-141	Water	Sr-89	pCi/L	70.8	67.1	51.2-83.0	106	A
Apr 2025	RAD-141	Water	Sr-90	pCi/L	22.5	23.9	19.7-28.1	94.1	A
Apr 2025	RAD-141	Water	U (Total)	pCi/L	48.0	49.6	44.0-55.2	96.8	A
Sept 2025	MRAD-43	Soil	Sr-90	pCi/kg	6790	9490	2950-14800	71.5	A
Sept 2025	MRAD-43	AP	Am-241	pCi/Filter	40.2	39.8	28.4-53.1	101	A
Sept 2025	MRAD-43	AP	Fe-55	pCi/Filter	125	166	60.6-265	75.3	A
Sept 2025	MRAD-43	AP	Pu-238	pCi/Filter	26	15.1	11.4-18.6	172	N[3]
Sept 2025	MRAD-43	AP	U-234	pCi/Filter	57.7	63.4	47.0-74.3	91.0	A
Sept 2025	MRAD-43	AP	U-238	pCi/Filter	63.1	62.9	47.5-75.0	100	A
Sept 2025	MRAD-43	AP	Gr-A (Th-230)	pCi/Filter	28.2	22	11.5-36.2	128	A
Sept 2025	MRAD-43	AP	Gr-B (Cs-137)	pCi/Filter	38.6	40.5	24.6-61.2	95.3	A
Sept 2025	MRAD-43	Water	Am-241	pCi/L	69.2	68.6	47.1-87.7	101	A
Sept 2025	MRAD-43	Water	Fe-55	pCi/L	304	399	234-580	76.2	A
Sept 2025	MRAD-43	Water	Pu-238	pCi/L	104	115	56.7-122	90.4	A
Sept 2025	MRAD-43	Water	Pu-239	pCi/L	37.8	39.8	24.6-49.0	95.0	A
Oct 2025	RAD	Water	Ba-133	pCi/L	21.3	17.5	6.55-28.5	122	A
Oct 2025	RAD	Water	Cs-134	pCi/L	53.8	58	43.0-73.0	92.8	A
Oct 2025	RAD	Water	Cs-137	pCi/L	179.5	178	142-214	101	A
Oct 2025	RAD	Water	Co-60	pCi/L	58.3	55	40.3-69.7	106	A
Oct 2025	RAD	Water	Zn-65	pCi/L	37.04	36.8	5.51-68.1	101	A
Oct 2025	RAD	Water	GR-A	pCi/L	64.8	59.9	45.5-74.3	108	A
Oct 2025	RAD	Water	GR-B	pCi/L	19.3	19.3	12.2-26.4	100	A
Oct 2025	RAD	Water	H-3	pCi/L	18400	21200	18200-24200	86.8	A
Oct 2025	RAD	Water	I-131 (Low Level)	pCi/L	23.9	24.3	20.9-27.7	98.4	A
Oct 2025	RAD	Water	Sr-89	pCi/L	69.7	64.2	48.6-79.8	109	A
Oct 2025	RAD	Water	Sr-90	pCi/L	39.8	43.8	37.6-50.0	90.9	A
Oct 2025	RAD	Water	U (Total)	pCi/L	47.1	54	48.0-60.0	87.2	N[2]

KEY

(a) The ERA known value is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation.

(b) ERA evaluation:

A = Acceptable - Reported value falls within the Acceptance Limits

N = Not Acceptable - Reported value falls outside of the Acceptance Limits

N[1] = NCR 25-06

N[2] = NCR 25-11

N[3] = NCR 25-10

Eckert & Ziegler Analytics
Environmental Radioactivity Crosscheck Program
Teledyne Brown Engineering - Environmental Services

Month/Year	Identification Number	Matrix	Nuclide	Units	TBE Reported Value	Known Value [a]	Acceptance Ratio (%)	Evaluation [b]
March 2025	E14230	Milk	Ce-141	pCi/L	68.1	75.8	90	A
March 2025	E14230	Milk	Cs-134	pCi/L	121	142	85	A
March 2025	E14230	Milk	Cs-137	pCi/L	154	168	92	A
March 2025	E14230	Milk	Cr-51	pCi/L	278	291	96	A
March 2025	E14230	Milk	Co-58	pCi/L	95.4	105	91	A
March 2025	E14230	Milk	Co-60	pCi/L	169	193	88	A
March 2025	E14230	Milk	Fe-59	pCi/L	125	135	93	A
March 2025	E14230	Milk	Mn-54	pCi/L	172	189	91	A
March 2025	E14230	Milk	Zn-65	pCi/L	229	251	91	A
March 2025	E14230	Milk	I-131 (Low Level)	pCi/L	88.4	94.7	93	A
March 2025	E14229	Milk	Sr-89	pCi/L	84.9	91.9	92	A
March 2025	E14229	Milk	Sr-90	pCi/L	11.1	15.6	71	W
March 2025	E14323	AP	Ce-141	pCi	55.9	54.2	103	A
March 2025	E14323	AP	Cs-134	pCi	93.0	102	91	A
March 2025	E14323	AP	Cs-137	pCi	107	120	89	A
March 2025	E14323	AP	Cr-51	pCi	194	208	93	A
March 2025	E14323	AP	Co-58	pCi	68.4	75.2	91	A
March 2025	E14323	AP	Co-60	pCi	142	138	103	A
March 2025	E14323	AP	Fe-59	pCi	95.0	96.3	99	A
March 2025	E14323	AP	Mn-54	pCi	123	135	91	A
March 2025	E14234	AP	Zn-65	pCi	181	179	101	A
March 2025	E14336	AP	Ni-63	pCi/Total	81.5	87.4	93	A
March 2025	E14234	AP	Sr-89	pCi	81.6	88.5	92	A
March 2025	E14234	AP	Sr-90	pCi	13.6	15	90	A
March 2025	E14231	Charcoal	I-131	pCi	70.3	66.3	106	A
March 2025	E14233	Soil	Ce-141	pCi/g	0.124	0.129	96	A
March 2025	E14233	Soil	Cs-134	pCi/g	0.283	0.242	117	A
March 2025	E14233	Soil	Cs-137	pCi/g	0.333	0.351	95	A
March 2025	E14233	Soil	Cr-51	pCi/g	0.495	0.494	100	A
March 2025	E14233	Soil	Co-58	pCi/g	0.193	0.179	108	A
March 2025	E14233	Soil	Co-60	pCi/g	0.323	0.327	99	A
March 2025	E14233	Soil	Fe-59	pCi/g	0.231	0.229	101	A
March 2025	E14233	Soil	Mn-54	pCi/g	0.325	0.321	101	A
March 2025	E14233	Soil	Zn-65	pCi/g	0.446	0.426	105	A
March 2025	E14235	Water	Gr-A (Am-241)	pCi/L	79.6	89.4	89	A
March 2025	E14235	Water	Gr-B (Cs-137)	pCi/L	242	285	85	A
Sept 2025	E14237	Milk	Ce-141	pCi/L	91.6	89.5	102	A
Sept 2025	E14237	Milk	Cs-134	pCi/L	121	142	85	A
Sept 2025	E14237	Milk	Cs-137	pCi/L	115	126	91	A
Sept 2025	E14237	Milk	Cr-51	pCi/L	280	260	108	A
Sept 2025	E14237	Milk	Co-58	pCi/L	104	105	99	A
Sept 2025	E14237	Milk	Co-60	pCi/L	145	150	97	A
Sept 2025	E14237	Milk	Fe-59	pCi/L	91.4	98.6	93	A
Sept 2025	E14237	Milk	Mn-54	pCi/L	159	161	99	A
Sept 2025	E14237	Milk	Zn-65	pCi/L	205	196	105	A
Sept 2025	E14237	Milk	I-131 (Low Level)	pCi/L	79.5	76.3	104	A
Sept 2025	E14236	Milk	Sr-89	pCi/L	109	89.8	121	W
Sept 2025	E14236	Milk	Sr-90	pCi/L	10.9	13.1	83	A
Sept 2025	E14239	AP	Ce-141	pCi	67.5	68.1	99	A
Sept 2025	E14239	AP	Cs-134	pCi	103	108	95	A
Sept 2025	E14239	AP	Cs-137	pCi	98.4	96.1	102	A
Sept 2025	E14239	AP	Cr-51	pCi	227	197	115	A
Sept 2025	E14239	AP	Co-58	pCi	79.6	79.9	100	A
Sept 2025	E14239	AP	Co-60	pCi	131	114	115	A
Sept 2025	E14239	AP	Fe-59	pCi	74.7	75	100	A
Sept 2025	E14239	AP	Mn-54	pCi	120	123	98	A
Sept 2025	E14239	AP	Zn-65	pCi	133	149	89	A
Sept 2025	E14337	AP	Ni-63	pCi/Total	71.4	85.1	84	A
Sept 2025	E14241	AP	Sr-89	pCi	78.2	84.2	93	A
Sept 2025	E14241	AP	Sr-90	pCi	13.7	12.2	112	A
Sept 2025	E14238	Charcoal	I-131	pCi	80.8	79	102	A
Sept 2025	E14240	Soil	Ce-141	pCi/g	0.133	0.149	89	A
Sept 2025	E14240	Soil	Cs-134	pCi/g	0.166	0.236	70	W
Sept 2025	E14240	Soil	Cs-137	pCi/g	0.22	0.276	80	A
Sept 2025	E14240	Soil	Cr-51	pCi/g	0.486	0.432	112	A
Sept 2025	E14240	Soil	Co-58	pCi/g	0.16	0.175	91	A
Sept 2025	E14240	Soil	Co-60	pCi/g	0.234	0.251	93	A
Sept 2025	E14240	Soil	Fe-59	pCi/g	0.154	0.164	94	A
Sept 2025	E14240	Soil	Mn-54	pCi/g	0.241	0.269	90	A
Sept 2025	E14240	Soil	Zn-65	pCi/g	0.308	0.326	94	A
Sept 2025	E14242	Water	Gr-A (Am-241)	pCi/L	97.2	99.7	97	A
Sept 2025	E14242	Water	Gr-B (Cs-137)	pCi/L	200	201	100	A

(a) The Analytics known value is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation.

(b) Analytics evaluation based on TBE internal QC limits:

A = Acceptable - reported result falls within ratio limits of 0.80-1.20

W = Acceptable with warning - reported result falls within 0.70-0.80 or 1.20-1.30

N = Not Acceptable - reported result falls outside the ratio limits of < 0.70 and > 1.30