Constellation

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April 23, 2026

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Christopher M. Crane Clean Energy Center
Renewed Facility License No. DPR-50
NRC Docket Nos. 50-289 & 72-077

Three Mile Island Nuclear Station, Unit 2
Possession Only License No. DPR-73
NRC Docket No. 50-320

Subject: Annual Radiological Environmental Operating Report
January 1, 2025 through December 31, 2025

Enclosed is the Annual Radiological Environmental Operating Report, January 1, 2025, through December 31, 2025, for Three Mile Island Nuclear Station.

This report is being submitted in accordance with CCEC Technical Specification (TS) 6.1.1, TMI-2 TS 6.8.1.2, as well as Section E.7.2 of the Constellation Decommissioning Quality Assurance Program, and to fulfill the requirements of Offsite Dose Calculation Manual Specifications (ODCMS).

There are no new or revised Regulatory Commitments contained in this letter.

For questions regarding this submittal, please contact Dani Brookhart, ODCM Chemist, at Dani.Brookhart@constellation.com.

Respectfully,

Trevor Orth
Plant Manager
Crane Clean Energy Center

cc: w/ Enclosure
Regional Administrator – NRC Region I
NRC Project Manager, NRR-DORL – CCEC
NRC Project Manager, NMSS – TMI-2
Director, Bureau of Radiation Protection – Pennsylvania Dept of Environmental Protection
Chairman, Board of County Commissioners of Dauphin County
Chairman, Board of Supervisors of Londonderry Township
Licensing Manager – TMI-2 Solutions, LLC

Three Mile Island Nuclear Station

Annual Radiological Environmental Operating Report 2025

Document Number: CCEC-26-013

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1.0 LIST OF ACRONYMS AND DEFINITIONS

1. Airborne Activity Sampling: Continuous sampling of air through the collection of particulates and radionuclides on filter media.

2. ARERR: Annual Radioactive Effluent Release Report

3. AREOR: Annual Radiological Environmental Operating Report

4. BWR: Boiling Water Reactor

5. Composite Sample: A series of single collected portions (aliquots) analyzed as one sample. The aliquots making up the sample are collected at time intervals that are very short compared to the composite period.

6. Control: A sampling station in a location not likely to be affected by plant effluents due to its distance and/or direction from the station.

7. Curie (Ci): A measure of radioactivity; equal to 3.7×10^{10} disintegrations per second, or 2.22×10^{12} disintegrations per minute.

8. Direct Radiation Monitoring: The measurement of radiation dose at various distances from the plant is assessed using Thermoluminescent Dosimeters (TLD), Optically Stimulated Luminescence Dosimeters (OSLD) and pressurized ionization chambers.

9. EPA: Environmental Protection Agency

10. GPI: Groundwater Protection Initiative

11. Grab Sample: A single discrete sample drawn at one point in time.

12. Indicator: A sampling location that is likely to be affected by plant effluents due to its proximity and/or direction from the plant.

13. Ingestion Pathway: The ingestion pathway includes milk, fish, drinking water and garden produce. Also sampled (under special circumstances) are other media such as vegetation or animal products when additional information about particular radionuclides is needed.

14. ISFSI: Independent Spent Fuel Storage Installation

15. Lower Limit of Detection (LLD): An *a priori* measure of the detection capability of a radiochemistry measurement based on instrument setup, calibration, background, decay time, and sample volume. An LLD is expressed as an activity concentration. The MDA is used for reporting results. LLD are specified by a regulator, such as the NRC and are typically listed in the ODCM.

16. MDA: Minimum Detectable Activity. For radiochemistry instruments, the MDA is the *a posteriori* minimum concentration that a counting system detects. The smallest concentration or activity of radioactive material in a sample that will yield a net count above instrument background and that is detected with 95% probability, with only five % probability of falsely concluding that a blank observation represents a true signal.

17. MDC: Minimum Detectable Concentration. Essentially synonymous with MDA for the purposes of radiological monitoring.

18. Mean: The sum of all of the values in a distribution divided by the number of values in the distribution, synonymous with average.

19. Microcurie: 3.7×10^4 disintegrations per second, or 2.22×10^6 disintegrations per minute.

20. N/A: Not Applicable

21. NEI: Nuclear Energy Institute

22. NIST: National Institute of Standards and Technology.

23. NRC: Nuclear Regulatory Commission

24. ODCM: Offsite Dose Calculation Manual

25. OSLD: Optically Stimulated Luminescence Dosimeter

26. pCi/L: picocuries / Liter

27. PWR: Pressurized Water Reactor

28. REMP: Radiological Environmental Monitoring Program

29. TLD: Thermoluminescent Dosimeter

2.0 EXECUTIVE SUMMARY

Three Mile Island Nuclear Station Radiological Environmental Monitoring Program (REMP) was established prior to the station becoming operational to provide information on background radiation present in the area. The goal of TMINS REMP is to evaluate the impact of the station on the environment. Environmental samples from different media are monitored as part of the program in accordance with specifications detailed in the Offsite Dose Calculation Manual (ODCM) and TMINS Technical Specifications. The program compares data from Indicator locations near the plant, to Control locations farther away from the site to assess operation impacts.

The Annual Radiological Environmental Operating Report (AREOR) provides data obtained through analyses of environmental samples collected at TMINS for the reporting period of January 1st through December 31st, 2025. During that time period 2708 analyses were performed on 1664 samples. In assessing all the data gathered for this report and comparing these results with preoperation it was concluded that radioactive materials related to operations were detected in environmental samples, but the measured concentrations were low and consistent with measured effluents. The environmental sample results verified that the doses received by the public from TMINS effluents in 2025 were well below applicable dose limits and only a small fraction of the doses received from natural background radiation. Additionally, the results indicated that there was no permanent buildup of radioactive materials in the environment and no increase in background radiation levels. Therefore, based on the results of the radiological environmental monitoring program (REMP) and the doses calculated from measured effluents, TMINS operations in 2025 did not have any adverse effects on the health of the public or on the environment.

2.1 Summary of Conclusions:

No measurable activities above background levels were detected. All values were consistent with historical results which indicate no adverse radiological environmental impacts associated with the operation of TMINS. Naturally occurring radionuclides are present in the Earth's crust and atmosphere and exist in detectable quantities throughout the world. It is common to detect naturally occurring radionuclides in many of the samples collected for REMP. Some examples of naturally occurring radionuclides that are frequently seen in samples are Potassium-40, Beryllium-7, Actinium-228 (present as a decay product of Radium-228), and Radium-226. Additionally, some relatively long-lived anthropogenic radioisotopes, such as Strontium-90 (SR-90) and Cesium-137 (Cs-137), are also seen in some REMP samples; these radionuclides exist in measurable quantities throughout the world as a result of fallout from historic atmospheric nuclear weapons testing.

Air particulate samples were analyzed for concentrations of gross beta and gamma-emitting nuclides. Gross beta activity is consistent with data from previous years. Cosmogenic Beryllium-7 (Be-7) was detected at levels consistent with those detected in previous years. No other activation products were detected.

Fish (predator and bottom feeder) and sediment samples were analyzed for concentrations of gamma-emitting nuclides. Fish samples were also analyzed for concentrations of Sr-90. No Sr-90 activity was detected. No fission or activation products were detected in fish or in sediment samples.

Cow milk samples were analyzed for concentrations of Iodine-131 (I-131), gamma-emitting nuclides, Strontium-89 (Sr-89) and Sr-90. Concentrations of naturally occurring Potassium-40 (K-40) were consistent with those detected in previous years. No I-131, Sr-89 or Sr-90 activities were detected. Occasionally Sr-90 activity may be detected and attributed to fallout from nuclear weapons testing. No other fission or activation products were found.

Food Product samples were analyzed for concentrations of gamma-emitting nuclides including I-131 and Sr-90. Concentrations of naturally occurring Be-7 and K-40 were consistent with those detected in previous years. No other fission or activation products were detected. Detailed information on the exposure of the U.S. population to ionizing radiation can be found in NCRP Report No. 160 [1].

Calculated Maximum Hypothetical Doses to an Individual from 2025 CCEC and TMI-2 Liquid and Airborne Effluents

	Maximum Hypothetical Doses to An Individual		
	USNRC 10 CFR 50 APP. I Guidelines (mrem/yr)	Calculated Dose (mrem/yr) CCEC	Calculated Dose (mrem/yr) TMI-2
From Radionuclides in Liquid Releases	3 total body, or	5.17E-03	5.60E-03
	10 any organ	6.65E-03	8.90E-03
From Radionuclides in Airborne Releases (Noble Gases)	5 total body, or	0*	0*
	15 skin	0*	0*
From Radionuclides in Airborne Releases (Iodines, Tritium and Particulates)	15 any organ	2.95E-03	0*

*No noble gases were released from CCEC and TMI-2.

	USEPA 40 CFR 190 Limits (mrem/yr)	Calculated Dose (mrem/yr) CCEC and TMI-2 Combined**
Total from Site	75 thyroid	0.478
	25 total body or other organs	0.492

* *This sums together CCEC and TMI-2 maximum doses regardless of age group for different pathways. The combined doses include those due to radioactive effluents and direct radiation from TMINS. The direct radiation dose is calculated from environmental dosimeter data. For this calculation, exposure is assumed to be equal to dose.

The direct radiation dose from 2025 TMINS operations was 0.473 mrem/yr based on calculations from ANSI/HI Standard N13.37.

Calculated Whole Body Doses to the Maximum Individual from 2025 CCEC and TMI-2 Liquid and Airborne Effluents

	Calculated Maximum Individual Whole Body Dose (mrem/yr)	
	CCEC	TMI-2
From Radionuclides in Liquid Releases	5.17E-03	5.60E-03
From Radionuclides in Airborne Releases (Noble Gases)	0*	0*
From Radionuclides in Airborne Releases (Iodines, Tritium and Particulates)	2.95E-03	0*

*No noble gases were released from CCEC or TMI-2.

Individual Whole Body Dose Due to CCEC and TMI-2 Operations: 0.014 mrem/yr

Individual Whole Body Dose Due to Natural Background Radiation (1) 311 mrem/yr

(1) NCRP 160 – (2009)

3.0 INTRODUCTION

The Radiological Environmental Monitoring Program (REMP) provides data on measurable levels of radiation and radioactive materials in the environment. This program also evaluates the relationship between quantities of radioactive materials released from the plant and resultant doses to individuals from principal pathways of exposure. In this capacity, REMP provides a check on the effluent release program and dispersion modeling to ensure that concentrations in the environment due to radioactive effluents conform to the “As Low as Is Reasonably Achievable” (ALARA) design objectives of 10 CFR 50, Appendix I [2], and implements the requirements of Section IV.B.2 and IV.B.3 of Appendix I. REMP is designed to conform to the Nuclear Regulatory Commission (NRC) Regulatory Guide 4.1 [3], NUREG 1301/1302 [4] [5], and the 1979 NRC Branch Technical Position [6].

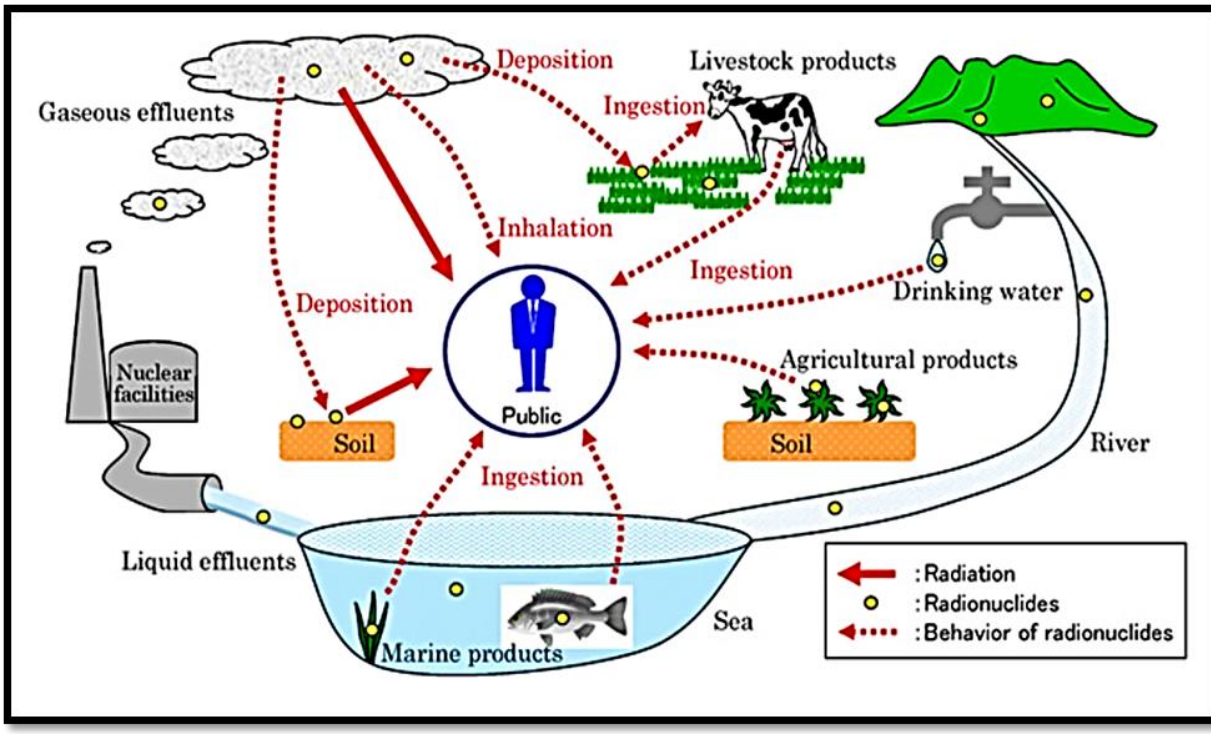


Figure 1: Potential exposure pathways to Members of the Public due to Plant Operations [7]

Quality assurance aspects of the sampling program and TLD/OSLD data collection are conducted in accordance with Regulatory Guides 4.15 [8] and 4.13 [9]. REMP also adheres to the requirements of Pennsylvania, TMINS Technical Specifications, and Offsite Dose Calculation Manual (ODCM). These governing documents dictate the environmental sampling, sample analysis protocols, data reporting and quality assurance requirements for the environmental monitoring program.

The Annual Radiological Environmental Operating Report (AREOR) provides summaries of the environmental data from exposure pathways, interpretations of the data, and analyses of trends of the results. Routinely monitored pathways include ingestion, inhalation, and direct radiation. Routes of exposure are based on site specific information such as meteorology, receptor locations, and water usage around the plant.

4.0 SITE DESCRIPTION AND SAMPLE LOCATIONS

Three Mile Island Nuclear Station is a commercial nuclear power plant that achieved initial criticality in 1974 and 1978 Respectively. The Three Mile Island Nuclear Station (TMINS), consisting of two pressurized water reactors (PWR), is located on the northern end of Three Mile Island in the Susquehanna River approximately 2.5 miles south of Middletown in Londonderry Township, Dauphin County, Pennsylvania. TMI-1 is owned and operated by Constellation Energy Company (formerly Exelon). TMI-2 is operated and owned by TMI-2 Solutions, LLC. The Three Mile Island Unit 2 (TMI-2) operating license was issued on February 8, 1978, and commercial operation was declared on December 30, 1978. On March 28, 1979, the unit experienced an accident that resulted in severe damage to the reactor core. TMI-2 has been in a non-operating status since that time. GPU Nuclear (GPUN) conducted a substantial program to defuel the Reactor Vessel (RV) and decontaminate the facility. As a result, TMI-2 was defueled and decontaminated to the extent that the plant was placed in a safe, inherently stable condition suitable for long-term management, and any threat to public health and safety had been minimized. This long-term management condition, termed Post-Defueling Monitored Storage (PDMS), was entered in December 1993.

In December 2020, the Nuclear Regulatory Commission (NRC) approved the transfer of GPUN Possession Only License No. DPR-73 for Three Mile Island Nuclear Station (TMINS) Unit 2 to TMI-2 Solutions. In February 2021, TMI-2 Solutions submitted a License Amendment Request (LAR) to the NRC to modify the TMI-2 Technical Specifications to permit the completion of the decommissioning of TMI-2. Following NRC approval and issuance of associated changes to the Possession Only License, TMI-2 exited PDMS and entered Decommissioning on March 31, 2023.

On September 20, 2024, CEG announced its intention to restart Three Mile Island, Unit 1 (TMI-1) and to change TMI-1's name to the Christopher M. Crane Clean Energy Center (Crane Clean Energy Center or CCEC).

See the Land Use Census in Section 9 for population around the area, nearest privately-owned land, etc.

TMINS sampling media are selected based on site specific information such as meteorology, receptor locations, and water usage around the plant. Sampling and analysis frequencies are documented in the Offsite Dose Calculation Manual and site procedures.

Required sampling, analysis frequencies and location of sample collected are captured in the following tables and figures:

- Table 1: Radiological Environmental Monitoring Program – Direct Radiation
- Table 2: Radiological Environmental Monitoring Program – Airborne
- Table 3: Radiological Environmental Monitoring Program – Waterborne
- Table 4: Radiological Environmental Monitoring Program – Ingestion
- Table 5: REMP Sampling Locations – Direct Radiation
- Figure 2: REMP Sample Locations (Near Field/Site Boundary)
- Figure 3: REMP Sample Locations (Far Field)
- Figure 4: REMP Sample Locations (Onsite)

5.0 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM REQUIREMENTS

Table 1: Radiological Environmental Monitoring Program – Direct Radiation

Requirement	Sample Location Description, Distance, and Direction	Sampling Collection/ Frequency	Type and Frequency of Analyses
Direct Radiation 40 Routine monitoring stations with two or more dosimeters placed as follows: An inner ring of stations, one in each compass sector in the general area of the site boundary. An outer ring of stations, one in each compass sector at approximately 6-8 kilometers or 3.7-5 miles from the site; and Special interest areas, such as population centers, nearby recreation areas, and control stations	See Table 5	Quarterly	Analyze for gamma dose quarterly

Table 2: Radiological Environmental Monitoring Program – Airborne

Requirement	Sample Location Description, Distance, and Direction	Sampling Collection/ Frequency	Type and Frequency of Analyses
Airborne Radioiodine and Particulates Samples from 5 locations: Three locations close to the site boundary in different sectors of the highest calculated annual average ground level D/Q. One sample from the vicinity of a community having the highest calculated annual average ground level D/Q. One sample from a Control Location, approximately 15 to 30 kilometers or 9 to 19miles away in a less prevalent wind direction	E1-2: Visitor's Center 0.4 miles 97 degrees F1-3: 500kv Substation 0.6 miles 112 degrees G2-1: Farm on Becker Rd 1.4 miles 126 degrees M2-1: Goldsboro 1.3 miles 256 degrees A3-1: Mill St Substation 2.7 miles 357 degrees H3-1: Falmouth-Collins Substation 2.2 miles 160 degrees Q15-1: behind West Fairview Fire Dept. 13.4 miles 309 degrees	Continuous sampler operation with sample collection weekly	Particulate sampler: Analyze for gross beta radioactivity ≥ 24 hours following filter change / Weekly. Perform gamma isotopic analysis on each sample when gross beta activity is > 10 times the yearly mean of control samples. Perform gamma isotopic analysis on composite sample (by location)/Quarterly. Radioiodine canister: I-131 analysis/Weekly.

Table 3: Radiological Environmental Monitoring Program – Waterborne

Requirement	Sample Location Description, Distance, and Direction	Sampling Collection/ Frequency	Type and Frequency of Analyses
Surface Water 1 sample upstream (control) and 1 sample downstream (indicator)	A3-2: Swatara Creek, Middletown, 2.7 miles 356 degrees Q9-1: near intake Steelton Water Company, 8.5 miles 310 degrees J1-2: Downstream of TMINS liquid discharge, 0.5 miles 188 degrees	Composite sample over 1 monthly period	Gamma isotopic analysis monthly. Composite for tritium analysis quarterly.
Drinking Water 1 sample upstream (control) and 1 sample at nearest water supply that could be affected by the station discharge (indicator)	Q9-1: at Steelton Water Company, 8.5 miles 310 degrees G15-2: Wrightsville Water Treatment Plant, 13.3 miles 129 degrees G15-3: Lancaster Water Treatment Plant, 15.7 miles 124 degrees	Composite sample over 1 monthly period	Perform gross beta and gamma isotopic analysis monthly. Perform Sr-90 analysis if gross beta of monthly composite >10 times control. Composite for tritium analysis quarterly.
Sediment from Shoreline 1 sample upstream (control) 1 sample downstream (indicator)	A1-3: near north tip of TMI in Susquehanna River, 0.6 miles 359 degrees K1-3: downstream of TMINS liquid discharge in Susquehanna River, 0.2 miles 213 degrees J2-1: South of TMINS upstream of York Haven Dam, in Susquehanna River, 1.4 miles 179 degrees	Semiannual (Spring and Fall)	Gamma isotopic analysis on each sample.

Table 4: Radiological Environmental Monitoring Program – Ingestion

Requirement	Sample Location Description, Distance, and Direction	Sampling Collection/ Frequency	Type and Frequency of Analyses
<u>Milk</u> Four samples from milking animals in three locations within 5 km distance having the highest dose potential. If there are none, then one sample from milking animals in each of three areas between 5 to 8 km distant where doses are calculated to be greater than 1 mrem per yr. One sample from milking animals at a control location 15 to 30 km distant and in the least prevalent wind direction.	Farm F4-1: ESE Turnpike Rd. 3.2 miles 104 degrees Farm G2-1: Becker Farm 1.4 miles 126 degrees P4-1[1]: Fisher Farm 3.6 miles 295 degrees Farm J18-1: York, 17.6 miles 188 degrees; control discontinued in February 2025 Farm J17-1: York, 17.0 miles, 179 degrees; new control farm established in March 2025.	Semimonthly when animals are on pasture, monthly at other times.	Gamma isotopic analysis and I-131 analysis on each sample. Composite for Sr-90 analysis quarterly.
<u>Fish and Invertebrates</u> Four samples from 2 locations: • One sample of recreationally important bottom feeders and 1 sample of recreationally important predators in the vicinity of the station discharge. • One sample of recreationally important bottom feeders and 1 sample of recreationally important predators from an area not influenced by the station discharge.	IND: Downstream of Station Discharge BKG: Upstream of Station Discharge	Sample twice per year (Spring and Fall).	Perform gamma isotopic and Sr-90 analysis on edible portions.

[1] P4-1 Farmer indicated milk to be produced again in the future.

Table 4: Radiological Environmental Monitoring Program – Ingestion – Continued

Requirement	Sample Location Description, Distance, and Direction	Sampling Collection/ Frequency	Type and Frequency of Analyses
Food Products Samples from 2 locations (when available): • 1 sample of each principal class of food products at a location in the immediate vicinity of the station. (indicator) • 1 sample of same species or group from a location not influenced by the station discharge.(Control)	**Station E1-2:** East of site at Visitors Center 0.4 miles 97 degrees **Station B10-2:** Milton Hershey School 10.0 miles 31 degrees	Sample at time of harvest.	Perform gamma isotopic, and I-131, analysis on edible portions. Sr-90 analysis on green leafy vegetables or vegetation only.
Three different kinds of broad leaf vegetation grown nearest each of two different offsite locations of highest predicted annual average ground level D/Q if milk sampling is not performed and one sample collected from the control location. One sample of each of the similar broad leaf vegetation grown 15 to 30 km distant in a less prevalent wind direction if milk sampling is not performed.	**Station E1-2:** East of site at Visitors Center 0.4 miles 97 degrees **Station H1-2**: Red Hill Market 1.0 mile 151 degrees **Station B10-2:** Milton Hershey School 10.0 miles 31 degrees	Monthly during growing season	Perform gamma isotopic I-131 analysis.

Table 5: REMP Sampling Locations – Direct Radiation

Site #	Location Type	Sector	Distance	Description
A1-4	Inner Ring	A	0.3	N of Reactor Building on W fence adjacent to North Weather Station, TMI
B1-1	Inner Ring	B	0.6	NNE of site on light pole in middle of North Bridge, TMI
B1-2	Inner Ring	B	0.4	NNE of Reactor Building on top of dike, TMI
C1-2	Inner Ring	C	0.3	NE of site along Route 441 N
D1-1	Inner Ring	D	0.2	ENE of Reactor Building on top of dike, TMI
E1-2	Inner Ring	E	0.4	E of site at TMI Visitor's Center
E1-4	Inner Ring	E	0.2	E of Reactor Building on top of dike, TMI
F1-2	Inner Ring	F	0.2	ESE of Reactor Building on top of dike midway within ISWSF, TMI
G1-3	Inner Ring	G	0.2	SE of Reactor Building on top of dike, TMI
H1-1	Inner Ring	H	0.5	SSE of site, TMI
H1-3*	Inner Ring	H	0.1	SSE of site, TMI
J1-1	Inner Ring	J	0.8	S of site, TMI
J1-3	Inner Ring	J	0.3	S of Reactor Building just S of SOB, TMI
J1-4*	Inner Ring	J	0.1	S of site, TMI
K1-4	Inner Ring	K	0.2	SSW of Reactor Building on top of dike behind Warehouse 2, TMI
K1-5*	Inner Ring	K	0.1	SSW of site, TNI

Table 5: REMP Sampling Locations – Direct Radiation - Continued

Site #	Location Type	Sector	Distance	Description
L1-1	Inner Ring	L	0.1	SW of site on top of dike W of Mech. Draft Cooling Tower, TMI
M1-1	Inner Ring	M	0.1	WSW of Reactor Building on SE corner of U-2 Screenhouse fence, TMI
N1-3	Inner Ring	N	0.1	W of Reactor Building on fence adjacent to Screenhouse entrance gate, TMI
P1-1	Inner Ring	P	0.4	WNW of site on Shelley Island
P1-2	Inner Ring	P	0.1	WNW of Reactor Building on fence N of Unit 1 Screenhouse, TMI
Q1-2	Inner Ring	Q	0.2	NW of Reactor Building on fence W of Warehouse 1, TMI
R1-1	Inner Ring	R	0.2	NNW of Reactor Building along W fence, TMI
C2-1	Inner Ring	C	1.5	NE of site at Middletown Junction
K2-1	Inner Ring	K	1.2	SSW of site on S. Shelley Island
M2-1	Inner Ring	M	1.3	WSW of site along Route 262 and adjacent to Fishing Creek, Goldsboro
A3-1	Inner Ring	A	2.7	N of site at Mill Street Substation
H3-1	Inner Ring	H	2.2	SSE of site, TMI Falmouth/Collins Substation
L1-2	Inner Ring	L	1	Beech Island, 2nd dock down from the northern tip on the western side of the island
R3-1	Inner Ring	R	2.6	NNW of site at Crawford Station, Middletown
F1-1	Inner Ring	F	1	500 KV Substation
G2-4	Inner Ring	G	2	East Falmouth

Table 5: REMP Sampling Locations – Direct Radiation - Continued

Site #	Location Type	Sector	Distance	Description
G1-2	Inner Ring	G	1	Red Hill
A5-1	Outer Ring	A	4.4	N of site on Vine Street Exit off Route 283
B5-1	Outer Ring	B	4.9	NNE of site at intersection of School House and Miller Roads
C5-1	Outer Ring	C	4.7	NE of site on Kennedy Lane
E5-1	Outer Ring	E	4.7	E of site at intersection of N. Market Street (Route 230) and Zeager Road
F5-1	Outer Ring	F	4.7	ESE of site along Amosite Road
G5-1	Outer Ring	G	4.8	SE of site at intersection of Bainbridge and Risser Roads
H5-1	Outer Ring	H	4.1	SSE of site by Guard Shack at Brunner Island Steam Electric Station
J5-1	Outer Ring	J	4.9	S of site along Canal Road, Conewago Heights
K5-1	Outer Ring	K	4.9	SSW of site along Conewago Creek Road, Strinestown
L5-1	Outer Ring	L	4.1	SW of site at intersection of Stevens and Wilson Roads
M5-1	Outer Ring	M	4.3	WSW of site at intersection of Lewisberry and Roxberry Roads, Newberrytown
N5-1	Outer Ring	N	4.9	W of site off of Old York Road along Robin Hood Drive
P5-1	Outer Ring	P	5.0	WNW of site at intersection of Valley Rd (Route 262) and Beinhower Rd
Q5-1	Outer Ring	Q	5.0	NW of site along Lumber Street, Highspire
R5-1	Outer Ring	R	4.9	NNW of site at intersection of Spring Garden Drive and Route 441

Table 5: REMP Sampling Locations – Direct Radiation - Continued

Site #	Location Type	Sector	Distance	Description
D6-1	Special Interest	D	5.2	ENE of site off Beagle Road
E7-1	Special Interest	E	6.7	E of site along Hummelstown Street, Elizabethtown
Q9-1	Special Interest	Q	8.5	NW of site at the Steelton Water Company
B10-1	Special Interest	B	9.2	NNE of site at intersection of West Areba Avenue and Mill Street, Hershey
G10-1	Special Interest	G	9.7	SE of site at farm along Engles Tollgate Road, Marietta
G15-1	Special Interest	G	14.4	SE of site at Columbia Water Treatment Plant
J15-1	Special Interest	J	12.6	S of site in Met-Ed York Load Dispatch Station
Q15-1	Special Interest	Q	13.4	NW of site behind West Fairview Fire Dept. Social Hall (abandoned)
R15-1	Special Interest	R	15	Colonial Park
A9-3	Special Interest	A	8	N of site at Duke Street Pumping Station, Hummelstown
B2-1	Inner Ring	B	1.9	NNE of site on Sunset Dr. (off Hillsdale Rd.)
C1-1	Inner Ring	C	0.7	NE of site along Route 441 N
C8-1	Special Interest	C	7.1	NE of site at Schenk's Church on School House Road
D1-2	Inner Ring	D	0.5	ENE of site off Route 441 along lane between garden center & residence
D2-2	Inner Ring	D	1.6	ENE of site along Hillsdale Rd. (S of Zion Rd.)
D15-1	Special Interest	D	10.8	ENE of site along Route 241, Lawn

Table 5: REMP Sampling Locations – Direct Radiation - Continued

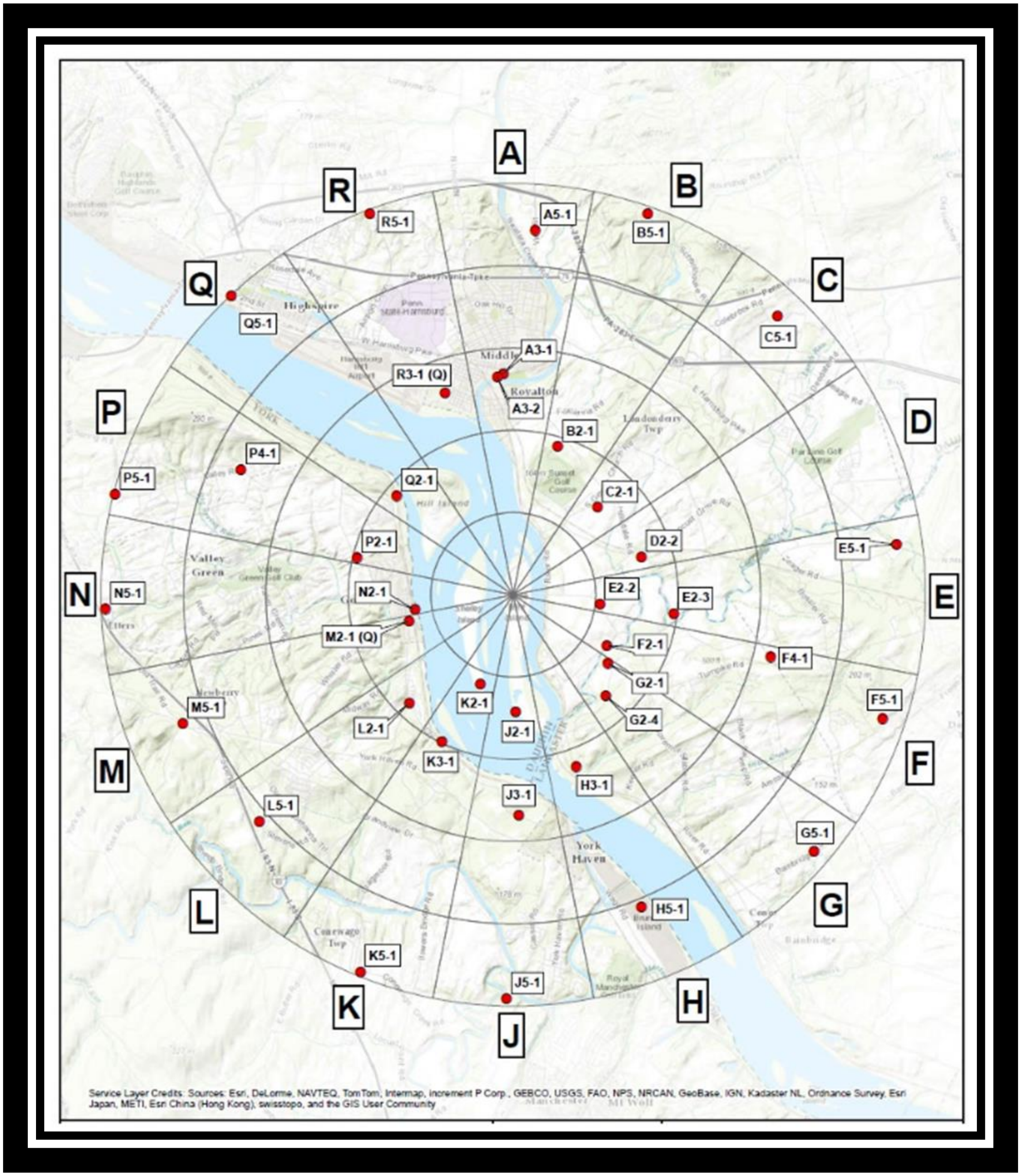
Site #	Location Type	Sector	Distance	Description
E2-3	Inner Ring	E	2	E of site along Hillsdale Rd. (N of Creek Rd.)
F1-4	Inner Ring	F	0.2	ESE of Reactor Building on top of dike, TMI
F2-1	Inner Ring	F	1.3	ESE of site along Engle Road
F10-1	Special Interest	F	9.4	ESE of site along ESE of site along Donegal Springs
F25-1	Special Interest	F	22	ESE of site at intersection of Steel Way and Loop Roads, Lancaster
G1-5	Inner Ring	G	0.3	SE of Reactor Building on top of dike, TMI
G1-6	Inner Ring	G	0.3	SE of Reactor Building on top of dike, TMI
L15-1	Special Interest	L	11.8	SW of site on W side of Route 74, rear of church, Mt. Royal
M1-2	Inner Ring	M	0.4	WSW of site on E side of Shelley Island, Lot #157
M9-1	Special Interest	M	8.7	WSW of site along Alpine Road, Maytown
N1-1	Inner Ring	N	0.7	W of site on W side of Shelley Island, between lots #13 and #14
N2-1	Inner Ring	N	1.2	W of site at Goldsboro Marina
N8-1	Special Interest	N	7.7	W of site along Route 382, 1/2 mile north of Lewisberry
N15-2	Special Interest	N	10.4	W of site at intersection of Lisburn Road and Main Street, Lisburn
P2-1	Inner Ring	P	1.9	WNW of site along Route 262
P8-1	Special Interest	P	7.9	WNW of site along Evergreen Road, Reesers Summit

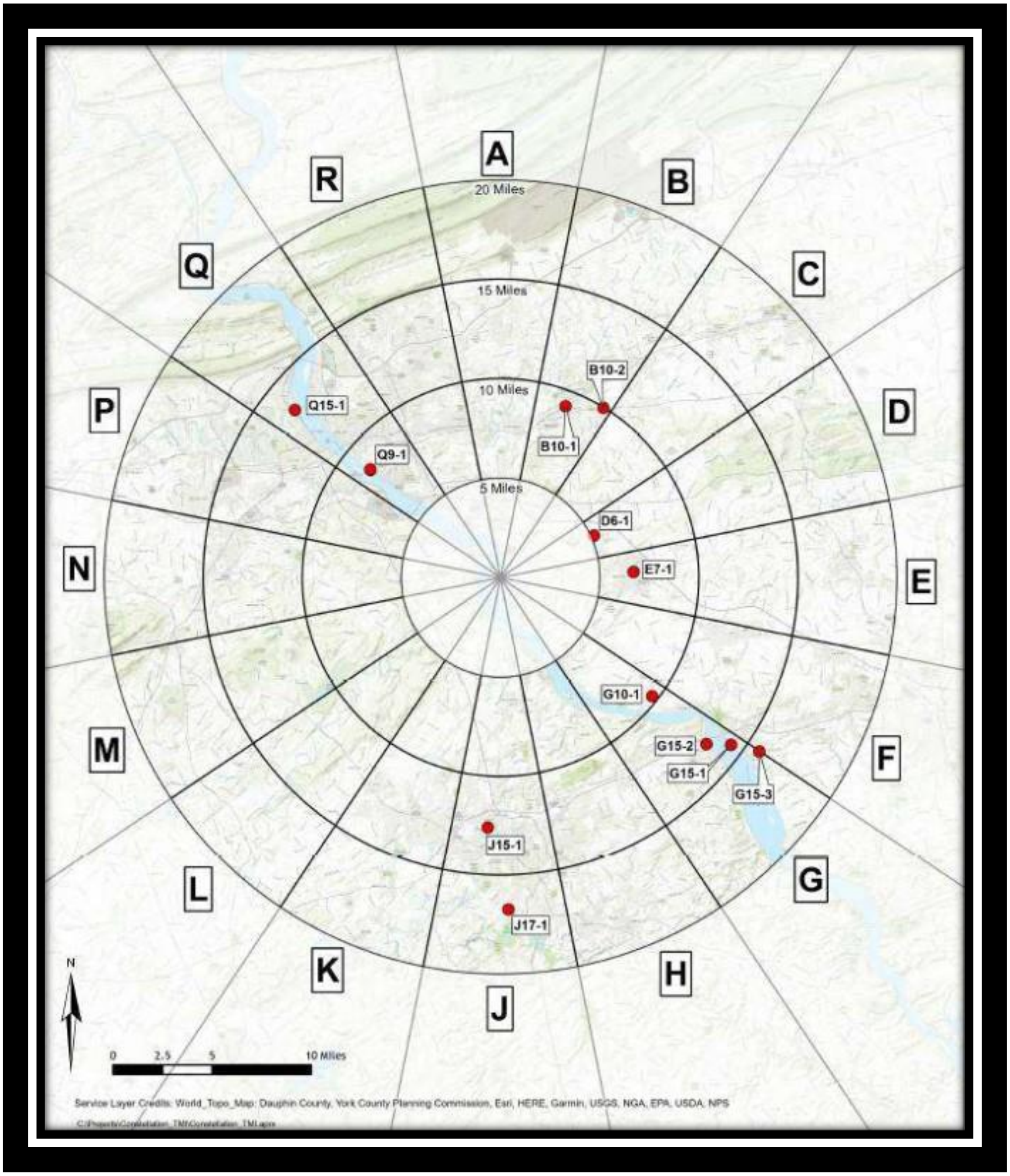
Table 5: REMP Sampling Locations – Direct Radiation - Continued

Site #	Location Type	Sector	Distance	Description
Q1-1	Inner Ring	Q	0.5	NW of site on E side of Shelley Island
Q2-1	Inner Ring	Q	1.9	NW of site along access road along river
R1-2	Inner Ring	R	1.7	NNW of site on central Henry Island
R9-1	Special Interest	R	8	NNW of site at intersection of Derry and 66th Streets, Rutherford Heights
L2-1	Inner Ring	L	2	River Road
K3-1	Inner Ring	K	3	On utility pole 0.4 miles past baseball field
J3-1	Inner Ring	J	3	On Utility pole directly under power lines
K8-1	Special Interest	K	8	Zion's View
J7-1	Special Interest	J	7	On utility pole past garage on right
H8-1	Special Interest	H	8	Starview
H15-1	Special Interest	H	15	Wilshire Hills
K15-1	Special Interest	K	15	Robin's Nest
L8-1	Special Interest	L	8	Andersontown

* Control Locations

6.0 MAPS OF COLLECTION SITES





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15 Miles
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B10-2
B10-1
Q15-1
Q9-1
D6-1
E7-1
G10-1
G15-2
G15-1
G15-3
J15-1
J17-1
N
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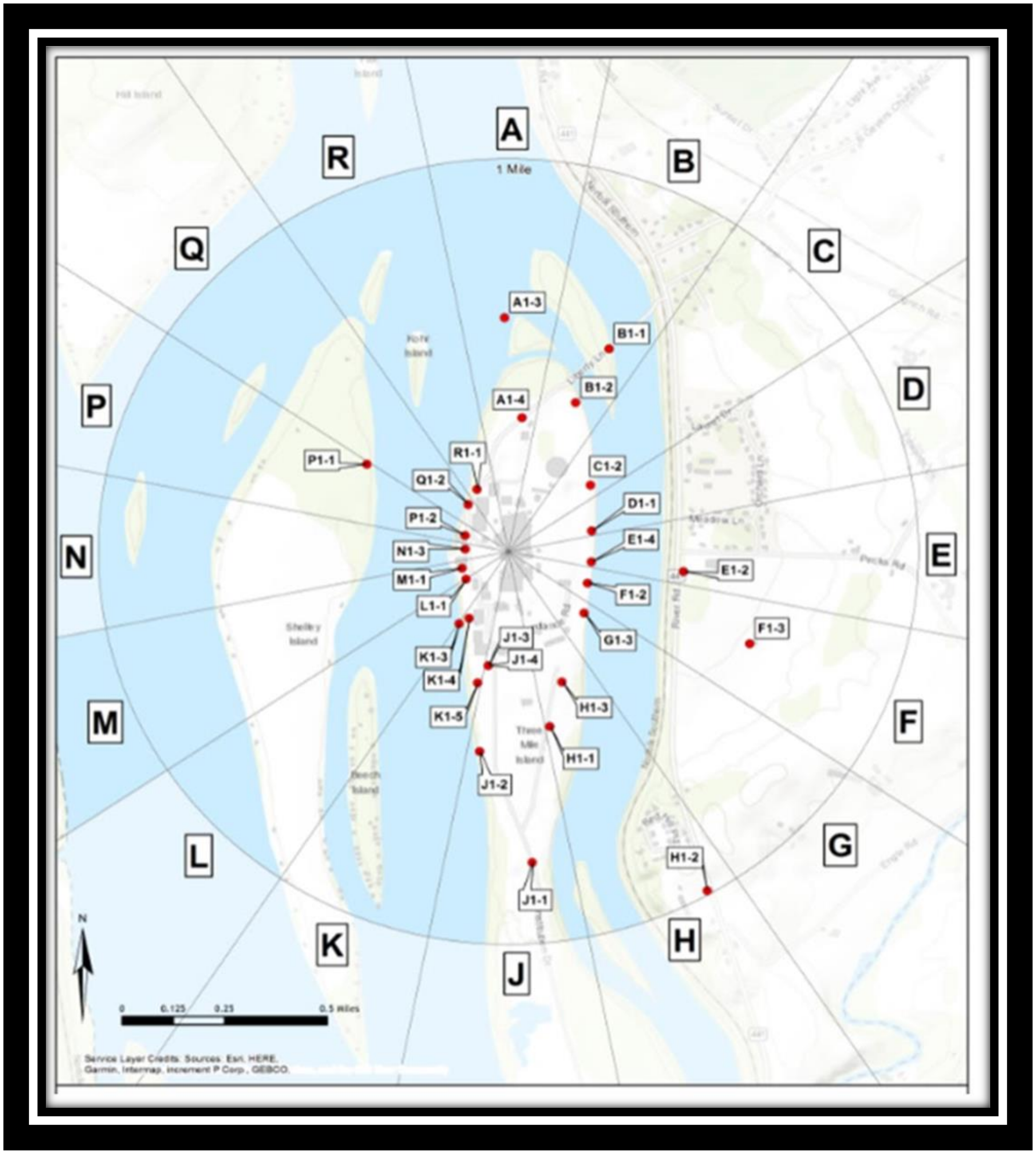
Service Layer Credits: World_Topo_Map: Dauphin County, York County Planning Commission, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS



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E1-4
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F1-3
G1-3
H1-3
H1-1
H1-2
J1-3
J1-4
J1-2
J1-1
K1-3
K1-4
K1-5
L1-1
M1-1
N1-3
P1-2
P1-1
Q1-2
R1-1
Shelley Island
Three Mile Island
N
0 0.125 0.25 0.5 Miles
Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO,

7.0 REPORTING LEVELS FOR RADIOACTIVITY CONCENTRATIONS IN ENVIRONMENTAL SAMPLES

Table 6: Reporting Levels for Radioactivity Concentrations in Environmental Samples

Radionuclide	Water (pCi/L)	Air Particulates or Gases (pCi/m^3)	Fish (pCi/Kg-wet)	Milk (pCi/L)	Food Products (pCi/Kg-wet)
H-3	20,000 [2]				
Mn-54	1,000		30,000		
Fe-59	400		10,000		
Co-58	1,000		30,000		
Co-60	300		10,000		
Zn-65	300		20,000		
Zr-Nb-95	400				
Sr-90	8	0.1	100	8	100
I-131	2 [3]	0.9		3	100
Cs-134	30	10	1,000	60	1,000
Cs-137	50	20	2,000	70	2,000
Ba-La-140	200			300	

Table 7: Lower Limits of Detection

Radionuclide	Water (pCi/L)	Air Particulates or Gases (pCi/m^3)	Fish (pCi/Kg-wet)	Milk (pCi/L)	Food Products (pCi/Kg-wet)	Sediment (pCi/Kg-dry)
Gross Beta	4.0	0.01				
H-3	2,000 [4]					
Mn-54	15		130			
Fe-59	30		260			
Co-58, Co-60	15		130			
Zn-65	30		260			
Zr-95	30					
Sr-90	2	0.01	10	2	10	
Nb-95	15					
I-131	1 [5]	0.07		1	60	
Cs-134	15	0.05	130	15	60	150
Cs-137	18	0.06	150	18	80	180
Ba-140	60			60		
La-140	15			15		

[2] **For** drinking water samples: **If** no drinking water pathway exists, a value **of 30,000 pCi/L** may be used.
[3] **If** no drinking water pathway exists, a value of 20 pCi/l may be used
[4] **If** no drinking water pathway exists, a value **of 3,000 pCi/L** may be used. Some states may require a lower LLD for drinking water sources- per 40 CFR 141 Safe drinking water ACT.
[5] **If** no drinking water pathway exists, a value of 15 pCi/l may be used

8.0 SAMPLING PROGRAM, PROGRAM MODIFICATION AND INTEPRETATION OF RESULTS

At most nuclear stations, data was collected prior to plant operation to determine background radioactivity levels in the environment. Annual data is routinely compared to preoperational and/or 10-year average values to determine if changes in the environs are present. Strict comparison is difficult to make due to fallout from historical nuclear weapon testing. Cs-137 can be routinely found in environmental samples as a results of above ground nuclear weapons testing. It is important to note, levels of Cs-137 in environment are observed to fluctuate. For example, as silt distributions shift due to natural erosion and transport processes, Cs-137 may or may not be observed in sediment samples. Results from samples collected and analyzed during the year, 2025, are described in this report.

In the following sections, results from direct radiation, air, water, and food products analyzed as part of REMP in 2025 are discussed. Sampling program descriptions and deviations are also discussed.

8.1 Environmental Direct Radiation Dosimetry Results

Dose is measured as net exposure (field reading less transit reading) normalized to 91-day quarters. Data is treated and analyzed consistent with ANSI/HPS N13.37-2014, which compares the measured dose for each location to the baseline background dose for that location. Environmental dose rates vary by location, depending on geological and land use considerations, and remain relatively constant for any given location (unless land use changes). Some facilities observe seasonal variation in environmental doses. Baseline Background Doses have been determined for both quarterly and annual measurements at each location using historical field measurements.

ANSI/HPS N13.37-2014 uses the concept of minimum differential dose (MDD), which is the minimum facility-related dose that can be detected above background. Due to natural background variations and measurement sensitivities and uncertainties, minimum differential dose is not zero. MDD is calculated based on statistical performance of the dosimetry system in the environment and is site specific.

Normalized doses that exceed the Minimum Differential Dose value above the Baseline Background Dose are considered to indicate Facility-Related Dose; a quality assurance review is performed to verify that any results indicating Facility-Related Dose are accurate.

During the calendar year 2025, a total of 93 locations were monitored and data analyzed in accordance with the requirements in Table 1: Radiological Environmental Monitoring Program – Direct Radiation. Attachment 4, Environmental Direct Radiation Dosimetry Results, provides the annual direct radiation dosimetry analysis.

All OSLD measurements were analyzed, and three of the OSLD analysis results indicated detectable radiation from the facility. The maximum estimated dose to the nearest member of the public was 0.473 mrem/yr total body based on occupancy and extrapolation methods. H1-3 Facility related dose was 31.9 mrem/yr, J1-4 Facility related dose was 23.6 mrem/yr, and J1-3 had facility related dose of 24.6 mrem/yr. All locations were evaluated further to determine the mean and range of OSLD measurements at indicator and control locations respectively. These locations are in near proximity to the ISFSI pad.

There were no unexpected results nor any program modifications in 2025.

In 2025 there were two instances of lost dosimeters resulting in a loss of data.

Dosimeter N5-1

Upon arrival on 12/16/2025 at the TMI N5-1 sample station for the dosimeter collection, field tech found that the Quarter 4 environmental dosimeters and bracket were missing. The field tech did a complete sweep of the area and spoke to site operations, but nothing was found. The missing dosimeter numbers are EX000091715J and EX00097316J.

Dosimeters within the Outer Island

Due to heavy ice coverage on the river that was monitored for several weeks during the allowable window, there was no safe access to the collection sites. Quarter 4 2025 collection and Quarter 1 2026 deployment were not done within the outer island. They will be collected at the end of Quarter 1 2026.

8.2 Air Particulate and Radioiodine Sample Results

Air particulate filters and charcoal canisters were collected from locations specified in Table 2: Radiological Environmental Monitoring Program – Airborne. During the calendar year 2025, a total of 728 samples were collected and analyzed for gross beta, gamma emitters and iodine. Airborne iodine and particulate samples were collected and analyzed weekly at seven locations (A3-1, E1-2, F1-3, G2-1, H3-1, M2-1 and Q15-1). The control location was Q15-1. Particulate samplers are used to continuously collect airborne particulates on a filter. The samples are analyzed for gross beta activity following filter changeout which occurs weekly. Gamma isotopic analysis is also performed on the samples collected at each location and is analyzed quarterly. Radioiodine (I-131) analysis is performed weekly on radioiodine sample cartridges. All radioiodine samples were below the detection limit.

All air particulate samples contained detectable amounts of beta emitters within trend as compared to the control location. Gross beta activity at indicator locations averaged $2.10E^{-2}$ pCi/m^3 and ranged from $5.53E^{-3}$ to $4.54E^{-2}$ pCi/m^3. This is comparable with the control location Q15-1 which averaged $2.09E^{-2}$ pCi/m^3 and ranged from $6.89E^{-3}$ to $3.83E^{-2}$ pCi/m^3.

Air particulate results from this monitoring period, 2025, were compared to 10-year average as shown in Figure 5. There was a noticeable change in the baseline trending gradually upward. Control and indicator locations are well in line with each other when reviewing the weekly data from both CGS and TBE laboratories. This upward trend is not attributed to the fuel cycle at TMI. Similar trending has been observed at other nuclear facilities across the region and may be attributed to ambient environmental shifts.

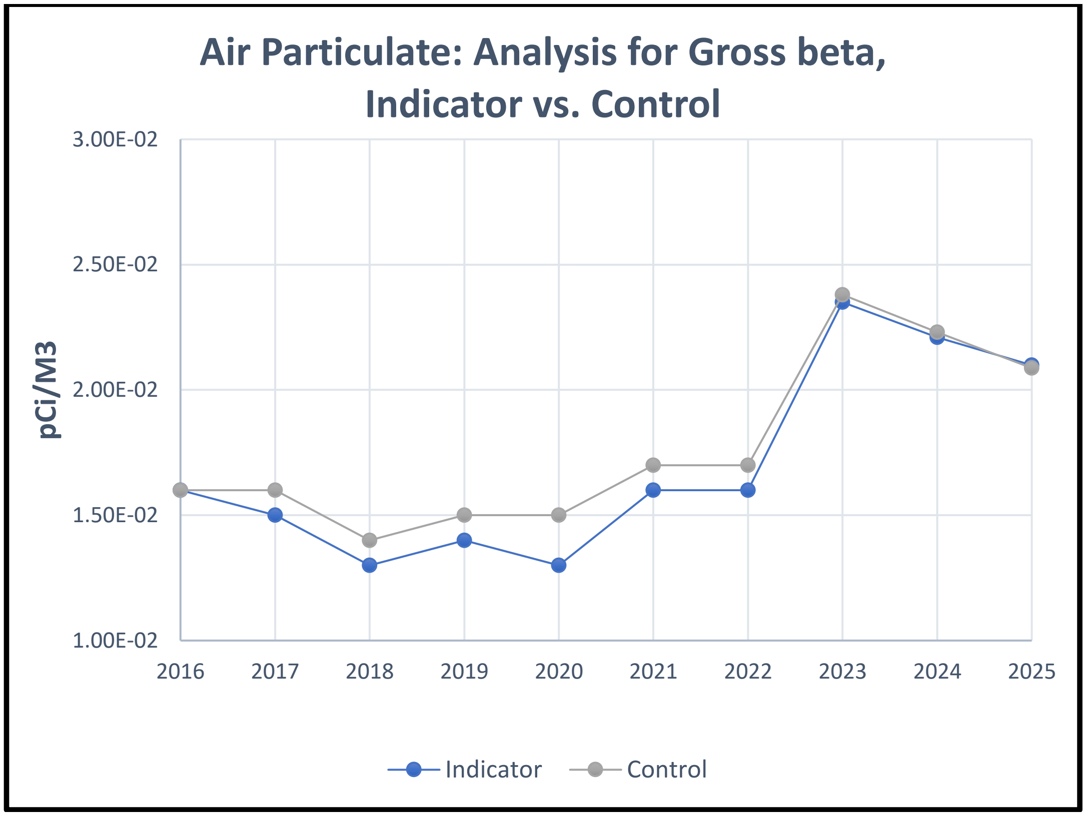

Figure 5: Air Particulate: Analysis for Gross Beta, Average for All Indicator vs. Control Location

8.3 Waterborne Sample Results

8.3.1 Surface Water (i.e., Bay, Lake etc.)

Composite water samples are collected monthly at the upstream control location and at the downstream indicator locations. Monthly composite samples are analyzed for gamma emitters and Tritium. Aliquots from the monthly composites are combined to form a quarterly composite which is then analyzed for tritium again. During the calendar year 2025, a total of 36 surface water samples were collected and analyzed in accordance with the requirements in the ODCM at J1-2, A3-2 and Q9-1 and shown in Table 3: Radiological Environmental Monitoring Program – Waterborne. Tritium was not detected in any of these samples in 2025. Tritium concentrations in surface water were below detectable levels of analysis as required in Table 7 Lower Limits of Detection, well in compliance with the EPA tritium drinking water limit of 20,000 pCi/L. See Figure 6 for the last 10 year history of tritium for indicator and control.

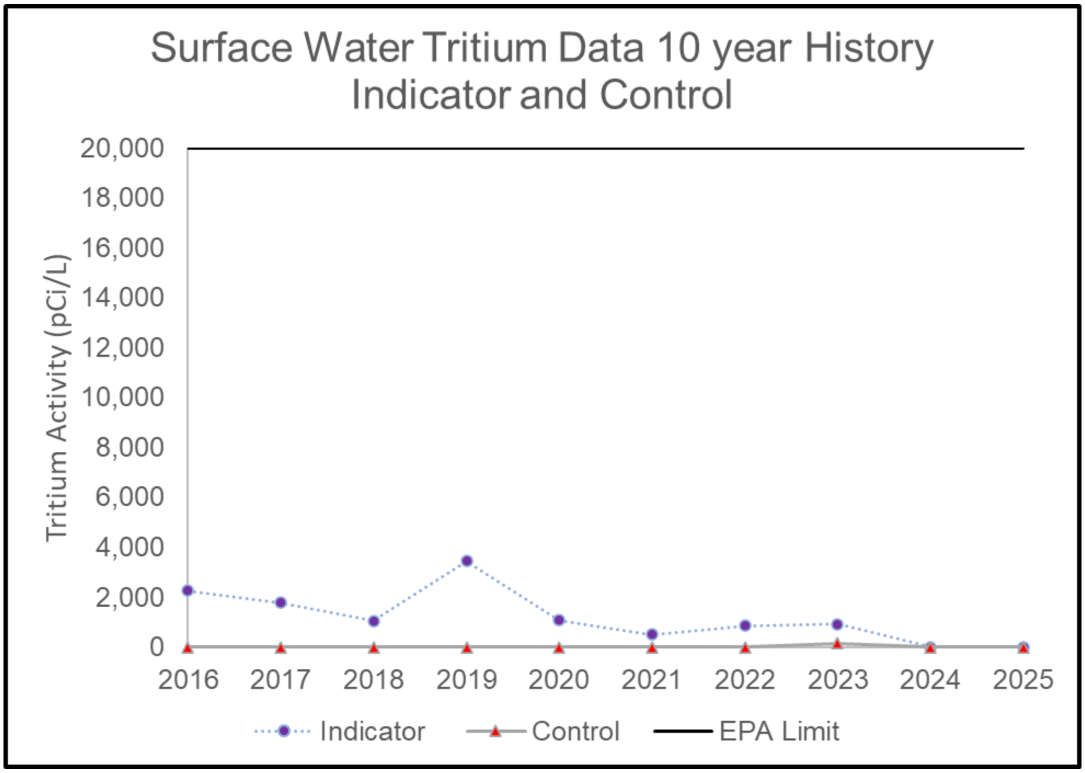

Figure 6: Surface Water Tritium Results

8.3.2 Effluent Surface Water

A total of 12 monthly samples were collected from a continuous water sampler at one location (K1-1) and analyzed for Gamma emitters including Low level Iodine and Tritium monthly as well as quarterly. In addition, Sr-90 was analyzed on a semiannual composite of K1-1. Tritium was detected in the monthly sample at K1-1 in October 2025 at 184 pCi/L, which is well below the EPA limit of 20,000 pCi/L. See Table 10 and Figure 8. The quarter 4 sample of K1-1 also indicated the presence of tritium at 612 pCi/L, a value still far less than the EPA limit of 20,000 pCi/L. See Table 12.

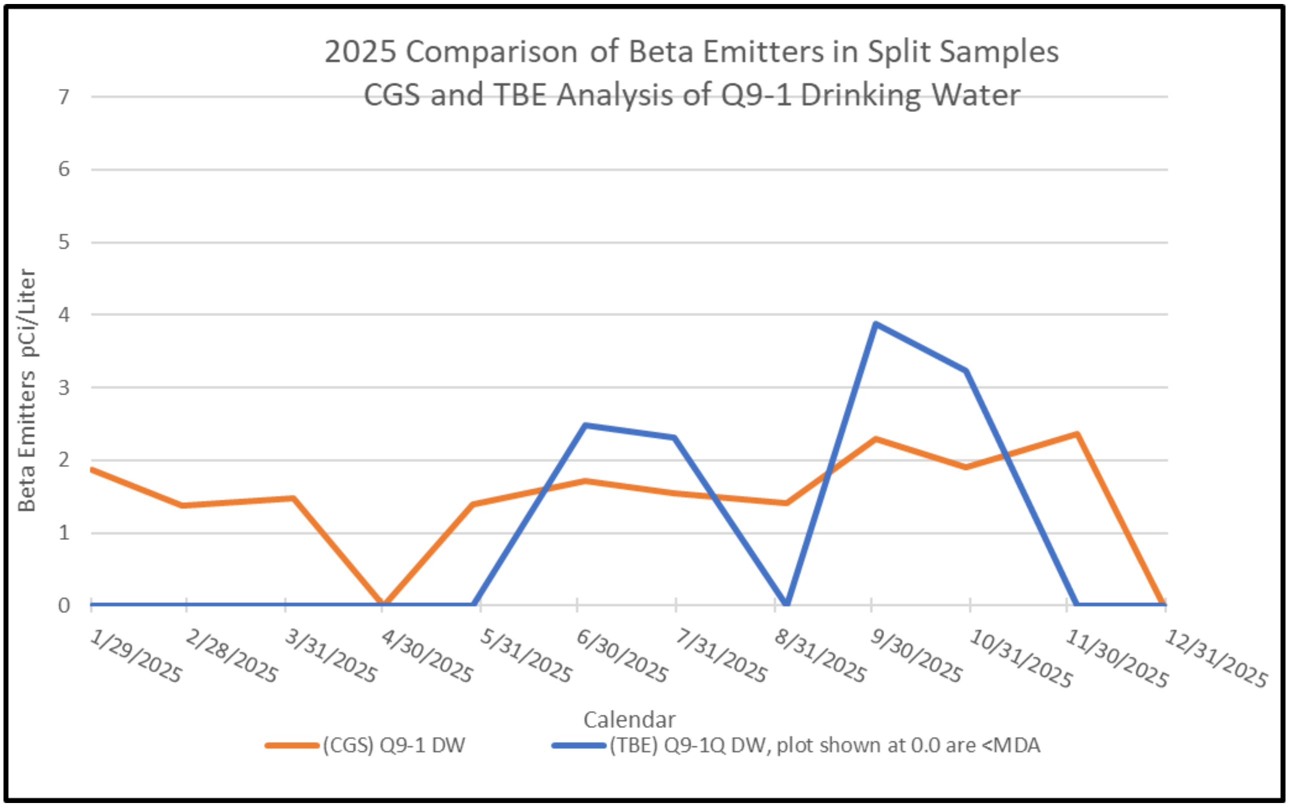

Figure 7: REMP Beta Emitters in Drinking Water Split Sample Comparison

8.3.3 Drinking Water

A total of 36 drinking water samples were obtained in 2025 at G15-2, G15-3 and Q9-1 (DW). These samples were analyzed for gross beta, tritium and gamma analysis monthly, tritium quarterly in accordance with requirements in the ODCM and shown in Table 3: Radiological Environmental Monitoring Program – Waterborne.

Beta emitters were observed in 34 of 36 samples and within historical trends. Beta emitters were detected in all 24 Indicator samples and averaged 2.30 pCi/L and detectable results ranged from 1.15 to 3.77 pCi/L. Beta emitters were observed in 10 of 12 Control samples and averaged 1.73 pCi/L and detectable results ranged from 1.37 to 2.36 pCi/L. Split sample analysis for the control, Q9-1 DW, between the laboratories, CGS and TBE were in good agreement and in trend with each other as depicted in Figure 7: REMP Beta Emitters in Drinking Water Split Sample Comparison. There were no program modifications or changes in the environs 2025. There were no non-natural gamma emitters detected in any sample. Tritium concentrations in drinking water were undetectable and less than the required LLD of 200pCi/L, well below the EPA tritium drinking water limit of 20,000 pCi/L.

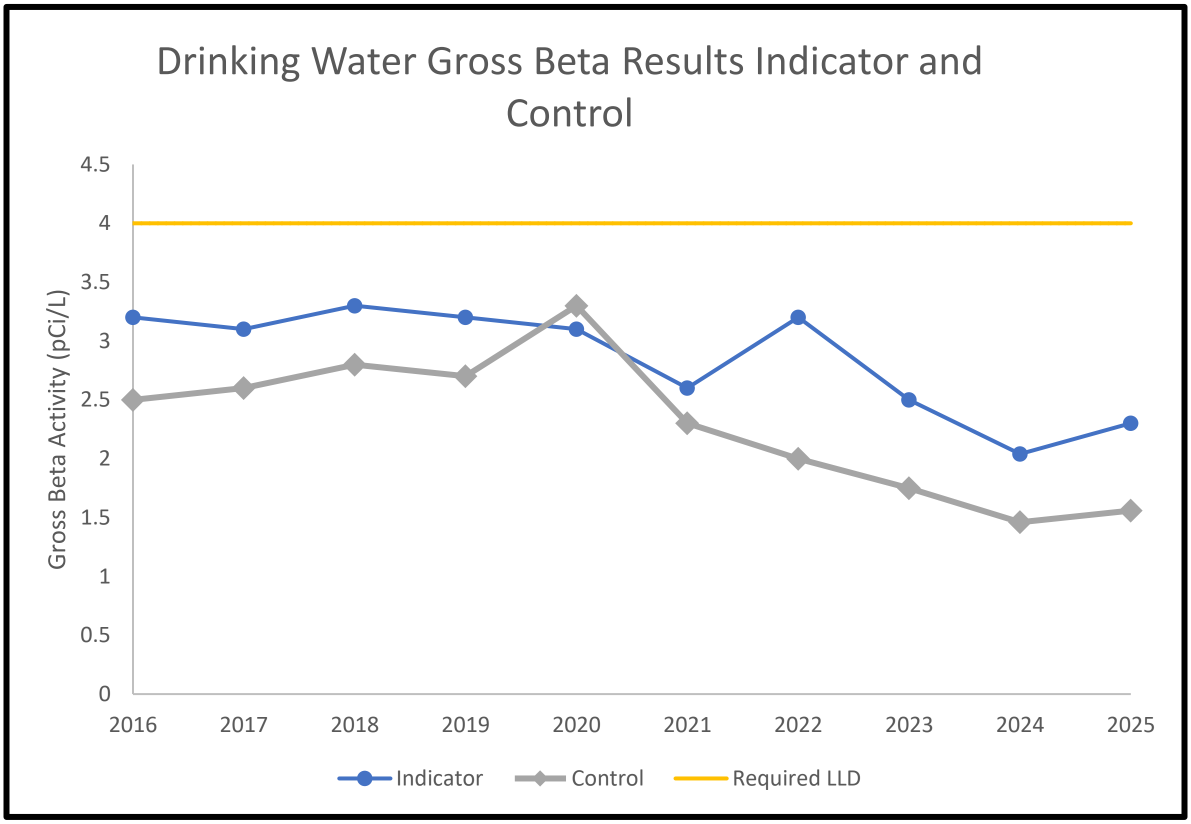

Figure 8: Drinking Water Gross Beta Samples Control vs. Indicator Comparison

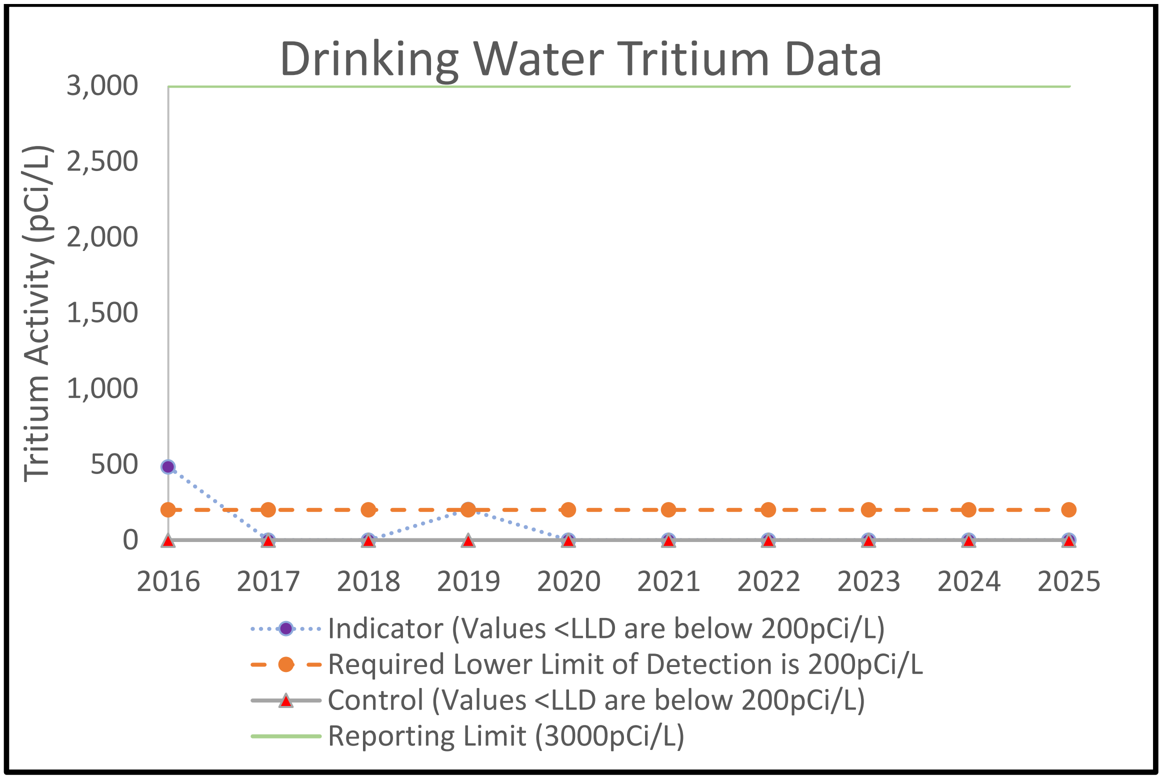

Figure 9: Drinking Water Tritium Sample Results

8.3.4 Sediment from Shoreline

Shoreline sediment collections were made in June and October, 2025 and analyzed for gamma-emitting isotopes. Samples are collected at both indicator and control locations. A total of 6 shoreline samples were analyzed in accordance with requirements in the ODCM and shown in Table 3: Radiological Environmental Monitoring Program – Waterborne.

Sediment samples from all locations were analyzed for gamma-emitting nuclides. All analyses met Minimum Detectable Activities. No fission or activation products were detected.

8.4 Ingestion Pathway Sample Results

8.4.1 Milk

Milk samples from milking animals were collected at 3 locations within 8 km having the highest dose potential, along with samples collected from control locations 15-30 km in the least prevalent wind direction, monthly from December through February and biweekly March through July. 68 samples were collected and analyzed for gamma emitters and a total of 12 quarterly composites of those samples were analyzed for Sr-90.

All Milk samples from all locations were analyzed as required by the ODCM for gamma-emitting nuclides and Sr-90. All analyses met Minimum Detectable Activities. No fission or activation products were detected.

8.4.2 Fish and Invertebrates

A total of 8 fish and invertebrate samples were collected in 2025. These samples were analyzed for Sr-90 and gamma emitting radionuclides in edible portions, in accordance with requirements of the ODCM and summarized in Table 4: Radiological Environmental Monitoring Program – Ingestion. These samples are collected from the indicator and control areas as required by the ODCM. Only the edible portions are analyzed excluding head, tail, bones, and shell fragments.

All Fish samples from all locations were analyzed as required by the ODCM for gamma-emitting nuclides and Sr-90. All analyses met Minimum Detectable Activities. No fission or activation products were detected.

8.4.3 Food Products

A total of 6 samples of non-leafy vegetation were analyzed in 2025, for gamma emitting radionuclides, and Sr-90 in accordance with requirements of the ODCM, as summarized in Table 4: Radiological Environmental Monitoring Program – Ingestion.

All food product samples from all locations were analyzed as required by the ODCM for gamma emitting radionuclides, and Sr-90. All analyses met Minimum Detectable Activities. No fission or activation products were detected.

8.4.4 Leafy Vegetation

In accordance with the ODCM and as described in Table 4: Radiological Environmental Monitoring Program – Ingestion, 36 broad leaf vegetation samples were collected from growing locations nearest site boundary in areas of highest predicted annual average ground level D/Q. Samples are collected and analyzed for gamma emitting radionuclides including I-131 from the indicator and control locations monthly during growing season, June through September. It is common to detect Cs-137 in broadleaf samples at both indicator and control locations. Cs-137 can be attributed to offsite sources such as weapons testing, Chernobyl, and Fukushima events. While Cs-137 is periodically found in vegetation samples, there was no Cs-137 detected in samples collected in 2025.

All analyses met Minimum Detectable Activities. No fission or activation products were detected.

9.0 LAND USE CENSUS

An annual land use census is required by the Offsite Dose Calculation Manual and is performed to ensure that changes in the use of areas at or beyond the site boundary are identified and modifications to REMP are made if required by changes in land use. The land use census satisfies the requirements of Section IV.B.3 of Appendix I to 10 CFR 50 [2]. NUREG-1301/1302 Control 3.12.2 specifies that "a Land Use Census shall be conducted and shall identify within a distance of 8 km (5 mi.) the location in each of the 16 meteorological sectors of the nearest milk animal, the nearest residence and the nearest garden of greater than 50 m^2 (500 ft^2) producing broad leaf vegetation". Note, per NUREG-1301/1302, broad leaf vegetation sampling of at least three different kinds of vegetation may be performed at the SITE BOUNDARY in each of two different direction sectors with the highest predicted D/Qs in lieu of the garden census.

A Land Use Census was conducted during the calendar year, 2025, within the growing season to identify changes in land use, receptor locations, and new exposure pathways. The results for the 2025 Land Use Census are listed in Table 8: Land Use Census – Nearest Receptors within 5 miles. In summary, the highest D/Q locations for nearest residence and nearest milk animal did not change following the 2025 census. The nearest garden in the NNE sector changed to 0.9 miles in 2025 from 1.2 miles in 2024. Milk sites were identified in Seven (7) of sixteen (16) meteorological sectors. Milk sites were identified in N, NE, ENE, E, ESE, SE and S sectors.

Table 8: Land Use Census – Nearest Receptors within 5 miles

Sector	Direction	Nearest Residence (Miles)	Nearest Milk Animal (Miles)	Nearest Garden (Miles)
A	N	1.0	2.1	1.9
B	NNE	0.76	Not Found in Sector	0.9
C	NE	0.53	4.2	1.1
D	ENE	0.46	4.5	0.5
E	E	0.44	1.1	0.5
F	ESE	1.10	3.2	0.5
G	SE	0.71	1.4	0.6
H	SSE	0.71	Not Found in Sector	0.8**
J	S	2.24	>5.0*	2.5
K	SSW	0.61	Not Found in Sector	1.6
L	SW	0.54	Not Found in Sector	1.7
M	WSW	1.20	Not Found in Sector	1.3
N	W	1.22	Not Found in Sector	1.3
P	WNW	1.11	Not Found in Sector	1.5

Q	NW	1.11	Not Found in Sector	1.2
R	NNW	1.14	Not Found in Sector	2.4
*Farm is outside the 5-mile radius but is included because it is a regularly sampled REMP milk farm **A regularly sampled REMP farm				

10.0 SAMPLE DEVIATIONS, ANOMALIES AND UNAVAILABILITY

Sampling and analysis are performed for media types addressed in the Offsite Dose Calculation Manual. Sampling and analysis challenges may be experienced due to a multitude of reasons including environmental factors, loss of TLDs/OSLDs, contamination of samples, etc. To aid classification of sampling and analysis challenges experienced in 2025, the following three terms are used to describe the issues: Sample Anomalies, Sample Deviation, and Unavailable Samples.

Media that experienced downtime (i.e., air samplers or water samplers) during a surveillance period are classified a “Sample Deviation”. “Sample Anomalies” are defined as errors that were introduced to a sample once it arrived in the laboratory, errors that prevent the sample from being analyzed as it normally would or may have altered the outcome of the analysis (i.e., cross contamination, human error).

“Sample Unavailability” is defined as sample collection with no available sample (i.e., food crop, TLD).

All required samples were collected and analyzed as scheduled except for the following:

Table 9: Sample Deviation Summary

Sample Type and Analysis	Location	Collection Date or Period	Reason for not conducting REMP sampling as required by ODCM	Plans for preventing reoccurrence
Milk – Gamma and I-131	J18-1	02/19/25	J18-1 Farm did not have samples available due to farmer selling his herd. Sampling at this location will be unavailable moving forward.	Entered into corrective action tracking to document occurrence. New farm was located.
OSLD – ambient radiation	All	4/18/25	Dosimetry transfer delayed 1.5 days due to vendor sending an incomplete set of dosimeters.	Entered into corrective action tracking to document occurrence.
OSLD – ambient radiation	N5-1	12/16/25	Missing Q4 dosimeters at N5-1 station.	Entered into corrective action tracking to document occurrence.
OSLD – ambient radiation	Outer Island	1/6/26	No safe access to site collections due to ice coverage on the river. Q4 2025 collection and Q1 deployment was delayed until safely accessible.	Entered into corrective action tracking to document occurrence.

11.0 OTHER SUPPLEMENTAL INFORMATION

11.1 NEI 07-07 Onsite Radiological Groundwater Monitoring Program

Three Mile Island Nuclear Station has developed a Groundwater Protection Initiative (GPI) program in accordance with NEI 07-07, Industry Ground Water Protection Initiative – Final Guidance Document. The purpose of the GPI is to ensure timely detection and an effective response to situations involving inadvertent radiological releases to groundwater in order to prevent migration of licensed radioactive material off-site and to quantify impacts on decommissioning. It is important to note samples and results taken in support of NEI 07-07 on-site groundwater monitoring program are separate from the Radiological Environmental Monitoring Program (REMP). Results of the NEI 07-07 Radiological Groundwater Monitoring Program for onsite groundwater wells are provided in this year's ARERR.

11.2 Independent Spent Fuel Storage Installation (ISFSI) Monitoring Program

ISFSI operations began in October 2021. Forty-seven casks were added to the Constellation TMI-1 ISFSI pad in 2022 utilizing the NAC MAGNASTOR® System. Site boundary Environmental OSLD's, which measure gamma radiation closest to ISFSI are C1-2, D1-1, E1-4, F1-2, G1-3, K1-3, K1-5, L1-1, M1-1 and N1-3. OSLD K1-5 was added at the site boundary and OSLD's H1-3 and J1-4 were added as closest to the ISFSI pad. There was radiation detected above background at H1-3 at 31.9 mrem/yr and J1-4- at 23.6 mrem/yr. Therefore, there was Facility Related dose attributed to TMI from ISFSI operations at H1-3 and J1-4 and to any real individual who is located beyond the control area. True Ambient gamma radiation levels were measured utilizing Optically Stimulated Luminescence Dosimeters (OSLD). Ninety-three OSLD locations were established around the site and listed in Table 5. Results of OSLD measurements are given in Attachment 4.

11.3 Corrections to Previous Reports

1. In the 2023 and 2024 AREOR, Table 8, both erroneously have the nearest residence recorded at 0.06 miles within the E sector. The Land Use Census every year since 2022 shows the nearest residence at 2300 ft E sector at the same residence 1005 Meadow Lane, Middletown, PA which equates to 0.44 miles.

   CGS began reporting TMI's AREOR in 2023 and this distance was incorrectly converted to 0.06 miles when it should have been 0.44 miles. The error was carried forward in 2024.

   The error is corrected in the 2025 AREOR.

   See Attachment 5 for further explanation and screen grabs of previous AREORs.

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[32] "10 CFR 50 - Domestic Licensing of Production and Utilization Facilities," US Nuclear Regulatory Commission, Washington, DC.

[33] "40 CFR 190 - Environmental Radiation Protection Standards for Nuclear Power Operation," US Environmental Protection Agency, Washington, DC.

[34] "NUREG-0324 - XOQDOQ, Program for the Meteorological Evaluation of Routine Effluent Releases at Nuclear Power Stations," Nuclear Regulatory Commission, September, 1977.

[35] "NCRP Report No. 160 - Ionizing Radiation Exposure of the Population of the United States," National Council on Radiation Protection and Measurements, Bethesda, MD, 2009.

[36] "Regulatory Guide 1.109 - Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Demonstrating Compliance with 10 CFR Part 50, Appendix I," Nuclear Regulatory Commission, Ocotober, 1977.

[37] "40 CFR 141 - National Primary Drinking Water Regulations," US Environmental Protection Agency, Washington, DC..

[38] "10 CFR 20 - Standards for Protection Against Radiation," US Nuclear Regulatory Commission, Washington, DC.

[39] Three Mile Island Nuclear Station, Unit 1, Technical Specifications, DPR 50.

[40] Three Mile Island Nuclear Station, Unit 2, PDMS Technical Specifications, DPR 73.

[41] Radiation Management Corporation. “Three Mile Island Nuclear Station, Preoperational Radiological Environmental Monitoring Program, January 1, 1974 – June 5, 1974. RMC-TR-75-17, January 1975.

[42] Constellation. “Three Mile Island Nuclear Station Offsite Dose Calculation Manual (ODCM).

[43] National Council of Radiation Protection and Measurements Report No. 160. “Ionizing Radiation Exposure of the Population of the United States.” 2009.

[44] Teledyne Brown Engineering Environmental Services. "4th Quarter 2025 Quality Assurance Report", January - December 2025.

[45] GEL 2025 Annual Quality Assurance Report for the Radiological Environmental Monitoring Program (REMP) Rev.1.

Attachment 1, Data Table Summary

Medium or Pathway Sampled (Units)	Type, Total Number of Analyses performed (e.g., I-131, 400)	Lower Limit of Detection (LLD)	Indicator Mean[6]; (f[7]). Range[6]	Location with Highest Annual Mean		Control Mean[6] (f[7]). Range[6]	Number of Nonroutine Reported Measurements
				Name Distance and Direction	Mean[6] (f[7]) Range[6]		
Air Particulates (pCi/m³)	Beta, 364	(0.01)	2.10 E-2 (312/312) (5.53E-3 – 4.54E-2)	F1-3, 500kv Substation 0.6 miles, Sector F	2.27 E-2 (52/52) (7.99 E-3-4.54E-2)	2.09 E-2 (52/52) (6.89 E-3-3.83E-2)	0
Direct Radiation (mrem/qtr.)	Gamma Dose, 728	NA	8.7 (8 / 704) (8.0 – 9.4)	H1-3, 0.1 miles in Sector H	9.10 (4/8) (6.9 – 11.7)	8.53 (10/24) (6.9 – 11.7)	0
Effluent Water (pCi/L)	Gross Beta, 12	(4)	2.18, (12/12) (1.03-3.21)	K1-1, 0.2miles, Sector K	2.18, (12/12) (1.03-2.18)	NA	0
Effluent Water (pCi/L)	Tritium Monthly, 12	(200)	1.84E+03, (1/12) (1.84E+03)	K1-1, 0.2miles, Sector K	1.84E+03, (1/12) (1.84E+03)	NA	0
Effluent Water (pCi/L)	Tritium Quarterly, 4	(200)	6.12E+02, (1/4) (6.12E+02)	K1-1, 0.2miles, Sector K	6.12E+02, (1/4) (6.12E+02)	NA	0
Drinking Water (pCi/L)	Gross Beta, 36	(4)	2.30, (24/24) (1.15-3.77)	G15-2, 13.3 miles, Sector G	2.79, (12/12) (1.82-3.77)	1.56 (10/12) (1.37-2.36)	0

[6] Mean and range are based on detectable measurements only.
[7] Fraction of detectable measurements at specified locations is indicated in parentheses.

Attachment 2, Complete Data Table for All Analysis Results Obtained In 2025

The following data tables in this attachment are organized by frequency and media type of samples collected for the Radiological Environmental Monitoring Program reporting out the surveillance of the pathways of exposure to the environment for 2025. The goal of the continuous and periodic sampling of these media types provides thorough assessments that plant operations are within all regulatory limits ensuring the safety of the public.

Table 10: Monthly Waterborne Sample Results

Table 11: Weekly Airborne Sample Results

Table 12: Quarterly Isotopic Sample Results

Table 13: Semi-Annual Fish and Sediment Isotopic Sample Results

Table 10: Monthly Sample Results

Radionuclides in Surface Water (pCi/L)											
	A3-2 (Control)		Q9-1 (SW)		J1-2		K1-1				
Date	I-131	Tritium	Gamma Emitters	Tritium	Gamma Emitters	Tritium	Gamma Emitters	Gross Beta		Tritium	Sr89/90 (Semi-Annual Composite)
								Gross Beta Activity	Uncertainty (2-σ)		
1/29/2025	*	ND	*	*	*	*	*	1.59E+00	6.87E-01	*	
2/26/2025	*	ND	*	*	*	*	*	1.92E+00	7.42E-01	*	
4/2/2025	*	ND	*	*	*	*	*	1.14E+00	7.13E-01	*	
4/30/2025	*	ND	*	*	*	*	*	1.03E+00	7.24E-01	*	
5/28/2025	*	ND	*	*	*	*	*	1.45E+00	7.12E-01	*	
7/2/2025	*	ND	*	*	*	*	*	2.95E+00	8.03E-01	*	*
7/30/2025	*	ND	*	*	*	*	*	2.47E+00	8.62E-01	*	
9/3/2025	*	ND	*	*	*	*	*	2.89E+00	8.59E-01	*	
10/1/2025	*	ND	*	*	*	*	*	2.72E+00	8.17E-01	*	
10/29/2025	*	ND	*	*	*	*	*	3.21E+00	8.62E-01	1.84E+03	
12/3/2025	*	ND	*	*	*	*	*	2.38E+00	7.42E-01	*	
12/30/2025	*	ND	*	*	*	*	*	2.39E+00	8.55E-01	*	*

*All Non-Natural Radionuclides <MDA
ND No Data, Samples not analyzed for this parameter

Table 10 Continued: Monthly Radionuclides in Drinking Water (pCi/L)

Location	G15-2				G15-3				Q9-1 (DW) (Control)			
Date	Gamma Emitters	Tritium	Gross Beta Activity	Uncertainty (2-σ)	Gamma Emitters	Tritium	Gross Beta Activity	Uncertainty (2-σ)	Gamma Emitters	Tritium	Gross Beta Activity	Uncertainty (2-σ)
1/29/2025	*	*	2.84E+00	7.86E-01	*	*	2.04E+00	7.24E-01	*	*	1.87E+00	7.09E-01
2/26/2025	*	*	2.46E+00	7.82E-01	*	*	2.12E+00	7.58E-01	*	*	1.37E+00	6.93E-01
4/2/2025	*	*	2.43E+00	8.16E-01	*	*	1.29E+00	7.24E-01	*	*	1.48E+00	7.37E-01
4/30/2025	*	*	1.98E+00	7.97E-01	*	*	1.70E+00	7.76E-01	*	*	3.61E-01	6.68E-01
5/28/2025	*	*	2.53E+00	7.99E-01	*	*	1.31E+00	7.03E-01	*	*	1.39E+00	7.08E-01
7/2/2025	*	*	3.00E+00	8.10E-01	*	*	2.32E+00	7.60E-01	*	*	1.72E+00	7.12E-01
7/30/2025	*	*	1.82E+00	8.17E-01	*	*	1.18E+00	7.74E-01	*	*	1.54E+00	7.96E-01
9/3/2025	*	*	2.73E+00	8.44E-01	*	*	1.59E+00	7.68E-01	*	*	1.41E+00	7.54E-01
10/1/2025	*	*	3.43E+00	8.61E-01	*	*	2.04E+00	7.68E-01	*	*	2.29E+00	7.86E-01
10/29/2025	*	*	3.39E+00	8.76E-01	*	*	2.83E+00	8.39E-01	*	*	1.91E+00	7.72E-01
12/3/2025	*	*	3.77E+00	8.47E-01	*	*	2.06E+00	7.20E-01	*	*	2.36E+00	7.42E-01
12/30/2025	*	*	3.07E+00	9.00E-01	*	*	1.15E+00	7.64E-01	*	*	1.03E+00	7.55E-01

* All Non-Natural Radionuclides <MDA

Table 10 Continued: Monthly and Biweekly Samples for Radionuclides in Milk (pCi/L)

Date	F4-1	G2-1	J18-1 (Control)	J17-1 (Control)
1/15/2025	*	*	*	ND1
2/19/2025	*	*	ND1	ND1
3/5/2025	*	*	ND1	*
3/19/2025	*	*	ND1	*
4/2/2025	*	*	ND1	*
4/16/2025	*	*	ND1	*
4/30/2025	*	*	ND1	*
5/14/2025	*	*	ND1	*
5/28/2025	*	*	ND1	*
6/11/2025	*	*	ND1	*
6/25/2025	*	*	ND1	*
7/9/2025	*	*	ND1	*
7/23/2025	*	*	ND1	*
8/6/2025	*	*	ND1	*
8/20/2025	*	*	ND1	*
9/3/2025	*	*	ND1	*
9/16/2025	ND2	ND2	ND1	*
9/17/2025	*	*	ND1	ND2
10/1/2025	*	*	ND1	*
10/15/2025	*	*	ND1	*
10/29/2025	*	*	ND1	*
11/12/2025	*	*	ND1	*
11/25/2025	*	*	ND1	*
12/10/2025	*	*	ND1	*

* All Non-Natural Radionuclides <MDA

ND1 No Data, new control farm (J17-1) established in March 2025.

ND2 No Data, sampled on different day of the week.

Table 10 Continued: Monthly Samples for Radionuclides in Vegetation (pCi/kg wet)

Sample Code	Sample Date	Sample Type	Sr-90	Gamma Emitters
E1-2	6/23/2025	Horseradish	ND	*
East of site at Visitors Center	6/23/2025	Cabbage	ND	*
	6/23/2025	Kale	ND	*
	7/21/2025	Horseradish	ND	*
	7/21/2025	Kale	ND	*
	7/21/2025	Cabbage	ND	*
	8/18/2025	Horseradish	ND	*
	8/18/2025	Kale	ND	*
	8/18/2025	Collards	ND	*
	8/18/2025	Corn	*	*
	8/18/2025	Potato	*	*
	8/18/2025	Tomato	*	*
	9/15/2025	Horseradish	ND	*
	9/15/2025	Kale	ND	*
	9/15/2025	Cabbage	ND	*
H1-2	6/23/2025	Yellow Squash Leaves	ND	*
Red Hill Market	6/23/2025	Zucchini Leaves	ND	*
	6/23/2025	Cucumber	ND	*
	7/21/2025	Zucchini	ND	*
	7/21/2025	Eggplant Leaves	ND	*
	7/21/2025	Pumpkin Leaves	ND	*
	8/18/2025	Zucchini Leaves	ND	*
	8/18/2025	Yellow Squash Leaves	ND	*

Table 10 Continued: Monthly Samples for Radionuclides in Vegetation (pCi/kg wet)

Sample Code	Sample Date	Sample Type	Sr-90	Gamma Emitters
H1-2	8/18/2025	Cauliflower	ND	*
Red Hill Market	9/15/2025	Cabbage	ND	*
	9/15/2025	Broccoli	ND	*
	9/15/2025	Cauliflower	ND	*
B10-2 (Control)	6/23/2025	Lettuce	ND	*
Milton Hershey School	6/23/2025	Beet	ND	*
	6/23/2025	Corn	ND	*
	7/21/2025	Cucumber	ND	*
	7/21/2025	Corn	ND	*
	7/21/2025	Lettuce	ND	*
	8/18/2025	Yellow Squash Leaves	ND	*
	8/18/2025	Kale	ND	*
	8/18/2025	Cabbage	ND	*
	8/18/2025	Corn	*	*
	8/18/2025	Potato	*	*
	8/18/2025	Tomato	*	*
	9/15/2025	Kale	ND	*
	9/15/2025	Collards	ND	*
	9/15/2025	Pepper Leaves	ND	*

* All Non-Natural Gamma Emitters <MDA
ND No Data, Analysis not required

Table 11: Weekly Air Monitoring Particulate and I-131 filters (pCi/m^3)

Gross Beta activity in Air Particulates (pCi/m^3)														
	E1-2		F1-3		G2-1		M2-1		A3-1		H3-1		Q15-1 (Control)	
Date	Gross Beta Activity	(2-σ)	Gross Beta Activity	(2-σ)	Gross Beta Activity	(2-σ)	Gross Beta Activity	(2-σ)	Gross Beta Activity	(2-σ)	Gross Beta Activity	(2-σ)	Gross Beta Activity	(2-σ)
1/9/2025	1.81E-02	2.09E-03	2.07E-02	2.19E-03	2.04E-02	2.19E-03	2.06E-02	2.21E-03	1.94E-02	2.15E-03	1.90E-02	2.16E-03	2.02E-02	2.19E-03
1/15/2025	2.82E-02	2.83E-03	3.24E-02	2.98E-03	3.21E-02	2.98E-03	1.78E-02	2.50E-03	3.31E-02	3.00E-03	3.10E-02	2.97E-03	2.85E-02	2.86E-03
1/22/2025	2.21E-02	2.31E-03	2.82E-02	2.52E-03	2.46E-02	2.41E-03	2.26E-02	2.35E-03	2.76E-02	2.50E-03	2.47E-02	2.44E-03	2.36E-02	2.38E-03
1/29/2025	2.66E-02	2.46E-03	2.87E-02	2.54E-03	3.19E-02	2.65E-03	2.70E-02	2.50E-03	2.81E-02	2.52E-03	3.08E-02	2.64E-03	3.07E-02	2.61E-03
2/5/2025	1.72E-02	2.16E-03	1.90E-02	2.23E-03	1.87E-02	2.24E-03	1.87E-02	2.24E-03	1.70E-02	2.17E-03	1.96E-02	2.29E-03	1.75E-02	2.19E-03
2/12/2025	2.13E-02	2.26E-03	2.19E-02	2.28E-03	2.22E-02	2.32E-03	2.13E-02	2.23E-03	2.06E-02	2.23E-03	2.18E-02	2.33E-03	2.03E-02	2.20E-03
2/19/2025	1.39E-02	2.19E-03	1.58E-02	2.08E-03	1.82E-02	2.22E-03	1.48E-02	2.12E-03	1.66E-02	2.13E-03	1.83E-02	2.19E-03	1.64E-02	2.16E-03
2/26/2025	1.86E-02	2.08E-03	2.17E-02	2.20E-03	2.18E-02	2.22E-03	1.82E-02	2.09E-03	2.08E-02	2.17E-03	2.06E-02	2.20E-03	2.26E-02	2.24E-03
3/5/2025	1.94E-02	2.12E-03	1.86E-02	2.10E-03	2.07E-02	2.19E-03	2.02E-02	2.15E-03	2.12E-02	2.19E-03	1.91E-02	2.16E-03	1.95E-02	2.12E-03
3/12/2025	1.67E-02	2.05E-03	1.95E-02	2.16E-03	1.86E-02	2.14E-03	1.65E-02	2.10E-03	2.08E-02	2.22E-03	2.07E-02	2.23E-03	1.99E-02	2.22E-03
3/19/2025	1.67E-02	2.04E-03	1.82E-02	2.11E-03	1.70E-02	2.07E-03	1.82E-02	2.12E-03	1.63E-02	2.04E-03	1.59E-02	2.04E-03	1.77E-02	2.09E-03
3/26/2025	1.53E-02	2.05E-03	1.79E-02	2.16E-03	1.71E-02	2.14E-03	2.06E-02	2.28E-03	2.13E-02	2.28E-03	1.89E-02	2.23E-03	2.09E-02	2.28E-03
4/2/2025	1.74E-02	2.13E-03	1.79E-02	2.16E-03	1.82E-02	2.18E-03	1.68E-02	2.14E-03	1.72E-02	2.14E-03	1.82E-02	2.20E-03	1.75E-02	2.15E-03
4/10/2025	1.76E-02	1.95E-03	2.03E-02	2.05E-03	1.97E-02	2.04E-03	1.75E-02	1.98E-03	1.95E-02	2.03E-03	1.83E-02	2.02E-03	2.07E-02	2.08E-03
4/16/2025	1.64E-02	2.28E-03	1.64E-02	2.27E-03	1.63E-02	2.30E-03	1.68E-02	2.31E-03	1.88E-02	2.37E-03	1.64E-02	2.30E-03	1.95E-02	2.41E-03
4/23/2025	1.65E-02	2.09E-03	2.06E-02	2.25E-03	2.04E-02	2.25E-03	2.00E-02	2.25E-03	1.88E-02	2.19E-03	1.91E-02	2.23E-03	1.96E-02	2.22E-03
4/30/2025	1.65E-02	1.94E-03	2.06E-02	2.27E-03	1.85E-02	2.00E-03	1.77E-02	2.13E-03	1.96E-02	2.08E-03	2.01E-02	2.27E-03	1.78E-02	2.01E-03
5/8/2025	1.24E-02	1.62E-03	1.65E-02	1.93E-03	1.25E-02	1.61E-03	1.34E-02	1.78E-03	1.53E-02	1.75E-03	1.29E-02	1.63E-03	1.29E-02	1.66E-03

Table 11 Continued: Weekly Air Monitoring Particulate and I-131 filters (pCi/m^3)

	E1-2		F1-3		G2-1		M2-1		A3-1		H3-1		Q15-1 (Control)	
Date	Gross Beta Activity	(2-σ)	Gross Beta Activity	(2-σ)	Gross Beta Activity	(2-σ)	Gross Beta Activity	(2-σ)	Gross Beta Activity	(2-σ)	Gross Beta Activity	(2-σ)	Gross Beta Activity	(2-σ)
5/14/2025	1.39E-02	2.07E-03	2.03E-02	2.52E-03	1.46E-02	2.07E-03	1.70E-02	2.35E-03	1.70E-02	2.22E-03	1.64E-02	2.15E-03	1.47E-02	2.13E-03
5/21/2025	9.80E-03	1.69E-03	1.35E-02	2.02E-03	1.12E-02	1.74E-03	9.48E-03	1.81E-03	1.00E-02	1.73E-03	1.01E-02	1.70E-03	1.03E-02	1.74E-03
5/28/2025	5.53E-03	1.40E-03	7.99E-03	1.68E-03	6.23E-03	1.43E-03	6.22E-03	1.56E-03	6.23E-03	1.46E-03	5.61E-03	1.40E-03	6.89E-03	1.49E-03
6/4/2025	1.32E-02	1.73E-03	1.49E-02	1.96E-03	1.48E-02	1.78E-03	1.63E-02	1.98E-03	1.37E-02	1.78E-03	1.51E-02	1.80E-03	1.36E-02	1.77E-03
6/11/2025	1.81E-02	1.98E-03	2.05E-02	2.25E-03	1.95E-02	2.02E-03	1.73E-02	2.09E-03	2.06E-02	2.10E-03	1.76E-02	1.96E-03	1.71E-02	1.97E-03
6/18/2025	1.26E-02	1.85E-03	1.34E-02	2.06E-03	1.22E-02	1.81E-03	1.33E-02	2.01E-03	1.12E-02	1.82E-03	1.22E-02	1.82E-03	1.14E-02	1.82E-03
6/25/2025	2.41E-02	2.17E-03	2.58E-02	2.42E-03	2.28E-02	2.11E-03	2.47E-02	2.34E-03	2.52E-02	2.24E-03	2.25E-02	2.11E-03	2.20E-02	2.13E-03
7/2/2025	2.03E-02	2.01E-03	2.19E-02	2.24E-03	1.93E-02	1.96E-03	1.95E-02	2.12E-03	2.23E-02	2.11E-03	1.88E-02	1.95E-03	1.93E-02	2.00E-03
7/9/2025	1.79E-02	1.93E-03	2.26E-02	2.27E-03	1.61E-02	1.84E-03	2.08E-02	2.16E-03	1.89E-02	1.99E-03	1.86E-02	1.94E-03	1.90E-02	1.99E-03
7/17/2025	1.90E-02	1.84E-03	2.01E-02	2.05E-03	1.80E-02	1.80E-03	2.00E-02	2.00E-03	2.12E-02	1.94E-03	1.92E-02	1.84E-03	2.04E-02	1.91E-03
7/23/2025	1.92E-02	2.28E-03	1.86E-02	2.47E-03	1.65E-02	2.16E-03	1.84E-02	2.41E-03	1.80E-02	2.27E-03	1.93E-02	2.27E-03	1.93E-02	2.31E-03
7/30/2025	2.36E-02	2.13E-03	2.73E-02	2.44E-03	2.32E-02	2.10E-03	2.62E-02	2.36E-03	2.59E-02	2.24E-03	2.44E-02	2.15E-03	2.54E-02	2.22E-03
8/6/2025	2.23E-02	2.12E-03	2.57E-02	2.43E-03	2.28E-02	2.13E-03	2.41E-02	2.33E-03	2.48E-02	2.24E-03	2.20E-02	2.10E-03	2.35E-02	2.19E-03
8/13/2025	1.93E-02	2.00E-03	2.37E-02	2.34E-03	2.12E-02	2.05E-03	2.37E-02	2.29E-03	2.46E-02	2.21E-03	1.91E-02	1.99E-03	2.16E-02	2.11E-03
8/20/2025	2.11E-02	2.05E-03	2.55E-02	2.38E-03	2.35E-02	2.11E-03	2.54E-02	2.33E-03	2.37E-02	2.16E-03	2.36E-02	2.12E-03	2.34E-02	2.15E-03
8/27/2025	1.49E-02	1.83E-03	1.98E-02	2.18E-03	1.58E-02	1.85E-03	1.35E-02	1.90E-03	1.52E-02	1.87E-03	1.48E-02	1.82E-03	1.40E-02	1.82E-03
9/3/2025	2.06E-02	2.05E-03	2.29E-02	2.30E-03	1.80E-02	1.94E-03	1.93E-02	2.14E-03	2.23E-02	2.14E-03	1.99E-02	2.00E-03	2.22E-02	2.12E-03
9/10/2025	2.43E-02	2.18E-03	2.97E-02	2.54E-03	2.45E-02	2.17E-03	2.52E-02	2.36E-03	2.91E-02	2.36E-03	2.46E-02	2.18E-03	2.72E-02	2.30E-03

Table 11 Continued: Weekly Air Monitoring Particulate and I-131 filters (pCi/m^3)

	E1-2		F1-3		G2-1		M2-1		A3-1		H3-1		Q15-1 (Control)	
Date	Gross Beta Activity	(2-σ)	Gross Beta Activity	(2-σ)	Gross Beta Activity	(2-σ)	Gross Beta Activity	(2-σ)	Gross Beta Activity	(2-σ)	Gross Beta Activity	(2-σ)	Gross Beta Activity	(2-σ)
9/17/2025	3.86E-02	2.60E-03	4.54E-02	3.00E-03	3.57E-02	2.50E-03	4.05E-02	2.81E-03	3.86E-02	2.63E-03	3.52E-02	2.49E-03	3.56E-02	2.55E-03
9/24/2025	2.69E-02	2.27E-03	3.15E-02	2.60E-03	2.79E-02	2.28E-03	2.95E-02	2.50E-03	3.03E-02	2.40E-03	2.51E-02	2.20E-03	2.77E-02	2.32E-03
10/1/2025	4.03E-02	2.65E-03	4.40E-02	2.96E-03	3.79E-02	2.57E-03	3.99E-02	2.80E-03	4.42E-02	2.91E-03	4.25E-02	2.69E-03	3.83E-02	2.63E-03
10/8/2025	2.47E-02	2.15E-03	2.86E-02	2.46E-03	2.49E-02	2.14E-03	2.67E-02	2.36E-03	2.71E-02	2.26E-03	2.33E-02	2.10E-03	2.50E-02	2.19E-03
10/15/2025	1.23E-02	1.79E-03	1.33E-02	2.01E-03	1.21E-02	1.77E-03	1.17E-02	1.90E-03	1.32E-02	1.86E-03	1.24E-02	1.78E-03	1.21E-02	1.80E-03
10/23/2025	2.20E-02	1.96E-03	2.32E-02	2.17E-03	2.10E-02	1.91E-03	2.28E-02	2.12E-03	2.40E-02	2.05E-03	2.14E-02	1.93E-03	2.19E-02	1.98E-03
10/29/2025	1.30E-02	2.03E-03	1.40E-02	2.27E-03	1.58E-02	2.12E-03	1.49E-02	2.27E-03	1.39E-02	2.11E-03	1.25E-02	1.99E-03	1.46E-02	2.13E-03
11/6/2025	1.92E-02	1.88E-03	2.15E-02	2.12E-03	2.10E-02	1.92E-03	2.17E-02	2.08E-03	2.17E-02	1.98E-03	1.88E-02	1.86E-03	2.01E-02	1.92E-03
11/12/2025	2.23E-02	2.34E-03	2.58E-02	2.67E-03	2.38E-02	2.37E-03	2.26E-02	2.51E-03	2.57E-02	2.49E-03	2.37E-02	2.37E-03	2.39E-02	2.42E-03
11/19/2025	2.15E-02	2.08E-03	2.33E-02	2.33E-03	2.14E-02	2.07E-03	2.39E-02	2.31E-03	2.43E-02	2.21E-03	2.14E-02	2.07E-03	2.37E-02	2.18E-03
11/25/2025	3.34E-02	2.77E-03	3.69E-02	3.12E-03	3.15E-02	2.69E-03	3.43E-02	2.99E-03	3.65E-02	2.90E-03	3.26E-02	2.73E-03	3.61E-02	2.89E-03
12/3/2025	1.63E-02	1.78E-03	1.94E-02	2.05E-03	1.54E-02	1.74E-03	1.79E-02	1.96E-03	1.89E-02	1.90E-03	1.60E-02	1.76E-03	1.80E-02	1.86E-03
12/10/2025	2.16E-02	2.09E-03	2.40E-02	2.36E-03	2.06E-02	2.04E-03	2.24E-02	2.25E-03	2.44E-02	2.22E-03	2.21E-02	2.10E-03	2.41E-02	2.20E-03
12/17/2025	2.01E-02	2.08E-03	2.19E-02	2.33E-03	2.23E-02	2.14E-03	1.94E-02	2.20E-03	2.10E-02	2.14E-03	1.79E-02	1.99E-03	2.00E-02	2.10E-03
12/23/2025	2.57E-02	2.46E-03	3.46E-02	2.97E-03	2.65E-02	2.47E-03	3.18E-02	2.87E-03	3.02E-02	2.64E-03	2.89E-02	2.54E-03	2.90E-02	2.60E-03
12/30/2025	1.86E-02	2.03E-03	2.19E-02	2.34E-03	1.76E-02	1.99E-03	1.96E-02	2.21E-03	2.11E-02	2.15E-03	1.85E-02	2.02E-03	1.85E-02	2.05E-03

Table 11 Continued: Weekly Air Monitoring Particulate and I-131 filters (pCi/m^3)

Airborne I-131 (pCi/m^3) Activity on Charcoal Cartridges							
Date	**E1-2**	**F1-3**	**G2-1**	**M2-1**	**A3-1**	**H3-1**	**Q15-1**
01/09/2025	*	*	*	*	*	*	*
01/15/2025	*	*	*	*	*	*	*
01/22/2025	*	*	*	*	*	*	*
01/29/2025	*	*	*	*	*	*	*
02/05/2025	*	*	*	*	*	*	*
02/12/2025	*	*	*	*	*	*	*
02/19/2025	*	*	*	*	*	*	*
02/26/2025	*	*	*	*	*	*	*
03/05/2025	*	*	*	*	*	*	*
03/12/2025	*	*	*	*	*	*	*
03/19/2025	*	*	*	*	*	*	*
03/26/2025	*	*	*	*	*	*	*
04/02/2025	*	*	*	*	*	*	*
04/10/2025	*	*	*	*	*	*	*
04/16/2025	*	*	*	*	*	*	*
04/23/2025	*	*	*	*	*	*	*
04/30/2025	*	*	*	*	*	*	*
05/08/2025	*	*	*	*	*	*	*
05/14/2025	*	*	*	*	*	*	*
05/21/2025	*	*	*	*	*	*	*
05/28/2025	*	*	*	*	*	*	*
06/04/2025	*	*	*	*	*	*	*
06/11/2025	*	*	*	*	*	*	*
06/18/2025	*	*	*	*	*	*	*
06/25/2025	*	*	*	*	*	*	*
07/02/2025	*	*	*	*	*	*	*

Table 11 Continued: Weekly Air Monitoring Particulate and I-131 filters (pCi/m^3)

Airborne I-131 (pCi/m^3) Activity on Charcoal Cartridges							
Date	**E1-2**	**F1-3**	**G2-1**	**M2-1**	**A3-1**	**H3-1**	**Q15-1**
07/09/2025	*	*	*	*	*	*	*
07/17/2025	*	*	*	*	*	*	*
07/23/2025	*	*	*	*	*	*	*
07/30/2025	*	*	*	*	*	*	*
08/06/2025	*	*	*	*	*	*	*
08/13/2025	*	*	*	*	*	*	*
08/20/2025	*	*	*	*	*	*	*
08/27/2025	*	*	*	*	*	*	*
09/03/2025	*	*	*	*	*	*	*
09/10/2025	*	*	*	*	*	*	*
09/17/2025	*	*	*	*	*	*	*
09/24/2025	*	*	*	*	*	*	*
10/01/2025	*	*	*	*	*	*	*
10/08/2025	*	*	*	*	*	*	*
10/15/2025	*	*	*	*	*	*	*
10/23/2025	*	*	*	*	*	*	*
10/29/2025	*	*	*	*	*	*	*
11/06/2025	*	*	*	*	*	*	*
11/12/2025	*	*	*	*	*	*	*
11/19/2025	*	*	*	*	*	*	*
11/25/2025	*	*	*	*	*	*	*
12/03/2025	*	*	*	*	*	*	*
12/10/2025	*	*	*	*	*	*	*
12/17/2025	*	*	*	*	*	*	*
12/23/2025	*	*	*	*	*	*	*
12/30/2025	*	*	*	*	*	*	*
*<MDA, Minimum Detectable Activity							

Table 12: Quarterly isotopic data –Air (pCi/m^3), Milk (pCi/L), Water (pCi/L)

Location	Nuclide	Q1	Q2	Q3	Q4
Quarterly Air Filter Composite for Gamma Emitters (pCi/m^3)					
E1-2	Cs134, Cs137	<MDAs	<MDAs	<MDAs	<MDAs
F1-3	Cs134, Cs137	<MDAs	<MDAs	<MDAs	<MDAs
G2-1	Cs134, Cs137	<MDAs	<MDAs	<MDAs	<MDAs
M2-1	Cs134, Cs137	<MDAs	<MDAs	<MDAs	<MDAs
A3-1	Cs134, Cs137	<MDAs	<MDAs	<MDAs	<MDAs
H3-1	Cs134, Cs137	<MDAs	<MDAs	<MDAs	<MDAs
Q15-1 (Control)	Cs134, Cs137	<MDAs	<MDAs	<MDAs	<MDAs
Quarterly Strontium-90 in Milk (pCi/L)					
F4-1	Sr-90	<MDA	<MDA	<MDA	<MDA
G2-1	Sr-90	<MDA	<MDA	<MDA	<MDA
J18-1 (Control)	Sr-90	<MDA	ND	ND	ND
J17-1 (Control)	Sr-90	<MDA	<MDA	<MDA	<MDA
Quarterly Tritium in Water (pCi/L)					
G15-2 (Control)	H-3	<MDA	<MDA	<MDA	<MDA
G15-3	H-3	<MDA	<MDA	<MDA	<MDA
Q9-1 (DW)	H-3	<MDA	<MDA	<MDA	<MDA
Q9-1 (SW)	H-3	<MDA	<MDA	<MDA	<MDA
J1-2	H-3	<MDA	<MDA	<MDA	<MDA
K1-1	H-3	<MDA	<MDA	<MDA	6.12E+02

NOTE: <MDA denotes laboratory analysis detected No non-natural radionuclides at or above the ODCM required Minimum Detectable Activity

[ND] No Data, new control farm (J17-1) established in March 2025.

Table 13: Semi-Annual Fish and Sediment Isotopic Data

Radionuclides in Fish (pCi/kg wet)				
Sample Code	**Sample Date**	**Sample Type**	**Gamma Emitters**	**Sr-90**
BKG (Control)	6/17/2025	Bottom Feeder	*	*
Upstream of Station Discharge	6/17/2025	Predator Fish	*	*
	9/30/2025	Bottom Feeder	*	*
	9/30/2025	Predator Fish	*	*
IND	6/16/2025	Bottom Feeder	*	*
Downstream of Station Discharge	6/18/2025	Predator Fish	*	*
	9/29/2025	Bottom Feeder	*	*
	10/6/2025	Predator Fish	*	*
* All Non-Natural Gamma Emitters <MDA				

Radionuclides in Sediment (pCi/kg dry)		
Sample Code	**Sample Date**	**Gamma Emitters**
A1-3 (Control)	6/12/2025	*
North Tip of TMI in Susquehanna River	10/28/2025	*
J2-1	6/12/2025	*
South of TMINS & upstream of York Haven Dam, in Susquehanna River	10/28/2025	*
K1-3	6/12/2025	*
downstream of TMINS liquid discharge in Susquehanna River	10/28/2025	*
* All Non-Natural Gamma Emitters <MDA		

Attachment 3, Cross Check Intercomparison Program

Participation in cross check intercomparison studies is mandatory for laboratories performing analyses of REMP samples satisfying the requirements in the Offsite Site Dose Calculation Manual. Intercomparison studies provide a consistent and effective means to evaluate the accuracy and precision of analyses performed by a laboratory. Study results should fall within specified control limits and results that fall outside the control limits are investigated and corrected.

Constellation Generation Solutions Laboratory participated in the following proficiency testing studies provided by Environmental Resource Associates (ERA) and Eckert Ziegler Analytics (EZA) in 2025. The Laboratory's intercomparison program results for 2025 are summarized below.

Attachment 3 is a summary of Constellation Generation Solutions (CGS) laboratory's quality assurance program. It consists of Table 14 which is a compilation of the results of the CGS laboratory's participation in an interlaboratory comparison program with Environmental Resource Associates (ERA) located in Arvada, Colorado and Eckert and Ziegler Analytics, Inc. (EZA) located in Atlanta, Georgia.

It also includes a compilation of the results of the Constellation Generation Solutions (CGS) Laboratory's participation in a split sample program with Teledyne Brown Engineering located in Knoxville, Tennessee.

The CGS laboratory's intercomparison results are in full agreement when they were evaluated using designated acceptance ranges and the Resolution Test Criteria in accordance with the Constellation Radiochemistry Quality Control procedure, except as noted in the Pass/Fail column and described below. The CGS laboratory's results are provided with their analytical uncertainties of 2 sigma. When evaluating with the Resolution Test a one sigma uncertainty is used to determine Pass or Fail and noted accordingly. Co-located air samplers provide the opportunity to perform interlaboratory comparisons of beta particulate and radioiodine filters that due to the nature of the sample precludes them from splitting for analysis. Results of E1-2 analyzed by CGS and E1-2Q analyzed by TBE for beta particulates are provided at the end of this table for review and are generally in good agreement. The radioiodine samples collected alongside the beta particulate filters were analyzed and all were below MDA so there are no results to compare for that parameter.

All results reported passed their respective acceptance ranges and Resolution Test Criteria as required.

The vendor laboratories used by CGS for subcontracting and interlaboratory comparison samples, GEL Laboratories and Teledyne Brown Engineering (TBE), participate in the MAPEP interlaboratory comparison program in addition to ERA and EZA interlaboratory comparison programs. A presentation of their full data report is provided in their Annual Environmental

Quality Assurance Program Reports, (Ref 44,45). In summary TBE and GEL reported results met vendor and laboratory acceptance ranges with the following exceptions described here.

For TBE, the following study reported data that did not meet the specified acceptance criteria and was addressed through the TBE Corrective Action Program. Investigation of the failure is described as follows:

TBE crosscheck failed low for 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 samples also passing. The laboratory performed testing with Sr-85 spike with successful outcomes. The following provider study, RdV53, returned with passing results.

For the GEL Laboratory, the following four studies reported data that did not meet the specified acceptance criteria and were addressed through GEL’s internal nonconformance system. A summary is found below:

GEL crosscheck MRAD-42 failed low for Tritium in water, 2nd quarter 2025.
The laboratory reviewed the data and counting process for this sample and no errors were noted. It was noted that the duplicate met acceptance criteria in the original preparation. The sample was prepared again in duplicate, and the results were within the acceptance criteria of the PT. The laboratory will scrutinize dilutions to determine the most appropriate level to lessen the impact on the detection limits and non-detected results. The lab will continue to monitor the recoveries of these parameters to ensure that there are no continued issues. During the analysis time period for MRAD-42, the laboratory successfully completed the analysis of other uranium isotopes in water and filters as well as Tritium in water in PT study MAPEP-52. In which, the samples were prepared and analyzed by the same processes and procedures.

GEL crosscheck EZA E13890 Milk for Sr-90 failed low, 2nd quarter 2025
The laboratory reviewed the data for this analysis and no errors were found. It was noted that the Yttrium carrier recovery was greater than is typically seen for this method which could cause a potential low bias in the results. Due to the Sr-89 result recovering greater than 100% in the acceptance limits, it is also suspected that an undetermined error occurred during the second separation resulting in a low Y-90 recovery. The duplicate sample in the analysis batch exhibited the same low bias but was within the acceptance range. The laboratory will evaluate the standardization of the carriers used for analysis and monitor the recoveries of both the Sr and Y carriers. The laboratory will complete an additional PT study for this parameter in the 4th quarter of 2025. The lab will continue to monitor the recoveries of this parameter to ensure that there are no continued issues.

GEL crosscheck RAD 142 Drinking Water for Sr90 failed low, 3rd quarter 2025.
The laboratory conducted a review of the Sr-90 batch in response to the failure. No anomalies were found during the assessment, and all sample yields exceeded 96%, suggesting that sample loss is unlikely. It was noted that the Sr-90 Laboratory Control Sample (LCS) yielded a result of 75%, indicating a low bias in the batch results. The laboratory will continue to monitor the analytical processes of these parameters to ensure that there are no continued issues. The laboratory will continue to monitor the performance of these methods and has scheduled future PT samples as well as single blind samples as they become available.

GEL crosscheck EZA E14411 Milk for Sr89 failed high, 4th quarter 2025.
The laboratory reviewed the data for the Sr-89 result in milk and attributed the failure to matrix interference associated with the high calcium content typical of milk. Calcium and other matrix constituents can co-precipitate or co-elute with strontium during the radiochemical separation process. Incomplete separation of calcium and other matrix components or performing the separation too rapidly and not allowing sufficient contact time for the ion exchange columns to remove interferences, may have contributed to the observed bias. The laboratory concluded that the high bias was caused by matrix interference from calcium or an unknown constituent combined with incomplete chemical separation during sample preparation.
Analysts have reviewed SOP steps for Sr-89 analysis in milk against current laboratory practice to confirm procedures are being followed as written. The SOP is being reviewed for possible updates to incorporate additional rinses that are more effective in removing interferences that are common in milk. In addition, the laboratory made and standardized new Strontium and Yttrium carriers for use in the analysis. The laboratory also evaluated the Sr-89 standards to ensure they meet acceptance criteria for use. The laboratory will continue to monitor the performance of this method and has scheduled a future PT sample.

Table 14: Cross Check Intercomparison Results

Study Date	Study ID	Units	Radionuclide	Reported Value	Assigned Value	Acceptance		Performance Evaluation
						Lower Limit	Upper Limit	
03/13/2025	E14262 Milk	pCi/L	Ce-141	80.8	75.8	53.1	98.5	Pass
		pCi/L	Co-58	114	105	73.5	137	Pass
		pCi/L	Co-60	197	193	135	251	Pass
		pCi/L	Cr-51	264	291	204	378	Pass
		pCi/L	Cs-134	140	142	99.4	185	Pass
		pCi/L	Cs-137	173	168	118	218	Pass
		pCi/L	Fe-59	138	135	94.5	176	Pass
		pCi/L	I-131	84.0	94.7	66.3	123	Pass
		pCi/L	Mn-54	198	189	132	246	Pass
		pCi/L	Zn-65	231	251	176	326	Pass
03/13/2025	E14262 Milk	pCi/L	Ce-141	74.3	75.8	53.1	98.5	Pass
		pCi/L	Co-58	97.9	105	73.5	137	Pass
		pCi/L	Co-60	197	193	135	251	Pass
		pCi/L	Cr-51	286	291	204	378	Pass
		pCi/L	Cs-134	146	142	99.4	185	Pass
		pCi/L	Cs-137	181	168	118	218	Pass
		pCi/L	Fe-59	141	135	94.5	176	Pass
		pCi/L	I-131	96.3	94.7	66.3	123	Pass
		pCi/L	Mn-54	192	189	132	246	Pass
		pCi/L	Zn-65	225	251	176	326	Pass

Table 14 Continued: Cross Check Intercomparison Results

Study Date	Study ID	Units	Radionuclide	Reported Value	Assigned Value	Acceptance		Performance Evaluation
						Lower Limit	Upper Limit	
03/13/2025	E14262 Milk	pCi/L	Ce-141	86.2	75.8	53.1	98.5	Pass
		pCi/L	Co-58	117	105	73.5	137	Pass
		pCi/L	Co-60	193	193	135	251	Pass
		pCi/L	Cs-134	141	142	99.4	185	Pass
		pCi/L	Cs-137	176	168	118	218	Pass
		pCi/L	Fe-59	124	135	94.5	176	Pass
		pCi/L	I-131	89.3	94.7	66.3	123	Pass
		pCi/L	Mn-54	201	189	132	246	Pass
		pCi/L	Zn-65	236	251	176	326	Pass
03/13/2025	E14263 Water	pCi/L	Beta Cs-137	247	243	170	316	Pass
03/13/2025	E14264 Cartridge	pCi	I-131	61.4	66.1	46.3	85.9	Pass
03/13/2025	E14264 Cartridge	pCi	I-131	63.7	66.1	46.3	85.9	Pass
03/13/2025	E14264 Cartridge	pCi	I-131	61.5	66.1	46.3	85.9	Pass
03/13/2025	E14264 Cartridge	pCi	I-131	59.0	66.1	46.3	85.9	Pass
04/07/2025	RAD-141	pCi/L	Cs-134	17.3	16.5	5.65	27.4	Pass
	Water		Cs-137	49.1	50.8	27.3	74.3	Pass
			Co-60	109	104	84.4	124	Pass
			Zn-65	338	341	279	403	Pass
04/07/2025	RAD-141	pCi/L	Cs-134	18.3	16.5	5.65	27.4	Pass
	Water		Cs-137	54.0	50.8	27.3	74.3	Pass

Table 14 Continued: Cross Check Intercomparison Results

Study Date	Study ID	Units	Radionuclide	Reported Value	Assigned Value	Acceptance		Performance Evaluation
						Lower Limit	Upper Limit	
04/07/2025	RAD-141	pCi/L	Co-60	116	104	84.4	124	Pass
	Water		Zn-65	330	341	279	403	Pass
04/07/2025	RAD-141	pCi/L	Cs-134	18.3	16.5	5.65	27.4	Pass
	Water		Cs-137	54.0	50.8	27.3	74.3	Pass
			Co-60	116	104	84.4	124	Pass
			Zn-65	330	341	279	403	Pass
04/07/2025	RAD-141 Water	pCi/L	Beta Cs-137	20.2	22.9	15.0	30.8	Pass
04/07/2025	RAD-141 Water	pCi/L	I-131	28.0	26.8	23.2	30.4	Pass
04/07/2025	RAD-141 Water	pCi/L	I-131	27.5	26.8	23.2	30.4	Pass
04/07/2025	RAD-141 Water	pCi/L	I-131	27.2	26.8	23.2	30.4	Pass
06/12/2025	E14258 Soil	pCi/g	Cs-134	0.322	0.347	0.243	0.451	Pass
			Cs-137	0.314	0.319	0.223	0.415	Pass
06/12/2025	E14258 Soil	pCi/g	Cs-134	0.318	0.347	0.243	0.451	Pass
			Cs-137	0.333	0.319	0.223	0.415	Pass
06/12/2025	E14258 Soil	pCi/g	Cs-134	0.301	0.347	0.243	0.451	Pass
			Cs-137	0.282	0.319	0.223	0.415	Pass

Table 14 Continued: Cross Check Intercomparison Results

Study Date	Study ID	Units	Radionuclide	Reported Value	Assigned Value	Acceptance		Performance Evaluation
						Lower Limit	Upper Limit	
06/12/2025	E14258 Soil	pCi/g	Cs-134	0.312	0.347	0.243	0.451	Pass
			Cs-137	0.309	0.319	0.223	0.415	Pass
06/12/2025	E14265 Water	pCi/L	Beta Cs-137	201	204	143	265	Pass
06/12/2025	E14266 Water	pCi/L	Ce-141	140	138	96.6	179	Pass
			Co-58	155	160	112	208	Pass
			Co-60	229	211	148	274	Pass
			Cr-51	320	283	198	368	Pass
			Cs-134	194	204	143	265	Pass
			Cs-137	152	149	104	194	Pass
			Fe-59	159	135	94.5	176	Pass
			I-131	73.8	62.5	43.8	81.3	Pass
			Mn-54	157	150	105	195	Pass
			Zn-65	286	282	197	367	Pass
06/12/2025	E14266 Water	pCi/L	Ce-141	128	138	96.6	179	Pass
			Co-58	156	160	112	208	Pass
			Co-60	211	211	148	274	Pass
			Cr-51	261	283	198	368	Pass
			Cs-134	203	204	143	265	Pass
			Cs-137	147	149	104	194	Pass
			Fe-59	151	135	94.5	176	Pass
			I-131	60.8	62.5	43.8	81.3	Pass
			Mn-54	164	150	105	195	Pass
			Zn-65	285	282	197	367	Pass

Table 14 Continued: Cross Check Intercomparison Results

Study Date	Study ID	Units	Radionuclide	Reported Value	Assigned Value	Acceptance		Performance Evaluation
						Lower Limit	Upper Limit	
06/12/2025	E14267 Filter	pCi	Ce-141	88.4	89.9	62.9	117	Pass
			Co-58	105	104	72.8	135	Pass
			Co-60	139	137	95.9	178	Pass
			Cr-51	198	184	128.80	239	Pass
			Cs-134	108	133	93.1	173	Pass
			Cs-137	100	96.8	67.8	126	Pass
			Fe-59	101	87.5	61.3	114	Pass
			Mn-54	102	97.4	68.2	127	Pass
			Zn-65	195	183	128.1	238	Pass
06/12/2025	E14267 Filter	pCi	Ce-141	87.5	89.9	62.9	117	Pass
			Co-58	103	104	72.8	135	Pass
			Co-60	138	137	95.9	178.1	Pass
			Cr-51	174	184	129	239.2	Pass
			Cs-134	114	133	93.1	172.9	Pass
			Cs-137	95.3	96.8	67.8	125.84	Pass
			Fe-59	97.2	87.5	61.3	113.75	Pass
			Mn-54	110	97.4	68.2	126.62	Pass
			Zn-65	180	183	128	237.9	Pass
06/12/2025	E14268 Filter	pCi	Beta Cs-137	243	196	137	254.8	Pass
06/12/2025	E14268 Filter	pCi	Beta Cs-137	239	196	137	254.8	Pass
09/11/2025	E14269 Filter	pCi	Beta Cs-137	135	119	83	155	Pass

Table 14 Continued: Cross Check Intercomparison Results

Study Date	Study ID	Units	Radionuclide	Reported Value	Assigned Value	Acceptance		Performance Evaluation
						Lower Limit	Upper Limit	
09/11/2025	E14259 Soil	pCi/g	Cs-134	0.216	0.236	0.165	0.307	Pass
09/11/2025	E14259 Soil	pCi/g	Cs-137	0.301	0.276	0.193	0.359	Pass
09/11/2025	E14259 Soil	pCi/g	Cs-134	0.213	0.236	0.165	0.307	Pass
			Cs-137	0.276	0.276	0.193	0.359	Pass
09/22/2025	MRAD43	pCi	Cs-134	293	341	221	418	Pass
	Filter		Cs-137	376	379	311	497	Pass
			Co-60	307	322	274	409	Pass
			Zn-65	194	193	158	295	Pass
09/22/2025	MRAD43	pCi	Cs-134	282	341	221	418	Pass
	Filter		Cs-137	356	379	311	497	Pass
			Co-60	322	322	274	409	Pass
			Zn-65	197	193	158	295	Pass
09/22/2025	MRAD43	pCi	Cs-134	296	341	221	418	Pass
	Filter		Cs-137	357	379	311	497	Pass
			Co-60	342	322	274	409	Pass
			Zn-65	225	193	158	295	Pass
10/03/2025	RAD143	pCi/L	Cs-134	59.8	58.0	43.0	73.0	Pass
	Water		Cs-137	182	178	142	214	Pass
			Co-60	55.4	55.0	40.3	69.7	Pass
			Zn-65	34.4	36.8	5.51	68.1	Pass

Table 14 Continued: Cross Check Intercomparison Results

Study Date	Study ID	Units	Radionuclide	Reported Value	Assigned Value	Acceptance		Performance Evaluation
						Lower Limit	Upper Limit	
10/03/2025	RAD143 Water	pCi/L	Cs-134	57.7	58.0	43.0	73.0	Pass
			Cs-137	181	178	142	214	Pass
10/03/2025	RAD143 Water	pCi/L	Co-60	58.5	55.0	40.3	69.7	Pass
			Zn-65	34.3	36.8	5.51	68.1	Pass
10/03/2025	RAD143 Water	pCi/L	I-131	23.2	24.3	20.9	27.7	Pass
10/03/2025	RAD143 Water	pCi/L	I-131	24.8	24.3	20.9	27.7	Pass
12/04/2025	E14271 Water	pCi/L	Beta Cs-137	278	257	180	334	Pass
12/04/2025	E14272 Charcoal	pCi	I-131	78.2	88.8	62.2	115	Pass
12/04/2025	E14272 Charcoal	pCi	I-131	77.8	88.8	62.2	115	Pass
12/04/2025	E14273	pCi/L	Ce-141	155	143	100	186	Pass
			Co-58	171	169	118	220	Pass
			Co-60	236	217	152	282	Pass
			Cr-51	298	299	209	389	Pass
			Cs-134	142	139	97.3	181	Pass
12/04/2025	E14273	pCi/L	Cs-137	177	168	118	218	Pass
			Fe-59	161	134	93.8	174	Pass
			I-131	80.6	86	60.2	112	Pass
12/04/2025	E14273	pCi/L	Mn-54	212	187	131	243	Pass
			Zn-65	259	244	171	317	Pass

See Discussion at the beginning of Attachment 3 for description of the interlaboratory split program.

Table 14 Continued: Split Sample Intercomparison Results

Sample Type	Location	Sample Date	Analysis	Result Units	CGS Analysis w 2σ		Split Analysis (TBE) w 2σ	Pass/Fail (Split)
Water	Q9-1	01/29/2025	Gross Beta	pCi/L	1.87	0.709	<MDA	Pass
Water	Q9-1	01/29/2025	LLI	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	01/29/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	01/29/2025	Tritium	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	02/26/2025	Gross Beta	pCi/L	1.37	0.693	<MDA	Pass
Water	Q9-1	02/26/2025	LLI	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	02/26/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	02/26/2025	Tritium	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	04/02/2025	Gross Beta	pCi/L	1.48	0.737	<MDA	Pass
Water	Q9-1	04/02/2025	LLI	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	04/02/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	04/02/2025	Tritium	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	04/30/2025	Gross Beta	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	04/30/2025	LLI	pCi/L	<MDA		<MDA	Pass

Table 14 Continued: Split Sample Intercomparison Results

Sample Type	Location	Sample Date	Analysis	Result Units	CGS Analysis w 2σ		Split Analysis (TBE) w 2σ	Pass/Fail (Split)
Water	Q9-1	04/30/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	04/30/2025	Tritium	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	05/28/2025	Gross Beta	pCi/L	1.39	0.708	<MDA	Pass
Water	Q9-1	05/28/2025	LLI	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	05/28/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	05/28/2025	Tritium	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	07/02/2025	Gross Beta	pCi/L	1.72	0.712	2.48 ± 1.31	Pass
Water	Q9-1	07/02/2025	LLI	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	07/02/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	07/02/2025	Tritium	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	07/30/2025	Gross Beta	pCi/L	1.54	0.796	2.31 ± 1.46	Pass
Water	Q9-1	07/30/2025	LLI	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	07/30/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	07/30/2025	Tritium	pCi/L	<MDA		<MDA	Pass

Table 14 Continued: Split Sample Intercomparison Results

Sample Type	Location	Sample Date	Analysis	Result Units	CGS Analysis w 2σ		Split Analysis (TBE) w 2σ	Pass/Fail (Split)
Water	Q9-1	09/03/2025	Gross Beta	pCi/L	1.41	0.754	<MDA	Pass
Water	Q9-1	09/03/2025	LLI	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	09/03/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	09/03/2025	Tritium	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	10/01/2025	Gross Beta	pCi/L	2.29	0.786	3.88 ± 2.47	Pass
Water	Q9-1	10/01/2025	LLI	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	10/01/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	10/01/2025	Tritium	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	10/29/2025	Gross Beta	pCi/L	1.91	0.772	3.23 ± 1.69	Pass
Water	Q9-1	10/29/2025	LLI	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	10/29/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	10/29/2025	Tritium	pCi/L	<MDA		<MDA	NA
Water	Q9-1	12/03/2025	Gross Beta	pCi/L	2.36	0.742	<MDA	Pass
Water	Q9-1	12/03/2025	LLI	pCi/L	<MDA		<MDA	Pass

Table 14 Continued: Split Sample Intercomparison Results

Sample Type	Location	Sample Date	Analysis	Result Units	CGS Analysis w 2σ		Split Analysis (TBE) w 2σ	Pass/Fail (Split)
Water	Q9-1	12/03/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	12/03/2025	Tritium	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	12/30/2025	Gross Beta	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	12/30/2025	LLI	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	12/30/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Water	Q9-1	12/30/2025	Tritium	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	01/15/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	01/15/2025	LLI	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	02/19/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	02/19/2025	LLI	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	03/05/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	03/05/2025	LLI	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	03/19/2025	Gamma	pCi/L	<MDA		<MDA	Pass

Table 14 Continued: Split Sample Intercomparison Results

Sample Type	Location	Sample Date	Analysis	Result Units	CGS Analysis w 2σ		Split Analysis (TBE) w 2σ	Pass/Fail (Split)
Milk	G2-1	03/19/2025	LLI	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	04/02/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	04/02/2025	LLI	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	04/16/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	04/16/2025	LLI	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	04/30/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	04/30/2025	LLI	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	05/14/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	05/14/2025	LLI	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	05/28/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	05/28/2025	LLI	pCi/L	<MDA		<MDA	Pass

Table 14 Continued: Split Sample Intercomparison Results

Sample Type	Location	Sample Date	Analysis	Result Units	CGS Analysis w 2σ		Split Analysis (TBE) w 2σ	Pass/Fail (Split)
Milk	G2-1	06/11/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	06/11/2025	LLI	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	06/25/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	06/25/2025	LLI	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	07/09/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	07/09/2025	LLI	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	07/23/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	07/23/2025	LLI	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	08/06/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	08/06/2025	LLI	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	08/20/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	08/20/2025	LLI	pCi/L	<MDA		<MDA	Pass

Table 14 Continued: Split Sample Intercomparison Results

Sample Type	Location	Sample Date	Analysis	Result Units	CGS Analysis w 2σ		Split Analysis (TBE) w 2σ	Pass/Fail (Split)
Milk	G2-1	09/03/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	09/03/2025	LLI	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	09/17/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	09/17/2025	LLI	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	10/01/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	10/01/2025	LLI	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	10/15/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	10/15/2025	LLI	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	10/29/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	10/29/2025	LLI	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	11/12/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	11/12/2025	LLI	pCi/L	<MDA		<MDA	Pass

Table 14 Continued: Split Sample Intercomparison Results

Sample Type	Location	Sample Date	Analysis	Result Units	CGS Analysis w 2σ		Split Analysis (TBE) w 2σ	Pass/Fail (Split)
Milk	G2-1	11/25/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	11/25/2025	LLI	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	12/10/2025	Gamma	pCi/L	<MDA		<MDA	Pass
Milk	G2-1	12/10/2025	LLI	pCi/L	<MDA		<MDA	Pass
Filter Composite	E1-2/E1-2Q*	04/2/2025	Gamma	pCi/m3	<MDA		<MDA	Pass
Filter Composite	E1-2/E1-2Q*	07/02/2025	Gamma	pCi/m3	<MDA		<MDA	Pass
Filter Composite	E1-2/E1-2Q*	10/01/2025	Gamma	pCi/m3	<MDA		<MDA	Pass
Filter Composite	E1-2/E1-2Q*	12/30/2025	Gamma	pCi/m3	<MDA		<MDA	Pass
Vegetation	H1-2	6/23/2025	Gamma	pCi/Kg	<MDA		<MDA	Pass
Vegetation	H1-2	7/21/2025	Gamma	pCi/Kg	<MDA		<MDA	Pass
Vegetation	H1-2	8/18/2025	Gamma	pCi/Kg	<MDA		<MDA	Pass
Vegetation	H1-2	9/15/2025	Gamma	pCi/Kg	<MDA		<MDA	Pass
Vegetation	B10-2	8/18/2025	Gamma	pCi/Kg	<MDA		<MDA	Pass

Table 14 Continued: Split Sample Intercomparison Results

Sample Type	Location	Sample Date	Analysis	Result Units	CGS Analysis w 2σ		Split Analysis (TBE) w 2σ	Pass/Fail (Split)
Vegetation	B10-2	8/18/2025	Strontium-90	pCi/Kg	<MDA		<MDA	Pass
Fish	INDP	10/6/2025	Gamma	pCi/Kg	<MDA		<MDA	Pass
Fish	INDP	10/6/2025	Strontium-90	pCi/Kg	<MDA		<MDA	Pass
Sediment	J2-1	10/28/25	Gamma	pCi/Kg	<MDA		<MDA	Pass
Water	WA1	1/02/2026	Gamma	pCi/L	<MDA		<MDA	Pass
Water	WA2	1/02/2026	Gamma	pCi/L	<MDA		<MDA	Pass
Oysters	IA3	8/12/2025	Gamma	pCi/Kg	<MDA		<MDA	Pass
Bottom Sediment	WBS4	6/18/2025	Gamma	pCi/Kg	<MDA		<MDA	Pass
Bottom Sediment	WBS2	6/18/2025	Gamma	pCi/Kg	<MDA		<MDA	Pass
Vegetation	IB10	8/11/2025	Gamma	pCi/Kg	<MDA		<MDA	Pass
Vegetation	IB11	8/11/2025	Gamma	pCi/Kg	<MDA		<MDA	Pass
Vegetation	IB12	8/11/2025	Gamma	pCi/Kg	<MDA		<MDA	Pass

Table 14 Continued: Split Sample Intercomparison Results

Sample Type	Location	Sample Date	Analysis	Result Units	CGS Analysis w 2σ		Split Analysis (TBE) w 2σ	Pass/Fail (Split)
Fish (Striped Bass)	IA1	7/8/2025	Gamma	pCi/kg	<MDA		<MDA	Pass
Fish (Spot)	IA2	7/8/2025	Gamma	pCi/kg	<MDA		<MDA	Pass
Filter Composite	CC-A1**	06/30/2025	Gamma	pCi/m3	<MDA		<MDA	Pass
Filter Composite	CC-A2**	06/30/2025	Gamma	pCi/m3	<MDA		<MDA	Pass
Filter Composite	CC-A3**	06/30/2025	Gamma	pCi/m3	<MDA		<MDA	Pass
Filter Composite	CC-A4**	06/30/2025	Gamma	pCi/m3	<MDA		<MDA	Pass
Filter Composite	CC-A5**	06/30/2025	Gamma	pCi/m3	<MDA		<MDA	Pass
Filter Composite	CC-SFA1**	06/30/2025	Gamma	pCi/m3	<MDA		<MDA	Pass
Filter Composite	CC-SFA2**	06/30/2025	Gamma	pCi/m3	<MDA		<MDA	Pass
Filter Composite	CC-SFA3**	06/30/2025	Gamma	pCi/m3	<MDA		<MDA	Pass
Filter Composite	CC-SFA4**	06/30/2025	Gamma	pCi/m3	<MDA		<MDA	Pass

[<MDA] All non-natural gamma emitters below Minimum Detectable Activity.

[NA] Analysis not required.

* Collocated air samplers provide split comparison E1-2 analyzed by CGS and E1-2Q analyzed by TBE

** Samples cannot be split and are analyzed first by CGS and then by TBE for comparison.

Table 14 Continued: Split Sample Intercomparison Results (Collocated Air Particulate Samplers)

Media	Location*	Sample Date	Beta	pCi/M³	(CGS) E1-2	±2σ	(TBE) E1-2Q	±2σ
Filter	E1-2 / E1-2Q	1/9/2025	Beta	pCi/M³	1.81E-02	2.09E-03	1.83E-02	4.04E-03
Filter	E1-2 / E1-2Q	1/15/2025	Beta	pCi/M³	2.82E-02	2.83E-03	2.10E-02	4.82E-03
Filter	E1-2 / E1-2Q	1/22/2025	Beta	pCi/M³	2.21E-02	2.31E-03	1.84E-02	4.23E-03
Filter	E1-2 / E1-2Q	1/29/2025	Beta	pCi/M³	2.66E-02	2.46E-03	1.79E-02	4.37E-03
Filter	E1-2 / E1-2Q	2/5/2025	Beta	pCi/M³	1.72E-02	2.16E-03	1.20E-02	3.85E-03
Filter	E1-2 / E1-2Q	2/12/2025	Beta	pCi/M³	2.13E-02	2.26E-03	9.99E-03	3.63E-03
Filter	E1-2 / E1-2Q	2/19/2025	Beta	pCi/M³	1.39E-02	2.19E-03	1.10E-02	4.03E-03
Filter	E1-2 / E1-2Q	2/26/2025	Beta	pCi/M³	1.86E-02	2.08E-03	1.40E-02	3.83E-03
Filter	E1-2 / E1-2Q	3/5/2025	Beta	pCi/M³	1.94E-02	2.12E-03	1.34E-02	3.84E-03
Filter	E1-2 / E1-2Q	3/12/2025	Beta	pCi/M³	1.67E-02	2.05E-03	1.23E-02	3.92E-03
Filter	E1-2 / E1-2Q	3/19/2025	Beta	pCi/M³	1.67E-02	2.04E-03	1.41E-02	3.42E-03
Filter	E1-2 / E1-2Q	3/26/2025	Beta	pCi/M³	1.53E-02	2.05E-03	1.39E-02	3.82E-03
Filter	E1-2 / E1-2Q	4/2/2025	Beta	pCi/M³	1.74E-02	2.13E-03	1.07E-02	3.53E-03
Filter	E1-2 / E1-2Q	4/10/2025	Beta	pCi/M³	1.76E-02	1.95E-03	1.34E-02	3.57E-03
Filter	E1-2 / E1-2Q	4/16/2025	Beta	pCi/M³	1.64E-02	2.28E-03	1.28E-02	4.02E-03
Filter	E1-2 / E1-2Q	4/23/2025	Beta	pCi/M³	1.65E-02	2.09E-03	1.27E-02	4.24E-03
Filter	E1-2 / E1-2Q	4/30/2025	Beta	pCi/M³	1.65E-02	1.94E-03	1.09E-02	3.45E-03
Filter	E1-2 / E1-2Q	5/8/2025	Beta	pCi/M³	1.24E-02	1.62E-03	8.92E-03	3.02E-03
Filter	E1-2 / E1-2Q	5/14/2025	Beta	pCi/M³	1.39E-02	2.07E-03	1.29E-02	4.12E-03

Table 14 Continued: Split Sample Intercomparison Results (Collocated Air Particulate Samplers)

Media	Location*	Sample Date	Beta	pCi/M^3	(CGS) E1-2	±2σ	(TBE) E1-2Q	±2σ
Filter	E1-2 / E1-2Q	5/21/2025	Beta	pCi/M^3	9.80E-03	1.69E-03	8.50E-03	3.29E-03
Filter	E1-2 / E1-2Q	5/28/2025	Beta	pCi/M^3	5.53E-03	1.40E-03	4.18E-03	2.89E-03
Filter	E1-2 / E1-2Q	6/4/2025	Beta	pCi/M^3	1.32E-02	1.73E-03	9.28E-03	3.43E-03
Filter	E1-2 / E1-2Q	6/11/2025	Beta	pCi/M^3	1.81E-02	1.98E-03	1.28E-02	3.63E-03
Filter	E1-2 / E1-2Q	6/18/2025	Beta	pCi/M^3	1.26E-02	1.85E-03	1.04E-02	3.52E-03
Filter	E1-2 / E1-2Q	6/25/2025	Beta	pCi/M^3	2.41E-02	2.17E-03	1.55E-02	4.29E-03
Filter	E1-2 / E1-2Q	7/2/2025	Beta	pCi/M^3	2.03E-02	2.01E-03	1.71E-02	3.81E-03
Filter	E1-2 / E1-2Q	7/9/2025	Beta	pCi/M^3	1.79E-02	1.93E-03	1.05E-02	3.61E-03
Filter	E1-2 / E1-2Q	7/17/2025	Beta	pCi/M^3	1.90E-02	1.84E-03	1.86E-02	3.62E-03
Filter	E1-2 / E1-2Q	7/23/2025	Beta	pCi/M^3	1.92E-02	2.28E-03	1.06E-02	3.88E-03
Filter	E1-2 / E1-2Q	7/30/2025	Beta	pCi/M^3	2.36E-02	2.13E-03	1.53E-02	4.17E-03
Filter	E1-2 / E1-2Q	8/6/2025	Beta	pCi/M^3	2.23E-02	2.12E-03	1.89E-02	4.05E-03
Filter	E1-2 / E1-2Q	8/13/2025	Beta	pCi/M^3	1.93E-02	2.00E-03	1.42E-02	4.12E-03
Filter	E1-2 / E1-2Q	8/20/2025	Beta	pCi/M^3	2.11E-02	2.05E-03	1.00E-02	3.79E-03
Filter	E1-2 / E1-2Q	8/27/2025	Beta	pCi/M^3	1.49E-02	1.83E-03	9.99E-03	3.35E-03
Filter	E1-2 / E1-2Q	9/3/2025	Beta	pCi/M^3	2.06E-02	2.05E-03	1.50E-02	3.64E-03
Filter	E1-2 / E1-2Q	9/10/2025	Beta	pCi/M^3	2.43E-02	2.18E-03	1.43E-02	3.88E-03
Filter	E1-2 / E1-2Q	9/17/2025	Beta	pCi/M^3	3.86E-02	2.60E-03	2.61E-02	4.60E-03
Filter	E1-2 / E1-2Q	9/24/2025	Beta	pCi/M3	2.69E-02	2.27E-03	1.96E-02	4.33E-03

Table 14 Continued: Split Sample Intercomparison Results (Collocated Air Particulate Samplers)

Media	Location*	Sample Date	Beta	pCi/M^3	(CGS) E1-2	±2σ	(TBE) E1-2Q	±2σ
Filter	E1-2 / E1-2Q	10/1/2025	Beta	pCi/M3	4.03E-02	2.65E-03	2.72E-02	4.55E-03
Filter	E1-2 / E1-2Q	10/8/2025	Beta	pCi/M3	2.47E-02	2.15E-03	1.62E-02	3.90E-03
Filter	E1-2 / E1-2Q	10/15/2025	Beta	pCi/M3	1.23E-02	1.79E-03	1.20E-02	3.47E-03
Filter	E1-2 / E1-2Q	10/23/2025	Beta	pCi/M3	2.20E-02	1.96E-03	1.75E-02	3.57E-03
Filter	E1-2 / E1-2Q	10/29/2025	Beta	pCi/M3	1.30E-02	2.03E-03	1.11E-02	3.37E-03
Filter	E1-2 / E1-2Q	11/6/2025	Beta	pCi/M3	1.92E-02	1.88E-03	1.08E-02	3.24E-03
Filter	E1-2 / E1-2Q	11/12/2025	Beta	pCi/M3	2.23E-02	2.34E-03	1.58E-02	4.25E-03
Filter	E1-2 / E1-2Q	11/19/2025	Beta	pCi/M3	2.15E-02	2.08E-03	1.60E-02	3.93E-03
Filter	E1-2 / E1-2Q	11/25/2025	Beta	pCi/M3	3.34E-02	2.77E-03	2.10E-02	4.72E-03
Filter	E1-2 / E1-2Q	12/3/2025	Beta	pCi/M3	1.63E-02	1.78E-03	1.30E-02	3.30E-03
Filter	E1-2 / E1-2Q	12/10/2025	Beta	pCi/M3	2.16E-02	2.09E-03	1.69E-02	3.92E-03
Filter	E1-2 / E1-2Q	12/17/2025	Beta	pCi/M3	2.01E-02	2.08E-03	1.54E-02	3.77E-03
Filter	E1-2 / E1-2Q	12/23/2025	Beta	pCi/M3	2.57E-02	2.46E-03	1.67E-02	4.31E-03
Filter	E1-2 / E1-2Q	12/30/2025	Beta	pCi/M3	1.86E-02	2.03E-03	1.06E-02	3.46E-03
Filter	E1-2 / E1-2Q	1/9/2025	Beta	pCi/M3	1.81E-02	2.09E-03	1.83E-02	4.04E-03

* Collocated air samplers provide split comparison E1-2 analyzed by CGS and E1-2Q analyzed by TBE
See Discussion at the beginning of Attachment 3 for description of the interlaboratory split program.

Attachment 4, Environmental Direct Radiation Dosimetry Results

Monitoring Location	Quarterly Baseline, B_Q (mrem)	B_Q + MDD_Q (mrem)	Normalized Quarterly Monitoring Data, M_Q (mrem)				Quarterly Facility Dose, $F_Q=M_Q-B_Q$ (mrem, or "ND" if $F_Q \leq MDD_Q$)				Annual Baseline, B_A (mrem)	B_A + MDD_A (mrem)	Annual Monitoring Data, M_A (mrem)	Annual Facility Dose, $F_A=M_A-B_A$ (mrem, or "ND" if $F_A \leq MDD_A$)
			1	2	3	4	1	2	3	4				
TM-ID-K2-1	21.5	28.13	19.4	16.1	18.3	*	ND	ND	ND	ND	86.20	101.35	53.8	ND
TM-ID-L1-2	17.6	24.23	14.6	11.3	13.3	*	ND	ND	ND	ND	70.30	85.45	39.2	ND
TM-ID-M1-2	19	25.63	17.2	13.8	19.2	*	ND	ND	ND	ND	76.10	91.25	50.2	ND
TM-ID-N1-1	18.5	25.13	15.1	13.3	17.6	*	ND	ND	ND	ND	73.90	89.05	46	ND
TM-ID-P1-1	18.3	24.93	16.2	13.5	18.5	*	ND	ND	ND	ND	73.00	88.15	48.2	ND
TM-ID-Q1-1	18.7	25.33	16.1	13.4	15.7	*	ND	ND	ND	ND	74.70	89.85	45.2	ND
TM-ID-R1-2	16.9	23.53	14.1	11.1	14.4	*	ND	ND	ND	ND	67.80	82.95	39.6	ND
TM-ID-A1-4	16.8	23.43	13.6	12.4	15	18.8	ND	ND	ND	ND	67.10	82.25	59.8	ND
TM-ID-B1-1	17.7	24.33	14	13.9	15.7	16.9	ND	ND	ND	ND	70.80	85.95	60.5	ND
TM-ID-B1-2	17.2	23.83	14.5	12.6	15.3	15.6	ND	ND	ND	ND	68.70	83.85	58	ND
TM-ID-C1-2	17	23.63	13.2	12.1	15	16.7	ND	ND	ND	ND	67.90	83.05	57	ND
TM-ID-D1-1	17.9	24.53	14.2	13.8	13.4	16.9	ND	ND	ND	ND	71.40	86.55	58.3	ND
TM-ID-E1-4	18.1	24.73	15.7	12.2	16.4	22.3	ND	ND	ND	ND	72.30	87.45	66.6	ND
TM-ID-F1-2	20.4	27.03	16.4	14.3	16	19.3	ND	ND	ND	ND	81.50	96.65	66	ND
TM-ID-F1-4	19	25.63	14.2	12.7	16	18.5	ND	ND	ND	ND	75.80	90.95	61.4	ND
TM-ID-G1-3	18	24.63	14.2	13.4	15	17.3	ND	ND	ND	ND	71.90	87.05	59.9	ND
TM-ID-G1-5	17.7	24.33	15.6	14.2	17.7	19.8	ND	ND	ND	ND	70.60	85.75	67.3	ND

Monitoring Location	Quarterly Baseline, B_Q (mrem)	B_Q + MDD_Q (mrem)	Normalized Quarterly Monitoring Data, M_Q (mrem)				Quarterly Facility Dose, $F_Q=M_Q-B_Q$ (mrem, or "ND" if $F_Q \leq MDD_Q$)				Annual Baseline, B_A (mrem)	B_A + MDD_A (mrem)	Annual Monitoring Data, M_A (mrem)	Annual Facility Dose, $F_A=M_A-B_A$ (mrem, or "ND" if $F_A \leq MDD_A$)
			1	2	3	4	1	2	3	4				
TM-ID-G1-6	18.8	25.43	15.5	15.4	15.7	18.4	ND	ND	ND	ND	75.30	90.45	65	ND
TM-ID-H1-1	19.3	25.93	19.4	19.6	22	25.7	ND	ND	ND	ND	77.00	92.15	86.7	ND
TM-ID-J1-1	17.3	23.93	14.4	13.4	13.1	16.9	ND	ND	ND	ND	69.30	84.45	57.8	ND
TM-ID-J1-3	15.3	21.93	20.6	17.1	23.3	24.7	ND	ND	8	9.4	61.10	76.25	85.7	24.6
TM-ID-K1-4	17.4	24.03	14.3	12.7	16.9	18.9	ND	ND	ND	ND	69.60	84.75	62.8	ND
TM-ID-L1-1	18.7	25.33	15	15.8	18.5	21	ND	ND	ND	ND	74.70	89.85	70.3	ND
TM-ID-M1-1	17	23.63	15.2	13.2	16.3	17.6	ND	ND	ND	ND	67.90	83.05	62.3	ND
TM-ID-N1-3	18.8	25.43	15.8	15.8	18.5	19.3	ND	ND	ND	ND	75.20	90.35	69.4	ND
TM-ID-P1-2	18.4	25.03	19	18.3	20	20.5	ND	ND	ND	ND	73.70	88.85	77.8	ND
TM-ID-Q1-2	15.8	22.43	13.1	13.1	13.5	16.6	ND	ND	ND	ND	63.20	78.35	56.3	ND
TM-ID-R1-1	16.8	23.43	13.7	12.9	16	16.3	ND	ND	ND	ND	67.10	82.25	58.9	ND
TM-ID-A5-1	20.8	27.43	17.7	17.6	18.2	17.4	ND	ND	ND	ND	83.20	98.35	70.9	ND
TM-ID-B5-1	20	26.63	17.4	15.5	15.9	18.3	ND	ND	ND	ND	79.80	94.95	67.1	ND
TM-ID-H15-1	19.8	26.43	17.1	15.7	14.9	18.8	ND	ND	ND	ND	79.20	94.35	66.5	ND
TM-ID-H5-1	15.9	22.53	13.5	10.2	12.4	15	ND	ND	ND	ND	63.70	78.85	51.1	ND
TM-ID-H8-1	29.7	36.33	26.9	26.2	26.3	24.3	ND	ND	ND	ND	118.60	133.75	103.7	ND
TM-ID-J15-1	23.2	29.83	19.8	18.3	19	21.2	ND	ND	ND	ND	92.90	108.05	78.3	ND
TM-ID-J3-1	19.5	26.13	16.2	15.2	14.8	16.3	ND	ND	ND	ND	77.90	93.05	62.5	ND

Monitoring Location	Quarterly Baseline, B_Q (mrem)	B_Q + MDD_Q (mrem)	Normalized Quarterly Monitoring Data, M_Q (mrem)				Quarterly Facility Dose, $F_Q=M_Q-B_Q$ (mrem, or "ND" if $F_Q \le MDD_Q$)				Annual Baseline, B_A (mrem)	B_A + MDD_A (mrem)	Annual Monitoring Data, M_A (mrem)	Annual Facility Dose, $F_A=M_A-B_A$ (mrem, or "ND" if $F_A \le MDD_A$)
			1	2	3	4	1	2	3	4				
TM-ID-J5-1	21.4	28.03	17	18.1	17.9	21.3	ND	ND	ND	ND	85.70	100.85	74.3	ND
TM-ID-J7-1	22.8	29.43	18.9	18.3	18.6	22.8	ND	ND	ND	ND	91.10	106.25	78.6	ND
TM-ID-K15-1	19.1	25.73	16.8	13.6	16.3	16.5	ND	ND	ND	ND	76.50	91.65	63.2	ND
TM-ID-K3-1	17.4	24.03	13.8	13	14.8	13.6	ND	ND	ND	ND	69.70	84.85	55.2	ND
TM-ID-K5-1	21.2	27.83	19.2	17.1	17.9	23.5	ND	ND	ND	ND	84.60	99.75	77.7	ND
TM-ID-K8-1	20.5	27.13	16.8	16.5	16	17.2	ND	ND	ND	ND	81.80	96.95	66.5	ND
TM-ID-L15-1	19.6	26.23	16.7	15.5	16.6	19.4	ND	ND	ND	ND	78.50	93.65	68.2	ND
TM-ID-L2-1	19.4	26.03	17.4	14.7	16.4	16	ND	ND	ND	ND	77.40	92.55	64.5	ND
TM-ID-L5-1	17.6	24.23	15.1	13.6	14	16.9	ND	ND	ND	ND	70.50	85.65	59.6	ND
TM-ID-L8-1	19.6	26.23	17.1	14.6	15.6	18.8	ND	ND	ND	ND	78.40	93.55	66.1	ND
TM-ID-M2-1	17.4	24.03	14.3	15.3	14.2	16.5	ND	ND	ND	ND	69.60	84.75	60.3	ND
TM-ID-M5-1	19.2	25.83	18.4	16.7	18	18.4	ND	ND	ND	ND	76.90	92.05	71.5	ND
TM-ID-M9-1	23.5	30.13	22.3	19.7	22.2	22.3	ND	ND	ND	ND	93.80	108.95	86.5	ND
TM-ID-N15-2	21.6	28.23	17.9	18.4	18.2	19.4	ND	ND	ND	ND	86.40	101.55	73.9	ND
TM-ID-N2-1	20	26.63	19	16.1	16.8	17.4	ND	ND	ND	ND	80.10	95.25	69.3	ND
TM-ID-N5-1	16.9	23.53	13.2	12.7	13.1	*	ND	ND	ND	ND	67.70	82.85	39	ND
TM-ID-N8-1	20.3	26.93	17.7	17.2	19.3	18.2	ND	ND	ND	ND	81.20	96.35	72.4	ND
TM-ID-P2-1	22.3	28.93	19.7	18.8	23.1	21.4	ND	ND	ND	ND	89.20	104.35	83	ND

Monitoring Location	Quarterly Baseline, B_Q (mrem)	B_Q + MDD_Q (mrem)	Normalized Quarterly Monitoring Data, M_Q (mrem)				Quarterly Facility Dose, $F_Q=M_Q-B_Q$ (mrem, or "ND" if $F_Q \leq MDD_Q$)				Annual Baseline, B_A (mrem)	B_A + MDD_A (mrem)	Annual Monitoring Data, M_A (mrem)	Annual Facility Dose, $F_A=M_A-B_A$ (mrem, or "ND" if $F_A \leq MDD_A$)
			1	2	3	4	1	2	3	4				
TM-ID-P5-1	19.6	26.23	18.4	16.9	15.8	20.3	ND	ND	ND	ND	77.60	92.75	71.4	ND
TM-ID-P8-1	17.1	23.73	15	12.9	12.9	14.6	ND	ND	ND	ND	68.50	83.65	55.4	ND
TM-ID-Q15-1	21.5	28.13	19.1	16.7	19.4	17.9	ND	ND	ND	ND	86.20	101.35	73.1	ND
TM-ID-Q2-1	17.7	24.33	14.6	11.2	13.9	16.4	ND	ND	ND	ND	70.70	85.85	56.1	ND
TM-ID-Q5-1	18.1	24.73	16.2	14.9	14.8	15.4	ND	ND	ND	ND	72.60	87.75	61.3	ND
TM-ID-Q9-1	18.9	25.53	16.4	14.6	14.7	17.2	ND	ND	ND	ND	75.40	90.55	62.9	ND
TM-ID-R5-1	21.1	27.73	18.6	16	17.2	22.3	ND	ND	ND	ND	84.50	99.65	74.1	ND
TM-ID-A3-1	16.5	23.13	14.3	10.9	12.8	13.9	ND	ND	ND	ND	66.00	81.15	51.9	ND
TM-ID-A9-3	17.6	24.23	15.5	12.2	16	15.7	ND	ND	ND	ND	70.60	85.75	59.4	ND
TM-ID-B10-1	19.3	25.93	17.4	16.8	17.4	19.4	ND	ND	ND	ND	77.40	92.55	71	ND
TM-ID-B2-1	17.2	23.83	15.5	13.9	13	13.8	ND	ND	ND	ND	69.00	84.15	56.2	ND
TM-ID-C1-1	20.2	26.83	15.8	14.6	16.6	19.2	ND	ND	ND	ND	80.80	95.95	66.2	ND
TM-ID-C2-1	19.2	25.83	17	13.7	17	18.4	ND	ND	ND	ND	76.90	92.05	66.1	ND
TM-ID-C5-1	20.7	27.33	17.9	15.3	15.7	17.7	ND	ND	ND	ND	82.70	97.85	66.6	ND
TM-ID-C8-1	20.9	27.53	18.6	15.8	16.3	22.2	ND	ND	ND	ND	83.40	98.55	72.9	ND
TM-ID-D1-2	18.8	25.43	16.6	14.3	16.6	18.3	ND	ND	ND	ND	75.20	90.35	65.8	ND
TM-ID-D15-1	19.8	26.43	16.7	15.1	17.6	16.3	ND	ND	ND	ND	79.10	94.25	65.7	ND
TM-ID-D2-2	23	29.63	20.9	16.9	19.3	21.7	ND	ND	ND	ND	91.80	106.95	78.8	ND

Monitoring Location	Quarterly Baseline, B_Q (mrem)	B_Q + MDD_Q (mrem)	Normalized Quarterly Monitoring Data, M_Q (mrem)				Quarterly Facility Dose, $F_Q=M_Q-B_Q$ (mrem, or "ND" if $F_Q \leq MDD_Q$)				Annual Baseline, B_A (mrem)	B_A + MDD_A (mrem)	Annual Monitoring Data, M_A (mrem)	Annual Facility Dose, $F_A=M_A-B_A$ (mrem, or "ND" if $F_A \leq MDD_A$)
			1	2	3	4	1	2	3	4				
TM-ID-D6-1	22.3	28.93	19.7	17.1	20.9	19.6	ND	ND	ND	ND	89.40	104.55	77.3	ND
TM-ID-E1-2	17.8	24.43	16.3	12.3	14.2	16.3	ND	ND	ND	ND	71.30	86.45	59.1	ND
TM-ID-E2-3	21.5	28.13	18.1	15.6	18	20.7	ND	ND	ND	ND	86.00	101.15	72.4	ND
TM-ID-E5-1	21.9	28.53	18.8	16.8	18.1	22.9	ND	ND	ND	ND	87.70	102.85	76.6	ND
TM-ID-E7-1	20.3	26.93	17.1	15.1	18.2	17.3	ND	ND	ND	ND	81.20	96.35	67.7	ND
TM-ID-F1-1	19.4	26.03	16.2	14.7	19.2	19.3	ND	ND	ND	ND	77.50	92.65	69.4	ND
TM-ID-F10-1	23.7	30.33	21.4	19.6	21	21.9	ND	ND	ND	ND	94.60	109.75	83.9	ND
TM-ID-F2-1	21.9	28.53	18.9	17.6	20.1	21.1	ND	ND	ND	ND	87.60	102.75	77.7	ND
TM-ID-F25-1	20.9	27.53	18.7	14.9	16.3	17.4	ND	ND	ND	ND	83.60	98.75	67.3	ND
TM-ID-F5-1	22.9	29.53	20.9	18.2	20.2	20.9	ND	ND	ND	ND	91.50	106.65	80.2	ND
TM-ID-G1-2	20.1	26.73	16.7	15.6	18.9	20.7	ND	ND	ND	ND	80.40	95.55	71.9	ND
TM-ID-G10-1	27.8	34.43	26.1	23.2	26.3	26.8	ND	ND	ND	ND	111.30	126.45	102.4	ND
TM-ID-G15-1	24.1	30.73	19.3	16.1	18.5	21.6	ND	ND	ND	ND	96.30	111.45	75.5	ND
TM-ID-G2-4	23.9	30.53	20.1	18.6	20.2	21.3	ND	ND	ND	ND	95.60	110.75	80.2	ND
TM-ID-G5-1	19.7	26.33	16.4	13.9	15.4	18.2	ND	ND	ND	ND	78.90	94.05	63.9	ND
TM-ID-H3-1	16.3	22.93	13.2	11.3	12.1	14.5	ND	ND	ND	ND	65.30	80.45	51.1	ND
TM-ID-R15-1	19	25.63	15.5	12.8	14.4	17.1	ND	ND	ND	ND	76.00	91.15	59.8	ND
TM-ID-R3-1	21.9	28.53	19	16.9	19.8	18	ND	ND	ND	ND	87.60	102.75	73.7	ND

Monitoring Location	Quarterly Baseline, B_Q (mrem)	B_Q + MDD_Q (mrem)	Normalized Quarterly Monitoring Data, M_Q (mrem)				Quarterly Facility Dose, $F_Q=M_Q-B_Q$ (mrem, or "ND" if $F_Q \leq MDD_Q$)				Annual Baseline, B_A (mrem)	B_A + MDD_A (mrem)	Annual Monitoring Data, M_A (mrem)	Annual Facility Dose, $F_A=M_A-B_A$ (mrem, or "ND" if $F_A \leq MDD_A$)
			1	2	3	4	1	2	3	4				
TM-ID-R9-1	21.2	27.83	18.3	15.6	16.4	17.6	ND	ND	ND	ND	84.80	99.95	67.9	ND
TM-ID-J1-4	15.3	21.93	20.3	17.9	23.5	23	ND	ND	8.2	7.7	61.1	76.25	84.7	23.6
TM-ID-K1-5	17.4	24.03	17.1	18	19	23.2	ND	ND	ND	ND	69.6	84.75	77.3	ND
TM-ID-H1-3	18	24.63	22.5	24.9	26.7	29.7	ND	6.9	8.7	11.7	71.9	87.05	103.8	31.9
* Lost Sample, See Table 9 Exceptions														

MDD_Q = Quarterly Minimum Differential Dose = 6.63 mrem
MDD_A = Annual Minimum Differential Dose = 15.15 mrem
ND = Not Detected, where $M_Q \leq (B_Q+MDD_Q)$ or $M_A \leq (B_A+MDD_A)$

Attachment 5, ERRATA

In the 2023 and 2024 AREOR, Table 8: Land Use Census, both erroneously have the nearest residence recorded at 0.06 miles within the E sector. The Land Use Census every year since 2022 shows the nearest residence at 2300 ft E sector at the same residence 1005 Meadow Lane, Middletown, PA.

CGS began reporting TMI's AREOR in 2023 and this distance was incorrectly converted to 0.06 miles when it should have been 0.44 miles. The error was carried forward in 2024.
The error is corrected in the 2025 AREOR.

The following excerpts are from TMI's AREOR Land Use Census tables, 2024, 2023, 2022 showing the values reported. The errata to report is only for 2024 and 2023 AREORs.

2024 Land Use Table:

A Land Use Census was conducted during the calendar year, 2024, within the growing season to identify changes in land use, receptor locations, and new exposure pathways. The results for the 2024 Land Use Census are listed in Table 8: Land Use Census – Nearest Receptors within 5 miles. In summary, the highest D/Q locations for nearest garden, nearest residence and nearest milk animal did not change following the 2024 census. Milk sites were identified in Seven (7) of sixteen (16) meteorological sectors. Milk sites were identified in N, NE, ENE, E, ESE, SE and S sectors.

Table 8: Land Use Census – Nearest Receptors within 5 miles

Sector	Direction	Nearest Residence (Miles)	Nearest Milk Animal (Miles)	Nearest Garden (Miles)
A	N	1.0	2.1	1.9
B	NNE	0.76	Not Found in Sector	1.2
C	NE	0.53	4.2	1.1
D	ENE	0.46	4.5	0.5
E	E	~~0.06~~	1.1	0.5
F	ESE	1.10	3.2	0.5
G	SE	0.71	1.4	0.6
H	SSE	0.71	Not Found in Sector	0.8**
J	S	2.24	>5.0*	2.5
K	SSW	0.61	Not Found in Sector	1.6
L	SW	0.54	Not Found in Sector	1.7
M	WSW	1.20	Not Found in Sector	1.3
N	W	1.22	Not Found in Sector	1.3
P	WNW	1.11	Not Found in Sector	1.5
Q	NW	1.11	Not Found in Sector	1.2
R	NNW	1.14	Not Found in Sector	2.4

*Farm is outside the 5-mile radius but is included because it is a regularly sampled REMP milk farm

**A regularly sampled REMP farm

2023 Land Use Table:

Annual Radiological Environmental Operating Report	YEAR: 2023	Page 36 of 88
Company: Constellation	Plant: THREE MILE ISLAND NUCLEAR STATION UNITS 1 AND 2	

Table 8: Land Use Census – Nearest Receptors within 5 miles

Sector	Direction	Nearest Residence (Miles)	Nearest Milk Animal (Miles)	Nearest Garden (Miles)
A	N	1.0	2.1	1.9
B	NNE	0.76	Not Found in Sector	1.2
C	NE	0.53	4.2	1.1
D	ENE	0.46	4.5	0.5
E	E	~~0.06~~	1.1	0.5
F	ESE	1.10	3.2	0.5
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R	NNW	1.14	Not Found in Sector	2.4

*Farm is outside the 5-mile radius but is included because it is a regularly sampled REMP milk farm

**A regularly sampled REMP farm

2022 Land Use Table shows the correct value for East Sector Nearest Residence distance:

E. Land Use Survey

A Land Use Survey conducted in the 2022 fall growing season around the Three Mile Island Nuclear Station (TMINS) was performed by Constellation Energy Group (CEG) for compliance with TMI-2 Tech Spec 6.7.2.b and Section 8.2 of the Plant's Offsite Dose Calculation Manual (ODCM). The purpose of the survey was to document the nearest resident, milk-producing animal and garden of greater than 500 ft^2 in each of the sixteen 22½ degree sectors around the site. The results of these surveys are summarized below:

Distance in Miles from the TMINS Reactor Buildings				
Sector		Residence Miles	Garden Miles	Milk Farm Miles
A	N	1.0	1.9	2.1
B	NNE	0.8	1.2	-
C	NE	0.5	1.1	4.2
D	ENE	0.5	0.5	4.5
E	E	0.4	0.5	1.1
F	ESE	1.1	0.5	3.2
G	SE	0.7	0.6	1.4
H	SSE	0.7	0.8	-
J	S	2.2	2.5	-
K	SSW	0.6	1.6	4.9
L	SW	0.5	1.7	-
M	WSW	1.2	1.3	-
N	W	1.2	1.3	-
P	WNW	1.1	1.5	3.7
Q	NW	1.1	1.2	-
R	NNW	1.1	2.4	-

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Corrected Land Use Tables

2024 Table 8: Land Use Census Corrected

Annual Radiological Environmental Operating Report	YEAR: 2024	Page 38 of 89
Company: CONSTELLATION	Plant: THREE MILE ISLAND NUCLEAR STATION UNITS 1 AND 2	

A Land Use Census was conducted during the calendar year, 2024, within the growing season to identify changes in land use, receptor locations, and new exposure pathways. The results for the 2024 Land Use Census are listed in Table 8: Land Use Census – Nearest Receptors within 5 miles. In summary, the highest D/Q locations for nearest garden, nearest residence and nearest milk animal did not change following the 2024 census. Milk sites were identified in Seven (7) of sixteen (16) meteorological sectors. Milk sites were identified in N, NE, ENE, E, ESE, SE and S sectors.

Table 8: Land Use Census – Nearest Receptors within 5 miles

Sector	Direction	Nearest Residence (Miles)	Nearest Milk Animal (Miles)	Nearest Garden (Miles)
A	N	1.0	2.1	1.9
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E	E	0.4	1.1	0.5
F	ESE	1.10	3.2	0.5
G	SE	0.71	1.4	0.6
H	SSE	0.71	Not Found in Sector	0.8**
J	S	2.24	>5.0*	2.5
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L	SW	0.54	Not Found in Sector	1.7
M	WSW	1.20	Not Found in Sector	1.3
N	W	1.22	Not Found in Sector	1.3
P	WNW	1.11	Not Found in Sector	1.5
Q	NW	1.11	Not Found in Sector	1.2
R	NNW	1.14	Not Found in Sector	2.4

*Farm is outside the 5-mile radius but is included because it is a regularly sampled REMP milk farm

**A regularly sampled REMP farm

2023 Table 8: Land Use Census Corrected

Annual Radiological Environmental Operating Report	YEAR: 2023	Page 36 of 49
Company: Constellation	Plant: THREE MILE ISLAND NUCLEAR STATION UNITS 1 AND 2	

Table 8: Land Use Census – Nearest Receptors within 5 miles

Sector	Direction	Nearest Residence (Miles)	Nearest Milk Animal (Miles)	Nearest Garden (Miles)
A	N	1.0	2.1	1.9
B	NNE	0.76	Not Found in Sector	1.2
C	NE	0.53	4.2	1.1
D	ENE	0.46	4.5	0.5
E	E	0.4	1.1	0.5
F	ESE	1.10	3.2	0.5
G	SE	0.71	1.4	0.6
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J	S	2.24	>5.0*	2.5
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L	SW	0.54	Not Found in Sector	1.7
M	WSW	1.20	Not Found in Sector	1.3
N	W	1.22	Not Found in Sector	1.3
P	WNW	1.11	Not Found in Sector	1.5
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R	NNW	1.14	Not Found in Sector	2.4

*Farm is outside the 5-mile radius but is included because it is a regularly sampled REMP milk farm

**A regularly sampled REMP farm