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L-26-069

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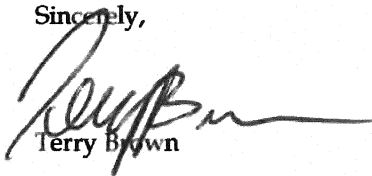
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SUBJECT:  
Perry Nuclear Power Plant  
Docket No. 50-440  
Annual Radiological Environmental Operating Report

Enclosed is the Annual Radiological Environmental Operating Report for the Perry Nuclear Power Plant (PNPP) for the period of January 1, 2025 through December 31, 2025. This document partially satisfies the requirements of the PNPP Technical Specifications (TS), the PNPP Offsite Dose Calculation Manual (ODCM), and the Environmental Protection Plan contained in Appendix B of the PNPP Operating License.

There are no regulatory commitments contained in this letter. If there are any questions or if additional information is required, please contact Mr. Eli Crosby, Senior Manager of Radiation Protection and Chemistry at (440) 280-5032.

Sincerely,



Terry Brown

**Enclosures:**

A PNPP Annual Radiological Environmental Operating Report 2025

cc: NRC Project Manager  
NRC Resident Inspector  
NRC Region III

**Enclosure A**

**L-26-069**

**PNPP Annual Radiological Environmental Operating Report 2025**



# Annual Radiological Environmental Operating Report 2025

Document Number: L-26-069

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## LIST OF ACRONYMS AND DEFINITIONS

1. Airborne Activity Sampling: Continuous sampling of air through the collection of particulates and radionuclides on filter media. Periodic soil samples are collected for gamma isotopic analysis to provide information on deposition to the soil from airborne releases.
2. AIP: Air, Iodine and Particulate
3. ARERR: Annual Radioactive Effluent Release Report
4. AREOR: Annual Radioactive Environmental Operating Report
5. BLV: Broad Leaf Vegetation
6. BWR: Boiling Water Reactor
7. 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.
8. Control: A sampling station in a location not likely to be affected by plant effluents due to its distance and/or direction from Perry Nuclear Power Plant.
9. Curie (Ci): A measure of radioactivity; equal to  $3.7E+10$  disintegrations per second or  $2.22E+12$  disintegrations per minute.
10. Direct Radiation Monitoring: The measurement of radiation dose at various distances from the plant is assessed using Thermoluminescent dosimeters.
11. DW: Drinking Water
12. Grab Sample: A single discrete sample drawn at one point in time.
13. Indicator: A sampling location that is likely to be affected by plant effluents due to its proximity and/or direction from the plant.
14. Ingestion Pathway: The ingestion pathway includes milk, fish, drinking water and garden produce. Also sampled (under special circumstances) are other media such as vegetation and animal products such as eggs and meat when additional information about particular radionuclides is needed.
15. Lower Limit of Detection (LLD): The smallest concentration of radioactive material in a sample that will yield a net count (above system background) that will be detected with 95% probability with a 5% probability of a false conclusion that a blank observation represents "real" signal.
16. MDA: Minimum Detectable Activity
17. Mean: The average, i.e., the sum of results divided by the number of results.
18. NA: Not Applicable
19. NIST: National Institute of Standards and Technology.

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- 20. NRC: Nuclear Regulatory Commission
- 21. ODCM: Offsite Dose Calculation Manual
- 22. pCi: is equal to one trillionth of a curie or 2.22 disintegrations per minute.
- 23. pCi/L: picocuries / Liter
- 24. PNPP: Perry Nuclear Power Plant
- 25. PWR: Pressurized Water Reactor
- 26. REMP: Radiological Environmental Monitoring Program
- 27. SW: Surface Water
- 28. TLD: Thermoluminescent Dosimeter
- 29. TS: Technical Specification

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## **1.0 EXECUTIVE SUMMARY**

The Annual Radiological Environmental Operating Report (AREOR) details the results of Radiological Environmental Monitoring Program (REMP) conducted at the Perry Nuclear Power Plant (PNPP) from January 01 through December 31, 2025. This report meets all requirements in PNPP Offsite Dose Calculation Manual (ODCM). Report topics include radiological environmental monitoring and the land use census. The results of the environmental and effluent programs indicate that the operations of the PNPP did not result in any adverse environmental impact.

### **1.1 Radiological Environmental Monitoring Program**

The REMP was established in 1981 to monitor the radiological conditions in the environment around PNPP. The operational REMP was initiated in 1986 and has continued through this reporting period. The REMP is conducted in accordance with the PNPP ODCM. This program includes collection and analysis of environmental samples and evaluation of results at indicator as well as control locations. Indicator samples are collected at locations determined to be most influenced by operation of the PNPP. Control samples are collected at locations beyond the measurable influence of the PNPP for data comparison.

### **1.2 Pre-Occupational REMP**

The REMP was established at PNPP six years before the plant became operational. Between 1981 and 1986 environmental monitoring involved collection and analysis of environmental samples. This pre-operational program was designed to provide data on background radiation levels and radioactivity normally present in the area in order to establish a baseline for data comparison prior to operation of the plant. PNPP has continued to monitor the environment during plant operation by collecting and analyzing samples of air, milk, fish, vegetation, water, and sediment, as well as by measuring radiation directly.

The contribution of radionuclides to the environment resulting from PNPP operation is assessed by comparing results from the environmental monitoring program with pre-operational data, operational data from previous years, and control location data. The results for each sample type are compared to historical data to determine whether trends or changes in concentrations are observable.

### **1.3 Operational REMP**

Results of air samples collected to monitor the radioactivity in the atmosphere indicated normal background radionuclide concentrations. Terrestrial monitoring vegetation analysis is used in lieu of milk samples as they are unavailable to the program at this time. The results of which indicated concentrations of radioactivity similar to those found in previous years. Analyses of vegetation samples detected only natural radioactivity similar to that observed in previous years and indicated no radioactivity attributable to operation of the PNPP.

Aquatic monitoring included the collection and analyses of water, fish, and shoreline sediments. The analytical results of these samples showed normal background radionuclide concentrations.

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Direct radiation measurements showed no significant changes from previous years. The indicator locations averaged 15.4 mrem/quarter and control locations averaged 15.3 mrem/quarter. Radiation dose near PNPP was similar to the radiation dose measured at locations greater than ten miles away from PNPP.

Results from indicator samples collected during this reporting period were compared to control sample results and pre-operational data. Based on the results, it can be concluded that the operation of the PNPP resulted in no significant increase in the radionuclide concentrations observed in the surrounding environment. The results of the REMP indicate adequate control of radioactivity released from PNPP. These results also demonstrate that PNPP complies with federal regulations.

## 2.0 INTRODUCTION

The REMP was established at PNPP for several reasons. First, it verifies the adequacy of plant design and operation to control radioactive materials and limit effluent releases. Second, it assesses the radiological impact, if any, that the plant has had on the surrounding environment. Third, it ensures compliance with regulatory guidelines. The REMP is conducted in accordance with Appendix B of the PNPP Operating License, Technical Specifications, the ODCM, Nuclear Regulatory Commission (NRC) Regulatory Guide 4.1 [5], NUREG 1302 [2], and the 1979 NRC Branch Technical Position [4].

A variety of samples are collected as part of the PNPP REMP. The selection of sample types, locations, and collection frequency are based on many variables. Potential pathways for the transfer of radionuclides through the environment to humans, sample availability, local meteorology, population characteristics, land use, and NRC requirements are all factors as diagrammed in Figure 1.

To ensure that the REMP data is significant and valuable, detailed sampling methods and procedures are followed to ensure that samples are collected in the same manner and from the same locations each time. All samples are packaged on site and then shipped to an independent vendor laboratory for analysis. The vendor laboratory analyzes the samples and reports results to the PNPP Chemistry Unit staff, the Lake County General Health District, and the State of Ohio Department of Health. Additionally, the Lake County General Health District obtains “split” samples of milk (when available), water, fish, sediment, and vegetation to perform an independent verification of PNPP’s REMP.

The 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 radioactive effluents conform to the “As Low as Is Reasonably Achievable” (ALARA) design objectives of 10 CFR 50, Appendix I. REMP is designed to conform to the NRC Regulatory Guide 4.1, NUREG 1302 [2], and the 1979 NRC Branch Technical Position [4].

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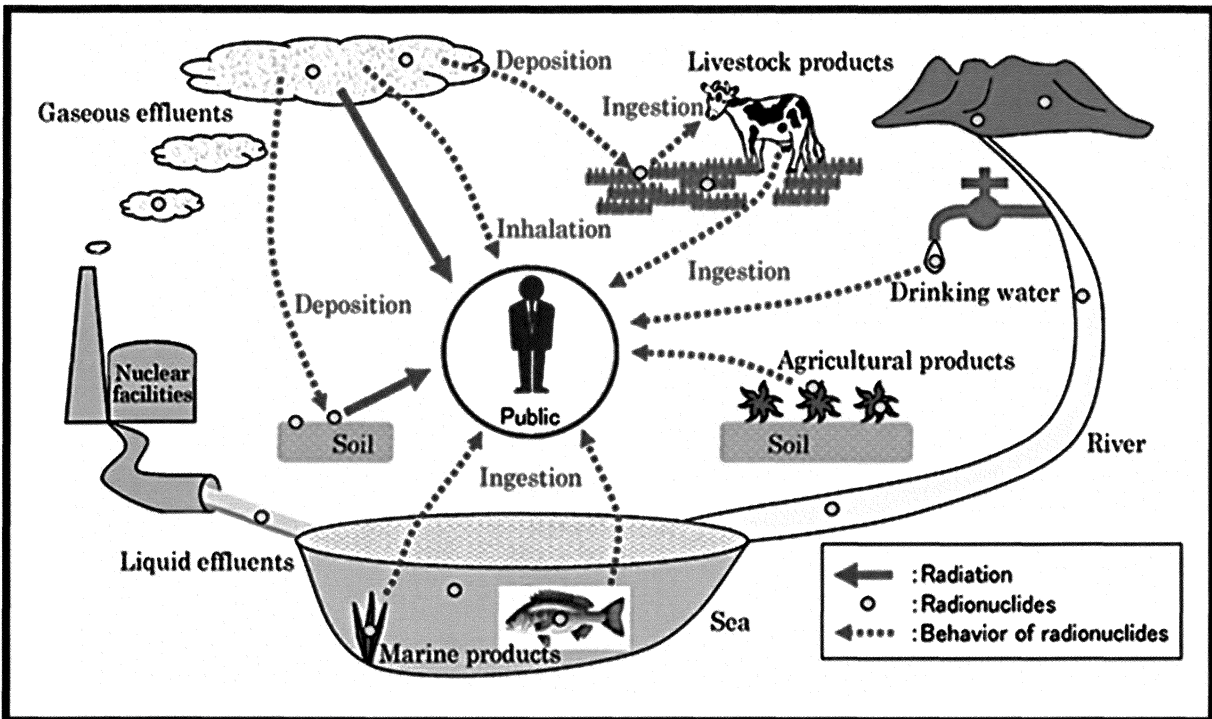


Figure 1: Potential exposure pathways to members of the public from plant operations [1].

Quality assurance aspects of the sampling program and TLD data collection are conducted in accordance with Regulatory Guide 4.15 [3] and Regulatory Guide 4.13 [6]. REMP also adheres to the requirements of the State of Ohio, PNPP Technical Specifications, and the Offsite Dose Calculation Manual (ODCM). These documents dictate the environmental sampling, sample analysis protocols, data reporting, and quality assurance requirements for the environmental monitoring program.

The Annual Radioactive Environmental Operating Report 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.

### 3.0 SAMPLE LOCATIONS

REMP samples are collected at numerous locations, both on site and up to 16.2 miles away from the plant. Sampling locations are divided into two general categories: indicator and control. Indicator locations are relatively close to the plant and monitor for any environmental impact due to plant operations. Control locations are those that are unaffected by plant operation; they are a greater distance from the plant and in the least prevalent wind directions.

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Data obtained from the indicator locations are compared with data from the control locations. This comparison allows naturally occurring background radiation to be considered when evaluating any radiological impact PNPP may have had on the environment. Table 1, Figure 2, Figure 3, and Figure 4 identify the PNPP REMP sampling locations. Many REMP samples are collected in addition to those required by the PNPP ODCM. The ODCM requirements for each sample type are discussed in more detail later in the report.

**Table 1: REMP Sampling Locations**

Location #	Description	Miles	Direction	Media (1)
1	Chapel Road	3.4	ENE	TLD, AIP
3	Meteorological Tower	1.0	SE	TLD, AIP
4	Site Boundary	0.7	S	TLD, AIP
5	Quincy Substation	0.6	SW	TLD, AIP
6	Concord Service Center	11.0	SSW	TLD, AIP
7	Site Boundary	0.6	NE	TLD, AIP, Broadleaf Vegetation
8	Site Boundary	0.8	E	TLD
9	Site Boundary	0.7	ESE	TLD
10	Site Boundary	0.8	SSE	TLD
11	Parmly Rd. at Center Rd.	0.6	SSW	TLD
12	Site Boundary	0.6	WSW	TLD
13	Madison-on-the-Lake	4.7	ENE	TLD
14	Hubbard Rd.	4.9	E	TLD
15	Eagle St. Substation	5.1	ESE	TLD
16	Eubank Garden	0.9	S	Broadleaf Vegetation
20	Rainbow Farms	1.9	E	Broadleaf Vegetation
21	Hardy Rd. – Painesville Township Park	5.1	WSW	TLD
23	High St. Substation	7.9	WSW	TLD
24	St. Clair Ave. at Mentor Substation	15.1	SW	TLD
25	Offshore - PNPP discharge	0.6	NNW	Fish
29	River Rd. at Turney Rd.	4.3	SSE	TLD
30	Lane Rd.	4.8	SSW	TLD
31	Wood Rd. at River Rd.	4.8	SE	TLD
32	Offshore – Mentor-on-the-Lake	15.8	WSW	Fish
33	River Rd. at Blair Rd.	4.5	S	TLD
34	PNPP Intake	0.2	NW	Surface Water
35	Site Boundary	0.6	E	TLD, AIP
36	Lake County Water Plant	3.9	WSW	TLD, Drinking Water
37	Gerlica Farm	1.5	ENE	Broadleaf Vegetation
39	Painesville Purification Plant	8.3	W	Drinking Water
53	3715 Parmly Rd.	0.5	WSW	TLD
54	Hale Rd. School	4.6	SW	TLD
55	Center Rd. behind soccer field	2.5	S	TLD
56	Madison High School	4.0	ESE	TLD
57	Perry High School	1.7	S	TLD
58	Antioch Rd.	0.8	ENE	TLD
59	Lake Shoreline at Green Rd.	4.0	ENE	Surface Water
60	Lake Shoreline at Perry Park	1.0	WSW	Surface Water
64	Northwest Drain Mouth	0.4	WNW	Sediment
66	Lake Shore, Metropolitan Park	1.4	NE	Sediment
70	H&H Farm Stand	16.2	SSW	Broadleaf Vegetation

(1) AIP = Air, Iodine and Particulate  
TLD = Thermoluminescent Dosimeter

4.0 MAPS OF COLLECTION SITES

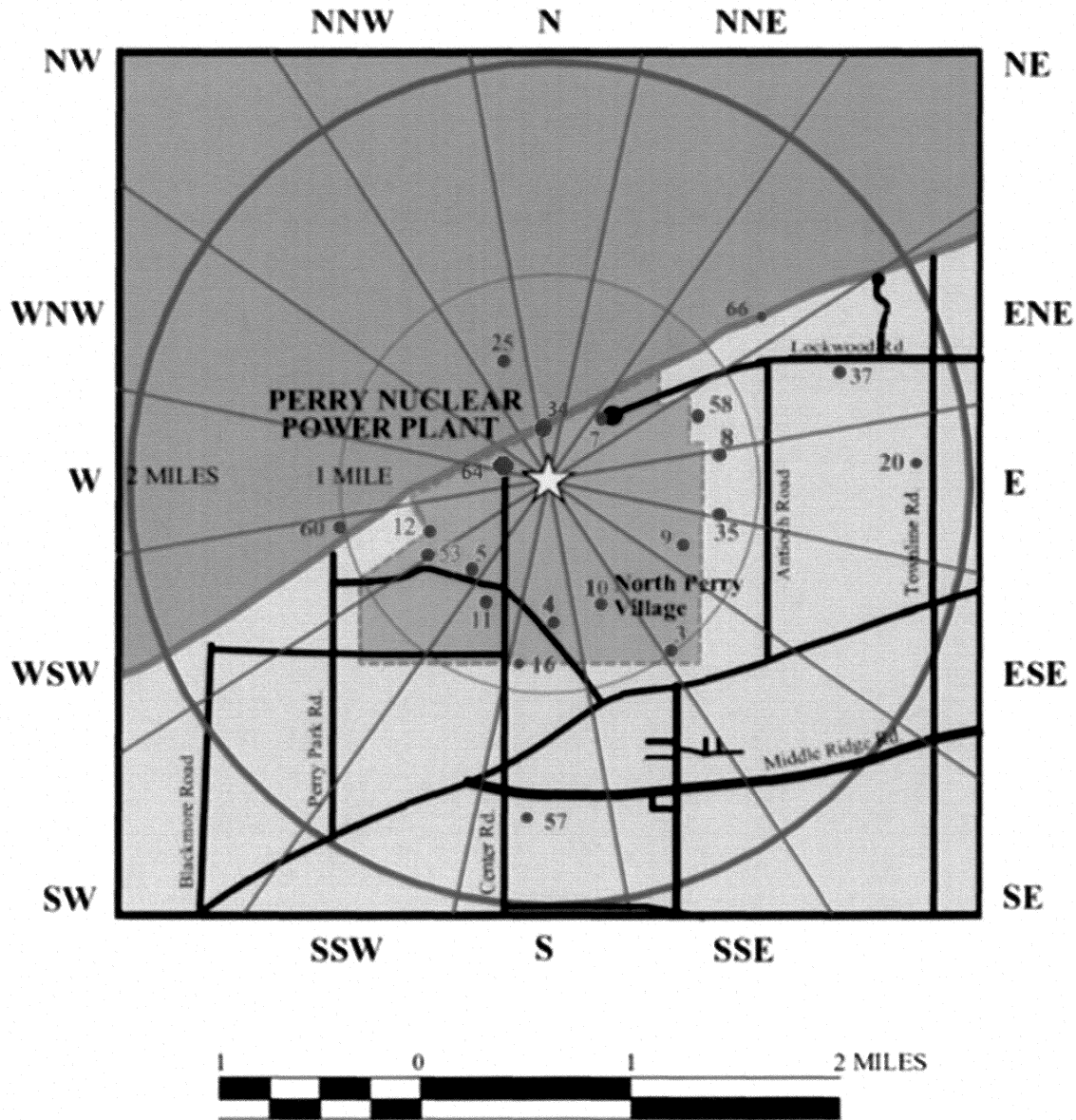


Figure 2: REMP Sample Locations within Two Miles of the Plant Site.

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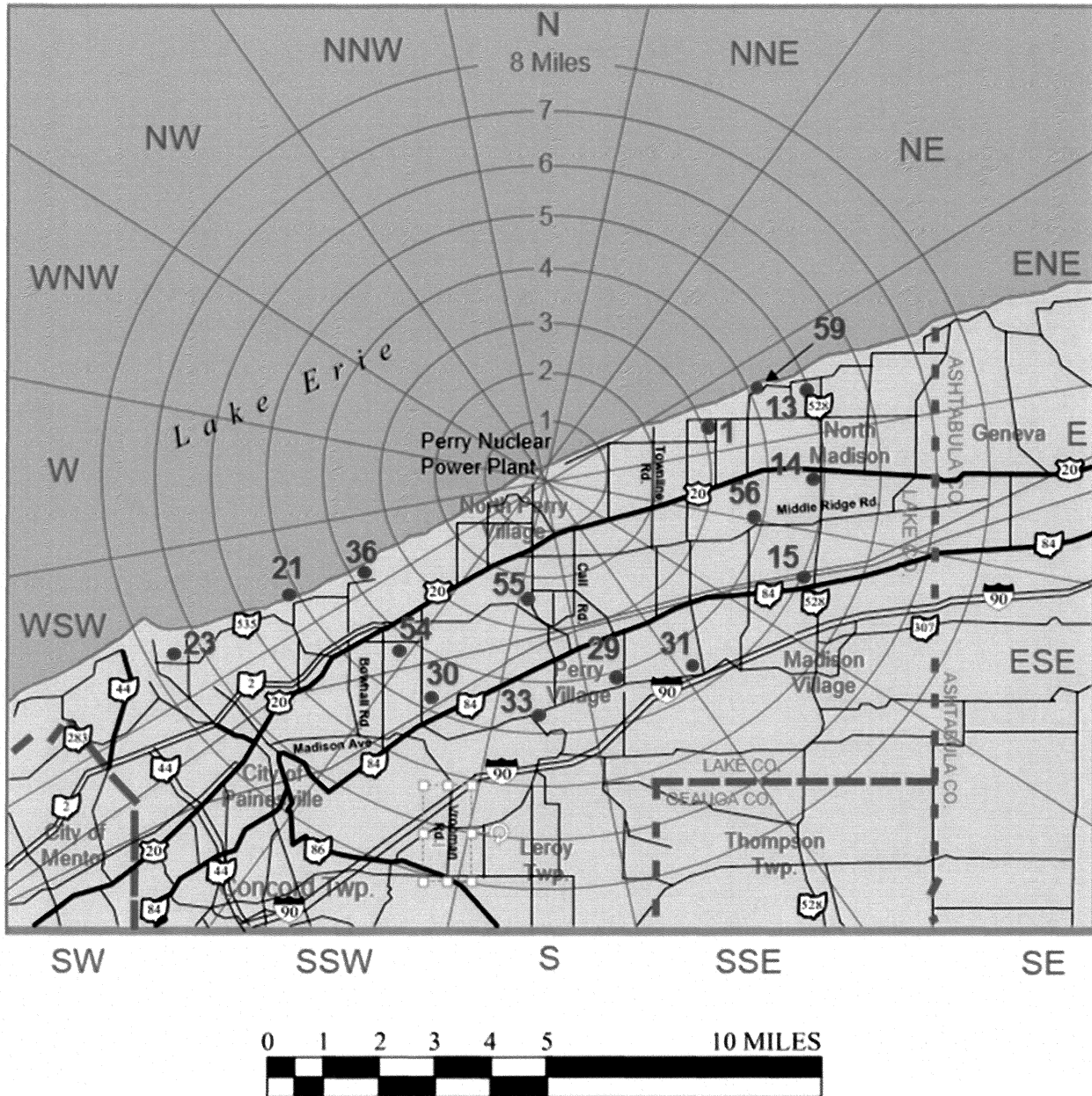


Figure 3: REMP Sampling Locations between Two and Eight Miles from the Plant Site

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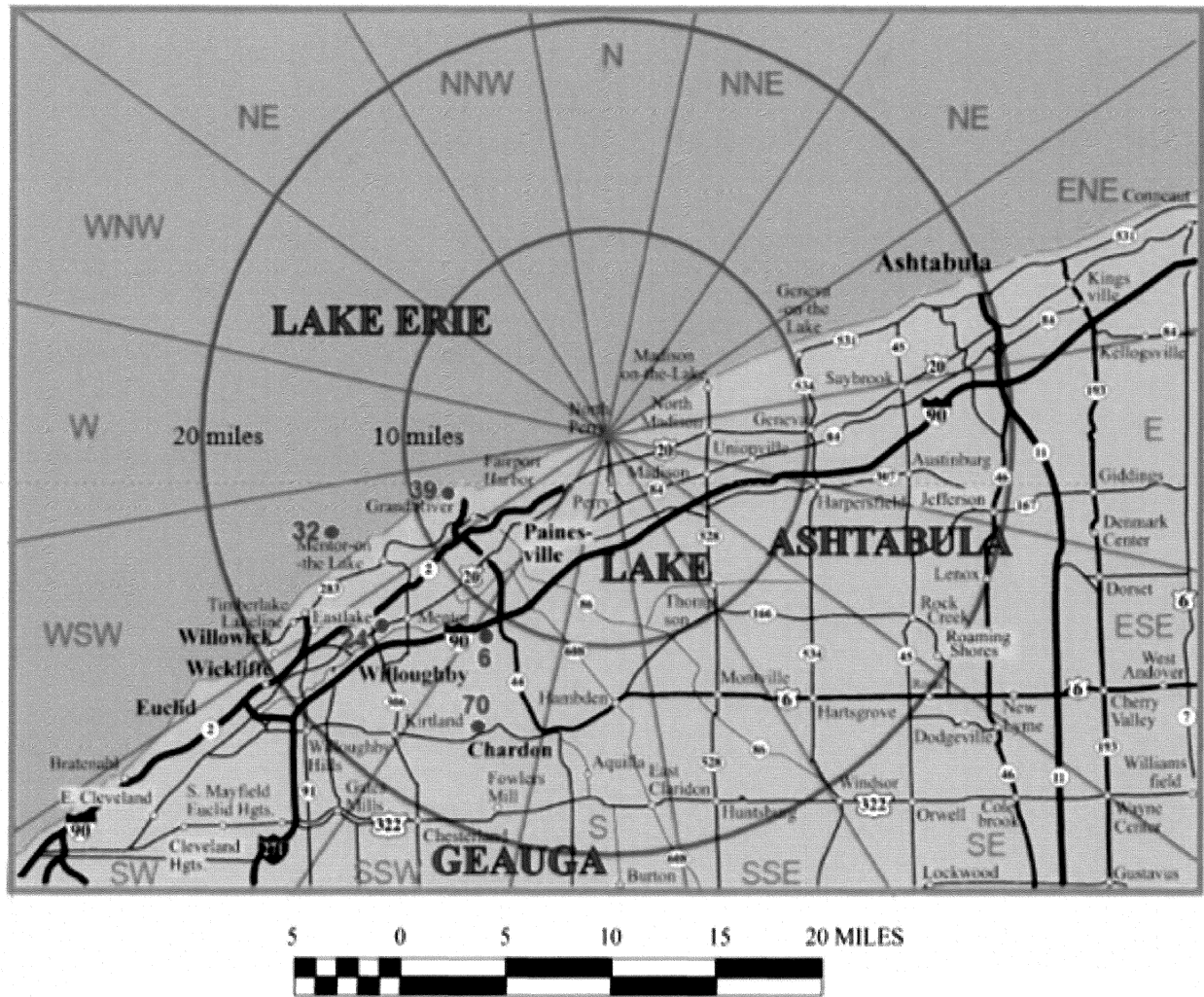


Figure 4: REMP Sampling Locations Greater Than Eight Miles from the Plant Site.

## 5.0 SAMPLING ANALYSIS

When environmental samples are analyzed for radioactivity, several types of measurements are performed to provide information about the types of radiation and radionuclides present. The major analyses that are performed are discussed below.

Gross beta activity measures the total amount of beta-emitting radioactivity present in a sample and acts as a tool to identify samples that may require further analysis. Beta radiation may be released by many different radionuclides. Since beta-decay results in a continuous energy spectrum rather than the discrete energy levels, or "peaks", associated with gamma radiation, identification of specific beta-emitting nuclides is more difficult. Therefore, gross beta activity only indicates whether the sample contains normal or abnormal amounts of beta emitting radioactivity; it does not specifically identify the radionuclides present.

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Gamma spectral analysis provides more specific information than does the analysis for gross beta activity. Gamma spectral analysis identifies each radionuclide and the amount of radioactivity present in the sample that is emitting gamma radiation. Each radionuclide has a very specific "fingerprint" that allows for accurate identification and quantification.

Iodine activity analysis measures the amount of radioactive iodine present in a sample. Some media (e.g., air sample charcoal cartridges) are analyzed directly by gamma spectral analysis. With other media (e.g., milk when available), the radioiodines are extracted by chemical separation before being analyzed by gamma spectral analysis.

Tritium activity analysis measures the amount of the radionuclide tritium (H-3) present in a sample. Tritium is an isotope of hydrogen that emits low-energy beta particles. Tritium occurs naturally from interactions with atmospheric cosmic rays and is also man-made from the nuclear fission process.

Gamma doses received by Thermoluminescent Dosimeters (TLD) while in the field are determined by a special laboratory procedure. Thermoluminescence is a process by which ionizing radiation interacts with the sensitive phosphor material in the TLD. Energy is trapped in the TLD material and can be stored for months or years. This capability provides a method to measure the dose received over long periods of time. The amount of energy that was stored in the TLD as a result of interaction with radiation is released by a controlled heating process and measured in a calibrated reading system. As the TLD is heated, the phosphor releases the stored energy as light. The amount of light is directly proportional to the amount of radiation to which the TLD was exposed.

The required REMP detection limits for samples are determined by sample media and the radionuclide that is being analyzed. The NRC has established LLDs for REMP sample analysis. These LLDs are listed in the PNPP ODCM. The vendor laboratory for REMP sample analysis has complied with these LLDs.

Table 2 provides a list of the analyses performed on environmental samples collected for the PNPP REMP, with the exception of terrestrial monitoring of milk samples. No milk-producing animals are located within the required distance per the ODCM, reference Section 7.1 Milk.

## 5.1 Sampling Program

The contribution of radionuclides to the environment resulting from PNPP operation is assessed by comparing results from the environmental monitoring program with pre-operational data (i.e., data from before 1986), operational data from previous years, and control location data. The results for each sample type are discussed below and compared to historical data to determine if there are any observable trends. All results are expressed as concentrations. Refer to Attachment 2, 2025 REMP Data Summary Reports for a detailed listing of these results. The NRC requires special reporting whenever sample analysis results exceed set limits. No values exceeded those limits.

**Table 2: REMP Sample Analyses**

Type	Sample	Frequency	Analysis
Atmospheric Monitoring	Airborne Particulates	Weekly	Gross Beta Activity
		Quarterly	Gamma Spectral Analysis
	Airborne Radioiodine	Weekly	Iodine-131
Terrestrial Monitoring	Milk	Monthly Semi-Monthly when animals are on pasture	Gamma Spectral Analysis & Iodine-131
	Broadleaf Vegetation	Monthly during growing season	Gamma Spectral Analysis & Iodine-131
Aquatic Monitoring	Drinking Water	Monthly	Gross Beta Activity & Gamma Spectral Analysis
		Quarterly	Tritium Activity
	Surface Water	Monthly	Gamma Spectral Analysis
		Quarterly	Tritium Activity
	Fish	Annually if seasonal. Semi-Annually if not seasonal.	Gamma Spectral Analysis
	Sediment	Semi-annually	Gamma Spectral Analysis
Direct Radiation Monitoring	TLD	Quarterly & Annually	Gamma Dose

## 5.2 Sampling Changes

No changes were made to the REMP sampling program in 2025.

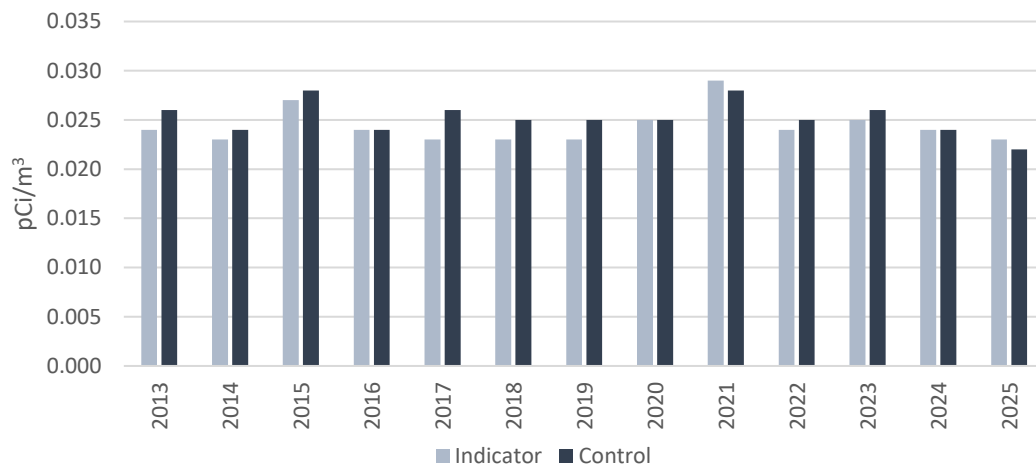
## 6.0 ATMOSPHERIC MONITORING

Air sampling is conducted to detect any increase in the concentration of airborne radionuclides. The PNPP REMP maintains an additional two air sampling locations above the five locations (four indicators and one control) required by the ODCM. Six of these locations are within four miles of the plant site; the seventh is used as a control location and is eleven miles from PNPP.

Air sampling pumps draw continuous samples at a rate of approximately two cubic feet per minute. The air is drawn through glass fiber filters to collect particulate material and a charcoal cartridge to adsorb iodine. The samples are collected on a weekly basis, 52 weeks a year, from each of the seven air sampling stations.

Air samples are analyzed weekly for gross beta activity and radioiodine activity. The air samples are also analyzed by gamma spectral analysis quarterly. A total of 364 air particulate and 364 air radioiodine samples were collected and analyzed.

Gross beta activity was detected in 364 of the 364 air samples. The average gross beta activity for the highest indicator location was 0.026 pCi/m<sup>3</sup> and the control was 0.022 pCi/m<sup>3</sup>. Historically, the concentration of gross beta in air has been essentially identical when averaging all indicator and control locations. Figure 5 reflects the average gross beta activity for the highest indicator location vs the control location for 2025 and previous years.



**Figure 5: Air Particulate Gross Beta Comparison of Current Year and Historic Data**

**Table 3: Air Particulate Gross Beta Comparison of Current Year and Historic Data**

Pre-Operational (pCi/m <sup>3</sup> )	2025 Sample Result Average (pCi/m <sup>3</sup> )
0.023	0.026

Air particulate and gross beta results for 2025 were similar to preoperational data as shown in Figure 5 and Table 3. There were no significant changes in baseline.

With the exception of naturally occurring beryllium-7, no radionuclides above the LLD values were identified in the quarterly gamma spectral analysis. All radioiodine samples were less than the lower limit of detection for iodine-131.

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## 7.0 TERRESTRIAL MONITORING

Collecting and analyzing samples of milk (when available) and broadleaf vegetation provides data to assess the build-up of radionuclides that may be ingested by humans. The historical data from soil and vegetation samples provides information on atmospheric radionuclide deposition.

### 7.1 Milk

Since the milk sampling locations do not meet the requirements of the ODCM (no milk-producing animals are located within the required distance), broadleaf vegetation sampling (discussed below) is performed by PNPP. Milk was collected from the available locations to augment vegetation sampling until Spring 2018.

### 7.2 Broadleaf Vegetation

Because there is not a milking animal within 5 km of the plant, PNPP samples broadleaf vegetation as required by the ODCM. These samples are collected monthly during the growing season from three resident gardens in the vicinity of PNPP, one site boundary garden in the highest available prevalent wind direction, and one control location 16.2 miles SSW from PNPP.

Fifty-two (52) samples were collected and analyzed by gamma spectral analysis. Four vegetation types were grown and collected: collard greens, turnip greens, kale, and Swiss chard. Beryllium-7 and potassium-40, both naturally occurring radionuclides, were found in the samples. No other radionuclides were detected.

The number of samples decreased from the 2024 growing season due to participants having lower success during the 2025 growing season with rain and drought interference. This is apparent in the samples from the control location (70) where vegetation was only available from the October sampling. Challenges during the July sampling are typical for early rainy season weather and if participants are able to start their seeds indoors in greenhouses or not. Finally, October sampling for participant at location P-16 was only Turnip Greens due to mis-reading the growing season letter that is sent out at the beginning of the season, and believing that the garden needed to be maintained through September.

## 8.0 AQUATIC MONITORING

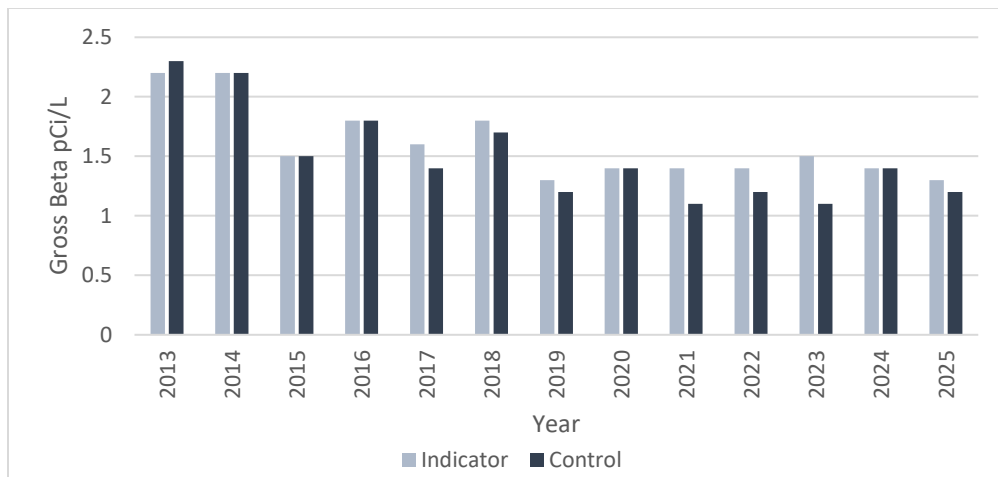
Radionuclides may be present in Lake Erie from many sources other than the PNPP. These sources include atmospheric deposition, run-off, soil erosion, and releases of radioactivity in liquid effluents from hospitals, universities, or other industrial facilities. These sources provide two forms of potential radiation exposure: external and internal.

External exposure can occur from contact with water or shoreline sediments, while internal exposure can occur from either direct ingestion of radionuclides or the transfer of radionuclides through the aquatic food chain. Direct exposure can occur through ingestion by drinking the water, while the transfer via the aquatic food chain occurs from the eventual consumption of aquatic organisms, such as fish. PNPP samples water, shoreline sediments, and fish to monitor these pathways.

### 8.1 Water

Water is sampled from five locations along Lake Erie in the vicinity of the PNPP as required by the PNPP ODCM when available and as weather permits. Sixty (60) monthly composite samples were collected and analyzed for gross beta activity and gamma spectral analysis. Monthly composite samples are analyzed for gamma emitters. Aliquots from the monthly composites are combined to form quarterly composites which are then analyzed for tritium.

Gross beta activity was detected in 49 of the 60 samples collected. The indicator with the highest annual average gross beta activity was 1.4 pCi/L and the control average gross beta activity was 1.2 pCi/L. Refer to Figure 6 for the annual average gross beta activity for a comparison of the average of all indicator locations versus the control locations. No gamma activity was detected in any of the 60 samples collected. Of the 20 quarterly composite samples, zero (0) samples showed detectable tritium activity. Any positive result less than 500 pCi/L is considered as background activity and not due to plant operations.



**Figure 6: Annual Average Gross Beta Activity in Water**

### 8.2 Sediment

Sampling shoreline sediments provides an indication of the accumulation of particulate radionuclides which may lead to an external radiation source to fishermen and swimmers from shoreline exposure. Sediment was sampled from two locations, one location west of PNPP and the other east of PNPP, twice a year. One sample is taken in spring and the other in the fall.

A total of four sediment samples were collected and were analyzed by gamma spectroscopy, the only radionuclide detected was naturally occurring potassium-40.

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### 8.3 Fish

Fish are analyzed primarily to quantify the radionuclide intake by humans and secondarily to serve as indicators of radioactivity in the aquatic ecosystem. Fish are collected from two locations annually during the fishing season as required by the ODCM. Important sport or commercial species are targeted, and only the fillets are sent to the laboratory for analysis.

Primary sport and commercial fish species per the Ohio Department of Natural Resources were obtained and sent for analysis. Seven (7) fish samples were collected and analyzed: 4 indicator and 3 control samples. The species analyzed included walleye and yellow perch. Only naturally occurring potassium-40 was detected in these samples.

Due to the small size of the yellow perch samples obtained from the indicator and control locations during the fall sampling event, some lower limits of detection were not met. The yellow perch samples were included for analysis despite their size to achieve the most analyses possible for available species. The third-party analytical laboratory performing sample analysis did not notify PNPP in a timely manner that the LLDs were unable to be met, resulting in missing the window of opportunity to resample.

## 9.0 DIRECT RADIATION MONITORING

Environmental radiation is measured directly at twenty-seven (27) locations around the PNPP site and at two (2) control locations using thermoluminescent dosimeters (TLDs). The locations are positioned in two rings around the plant as well as at the site boundary. The inner ring is within a one-mile radius of the plant site; the outer ring is four to five miles from the plant. The control locations are over ten miles from the plant in the two least prevalent wind directions. Each location has three TLDs, two of which are changed quarterly, and one that is changed annually.

A total of two hundred and sixty one (261) TLDs were collected and analyzed. This includes two hundred and thirty two (232) collected on a quarterly basis and twenty-nine (29) collected annually. Annual TLDs are not required per the ODCM and are used for supplemental data only.

The annual average dose for all indicator locations was 62.8 mrem versus 60.1 mrem for the control locations. The average quarterly dose for the indicator locations was 15.4 mrem versus 15.3 mrem for the control locations. Refer to Figure 7 for the average quarterly TLD dose rates for both indicator and control locations.

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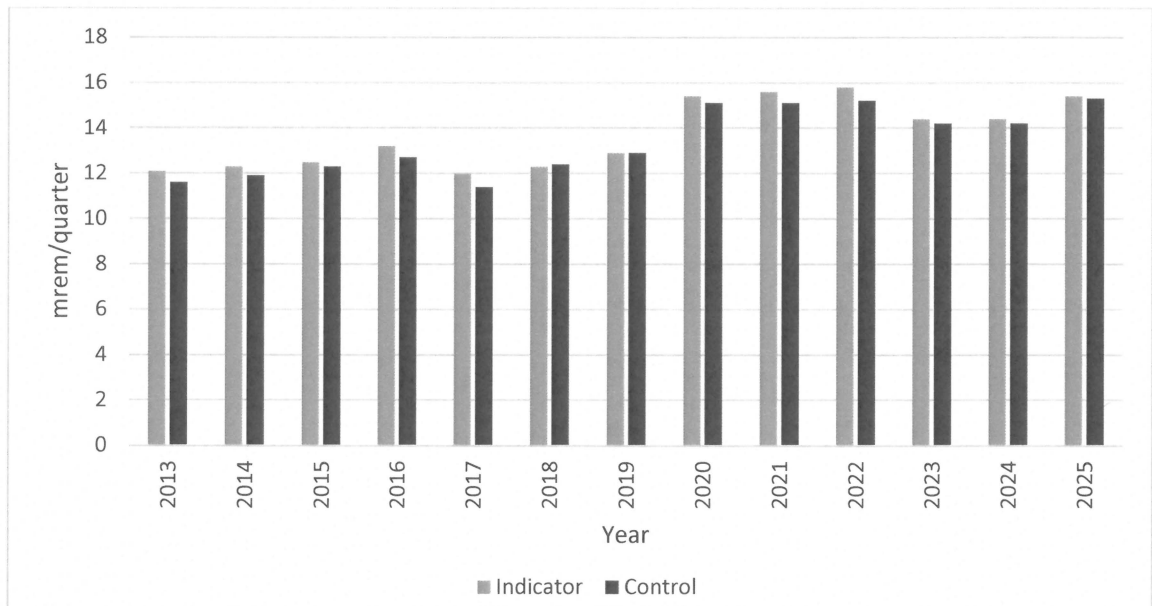


Figure 7: Average Quarterly TLD Dose

## 10.0 CONCLUSION

There are no discernable trends or increase in radiological parameters when comparing current monitoring results to pre-operational studies. Non-routine analyses were not required during this reporting period. While indicator parameters are slightly higher than what is measured at control locations, there is no significant impact on the surrounding environment due to the operation of the Perry Nuclear Power Plant.

## 11.0 INTER-LABORATORY CROSS-CHECK COMPARISON PROGRAM

The purpose of the Inter-laboratory Cross-Check Comparison Program is to provide an independent check on the vendor laboratory's analytical procedures. Samples with a known concentration of specific radionuclides are provided to the vendor laboratory. The vendor laboratory measures and reports the concentration of specified radionuclides. The known values are then compared to the vendor results. Results consistently outside established acceptance criteria indicate a need to check instruments or procedures. Regulatory Guide 4.15 [3] specifically requires that contractor laboratories that performed environmental measurement participate in the EPA's Environmental Radioactivity Laboratory Inter Comparison Studies Program, or an equivalent program.

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The EPA's program is no longer funded or offered. The reason that the EPA program was referenced in the regulatory guide is that the EPA standards were traceable to National Bureau of Standards (now known as National Institute of Standards and Technology). In response, the vendor lab incorporated a program offered by Environmental Resource Associates (ERA), which covered the same analyses in the same matrix at the same frequency as the EPA program. ERA has received NIST accreditation as an equivalent program. In addition to comparison cross checks performed with ERA, the vendor laboratory routinely monitors the quality of their analyses by analyzing "spiked" samples (samples with a specific quantity of radioactive material present in them) and participating in the Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP).

See Attachment 1 for the vendor Inter-Laboratory Cross-Check Comparison Program Results.

## **12.0 LAND USE CENSUS EXPOSURE PATHWAY**

To estimate radiation dose attributable to operation of the PNPP, the potential pathways through which public exposure can occur must be known. To identify these pathways, an Annual Land Use Census is performed as part of the REMP. During the census, PNPP personnel travel public roads within a five-mile radius of the plant to locate key radiological exposure pathways. These key pathways include the nearest resident and nearest garden in each of the ten meteorological land sectors that surround the plant. The information obtained from the census is entered into a computer program used to assess hypothetical dose to members of the public. The predominant land use within the census area continues to be rural and/or agricultural.

### **12.1 Introduction**

Each year a Land Use Census is conducted to identify the locations of the nearest available milking animal, garden (of greater than 500 square feet), and residence in each of the meteorological sectors that is over land. Information gathered during the Land Use Census is used for off-site dose assessment and to update sampling locations for the REMP. The census is conducted by traveling all roads within a five-mile radius of the plant site and recording and mapping the locations of the nearest resident, available milk animal, and vegetable garden.

The Land Use Census was conducted in August 2025. The census identified the garden, and residence locations identified in Table 4 and Table 5 that are depicted in Figure 8. Note that the W, WNW, NW, NNW, N, and NNE sectors extend over Lake Erie and are not included in the survey. No location with an available milking animal was identified.

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## 12.2 Discussion and Results

In general, the predominant land use within the census area continues to be rural/agricultural. In recent years, however, it has been noted that areas of land once used for farming are now being developed as mini-industrial parks and residential housing. This is reflected in the loss of available milking animals within a five-kilometer radius of PNPP to support the REMP. Refer to Figure 2, Figure 3, and Figure 4, for the REMP sampling locations.

Table 4 identifies the nearest residences, by sector, to the PNPP. There were no changes from the 2024 Land Use Census in regard to nearest residence by sector. Refer to Figure 8 for map locator numbers.

**Table 4: Nearest Residence - By Sector**

<b>Sector</b>	<b>Location Address</b>	<b>Miles from PNPP</b>	<b>Map Locator Number</b>
NE	2348 W. Hemlock	0.9	11
ENE	2452 Antioch	1.1	12
E	2634 Antioch	1.1	10
ESE	2836 Antioch	1.1	4
SE	4671 North Ridge	1.3	15
SSE	4225 Red Mill Valley	1.1	16
S	3121 Center Rd.	0.9	7
SSW	3850 Clark	0.9	8
SW	3021 Perry Park	1.3	13
WSW	3460 Parmly	1.0	14

Table 5 lists the nearest gardens by sector to the PNPP consisting of at least 500 square feet. Refer to Figure 8 for map locator numbers.

**Table 5: Nearest Garden - By Sector**

<b>Sector</b>	<b>Location Address</b>	<b>Miles from PNPP</b>	<b>Map Locator Number</b>
NE	Site Boundary	0.6	1
ENE	4602 Lockwood	1.1	2
E	2626 Antioch	1	3
ESE	2836 Antioch	1.1	4
SE	4495 North Ridge	1.3	5
SSE	3119 Parmly	0.9	6
S	3121 Center	0.9	7
SSW	3300 Ohio St.	2.3	17
SW	2997 Perry Park	1.2	9
WSW	3460 Parmly	1	14

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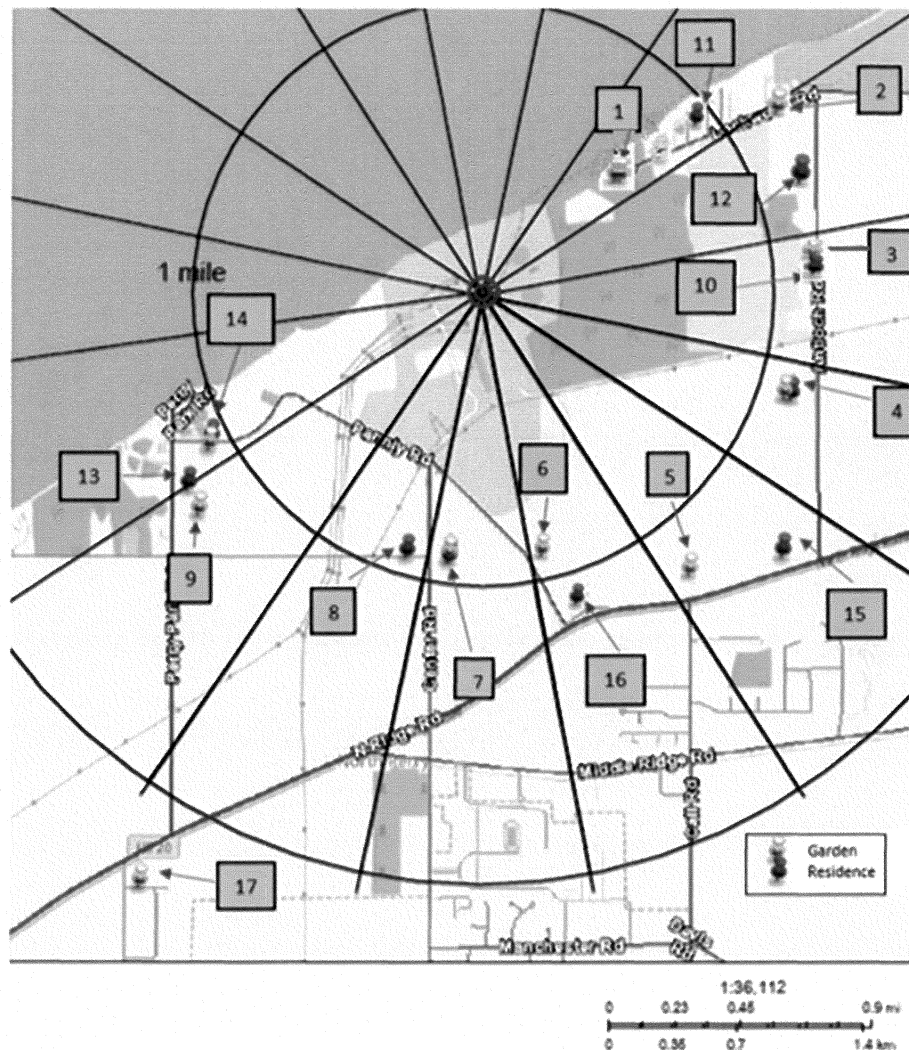


Figure 8: Land Use Census Map

### 13.0 ANNUAL ENVIRONMENTAL OPERATING REPORT

The NRC issued Amendment No. 178 to Facility Operating License No. NPF-58 on October 19, 2017. This amendment revises the PNPP "Environmental Protection Plan (Non-radiological)" (EPP) to clarify and enhance wording to remove duplicative or outdated program information, and to relieve the burden of submitting unnecessary or duplicative information to the NRC.

As a result of the above Amendment issued in October 2017, redundant program information is no longer required to be compiled and included in this report. This includes the sections: Clam/Mussel Monitoring, Herbicide Applications, and Special Reports which included National Pollutant Discharge Elimination System Permit exceedances and the EPP from previous years.

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#### 14.0 ODCM NON-COMPLIANCES

Sampling and analysis are performed for media types addressed in the Offsite Dose Calculation Manual. ODCM non-compliances occur when a sample required by the ODCM is not obtained and/or analyzed.

Sampling and analysis challenges may be experienced due to a multitude of reasons including environmental factors, loss of TLDs, 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 (SA), Sample Deviation (SD), and Unavailable Samples (US).

Media that experienced downtime (*i.e.*, air samplers or water samplers) during a surveillance period are classified a Sample Deviation (SD).

Sample Anomalies (SA) 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 errors that may alter the outcome of the analysis (*i.e.*, cross contamination, human error, insufficient sample size to meet LLDs).

Sample Unavailability (US) is defined as sample collection evolution with no available sample (*i.e.*, food crop, TLD, frozen lake).

#### 14.1 Non-Compliances

There were no ODCM non-compliances during the 2025 REMP year.

#### 14.2 Sampling Challenges

There were Sample Anomalies (SA) experienced with September yellow perch samples obtained from the control and indicator locations. This was due to the small sample size that raised the analysis LLDs for Co-58 and Fe-59 resulting in not meeting the LLDs required by the PNPP ODCM. The samples were still run for these analytes and were less than detectable.

There was sample unavailability (US) at garden location #16 for vegetation due to the participant not maintaining the garden during the final month of the growing season. The participant did not water or weed the garden and the vegetation prematurely died – garden participation is outlined in the May letter that is sent out with seeds and participant payment.

There was sample unavailability (US) at garden locations #7, #20, and #70 for the month of July due to heavy rains and wet conditions making vegetation samples experience root rot and die out prior to samples being obtained.

There was sample unavailability (US) at garden location #70 for vegetation until the final month of the growing season. This was due to severe rains and planting location during the first portion of the growing season, followed by severe dry spells in the second half of the growing season. Samples were only able to be obtained from this location for the final month of the season.

Sample Deviation (SD) did occur at air sample collection pump stations as follows:

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For Sample location P-3 a reduction of run time spanning from the end of the week of December 24<sup>th</sup>, 2025, into the week of December 31<sup>st</sup>, 2025, was due to breaker trip failures at the power source to the air sampling unit. This caused a reduction in run time that was corrected by the electrical department investigating the breaker and correcting faulty wiring to the unit power source. The pump was placed back in service following electrical work with no reported issues.

## **15.0 CORRECTIONS TO PREVIOUS REPORTS**

It was identified that both the ODCM table and the AREOR reports from 2012 through 2024 had incorrect units of pCi/kg, wet for reporting sediment analysis results, where the correct units are pCi/kg, dry. This was updated in the reporting tables for these reports. The source error is the ODCM will be corrected early in 2026.

## **16.0 BIBLIOGRAPHY**

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**Attachment 1: Inter-Laboratory Cross Check Comparison  
Program Results**



APPENDIX A  
INTERLABORATORY AND INTRALABORATORY  
COMPARISON PROGRAM RESULTS

**NOTE:** Appendix A is updated four times a year. The complete appendix is included in March, June, September and December monthly progress reports only.  
  
July, 2024 through June, 2025

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Appendix A

Interlaboratory/ Intralaboratory Comparison Program Results

Microbac Laboratories - Northbrook (previously Environmental Inc.) has participated in interlaboratory comparison (crosscheck) programs since the formulation of its quality program in December 1971. These programs are operated by agencies and/or companies which supply environmental sample types containing concentrations of radionuclides known to the issuing entity but not to participant laboratories. The purpose of such a program is to provide an independent check on a laboratory's analytical procedures and to alert it of any possible problems.

Participant laboratories measure the concentration of specified radionuclides and report them to the issuing agency. Several months later, the agency reports the known values to the participant laboratories and specifies control limits. Results consistently higher or lower than the known values or outside the control limits indicate a need to check the instruments or procedures used.

Results in Table A-1 were obtained through participation in the RAD PT Study Proficiency Testing Program administered by Environmental Resource Associates, serving as a replacement for studies conducted previously by the U.S. EPA Environmental Monitoring Systems Laboratory, Las Vegas, Nevada.

Table A-2 lists results for thermoluminescent dosimeters (TLDs), via irradiation and evaluation by the University of Wisconsin-Madison Radiation Calibration Laboratory at the University of Wisconsin Medical Radiation Research Center.

Table A-3 lists results of the analyses on intralaboratory "spiked" samples for the past twelve months. All samples are prepared using NIST traceable sources. Data for previous years available upon request.

Table A-4 lists results of the analyses on intralaboratory "blank" samples for the past twelve months. Data for previous years available upon request.

Table A-5 lists analytical results from the intralaboratory "duplicate" program for the past twelve months. Acceptance is based on each result being within 25% of the mean of the two results or the two sigma uncertainties of each result overlap.

The results in Table A-6 were obtained through participation in the Mixed Analyte Performance Evaluation Program.

Results in Table A-7 were obtained through participation in the MRAD PT Study Proficiency Testing Program administered by Environmental Resource Associates, serving as a replacement for studies conducted previously by the Environmental Measurement Laboratory Quality Assessment Program (EML).

Attachment A lists the laboratory acceptance criteria for various analyses.

Out-of-limit results are explained directly below the result.

Attachment A

ACCEPTANCE CRITERIA FOR INTRALABORATORY "SPIKED" SAMPLES

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Analysis	Ratio of lab result to known value.
Gamma Emitters	0.8 to 1.2
Strontium-89, Strontium-90	0.8 to 1.2
Potassium-40	0.8 to 1.2
Gross alpha	0.5 to 1.5
Gross beta	0.8 to 1.2
Tritium	0.8 to 1.2
Radium-226, Radium-228	0.7 to 1.3
Plutonium	0.8 to 1.2
Iodine-129, Iodine-131	0.8 to 1.2
Nickel-63, Technetium-99, Uranium-238	0.7 to 1.3
Iron-55	0.8 to 1.2
Other Analyses	0.8 to 1.2

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Company: **Vistra**Plant: **Perry Nuclear Power Plant**TABLE A-1. Interlaboratory Comparison Crosscheck program, Environmental Resource Associates (ERA)<sup>a</sup>.

Lab Code	Analysis	Concentration (pCi/L)		Acceptance Limits	Acceptance
		Reported Value	Assigned Value		
<i>RAD-138 Study (study dates 7/08/24 - 8/22/24)</i>					
ERDW-1546	Ba-133	41.4	38.2	25.2 - 51.2	Pass
ERDW-1546	Cs-134	18.6	18.9	7.81 - 30.0	Pass
ERDW-1546	Cs-137	54.4	57.0	32.9 - 81.1	Pass
ERDW-1546	Co-60	82.8	76.8	59.9 - 93.7	Pass
ERDW-1546	Zn-65	348	312	253 - 371	Pass
ERDW-1548	Gr. Alpha	9.05	13.0	7.94 - 18.1	Pass
ERDW-1548	G. Beta	17.3	20.6	13.2 - 28.0	Pass
ERDW-1552	Ra-226	20.4	17.2	14.6 - 19.8	Fail <sup>b</sup>
ERDW-1552	Ra-228	3.72	4.63	2.88 - 6.38	Pass
ERDW-1552	Uranium	36.2	36.8	32.5 - 41.1	Pass
ERDW-1554	H-3	7,840	7,550	5,870 - 9,230	Pass
ERDW-1550	I-131	20.1	27.9	24.2 - 31.6	Fail <sup>c</sup>
<i>RAD-140 Study (study dates 01/13/25 - 02/27/25)</i>					
ERDW-3283	Ba-133	88.7	89.7	71.5 - 108	Pass
ERDW-3283	Cs-134	35.3	38.4	25.4 - 51.4	Pass
ERDW-3283	Cs-137	155	157	123 - 191	Pass
ERDW-3283	Co-60	67.2	66.8	50.9 - 82.7	Pass
ERDW-3283	Zn-65	71.6	74.3	39.3 - 109	Pass
ERDW-3281	Gr. Alpha	49.4	72.2	55.3 - 89.1	Fail <sup>d</sup>
ERDW-3281	G. Beta	59.0	59.2	44.1 - 74.3	Pass
ERDW-3279	Ra-228	5.54	6.00	3.98 - 8.02	Pass
ERDW-3279	Uranium	67.1	63.6	56.6 - 70.6	Pass
ERDW-3285	H-3	11,884	11,400	9,340 - 13,500	Pass
<i>ERA-032425M Study (study dates 03/24/25 - 04/04/25)</i>					
ERDW-3786	Gr. Alpha	43.8	51.7	38.9 - 64.5	Pass
<i>ERA-030525U Study (study dates 03/05/25 - 04/15/25)</i>					
ERDW-3631	Ra-226	17.5	18.2	15.5 - 20.9	Pass
<i>ERA-060325P Study (study dates 06/03/25 - 06/30/25)</i>					
ERDW-4378	Ra-226	12.2	10.9	8.89 - 12.9	Pass
ERDW-4378	Ra-228	2.34	3.25	1.78 - 4.72	Pass
ERDW-4378	Uranium	52.4	49.6	44.0 - 55.2	Pass

<sup>a</sup> Results obtained by Microbac Laboratories Inc. - Northbrook as a participant in the crosscheck program for proficiency testing in drinking water conducted by Environmental Resource Associates (ERA).

<sup>b</sup> The lab has adopted a different EPA method for Radium-226 in water (EPA 903.0). The preliminary results look promising (see study ERA 030525U above). Microbac - Northbrook has adopted EPA method 903.0 for radium-226 in water going forward.

<sup>c</sup> ERA added stable iodine carrier to the PT sample at a concentration of 0.20 mg/L. The calculation of the results that were submitted for this study did not take this added iodine into account when calculating the chemical yield or recovery. Incorporating the ERA added stable iodine into the calculations; recoveries dropped from 88.32% and 90.52% to 64.56% and 66.17%. The adjusted results are: 29.42 pCi/L and 28.06 pCi/L which are both within the acceptance range.

<sup>d</sup> The previous lab director worked with the technician to re-verify the self absorption curve for gross alpha. The current lab director will be working with the technician to validate the re-verification to determine if the work performed has resolved the issue.

TABLE A-2. Thermoluminescent Dosimetry, (TLD, CaSO<sub>4</sub>: Dy Cards).<sup>a</sup>

Lab Code	Irradiation Date	Description	mrem		Performance <sup>c</sup> Quotient (P)	
			Delivered Dose	Reported <sup>b</sup> Dose		
<u>Environmental, Inc.</u>		Group 1				
2024-25-1	1/6/2025	Spike 1	92.0	91.8	0.00	
2024-25-1	1/6/2025	Spike 2	92.0	89.7	-0.03	
2024-25-1	1/6/2025	Spike 3	92.0	92.0	0.00	
2024-25-1	1/6/2025	Spike 4	92.0	92.9	0.01	
2024-25-1	1/6/2025	Spike 5	92.0	91.8	0.00	
2024-25-1	1/6/2025	Spike 6	92.0	98.0	0.07	
2024-25-1	1/6/2025	Spike 7	92.0	94.6	0.03	
2024-25-1	1/6/2025	Spike 8	92.0	94.2	0.02	
2024-25-1	1/6/2025	Spike 9	92.0	95.4	0.04	
2024-25-1	1/6/2025	Spike 10	92.0	91.3	-0.01	
2024-25-1	1/6/2025	Spike 11	92.0	89.4	-0.03	
2024-25-1	1/6/2025	Spike 12	92.0	97.7	0.06	
2024-25-1	1/6/2025	Spike 13	92.0	94.1	0.02	
2024-25-1	1/6/2025	Spike 14	92.0	92.2	0.00	
2024-25-1	1/6/2025	Spike 15	92.0	92.9	0.01	
2024-25-1	1/6/2025	Spike 16	92.0	91.7	0.00	
2024-25-1	1/6/2025	Spike 17	92.0	87.4	-0.05	
2024-25-1	1/6/2025	Spike 18	92.0	94.7	0.03	
2024-25-1	1/6/2025	Spike 19	92.0	91.0	-0.01	
2024-25-1	1/6/2025	Spike 20	92.0	92.5	0.01	
Mean (Spike 1-20)				92.8	0.01	Pass <sup>d</sup>
Standard Deviation (Spike 1-20)				2.6	0.03	Pass <sup>d</sup>

a TLD's were irradiated by the University of Wisconsin-Madison Radiation Calibration Laboratory following ANSI N13.37 protocol from a known air kerma rate. TLD's were read and the results were submitted by Microbac Laboratories - Northbrook to the University of Wisconsin-Madison Radiation Calibration Laboratory for comparison to the delivered dose.

b Reported dose was converted from exposure (R) to Air Kerma (cGy) using a conversion of 0.876. Conversion from air kerma to ambient dose equivalent for Cs-137 at the reference dose point  $H^*(10)K_a = 1.20$ . mrem/cGy = 1000.

c Performance Quotient (P) is calculated as ((reported dose - conventionally true value) + conventionally true value) where the conventionally true value is the delivered dose.

d Acceptance is achieved when neither the absolute value of the mean of the P values, nor the standard deviation of the P values exceed 0.15.

TABLE A-2. Thermoluminescent Dosimetry, (TLD, CaSO<sub>4</sub>: Dy Cards).<sup>a</sup>

Lab Code	Irradiation Date	Description	Delivered Dose	mrem		
				Reported <sup>b</sup> Dose	Performance <sup>c</sup> Quotient (P)	
<u>Environmental, Inc.</u>		Group 2				
2024-25-2	1/6/2025	Spike 21	74.0	77.5	0.05	
2024-25-2	1/6/2025	Spike 22	74.0	77.6	0.05	
2024-25-2	1/6/2025	Spike 23	74.0	73.2	-0.01	
2024-25-2	1/6/2025	Spike 24	74.0	75.4	0.02	
2024-25-2	1/6/2025	Spike 25	74.0	75.3	0.02	
2024-25-2	1/6/2025	Spike 26	74.0	77.8	0.05	
2024-25-2	1/6/2025	Spike 27	74.0	73.1	-0.01	
2024-25-2	1/6/2025	Spike 28	74.0	74.0	0.00	
2024-25-2	1/6/2025	Spike 29	74.0	75.8	0.02	
2024-25-2	1/6/2025	Spike 30	74.0	76.5	0.03	
2024-25-2	1/6/2025	Spike 31	74.0	73.5	-0.01	
2024-25-2	1/6/2025	Spike 32	74.0	75.5	0.02	
2024-25-2	1/6/2025	Spike 33	74.0	76.5	0.03	
2024-25-2	1/6/2025	Spike 34	74.0	76.4	0.03	
2024-25-2	1/6/2025	Spike 35	74.0	75.1	0.01	
2024-25-2	1/6/2025	Spike 36	74.0	72.8	-0.02	
2024-25-2	1/6/2025	Spike 37	74.0	76.0	0.03	
2024-25-2	1/6/2025	Spike 38	74.0	74.9	0.01	
2024-25-2	1/6/2025	Spike 39	74.0	75.4	0.02	
2024-25-2	1/6/2025	Spike 40	74.0	70.8	-0.04	
Mean (Spike 21-40)				75.2	0.02	Pass <sup>d</sup>
Standard Deviation (Spike 21-40)				1.8	0.02	Pass <sup>d</sup>

a TLD's were irradiated by the University of Wisconsin-Madison Radiation Calibration Laboratory following ANSI N13.37 protocol from a known air kerma rate. TLD's were read and the results were submitted by Microbac Laboratories - Northbrook to the University of Wisconsin-Madison Radiation Calibration Laboratory for comparison to the delivered dose.

b Reported dose was converted from exposure (R) to Air Kerma (cGy) using a conversion of 0.876. Conversion from air kerma to ambient dose equivalent for Cs-137 at the reference dose point  $H^*(10)K_a = 1.20$ . mrem/cGy = 1000.

c Performance Quotient (P) is calculated as ((reported dose - conventionally true value) + conventionally true value) where the conventionally true value is the delivered dose.

d Acceptance is achieved when neither the absolute value of the mean of the P values, nor the standard deviation of the P values exceed 0.15.

Company: Vistra

Plant: Perry Nuclear Power Plant

TABLE A-3. Intralaboratory "Spiked" Samples

Lab Code <sup>b</sup>	Reference Date	Analysis	Concentration <sup>a</sup>		Control Limits <sup>d</sup>	Acceptance	Ratio Lab/Known
			Laboratory results 2s, n=1 <sup>c</sup>	Known Activity			
SPDW-60584	10/9/24	H-3	20,016 ± 452	22,100	17,680 - 26,520	Pass	0.91
LCS-W-100324	8/1/23	Cs-134	288 ± 5	305	244 - 366	Pass	0.94
LCS-W-100324	8/1/23	Cs-137	257 ± 8	235	188 - 282	Pass	1.09
LCS-W-100324	8/1/23	Co-57	550 ± 16	521	417 - 625	Pass	1.06
LCS-W-100324	8/1/23	Mn-54	364 ± 16	343	274 - 412	Pass	1.06
LCS-W-100324	8/1/23	Zn-65	489 ± 28	516	413 - 619	Pass	0.95
LCS-W-100324	7/12/21	Ba-133	42.5 ± 3.5	45.5	36.4 - 54.6	Pass	0.93
LCS-W-100324	7/12/21	Cs-134	88.1 ± 6.2	87.5	70.0 - 105	Pass	1.01
LCS-W-100324	7/12/21	Cs-137	219 ± 6	208	166 - 250	Pass	1.05
LCS-W-100324	7/12/21	Co-60	88.8 ± 5.1	87.1	69.7 - 105	Pass	1.02
LCS-AP-100524	8/1/22	Cs-137	52.1 ± 2.0	47.5	38.0 - 57.0	Pass	1.10
LCS-AP-100524	8/1/22	Co-57	99.8 ± 6.5	94.5	75.6 - 113	Pass	1.06
LCS-AP-100524	8/1/22	Co-60	59.9 ± 2.1	57.0	45.6 - 68.4	Pass	1.05
LCS-AP-100524	8/1/22	Mn-54	61.2 ± 7.7	58.9	47.1 - 70.7	Pass	1.04
LCS-AP-100524	8/1/22	Zn-65	43.1 ± 13.5	49.4	39.5 - 59.3	Pass	0.87
LCS-S-101424	2/1/24	Co-60	15,340 ± 87	17,820	14,256 - 21,384	Pass	0.86
LCS-S-101424	2/1/24	Cs-134	8,700 ± 62	8,694	6,955 - 10,433	Pass	1.00
LCS-S-101424	2/1/24	Cs-137	37,330 ± 26	41,850	33,480 - 50,220	Pass	0.89
LCS-S-101424	2/1/24	K-40	11,550 ± 411	13,095	10,476 - 15,714	Pass	0.88
LCS-S-101424	2/1/24	Mn-54	8,080 ± 125	8,964	7,171 - 10,757	Pass	0.90
LCS-S-101424	2/1/24	Zn-65	16,260 ± 273	18,981	15,185 - 22,777	Pass	0.86
LCS-W-1014224	2/1/24	Co-57	544 ± 24	554	443 - 664	Pass	0.98
LCS-W-1014224	2/1/24	Cs-134	281 ± 8	289	231 - 347	Pass	0.97
LCS-W-1014224	2/1/24	Cs-137	254 ± 11	257	205 - 308	Pass	0.99
LCS-W-1014224	2/1/24	Mn-54	369 ± 21	365	292 - 437	Pass	1.01
LCS-W-1014224	2/1/24	Zn-65	501 ± 38	489	391 - 586	Pass	1.03
LCS-VE-100524	2/1/24	Co-57	544 ± 5	521	417 - 625	Pass	1.04
LCS-VE-100524	2/1/24	Cs-134	281 ± 8	305	244 - 366	Pass	0.92
LCS-VE-100524	2/1/24	Cs-137	254 ± 11	235	188 - 282	Pass	1.08
LCS-VE-100524	2/1/24	Zn-65	501 ± 38	516	413 - 619	Pass	0.97
LCS-VE-100524	2/1/24	Mn-54	369 ± 21	343	274 - 411	Pass	1.08
SPDW-60583	10/9/24	H-3	20,016 ± 452	22,100	17,680 - 26,520	Pass	0.91
SPDW-60604	10/25/24	H-3	19,814 ± 447	22,100	17,680 - 26,520	Pass	0.90
SPDW-60622	11/14/24	Gr. Alpha	12.5 ± 2.9	13.0	6.5 - 15.6	Pass	0.96
SPDW-60622	11/14/24	Gr. Beta	17.8 ± 2.3	20.6	16.5 - 24.7	Pass	0.86
SPDW-60635	10/10/24	Ra-226	14.9 ± 0.5	12.3	8.6 - 16.0	Pass	1.21

<sup>a</sup> Liquid sample results are reported in pCi/Liter, air filters ( pCi/m<sup>3</sup>), charcoal (pCi/charcoal canister), and solid samples (pCi/kg).

<sup>b</sup> Laboratory codes : W & SPW (Water), MI (milk), AP (air filter), SO (soil), VE (vegetation), CH (charcoal canister), F (fish), U (urine).

<sup>c</sup> Results are based on single determinations.

<sup>d</sup> Acceptance criteria are listed in Attachment A of this report.

Company: Vistra

Plant: Perry Nuclear Power Plant

TABLE A-3. Intralaboratory "Spiked" Samples

Lab Code <sup>b</sup>	Reference Date	Analysis	Concentration <sup>a</sup>		Control Limits <sup>d</sup>	Acceptance	Ratio Lab/Known
			Laboratory results 2s, n=1 <sup>c</sup>	Known Activity			
SPDW-60583	10/9/24	H-3	20,016 ± 452	22,100	17,680 - 26,520	Pass	0.91
SPDW-60604	10/25/24	H-3	19,814 ± 447	22,100	17,680 - 26,520	Pass	0.90
SPDW-60622	11/14/24	Gr. Alpha	12.5 ± 2.9	13.0	6.5 - 15.6	Pass	0.96
SPDW-60622	11/14/24	Gr. Beta	17.8 ± 2.3	20.6	16.5 - 24.7	Pass	0.86
SPDW-60635	10/10/24	Ra-226	14.9 ± 0.5	12.3	8.6 - 16.0	Pass	1.21
SPDW-60631	12/2/24	H-3	20,384 ± 453	22,100	17,680 - 26,520	Pass	0.92
SPDW-60641	12/17/24	H-3	21,520 ± 468	22,100	17,680 - 26,520	Pass	0.97
SPDW-60670	1/20/25	Ra-226	11.9 ± 1.6	15.3	10.7 - 19.9	Pass	0.78
SPDW-60708	2/5/25	H-3	20,675 ± 456	22,100	17,680 - 26,520	Pass	0.94
SPDW-60787	3/10/25	H-3	21,002 ± 459	22,100	17,680 - 26,520	Pass	0.95
LCS-W-011525B	8/1/24	Co-57	699 ± 24	713	570 - 855	Pass	0.98
LCS-W-011525B	8/1/24	Cs-134	530 ± 8	602	482 - 723	Pass	0.88
LCS-W-011525B	8/1/24	Zn-65	543 ± 38	616	492 - 739	Pass	0.88
LCS-W-011525B	8/1/24	Mn-54	369 ± 21	343	274 - 411	Pass	1.08
LCS-W-011525B	8/1/24	Fe-59	1,825 ± 325	1,553	1,242 - 1863	Pass	1.18
LCS-W-011625	8/1/23	Mn-54	345 ± 28	343	274 - 412	Pass	1.01
LCS-W-011625	8/1/23	Cs-134	261 ± 15	305	244 - 366	Pass	0.86
LCS-W-011625	8/1/23	Cs-137	246 ± 11	235	188 - 282	Pass	1.05
LCS-W-011625	8/1/23	Co-57	542 ± 39	521	417 - 625	Pass	1.04
LCS-W-011625	8/1/23	Zn-65	527 ± 57	516	413 - 619	Pass	1.02
LCS-VE-012225A	8/1/24	Mn-54	104 ± 6	95.3	76.2 - 114	Pass	1.09
LCS-VE-012225A	8/1/24	Co-60	53.3 ± 3.7	54.3	43.4 - 65.2	Pass	0.98
LCS-VE-012225A	8/1/24	Cs-134	67.8 ± 3.5	78.0	62.4 - 93.6	Pass	0.87
LCS-VE-012225A	8/1/24	Cs-137	48.4 ± 3.3	51.6	41.3 - 61.9	Pass	0.94
LCS-VE-012225A	8/1/24	Zn-65	222 ± 13	247	198 - 296	Pass	0.90
LCS-VE-012225B	2/1/24	Co-57	72.3 ± 5.5	68.3	54.6 - 82.0	Pass	1.06
LCS-VE-012225B	2/1/24	Co-60	78.6 ± 3.5	79.9	63.9 - 95.9	Pass	0.98
LCS-VE-012225B	2/1/24	Cs-134	80.5 ± 3.8	99.1	79.3 - 119	Pass	0.81
LCS-VE-012225B	2/1/24	Cs-137	65.1 ± 3.3	69.4	55.5 - 83.3	Pass	0.94
LCS-VE-012225B	2/1/24	Zn-65	189 ± 17	217	174 - 260	Pass	0.87
LCS-W-012725A	4/8/24	Ba-133	64.9 ± 4.8	65.9	52.7 - 79.1	Pass	0.98
LCS-W-012725A	4/8/24	Cs-134	56.6 ± 4.7	57.8	46.2 - 69.4	Pass	0.98
LCS-W-012725A	4/8/24	Cs-137	195 ± 8	186	149 - 223	Pass	1.05
LCS-W-012725A	4/8/24	Co-60	104.5 ± 4.8	98.8	79.0 - 119	Pass	1.06
LCS-W-012725A	4/8/24	Zn-65	273 ± 42	240	192 - 288	Pass	1.14

<sup>a</sup> Liquid sample results are reported in pCi/Liter, air filters ( pCi/m<sup>3</sup>), charcoal (pCi/charcoal canister), and solid samples (pCi/kg).<sup>b</sup> Laboratory codes : W & SPW (Water), MI (milk), AP (air filter), SO (soil), VE (vegetation), CH (charcoal canister), F (fish), U (urine).<sup>c</sup> Results are based on single determinations.<sup>d</sup> Acceptance criteria are listed in Attachment A of this report.

Company: **Vistra**Plant: **Perry Nuclear Power Plant**

TABLE A-3. Intralaboratory "Spiked" Samples

Lab Code <sup>a</sup>	Reference Date	Analysis	Concentration <sup>a</sup>		Control Limits <sup>d</sup>	Acceptance	Ratio Lab/Known
			Laboratory results 2s, n=1 <sup>c</sup>	Known Activity			
LCS-W-012725B	4/8/24	Ba-133	61.7 7.1	65.9	52.7 - 79.1	Pass	0.94
LCS-W-012725B	4/8/24	Cs-134	49.6 6.4	57.8	46.2 - 69.4	Pass	0.86
LCS-W-012725B	4/8/24	Cs-137	189 ± 11	186	149 - 223	Pass	1.02
LCS-W-012725B	4/8/24	Co-60	98.3 7.1	98.8	79.0 - 119	Pass	0.99
LCS-W-012725B	4/8/24	Zn-65	213 ± 32	240	192 - 288	Pass	0.89
LCS-AP-012925	8/1/24	Co-60	10.6 ± 1.5	9.75	7.80 - 11.7	Pass	1.09
LCS-AP-012925	8/1/24	Cs-134	7.45 ± 0.84	9.02	7.22 - 10.8	Pass	0.83
LCS-AP-012925	8/1/24	Cs-137	7.75 ± 1.24	7.26	5.81 - 8.71	Pass	1.07
LCS-SO-012925A	10/14/24	K-40	16,200 ± 473	14,175	11,340 - 17,010	Pass	1.14
LCS-SO-012925A	10/14/24	Mn-54	3,100 ± 73	3,051	2,441 - 3,661	Pass	1.02
LCS-SO-012925A	10/14/24	Co-57	8,490 ± 718	8,910	7,128 - 10,692	Pass	0.95
LCS-SO-012925A	10/14/24	Co-60	17,800 ± 95	18,900	15,120 - 22,680	Pass	0.94
LCS-SO-012925A	10/14/24	Cs-134	9,920 ± 83	11,259	9,007 - 13,511	Pass	0.88
LCS-SO-012925A	10/14/24	Cs-137	44,600 ± 182	44,550	35,640 - 53,460	Pass	1.00
LCS-SO-012925A	10/14/24	Zn-65	11,700 ± 216	11,205	8,964 - 13,446	Pass	1.04
LCS-SO-012925B	2/14/24	K-40	14,302 ± 1308	13,095	10,476 - 15,714	Pass	1.09
LCS-SO-012925B	2/14/24	Mn-54	9,368 ± 413	8,964	7,171 - 10,757	Pass	1.05
LCS-SO-012925B	2/14/24	Co-57	9,451 ± 213	10,827	8,662 - 12,992	Pass	0.87
LCS-SO-012925B	2/14/24	Co-60	17,653 ± 263	17,820	14,256 - 21,384	Pass	0.99
LCS-SO-012925B	2/14/24	Cs-134	8,989 ± 192	10,908	8,726 - 13,090	Pass	0.82
LCS-SO-012925B	2/14/24	Cs-137	42,415 ± 416	41,850	33,480 - 50,220	Pass	1.01
LCS-SO-012925B	2/14/24	Zn-65	18,205 ± 839	18,981	15,185 - 22,777	Pass	0.96
LCS-W-013025	8/1/24	Cs-134	545 ± 9	602	482 - 722	Pass	0.91
LCS-W-013025	8/1/24	Co-57	692 ± 12	713	570 - 856	Pass	0.97
LCS-W-013025	8/1/24	Fe-59	1,781 ± 170	1553	1,242 - 1864	Pass	1.15
LCS-W-013025	8/1/24	Co-60	390 ± 7	405	324 - 486	Pass	0.96
LCS-W-013025	8/1/24	Zn-65	652 ± 23	616	493 - 739	Pass	1.06
LCS-SO-021225	8/1/24	K-40	14,043 ± 1,654	14,175	11,340 - 17,010	Pass	0.99
LCS-SO-021225	8/1/24	Mn-54	3,144 ± 219	3,051	2,441 - 3,661	Pass	1.03
LCS-SO-021225	8/1/24	Co-57	8,547 ± 199	8,910	7,128 - 10,692	Pass	0.96
LCS-SO-021225	8/1/24	Co-60	18,084 ± 195	18,900	15,120 - 22,680	Pass	0.96
LCS-SO-021225	8/1/24	Cs-134	9,296 ± 161	11,259	9,007 - 13,511	Pass	0.83
LCS-SO-021225	8/1/24	Cs-137	44,134 ± 335	44,550	35,640 - 53,460	Pass	0.99
LCS-SO-021225	8/1/24	Zn-65	11,858 ± 450	11,205	8,964 - 13,446	Pass	1.06
LCS-VE-021225	8/1/25	Mn-54	98.5 ± 5	95.3	76.2 - 114	Pass	1.03
LCS-VE-021225	8/1/25	Co-60	58.3 ± 3	54.3	43.4 - 65.2	Pass	1.07
LCS-VE-021225	8/1/25	Cs-134	73.0 ± 3	78.0	62.4 - 93.6	Pass	0.94
LCS-VE-021225	8/1/25	Cs-137	56.1 ± 2	51.6	41.3 - 61.9	Pass	1.09
LCS-VE-021225	8/1/25	Zn-65	287 ± 13	247	198 - 296	Pass	1.16

<sup>a</sup> Liquid sample results are reported in pCi/Liter, air filters ( pCi/m3), charcoal (pCi/charcoal canister), and solid samples (pCi/kg).  
vegetation (pCi/sample)

<sup>b</sup> Laboratory codes : W & SPW (Water), MI (milk), AP (air filter), SO (soil), VE (vegetation), CH (charcoal canister), F (fish), U (urine).

<sup>c</sup> Results are based on single determinations.

<sup>d</sup> Acceptance criteria are listed in Attachment A of this report.

Company: Vistra

Plant: Perry Nuclear Power Plant

TABLE A-3. Intralaboratory "Spiked" Samples

Lab Code <sup>a</sup>	Reference Date	Analysis	Concentration <sup>b</sup>		Control Limits <sup>d</sup>	Acceptance	Ratio Lab/Known
			Laboratory results 2s, n=1 <sup>c</sup>	Known Activity			
LCS-SO-031225	8/1/24	K-40	15,335 ± 1276	14,175	11,340 - 17,010	Pass	1.08
LCS-SO-031225	8/1/24	Mn-54	3,335 ± 308	3,051	2,441 - 3,661	Pass	1.09
LCS-SO-031225	8/1/24	Co-57	7,901 ± 179	8,910	7,128 - 10,692	Pass	0.89
LCS-SO-031224	8/1/24	Co-60	18,579 ± 283	18,900	15,120 - 22,680	Pass	0.98
LCS-SO-031225	8/1/24	Cs-134	9,450 ± 257	11,259	9,007 - 13,511	Pass	0.84
LCS-SO-031225	8/1/24	Cs-137	44,894 ± 431	44,550	35,640 - 53,460	Pass	1.01
LCS-SO-031225	8/1/24	Zn-65	10,261 ± 627	11,205	8,964 - 13,446	Pass	0.92
SPDW-60780	3/4/25	Gr. Alpha	36.2 ± 1.9	34.8	17.4 - 41.8	Pass	1.04
SPDW-60780	3/4/25	Gr. Beta	132 ± 2	137	109.9 - 164.9	Pass	0.96
SPDW-60815	3/21/25	H-3	21,670 ± 466	22,100	17,680 - 26,520	Pass	0.98
SPDW-60797	3/11/25	Th-230	63.2 ± 7.8	72.2	58 - 0,087	Pass	0.88
SPDW-60842	4/1/25	H-3	20,939 ± 460	22,100	17,680 - 26,520	Pass	0.95
SPDW-60860	4/8/25	H-3	20,388 ± 454	22,100	17,680 - 26,520	Pass	0.92
SPDW-60865	4/18/25	H-3	20,672 ± 457	22,100	17,680 - 26,520	Pass	0.94
SPDW-60869	4/13/25	Ra-228	6.30 ± 1.11	6.12	4.28 ± 7.96	Pass	1.03
SPDW-60880	5/7/25	H-3	21,535 ± 470	22,100	17,680 - 26,520	Pass	0.97
SPDW-60883	5/7/25	Sr-90	17.6 ± 1.1	15.4	12.3 - 18.5	Pass	1.14
LCS-W-05222025	1/13/25	Co-60	70.1 ± 6.2	66.8	53 - 0,080	Pass	1.05
LCS-W-05222025	1/13/25	Zn-65	80.3 ± 13.7	74.3	59 - 0,089	Pass	1.08
LCS-W-05222025	1/13/25	Ba-133	77.2 ± 6.8	89.7	72 - 0,108	Pass	0.86
LCS-W-05222025	1/13/25	Cs-134	35.5 ± 4.7	38.4	31 - 0,046	Pass	0.92
LCS-W-05222025	1/13/25	Cs-137	161 ± 10	157	126 - 0,188	Pass	1.03
LCS-SO-05222025	3/19/18	Cs-134	3,810 ± 280	4,210	3,368 - 5,052	Pass	0.90
LCS-SO-05222025	3/19/18	Cs-137	3,530 ± 87	4,210	3,368 - 5,052	Pass	0.84
LCS-SO-05222025	3/19/18	Pb-212	1,160 ± 62	1,240	992 - 1,488	Pass	0.94
LCS-SO-05222025	3/19/18	Pb-214	1,860 ± 77	1,850	1,480 - 2,220	Pass	1.01
LCS-SO-05222025	3/19/18	Ac-228	1,120 ± 360	1,240	992 - 1,488	Pass	0.90
LCS-W-052625	1/13/25	Zn-65	69.7 ± 8.6	74.3	59 - 89.2	Pass	0.94
LCS-W-052625	1/13/25	Ba-133	77.0 ± 4.4	89.7	72 - 108	Pass	0.86
LCS-W-052625	1/13/25	Cs-134	30.9 ± 2.8	38.4	30.7 - 46.1	Pass	0.80
LCS-W-052625	1/13/25	Cs-137	161 ± 6	157	126 - 188	Pass	1.03
LCS-W-052625	1/13/25	Co-60	70.6 ± 3.2	66.8	53.4 - 80.2	Pass	1.06

<sup>a</sup> Liquid sample results are reported in pCi/Liter, air filters ( pCi/m3), charcoal (pCi/charcoal canister), and solid samples (pCi/kg).  
vegetation (pCi/sample)

<sup>b</sup> Laboratory codes : W & SPW (Water), MI (milk), AP (air filter), SO (soil), VE (vegetation), CH (charcoal canister), F (fish), U (urine).

<sup>c</sup> Results are based on single determinations.

<sup>d</sup> Acceptance criteria are listed in Attachment A of this report.

Company: **Vistra**Plant: **Perry Nuclear Power Plant**

TABLE A-4. Intralaboratory "Blank" Samples

Lab Code <sup>b</sup>	Sample Type	Collection Date	Analysis <sup>c</sup>	Concentration <sup>a</sup>		Acceptance Criteria (4.66 $\sigma$ )
				Laboratory results (4.66 $\sigma$ )		
				LLD	Activity <sup>d</sup>	
SPDW-60392	Water	7/10/2024	H-3	183	-28 $\pm$ 83	200
SPDW-60411	Water	7/22/2024	Gr. Alpha	0.42	-0.06 $\pm$ 0.29	2
SPDW-60411	Water	7/22/2024	Gr. Beta	0.71	0.40 $\pm$ 0.51	4
SPDW-60416	Water	7/23/2024	U (Natural)	0.56	-0.16 $\pm$ 0.66	1
SPDW-60418	Water	7/24/2024	Ra-228	0.65	0.93 $\pm$ 0.40	2
SPDW-60451	Water	7/31/2024	Ra-226	0.07	0.02 $\pm$ 0.06	2
SPW-1901	Water	8/6/2024	Ni-63	0	0 $\pm$ 0	200
SPDW-60462	Water	8/16/2024	Ra-228	0.58	0.08 $\pm$ 0.28	2
SPDW-60529	Water	8/12/2024	Ra-226	0.04	-0.07 $\pm$ 0.03	2
SPDW-60522	Water	9/5/2024	I-131	0.11	-0.09 $\pm$ 0.07	1
SPDW-60526	Water	9/10/2024	H-3	183	9 $\pm$ 86	200
SPDW-60592	Water	9/11/2024	Ra-226	0.06	-0.11 $\pm$ 0.05	2
SPDW-60545	Water	9/13/2024	Sr-89	0.56	-0.06 $\pm$ 0.43	5
SPDW-60545	Water	9/13/2024	Sr-90	0.52	0.06 $\pm$ 0.25	1
SPDW-60560	Water	9/26/2024	H-3	180	88 $\pm$ 89	200
SPDW-60594	Water	10/16/2024	Ra-228	0.73	0.43 $\pm$ 0.39	2
SPDW-60634	Water	10/10/2024	Ra-226	0.05	-0.07 $\pm$ 0.04	2
MB-102124	Water	10/21/2024	Co-57	4.76	0.87 $\pm$ 2.53	10
MB-102124	Water	10/21/2024	Cs-134	3.88	-3.36 $\pm$ 2.68	10
MB-102124	Water	10/21/2024	Cs-137	5.73	1.08 $\pm$ 2.64	10
MB-102124	Water	10/21/2024	Mn-54	5.17	0.03 $\pm$ 2.65	10
MB-102124	Water	10/21/2024	Zn-65	6.83	-1.76 $\pm$ 5.61	10
SPDW-60614	Water	11/8/2024	H-3	185	-29 $\pm$ 84	200
SPDW-60630	Water	12/2/2024	H-3	184	-12 $\pm$ 86	200
MB-120924	Water	12/9/2024	Co-57	1.08	0.04 $\pm$ 0.66	10
MB-120924	Water	12/9/2024	Cs-134	1.06	0.22 $\pm$ 0.61	10
MB-120924	Water	12/9/2024	Cs-137	1.39	0.65 $\pm$ 0.68	10
MB-120924	Water	12/9/2024	Mn-54	0.93	0.07 $\pm$ 0.55	10
MB-120924	Water	12/9/2024	Zn-65	2.28	0.33 $\pm$ 1.12	10
MB-121224	Water	12/12/2024	Co-57	1.56	-1.64 $\pm$ 1.28	10
MB-121224	Water	12/12/2024	Cs-134	1.85	-2.84 $\pm$ 1.36	10
MB-121224	Water	12/12/2024	Cs-137	1.39	-0.10 $\pm$ 1.44	10
MB-121224	Water	12/12/2024	Mn-54	2.56	1.81 $\pm$ 1.30	10
MB-121224	Water	12/12/2024	Zn-65	3.05	-6.22 $\pm$ 2.99	10
SPDW-60638	Water	12/12/2024	I-131	0.17	-0.19 $\pm$ 0.08	1
SPDW-60641	Water	12/17/2024	H-3	182	3 $\pm$ 85	200
SPDW-60669	Water	1/20/2025	Ra-228	0.76	0.22 $\pm$ 0.38	2

<sup>a</sup> Liquid sample results are reported in pCi/Liter, air filters ( pCi/m<sup>3</sup>), charcoal (pCi/charcoal canister), and solid samples (pCi/g).<sup>b</sup> Laboratory codes : W & SPW (Water), MI (milk), AP (air filter), SO (soil), VE (vegetation), CH (charcoal canister), F (fish), U (urine).<sup>c</sup> I-131(G); Iodine-131 as analyzed by gamma spectroscopy.<sup>d</sup> Activity reported is a net activity result.

Company: Vistra

Plant: Perry Nuclear Power Plant

TABLE A-4. Intralaboratory "Blank" Samples

Lab Code <sup>b</sup>	Sample Type	Collection Date	Analysis <sup>c</sup>	Concentration <sup>a</sup>		Acceptance Criteria (4.66 $\sigma$ )
				Laboratory results (4.66 $\sigma$ )		
				LLD	Activity <sup>d</sup>	
SPDW-60693	Water	2/4/2025	Sr-89	0.65	0.29 $\pm$ 0.56	5
SPDW-60693	Water	2/4/2025	Sr-90	0.64	0.18 $\pm$ 0.32	1
SPDW-60707	Water	2/5/2025	H-3	173	-10 $\pm$ 82	200
SPDW-60715	Water	2/11/2025	I-131	0.16	-0.06 $\pm$ 0.08	1
SPDW-60788	Water	3/10/2025	H-3	176	46 $\pm$ 90	200
SPDW-60788	Water	3/10/2025	H-3	176	46 $\pm$ 90	200
SPDW-60796	Water	3/11/2025	Th-228	1.20	-0.39 $\pm$ 0.57	2
SPDW-60796	Water	3/11/2025	Th-230	0.60	0.26 $\pm$ 0.51	2
SPDW-60796	Water	3/11/2025	Th-232	0.60	0.13 $\pm$ 0.44	2
SPDW-60814	Water	3/21/2025	H-3	177	6 $\pm$ 82	200
SPDW-60841	Water	4/1/2025	H-3	175	35 $\pm$ 89	200
SPDW-60868	Water	4/13/2025	Ra-228	0.63	-0.28 $\pm$ 0.25	2
SPDW-60868	Water	4/13/2025	Ra-228	0.63	-0.28 $\pm$ 0.25	2
SPDW-60875	Water	4/24/2025	I-131	0.20	0.02 $\pm$ 0.11	1
SPDW-60682	Water	5/7/2025	Sr-89	0.61	-0.36 $\pm$ 0.50	5
SPDW-60682	Water	5/7/2025	Sr-90	0.65	0.30 $\pm$ 0.34	1
SPDW-60864	Water	4/18/2025	H-3	173	105 $\pm$ 91	200
SPDW-60880	Water	5/7/2025	H-3	177	38 $\pm$ 90	200

<sup>a</sup> Liquid sample results are reported in pCi/Liter, air filters ( pCi/m<sup>3</sup>), charcoal (pCi/charcoal canister), and solid samples (pCi/g).

<sup>b</sup> Laboratory codes : W & SPW (Water), MI (milk), AP (air filter), SO (soil), VE (vegetation), CH (charcoal canister), F (fish), U (urine).

<sup>c</sup> I-131(G); Iodine-131 as analyzed by gamma spectroscopy.

<sup>d</sup> Activity reported is a net activity result.

Company: **Vistra**Plant: **Perry Nuclear Power Plant**

TABLE A-5. Intralaboratory "Duplicate" Samples

Lab Code <sup>b</sup>	Collection Date	Analysis	Concentration <sup>a</sup>		Averaged Result	Acceptance
			First Result	Second Result		
SG-1472,1473	7/1/2024	Gr. Alpha	36.0 ± 4.5	36.8 ± 4.5	36.4 ± 3.2	Pass
SG-1472,1473	7/1/2024	Gr. Beta	30.4 ± 2.1	31.2 ± 2.2	30.8 ± 1.5	Pass
SG-1472,1473	7/1/2024	Pb-214	2.64 ± 0.11	3.11 ± 0.09	2.88 ± 0.07	Pass
SG-1472,1473	7/1/2024	Ac-228	5.55 ± 0.21	5.79 ± 0.25	5.67 ± 0.16	Pass
SG-1474,1475	7/1/2024	Gr. Alpha	43.6 ± 5.7	37.5 ± 5.4	40.6 ± 3.9	Pass
SG-1474,1475	7/1/2024	Gr. Beta	40.6 ± 2.8	34.2 ± 2.7	37.4 ± 1.9	Pass
SG-1474,1475	7/1/2024	Pb-214	3.58 ± 0.10	3.93 ± 0.10	3.76 ± 0.07	Pass
SG-1474,1475	7/1/2024	Ac-228	4.21 ± 0.15	4.13 ± 0.16	4.17 ± 0.11	Pass
AP-070324A,B	7/3/2024	Gr. Beta	0.013 ± 0.003	0.014 ± 0.003	0.013 ± 0.002	Pass
W-1592,1593	7/9/2024	Gr. Alpha	1.23 ± 0.67	0.36 ± 0.54	0.80 ± 0.43	Pass
W-1592,1593	7/9/2024	Gr. Beta	1.45 ± 0.60	0.60 ± 0.53	1.03 ± 0.40	Pass
AP-071024A,B	7/10/2024	Gr. Beta	0.024 ± 0.003	0.025 ± 0.003	0.024 ± 0.002	Pass
S-1613,1614	7/11/2024	Pb-214	197 ± 1	200 ± 1	199 ± 1	Pass
S-1613,1614	7/11/2024	Ac-228	134 ± 1	143 ± 1	139 ± 1	Pass
AP-071724A,B	7/17/2024	Gr. Beta	0.038 ± 0.001	0.032 ± 0.003	0.035 ± 0.001	Pass
DW-60413,60414	7/22/2024	Gr. Alpha	1.71 ± 0.79	0.93 ± 0.81	1.32 ± 0.56	Pass
DW-60413,60414	7/22/2024	Gr. Beta	1.18 ± 0.58	1.26 ± 0.59	1.22 ± 0.41	Pass
SG-1722,1723	7/22/2024	Gr. Beta	16.4 ± 3.4	17.5 ± 3.4	16.9 ± 2.4	Pass
SG-1722,1723	7/22/2024	Gr. Alpha	25.5 ± 6.9	17.5 ± 6.0	21.5 ± 4.6	Pass
SG-1722,1723	7/22/2024	K-40	6.99 ± 1.04	5.75 ± 0.86	6.37 ± 0.67	Pass
SG-1722,1723	7/22/2024	Pb-214	7.62 ± 0.18	8.10 ± 0.25	7.86 ± 0.15	Pass
SG-1722,1723	7/22/2024	Ac-228	4.72 ± 0.34	4.76 ± 0.36	4.74 ± 0.24	Pass
AP-080524A,B	8/5/2024	Gr. Beta	0.025 ± 0.003	0.025 ± 0.003	0.025 ± 0.002	Pass
AP-081324A,B	8/13/2024	Gr. Beta	0.030 ± 0.004	0.028 ± 0.004	0.029 ± 0.003	Pass
AP-082124A,B	8/21/2024	Gr. Beta	0.034 ± 0.003	0.030 ± 0.003	0.032 ± 0.002	Pass
AP-082824A,B	8/28/2024	Gr. Beta	0.033 ± 0.003	0.034 ± 0.003	0.033 ± 0.002	Pass
AP-090924A,B	9/9/2024	Gr. Beta	0.025 ± 0.005	0.026 ± 0.005	0.026 ± 0.003	Pass
SO-2132,2133	9/9/2024	Be-7	0.39 ± 0.11	0.53 ± 0.22	0.46 ± 0.12	Pass
SO-2132,2133	9/9/2024	K-40	14.78 ± 0.27	14.52 ± 0.52	14.65 ± 0.29	Pass
SO-2132,2133	9/9/2024	Cs-137	0.10 ± 0.01	0.08 ± 0.02	0.09 ± 0.01	Pass
SO-2132,2133	9/9/2024	Tl-208	0.44 ± 0.03	0.43 ± 0.02	0.44 ± 0.02	Pass
SO-2132,2133	9/9/2024	Bi-212	1.40 ± 0.34	1.25 ± 0.15	1.32 ± 0.19	Pass
SO-2132,2133	9/9/2024	Bi-214	1.01 ± 0.03	0.90 ± 0.04	0.95 ± 0.02	Pass
SO-2132,2133	9/9/2024	Pb-212	1.29 ± 0.02	1.18 ± 0.03	1.24 ± 0.02	Pass
SO-2132,2133	9/9/2024	Pb-214	0.88 ± 0.03	1.07 ± 0.03	0.98 ± 0.02	Pass
SO-2132,2133	9/9/2024	Ra-226	2.38 ± 0.36	2.31 ± 0.16	2.34 ± 0.20	Pass
SO-2132,2133	9/9/2024	Ac-228	1.33 ± 0.10	1.33 ± 0.06	1.33 ± 0.06	Pass

Company: **Vistra**Plant: **Perry Nuclear Power Plant**

TABLE A-5. Intralaboratory "Duplicate" Samples

Lab Code <sup>b</sup>	Collection Date	Analysis	Concentration <sup>a</sup>		Averaged Result	Acceptance
			First Result	Second Result		
SS-2206,2207	9/17/2024	Be-7	0.29 ± 0.06	0.23 ± 0.10	0.26 ± 0.06	Pass
SS-2206,2207	9/17/2024	K-40	6.54 ± 0.29	6.19 ± 0.20	6.37 ± 0.18	Pass
SS-2206,2207	9/17/2024	Tl-208	0.20 ± 0.02	0.22 ± 0.02	0.21 ± 0.01	Pass
SS-2206,2207	9/17/2024	Bi-212	0.65 ± 0.14	0.69 ± 0.19	0.67 ± 0.12	Pass
SS-2206,2207	9/17/2024	Bi-214	0.68 ± 0.02	0.61 ± 0.02	0.65 ± 0.02	Pass
SS-2206,2207	9/17/2024	Pb-212	0.51 ± 0.02	0.59 ± 0.02	0.55 ± 0.01	Pass
SS-2206,2207	9/17/2024	Pb-214	0.73 ± 0.03	0.63 ± 0.02	0.68 ± 0.02	Pass
SS-2206,2207	9/17/2024	Ra-226	1.12 ± 0.12	1.25 ± 0.19	1.18 ± 0.11	Pass
SS-2206,2207	9/17/2024	Ac-228	0.66 ± 0.05	0.65 ± 0.06	0.66 ± 0.04	Pass
VE-2111,2112	9/10/2024	Be-7	0.56 ± 0.17	0.59 ± 0.18	0.58 ± 0.12	Pass
VE-2111,2112	9/10/2024	K-40	4.62 ± 0.40	5.21 ± 0.41	4.91 ± 0.29	Pass
AP-091624A,B	9/16/2024	Gr. Beta	0.044 ± 0.004	0.043 ± 0.004	0.044 ± 0.002	Pass
VE-2111,2112	9/10/2024	Be-7	0.56 ± 0.17	0.59 ± 0.18	0.58 ± 0.12	Pass
VE-2111,2112	9/10/2024	K-40	4.62 ± 0.40	5.21 ± 0.41	4.91 ± 0.29	Pass
AP-092524A,B	9/25/2024	Gr. Beta	0.036 ± 0.003	0.033 ± 0.003	0.035 ± 0.002	Pass
AP-2773,2774	9/30/2024	Be-7	0.067 ± 0.008	0.075 ± 0.066	0.071 ± 0.033	Pass
SS-2206,2207	9/17/2024	Be-7	0.29 ± 0.06	0.23 ± 0.10	0.26 ± 0.06	Pass
SS-2206,2207	9/17/2024	K-40	6.54 ± 0.29	6.19 ± 0.20	6.37 ± 0.18	Pass
SS-2206,2207	9/17/2024	Tl-208	0.20 ± 0.02	0.22 ± 0.02	0.21 ± 0.01	Pass
SS-2206,2207	9/17/2024	Bi-212	0.65 ± 0.14	0.69 ± 0.19	0.67 ± 0.12	Pass
SS-2206,2207	9/17/2024	Bi-214	0.68 ± 0.02	0.61 ± 0.02	0.65 ± 0.02	Pass
SS-2206,2207	9/17/2024	Pb-212	0.51 ± 0.02	0.59 ± 0.02	0.55 ± 0.01	Pass
SS-2206,2207	9/17/2024	Pb-214	0.73 ± 0.03	0.63 ± 0.02	0.68 ± 0.02	Pass
SS-2206,2207	9/17/2024	Ra-226	1.12 ± 0.12	1.25 ± 0.19	1.18 ± 0.11	Pass
SS-2206,2207	9/17/2024	Ac-228	0.66 ± 0.05	0.65 ± 0.06	0.66 ± 0.04	Pass
SG-2353,2354	10/3/2024	K-40	3.68 ± 0.34	2.79 ± 0.59	3.24 ± 0.34	Pass
SG-2353,2354	10/3/2024	Tl-208	0.13 ± 0.01	0.14 ± 0.03	0.13 ± 0.01	Pass
SG-2353,2354	10/3/2024	Pb-212	0.36 ± 0.02	0.27 ± 0.03	0.32 ± 0.02	Pass
SG-2353,2354	10/3/2024	Pb-214	1.64 ± 0.05	1.21 ± 0.08	1.43 ± 0.05	Pass
SG-2353,2354	10/3/2024	Bi-214	1.56 ± 0.05	1.32 ± 0.10	1.44 ± 0.06	Pass
SG-2353,2354	10/3/2024	Ac-228	2.62 ± 0.09	2.20 ± 0.19	2.41 ± 0.11	Pass
SG-2362,2363	10/4/2024	Gr. Alpha	31.50 ± 3.70	23.00 ± 3.30	27.25 ± 2.48	Pass
SG-2362,2363	10/4/2024	Gr. Beta	24.70 ± 1.70	19.60 ± 1.60	22.15 ± 1.17	Pass
SG-2362,2363	10/4/2024	Ra-226	4.08 ± 0.23	4.03 ± 0.18	4.06 ± 0.15	Pass
SG-2362,2363	10/4/2024	Ra-228	5.90 ± 0.41	5.85 ± 0.34	5.88 ± 0.27	Pass

Company: **Vistra**Plant: **Perry Nuclear Power Plant**

TABLE A-5. Intralaboratory "Duplicate" Samples

Lab Code <sup>b</sup>	Collection Date	Analysis	Concentration <sup>a</sup>		Averaged Result	Acceptance
			First Result	Second Result		
S-2541,2542	10/11/2024	K-40	14.20 ± 0.44	14.82 ± 0.44	14.51 ± 0.31	Pass
S-2541,2542	10/11/2024	Cs-137	0.08 ± 0.01	0.10 ± 0.01	0.09 ± 0.01	Pass
S-2541,2542	10/11/2024	Tl-208	0.26 ± 0.02	0.27 ± 0.02	0.27 ± 0.01	Pass
S-2541,2542	10/11/2024	Pb-212	0.75 ± 0.03	0.54 ± 0.03	0.64 ± 0.02	Pass
S-2541,2542	10/11/2024	Bi-212	1.17 ± 0.29	0.83 ± 0.16	1.00 ± 0.16	Pass
S-2541,2542	10/11/2024	Pb-214	1.28 ± 0.05	1.07 ± 0.05	1.17 ± 0.04	Pass
S-2541,2542	10/11/2024	Ac-228	0.88 ± 0.08	0.85 ± 0.08	0.86 ± 0.06	Pass
S-2752,2753	10/24/2024	K-40	15.24 ± 0.33	15.54 ± 0.31	15.39 ± 0.22	Pass
S-2752,2753	10/24/2024	Cs-137	0.09 ± 0.09	0.10 ± 0.09	0.09 ± 0.06	Pass
S-2752,2753	10/24/2024	Tl-208	0.33 ± 0.01	0.34 ± 0.01	0.34 ± 0.01	Pass
S-2752,2753	10/24/2024	Pb-212	0.93 ± 0.02	0.98 ± 0.02	0.96 ± 0.01	Pass
S-2752,2753	10/24/2024	Bi-212	1.15 ± 0.12	1.13 ± 0.12	1.14 ± 0.08	Pass
S-2752,2753	10/24/2024	Pb-214	1.33 ± 0.03	1.19 ± 0.03	1.26 ± 0.02	Pass
S-2752,2753	10/24/2024	Bi-214	1.37 ± 0.04	1.19 ± 0.03	1.28 ± 0.03	Pass
S-2752,2753	10/24/2024	Ra-226	2.61 ± 0.36	2.28 ± 0.15	2.45 ± 0.20	Pass
S-2752,2753	10/24/2024	Ac-228	1.10 ± 0.07	1.10 ± 0.04	1.10 ± 0.04	Pass
F-2899,2900	11/6/2024	K-40	2.38 ± 0.35	3.06 ± 0.13	2.72 ± 0.18	Pass
SW-2815,2816	11/5/2024	H-3	265 ± 100	214 ± 97	240 ± 70	Pass
SW-3046,3047	12/4/2024	H-3	109 ± 91	178 ± 94	144 ± 65	Pass
W-3067,3068	12/3/2024	H-3	206 ± 96	329 ± 102	268 ± 70	Pass
AP-3335,3336	12/30/2024	Be-7	0.034 ± 0.005	0.050 ± 0.005	0.042 ± 0.003	Pass
AP-3356,3357	1/1/2025	Be-7	0.043 ± 0.004	0.037 ± 0.006	0.040 ± 0.004	Pass
AP-3377,3378	1/1/2025	Be-7	0.057 ± 0.009	0.055 ± 0.011	0.056 ± 0.007	Pass
U-3398,3399	1/2/2025	Beta (-K40)	6.93 ± 1.82	4.76 ± 1.79	5.84 ± 1.28	Pass
AP-011325A,B	1/13/2025	Gr. Beta	0.023 ± 0.005	0.024 ± 0.005	0.024 ± 0.004	Pass
AP-020325A,B	2/3/2025	Gr. Beta	0.022 ± 0.004	0.018 ± 0.004	0.020 ± 0.003	Pass
AP-021725A,B	2/17/2025	Gr. Beta	0.035 ± 0.005	0.036 ± 0.005	0.036 ± 0.004	Pass
XW-3596,3597	2/20/2025	H-3	270 ± 101	325 ± 104	298 ± 72	Pass
SG-3588,3589	2/26/2025	Gr. Alpha	37.6 ± 3.9	24.7 ± 3.2	31.2 ± 2.5	Pass
SG-3588,3589	2/26/2025	Gr. Beta	31.5 ± 1.8	30.1 ± 1.8	30.8 ± 1.3	Pass
SG-3588,3589	2/26/2025	Ra-226	7.38 ± 0.46	6.63 ± 0.27	7.01 ± 0.27	Pass
SG-3588,3589	2/26/2025	Ra-228	8.50 ± 0.46	7.60 ± 0.86	8.05 ± 0.49	Pass
WW-3724,3725	3/12/2025	H-3	199 ± 93	194 ± 93	197 ± 66	Pass
AP-031725A,B	3/17/2025	Gr. Beta	0.024 ± 0.005	0.030 ± 0.005	0.027 ± 0.004	Pass
SW-3770,3771	3/19/2025	H-3	13,111 ± 367	12,865 ± 363	12,988 ± 258	Pass
W-3814,3815	3/26/2025	H-3	159 ± 95	137 ± 94	148 ± 67	Pass
AP-040725A,B	4/7/2025	Gr. Beta	0.016 ± 0.004	0.018 ± 0.004	0.017 ± 0.003	Pass

Company: Vistra

Plant: Perry Nuclear Power Plant

TABLE A-5. Intralaboratory "Duplicate" Samples

Lab Code <sup>b</sup>	Collection		Concentration <sup>a</sup>		Averaged Result	Acceptance
	Date	Analysis	First Result	Second Result		
SW-3770,3771	3/19/2025	H-3	13,111 ± 367	12,865 ± 363	12,988 ± 258	Pass
E-3814,3815	3/26/2025	H-3	159 ± 95	137 ± 94	148 ± 67	Pass
LW-4571,4752	6/17/2025	H-3	104 ± 90	52 ± 87	78 ± 62	Pass
AP-4734,4735	7/1/2025	Be-7	0.070 ± 0.008	0.078 ± 0.008	0.074 ± 0.006	Pass
VE-4614,4615	7/1/2025	K-40	3.56 ± 0.45	3.60 ± 0.31	3.58 ± 0.27	Pass

Note: Duplicate analyses are performed on every twentieth sample received. Results are not listed for those analyses with activities that measure below the LLD.

<sup>a</sup> Results are reported in units of pCi/L, except for air filters (pCi/Filter or pCi/m<sup>3</sup>), food products, vegetation, soil and sediment (pCi/g).

<sup>b</sup> AP (Air Particulate), AV (Aquatic Vegetation), BS (Bottom Sediment), CF (Cattle Feed), CH (Charcoal Canister), DW (Drinking Water), E (Egg), F (Fish), G (Grass), LW (Lake Water), MI (Milk), P (Precipitation), PM (Powdered Milk), S (Solid), SG (Sludge), SO (Soil), SS (Shoreline Sediment), SW (Surface Water), SWT (Surface Water Treated), SWU (Surface Water Untreated), U (Urine), VE (Vegetation), W (Water), WW (Well Water).

Company: Vistra

Plant: Perry Nuclear Power Plant

TABLE A-6. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP).

Lab Code <sup>b</sup>	Reference Date	Analysis	Laboratory result	Concentration <sup>a</sup>		
				Known Activity	Acceptance Range <sup>c</sup>	Acceptance
MADW-2185	8/1/2024	Gross Alpha	0.88 ± 0.01	1.29	0.39 - 2.19	Pass
MADW-2185	8/1/2024	Gross Beta	4.35 ± 0.01	5.09	2.55 - 7.64	Pass
MASO-2187	8/1/2024	Cs-134	330 ± 4	417	292 - 542	Pass
MASO-2187	8/1/2024	Cs-137	1650 ± 11	1650	1155 - 2145	Pass
MASO-2187	8/1/2024	Co-57	311 ± 5	330	231 - 429	Pass
MASO-2187	8/1/2024	Co-60	669 ± 7	700	490 - 910	Pass
MASO-2187	8/1/2024	Mn-54	116 ± 5	113	79 - 147	Pass
MASO-2187	8/1/2024	Zn-65	330 ± 8	415	291 - 540	Pass
MASO-2187	8/1/2024	K-40	531 ± 31	525	368 - 683	Pass
MADW-2183	8/1/2024	Cs-134	19.9 ± 0.3	22.3	15.6 - 29.0	Pass
MADW-2183	8/1/2024	Cs-137	0.99 ± 0.29	0	NA <sup>c, d</sup>	Fail
MADW-2183	8/1/2024	Co-57	25.3 ± 0.4	26.4	18.5 - 34.3	Pass
MADW-2183	8/1/2024	Co-60	14.7 ± 0.4	15.0	10.5 - 19.5	Pass
MADW-2183	8/1/2024	Mn-54	0.12 ± 0.16	0	NA <sup>c</sup>	Pass
MADW-2183	8/1/2024	Zn-65	20.6 ± 1.0	22.8	16.00 - 29.60	Pass
MADW-2183	8/1/2024	K-40	8.92 ± 1.23	0	NA <sup>c, d</sup>	Fail
MAAP-2191	8/1/2024	Cs-134	0.254 ± 0.030	0.334	0.234 - 0.434	Pass
MAAP-2191	8/1/2024	Cs-137	0.260 ± 0.046	0.269	0.188 - 0.350	Pass
MAAP-2191	8/1/2024	Co-57	-0.0003 ± 0.0126	0	NA <sup>c</sup>	Pass
MAAP-2191	8/1/2024	Co-60	0.333 ± 0.045	0.361	0.253 - 0.469	Pass
MAAP-2191	8/1/2024	Mn-54	-0.003 ± 0.022	0	NA <sup>c</sup>	Pass
MAAP-2191	8/1/2024	Zn-65	-0.002 ± 0.054	0	NA <sup>c</sup>	Pass
MAVE-2189	8/1/2024	Cs-134	2.10 ± 0.07	2.89	2.02 - 3.76	Pass
MAVE-2189	8/1/2024	Cs-137	1.53 ± 0.11	1.91	1.34 - 2.48	Pass
MAVE-2189	8/1/2024	Co-57	0.003 ± 0.023	0	NA <sup>c</sup>	Pass
MAVE-2189	8/1/2024	Co-60	1.54 ± 0.08	2.01	1.41 - 2.61	Pass
MAVE-2189	8/1/2024	Mn-54	2.89 ± 0.15	3.53	2.47 - 4.59	Pass
MAVE-2189	8/1/2024	Zn-65	7.14 ± 0.29	9.13	6.39 - 11.87	Pass

Company: Vistra

Plant: Perry Nuclear Power Plant

TABLE A-6. Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP).

Lab Code <sup>b</sup>	Reference Date	Analysis	Laboratory result	Concentration <sup>a</sup>		Acceptance Range <sup>c</sup>	Acceptance
				Known Activity	Acceptance		
MADW-3678	2/1/2025	Cs-134	-0.023 ± 0.098	0		NA <sup>c</sup>	Pass
MADW-3678	2/1/2025	Cs-137	7.3 ± 0.4	6.9		4.8 - 9.0	Pass
MADW-3678	2/1/2025	Co-57	30.9 ± 0.4	32.1		21.6 - 40.2	Pass
MADW-3678	2/1/2025	Co-60	0.31 ± 0.07	0		NA <sup>c</sup>	Pass
MADW-3678	2/1/2025	Mn-54	0.02 ± 0.07	0		NA <sup>c</sup>	Pass
MADW-3678	2/1/2025	Zn-65	26.3 ± 0.8	26.7		18.7 - 34.7	Pass
MADW-3678	2/1/2025	K-40	32.4 ± 2.3	30.3		21.2 - 39.4	Pass
MAAP-3670	2/1/2025	Cs-134	0.34 ± 0.07	0.340		0.238 - 0.442	Pass
MAAP-3670	2/1/2025	Cs-137	0.76 ± 0.12	0.678		0.475 - 0.881	Pass
MAAP-3670	2/1/2025	Co-57	0.74 ± 0.10	0		NA <sup>c, e</sup>	Fail
MAAP-3670	2/1/2025	Co-60	0.48	0.486		0.340 - 0.632	Pass
MAAP-3670	2/1/2025	Mn-54	0.002 ± 0.041	0		NA <sup>c</sup>	Pass
MAAP-3670	2/1/2025	Zn-65	-0.16 ± 0.16	0		NA <sup>c</sup>	Pass

<sup>a</sup> Results are reported in units of Bq/kg (soil), Bq/L (water) or Bq/total sample (filters, vegetation).

<sup>b</sup> Laboratory codes as follows: MAW (water), MADW (water), MAAP (air filter), MASO (soil) and MAVE (vegetation).

<sup>c</sup> MAPEP results are presented as the known values and expected laboratory precision (1 sigma, 1 determination) and control limits as defined by the MAPEP. A known value of "zero" indicates an analysis was included in the testing series as a "false positive". MAPEP does not provide an acceptance range.

<sup>d</sup> False positive detections could have occurred due to a combination of an inadequate background subtraction for this sample geometry compounded by a very long analysis time.

<sup>e</sup> The false positive is believed to be due to interference from U-234 which has a gamma energy very close to Co-57 and for which the MAPEP study report confirmed to be present in the sample.

Company: **Vistra**Plant: **Perry Nuclear Power Plant**TABLE A-7. Interlaboratory Comparison Crosscheck Program, Environmental Resource Associates (ERA)<sup>a</sup>.

Lab Code <sup>b</sup>	Date	Analysis	Concentration <sup>a</sup>		Acceptance Limits <sup>d</sup>	Acceptance
			Laboratory Result	ERA Value <sup>c</sup>		
ERAP-574	3/18/2024	Cs-134	291 ± 4	273	177 - 335	Pass
ERAP-574	3/18/2024	Cs-137	131 ± 6	106	87 - 139	Pass
ERAP-574	3/18/2024	Co-60	1240 ± 8	1120	952 - 1420	Pass
ERAP-574	3/18/2024	Mn-54	< 3.1	< 35.0	0.00 - 35.0	Pass
ERAP-574	3/18/2024	Zn-65	102 ± 9	77.2	63.3 - 118	Pass
ERAP-574	3/18/2024	Sr-90	173 ± 5	158	99.9 - 215	Pass
ERAP-600	3/18/2024	Gross Alpha	110 ± 3	95.9	50.1 - 158	Pass
ERAP-600	3/18/2024	Gross Beta	31.7 ± 1.6	22.2	13.5 - 33.5	Pass

<sup>a</sup> Results obtained by Microbac Laboratories - Northbrook as a participant in the crosscheck program for proficiency testing administered by Environmental Resource Associates, serving as a replacement for studies conducted previously by the Environmental Measurements Laboratory Quality Assessment Program (EML).

<sup>b</sup> Laboratory code ERAP (air filter). Results are reported in units of (pCi/Filter).

<sup>c</sup> The ERA Assigned values for the air filter standards are equal to 100% of the parameter present in the standard as determined by the gravimetric and/or volumetric measurements made during standard preparation as applicable.

<sup>d</sup> The acceptance limits are established per the guidelines contained in the Department of Energy (DOE) report EML-564, Analysis of Environmental Measurements Laboratory (EML) Quality Assessment Program (QAP) Data Determination of Operational Criteria and Control Limits for Performance Evaluation Purposes or ERA's SOP for the generation of Performance Acceptance Limits.

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Appendix B

Data Reporting Conventions

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## APPENDIX B. DATA REPORTING CONVENTIONS

### Data Reporting Conventions

1.0. All activities, except gross alpha and gross beta, are decay corrected to collection time or the end of the collection period.

#### 2.0. Single Measurements

Each single measurement is reported as follows:  $x \pm s$   
 where:  $x$  = value of the measurement;  
 $s$  =  $2\sigma$  counting uncertainty (corresponding to the 95% confidence level).

In cases where the activity is less than the lower limit of detection  $L$ , it is reported as:  $< L$ ,  
 where  $L$  = the lower limit of detection based on  $4.66\sigma$  uncertainty for a background sample.

#### 3.0. Duplicate analyses

If duplicate analyses are reported, the convention is as follows. :

- 3.1 Individual results: For two analysis results;  $x_1 \pm s_1$  and  $x_2 \pm s_2$   
Reported result:  $x \pm s$ ; where  $x = (1/2)(x_1 + x_2)$  and  $s = (1/2)\sqrt{s_1^2 + s_2^2}$
- 3.2 Individual results:  $< L_1$ ,  $< L_2$  Reported result:  $< L$ , where  $L$  = lower of  $L_1$  and  $L_2$
- 3.3 Individual results:  $x \pm s$ ,  $< L$  Reported result:  $x \pm s$  if  $x \geq L$ ;  $< L$  otherwise.

#### 4.0. Computation of Averages and Standard Deviations

4.1 Averages and standard deviations listed in the tables are computed from all of the individual measurements over the period averaged; for example, an annual standard deviation would not be the average of quarterly standard deviations. The average  $\bar{x}$  and standard deviation "s" of a set of  $n$  numbers  $x_1, x_2, \dots, x_n$  are defined as follows:

$$\bar{x} = \frac{1}{n} \sum x \quad s = \sqrt{\frac{\sum (x - \bar{x})^2}{n-1}}$$

- 4.2 Values below the highest lower limit of detection are not included in the average.
- 4.3 If all values in the averaging group are less than the highest LLD, the highest LLD is reported.
- 4.4 If all but one of the values are less than the highest LLD, the single value  $x$  and associated two sigma error is reported.
- 4.5 In rounding off, the following rules are followed:
- 4.5.1. If the number following those to be retained is less than 5, the number is dropped, and the retained numbers are kept unchanged. As an example, 11.443 is rounded off to 11.44.
- 4.5.2. If the number following those to be retained is equal to or greater than 5, the number is dropped and the last retained number is raised by 1. As an example, 11.445 is rounded off to 11.45.

### Attachment 2: REMP Data Summary Reports

Pathway Sampled (Units)	Type, Total Number of Analyses Performed	Lower Limit of Detection (LLD)	All Locations Mean <sup>(1)</sup> Detected/Collected Range <sup>1</sup>	Indicator Mean <sup>(1)</sup> Detected/Collected Range <sup>1</sup>	Location with Highest Annual Mean		Control Mean <sup>(1)</sup> Detected/Collected Range	Number of Non-routine Reported Measurements
					Location # Distance Direction	Mean <sup>(1)</sup> Detected/Collected Range		
Air pCi/m <sup>3</sup>	Be-7 28	N/A	0.053 28/28 0.034 - 0.072	0.055 24/24 0.038 – 0.072	4 0.7 S	0.056 4/4 0.042 – 0.072	0.054 4/4 0.034 – 0.067	0
Air pCi/m <sup>3</sup>	Co-58 28	N/A	< LLD 0/28 —	< LLD 0/24 —	—	—	< LLD 0/4 —	0
Air pCi/m <sup>3</sup>	Co-60 28	N/A	< LLD 0/28 —	< LLD 0/24 —	—	—	< LLD 0/4 —	0
Air pCi/m <sup>3</sup>	Cs-134 28	0.005	< LLD 0/28 —	< LLD 0/24 —	—	—	< LLD 0/4 —	0
Air pCi/m <sup>3</sup>	Cs-137 28	0.045	< LLD 0/28 —	< LLD 0/24 —	—	—	< LLD 0/4 —	0

<sup>(1)</sup> Mean and range are based on detectable measurements only.

<sup>(2)</sup> Sample size for two perch samples was too small to meet required analysis LLDs for Fe-59. The sample size for one perch sample did not meet analysis LLDs for Co-58. Analysis results for Co-58 and Fe-59 for the affected samples were not included.

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Pathway Sampled (Units)	Type, Total Number of Analyses Performed	Lower Limit of Detection (LLD)	All Locations Mean (1) Detected/Collected Range <sup>1</sup>	Indicator Mean (1) Detected/Collected Range <sup>1</sup>	Location with Highest Annual Mean		Control Mean (1) Detected/Collected Range	Number of Non-routine Reported Measurements
					Location # Distance Direction	Mean (1) Detected/Collected Range		
Air pCi/m <sup>3</sup>	Gross Beta 364	0.0075	0.023 364/364 0.002 – 0.056	0.023 312/312 0.002 – 0.056	35 0.6 E	0.026 52/52 0.006 – 0.056	0.022 52/52 0.007 – 0.046	0
Air pCi/m <sup>3</sup>	I-131 364	0.050	< LLD 0/364 —	< LLD 0/312 —	—	—	<LLD 0/52 —	0
Broadleaf Vegetation pCi/kg, wet	Be-7 52	N/A	392.4 20/52 142 – 868	404.4 24/49 142 – 868	20 1.9 E	513.2 6/12 230 - 868	248.0 2/3 161 – 335	0
Broadleaf Vegetation pCi/kg, wet	K-40 52	N/A	4621.4 52/52 2901 – 6971	4579.4 49/49 2901 – 6971	7 0.6 NE	4706.5 10/10 3543 - 6689	5308.3 3/3 4844 - 5638	0
Broadleaf Vegetation pCi/kg, wet	Co-58 52	N/A	< LLD 0/52 —	<LLD 0/49 —	—	—	< LLD 0/3 —	0
Broadleaf Vegetation pCi/kg, wet	Co-60 52	N/A	< LLD 0/52 —	<LLD 0/49 —	—	—	< LLD 0/3 —	0

(1) Mean and range are based on detectable measurements only.

(2) Sample size for two perch samples was too small to meet required analysis LLDs for Fe-59. The sample size for one perch sample did not meet analysis LLDs for Co-58. Analysis results for Co-58 and Fe-59 for the affected samples were not included.

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Pathway Sampled (Units)	Type, Total Number of Analyses Performed	Lower Limit of Detection (LLD)	All Locations Mean (1) Detected/Collected Range <sup>1</sup>	Indicator Mean (1) Detected/Collected Range <sup>1</sup>	Location with Highest Annual Mean		Control Mean (1) Detected/Collected Range	Number of Non-routine Reported Measurements
					Location # Distance Direction	Mean (1) Detected/Collected Range		
Broadleaf Vegetation pCi/kg, wet	I-131 52	45	< LLD 0/52 —	<LLD 0/49 —	—	—	< LLD 0/3 —	0
Broadleaf Vegetation pCi/kg, wet	Cs-134 52	45	< LLD 0/52 —	<LLD 0/49 —	—	—	< LLD 0/3 —	0
Broadleaf Vegetation pCi/kg, wet	Cs-137 52	60	< LLD 0/52 —	<LLD 0/49 —	—	—	< LLD 0/3 —	0
Fish pCi/kg, wet	K-40 7	N/A	1437.3 7/7 832 - 2097	1476.5 4/4 832 - 2097	25 0.6 NNW	1476.5 4/4 832 - 2097	1385.0 3/3 934 - 1962	0
Fish pCi/kg, wet	Mn-54 7	94	< LLD 0/7 —	< LLD 0/4 —	—	—	< LLD 0/3 —	0
Fish pCi/kg, wet	Fe-59 (2) 7	195	< LLD 0/5 —	< LLD 0/3 —	—	—	< LLD 0/2 —	0

(1) Mean and range are based on detectable measurements only.

(2) Sample size for two perch samples was too small to meet required analysis LLDs for Fe-59. The sample size for one perch sample did not meet analysis LLDs for Co-58. Analysis results for Co-58 and Fe-59 for the affected samples were not included.

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Pathway Sampled (Units)	Type, Total Number of Analyses Performed	Lower Limit of Detection (LLD)	All Locations Mean Detected/Collected Range <sup>1</sup>	Indicator Mean <sup>(1)</sup> Detected/Collected Range <sup>1</sup>	Location with Highest Annual Mean		Control Mean <sup>(1)</sup> Detected/Collected Range	Number of Non-routine Reported Measurements
					Location # Distance Direction	Mean <sup>(1)</sup> Detected/Collected Range		
Fish pCi/kg, wet	Co-58 <sup>(2)</sup> 7	97	< LLD 0/6 —	< LLD 0/3 —	—	—	< LLD 0/3 —	0
Fish pCi/kg, wet	Co-60 7	97	< LLD 0/7 —	< LLD 0/4 —	—	—	< LLD 0/3 —	0
Fish pCi/kg, wet	Zn-65 7	195	< LLD 0/7 —	< LLD 0/4 —	—	—	< LLD 0/3 —	0
Fish pCi/kg, wet	Cs-134 7	97	< LLD 0/7 —	< LLD 0/4 —	—	—	< LLD 0/3 —	0
Fish pCi/kg, wet	Cs-137 7	112	< LLD 0/7 —	< LLD 0/4 —	—	—	< LLD 0/3 —	0
Sediment pCi/kg, dry	K-40 4	N/A	7404.3	7404.3	66	7411.5	N/A	0
			4/4	4/4	1.4	2/2	N/A	
			6025 - 8769	6025 - 8769	NE	6111 - 8712	N/A	

<sup>(1)</sup> Mean and range are based on detectable measurements only.

<sup>(2)</sup> Sample size for two perch samples was too small to meet required analysis LLDs for Fe-59. The sample size for one perch sample did not meet analysis LLDs for Co-58. Analysis results for Co-58 and Fe-59 for the affected samples were not included.

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Pathway Sampled (Units)	Type, Total Number of Analyses Performed	Lower Limit of Detection (LLD)	All Locations Mean (1) Detected/Collected Range <sup>1</sup>	Indicator Mean (1) Detected/Collected Range <sup>1</sup>	Location with Highest Annual Mean		Control Mean (1) Detected/Collected Range	Number of Non-routine Reported Measurements
					Location # Distance Direction	Mean (1) Detected/Collected Range		
Sediment pCi/kg, dry	Co-58 4	50	< LLD 0/4 —	< LLD 0/4 —	—	—	N/A N/A N/A	0
Sediment pCi/kg, dry	Co-60 4	40	< LLD 0/4 —	< LLD 0/4 —	—	—	N/A N/A N/A	0
Sediment pCi/kg, dry	Cs-134 4	112	< LLD 0/4 —	< LLD 0/4 —	—	—	N/A N/A N/A	0
Sediment pCi/kg, dry	Cs-137 4	135	< LLD 0/4 —	< LLD 0/4 —	—	—	N/A N/A N/A	0
TLD (E) mR/91 days	Direct 116	1.0	15.1 116/116 8.4 – 22.2	15.1 108/108 8.4 – 22.2	33 4.5 S	19.4 4/4 14.7 – 22.1	14.8 8/8 11.2 – 17.4	0
TLD (Q) mR/91 days	Direct 116	1.0	15.4 116/116 7.6 – 24.8	15.4 108/108 7.6 – 24.8	29 4.3 SSE	21.1 4/4 14.7 – 24.8	15.3 8/8 10.7 – 20.2	0

(1) Mean and range are based on detectable measurements only.

(2) Sample size for two perch samples was too small to meet required analysis LLDs for Fe-59. The sample size for one perch sample did not meet analysis LLDs for Co-58. Analysis results for Co-58 and Fe-59 for the affected samples were not included.

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Pathway Sampled (Units)	Type, Total Number of Analyses Performed	Lower Limit of Detection (LLD)	All Locations Mean (1) Detected/Collected Range <sup>1</sup>	Indicator Mean (1) Detected/Collected Range <sup>1</sup>	Location with Highest Annual Mean		Control Mean (1) Detected/Collected Range	Number of Non-routine Reported Measurements
					Location # Distance Direction	Mean (1) Detected/Collected Range		
TLD mR/365 days	Direct 29	1.0	62.6	62.8	33	83.1	60.1	0
			29/29	27/27	4.5	1/1	2/2	
			47.4 – 83.1	47.4 – 83.1	S	83.1 – 83.1	55.3 – 64.9	
Water pCi/L	Gross Beta 60	3	1.3	1.3	34	1.4	1.2	0
			46/60	39/48	0.2	10/12	7/12	
			0.8 – 2.5	0.8 – 2.5	NW	1.1 – 1.8	1.0 – 1.4	
Water pCi/L	H-3 20	1500	<LLD	<LLD	-	<LLD	<LLD	0
			0/20	0/16	-	0/4	0/4	
			-	-	-	--	—	
Water pCi/L	Mn-54 60	11	< LLD	< LLD	—	—	< LLD	0
			0/60	0/48	—	—	0/12	
			—	—	—	—	—	
Water pCi/L	Fe-59 60	22	< LLD	< LLD	—	—	< LLD	0
			0/60	0/48	—	—	0/12	
			—	—	—	—	—	
Water pCi/L	Co-58 60	11	< LLD	< LLD	—	—	< LLD	0
			0/60	0/48	—	—	0/12	
			—	—	—	—	—	

(1) Mean and range are based on detectable measurements only.

(2) Sample size for two perch samples was too small to meet required analysis LLDs for Fe-59. The sample size for one perch sample did not meet analysis LLDs for Co-58. Analysis results for Co-58 and Fe-59 for the affected samples were not included.

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Pathway Sampled (Units)	Type, Total Number of Analyses Performed	Lower Limit of Detection (LLD)	All Locations Mean <sup>(1)</sup> Detected/Collected Range <sup>1</sup>	Indicator Mean <sup>(1)</sup> Detected/Collected Range <sup>1</sup>	Location with Highest Annual Mean		Control Mean <sup>(1)</sup> Detected/Collected Range	Number of Non-routine Reported Measurements
					Location # Distance Direction	Mean <sup>(1)</sup> Detected/Collected Range		
Water pCi/L	Co-60 60	11	< LLD 0/60 —	< LLD 0/48 —	—	—	< LLD 0/12 —	0
Water pCi/L	Zn-65 60	22	< LLD 0/60 —	< LLD 0/48 —	—	—	< LLD 0/12 —	0
Water pCi/L	Zr-95 60	22	< LLD 0/60 —	< LLD 0/48 —	—	—	< LLD 0/12 —	0
Water pCi/L	Nb-95 60	11	< LLD 0/60 —	< LLD 0/48 —	—	—	< LLD 0/12 —	0
Water pCi/L	Cs-134 60	11	< LLD 0/60 —	< LLD 0/48 —	—	—	< LLD 0/12 —	0
Water pCi/L	Cs-137 60	13	< LLD 0/60 —	< LLD 0/48 —	—	—	< LLD 0/12 —	0

<sup>(1)</sup> Mean and range are based on detectable measurements only.

<sup>(2)</sup> Sample size for two perch samples was too small to meet required analysis LLDs for Fe-59. The sample size for one perch sample did not meet analysis LLDs for Co-58. Analysis results for Co-58 and Fe-59 for the affected samples were not included.

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Pathway Sampled (Units)	Type, Total Number of Analyses Performed	Lower Limit of Detection (LLD)	All Locations Mean (1) Detected/Collected Range <sup>1</sup>	Indicator Mean (1) Detected/Collected Range <sup>1</sup>	Location with Highest Annual Mean		Control Mean (1) Detected/Collected Range	Number of Non-routine Reported Measurements
					Location # Distance Direction	Mean (1) Detected/Collected Range		
Water pCi/L	Ba-140 60	45	< LLD 0/60 —	< LLD 0/48 —	—	—	< LLD 0/12 —	0
Water pCi/L	La-140 60	11	< LLD 0/60 —	< LLD 0/48 —	—	—	< LLD 0/12 —	0

(1) Mean and range are based on detectable measurements only.

(2) Sample size for two perch samples was too small to meet required analysis LLDs for Fe-59. The sample size for one perch sample did not meet analysis LLDs for Co-58. Analysis results for Co-58 and Fe-59 for the affected samples were not included.

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Attachment 3: 2025 REMP Detailed Data Report



MONTHLY PROGRESS REPORT  
to  
ENERGY HARBOR

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM (REMP)  
FOR THE  
PERRY NUCLEAR POWER PLANT

Reporting Period: January-December, 2025

Prepared and Submitted by  
Microbac Laboratories Inc.

Project Number: 8033

Reviewed and  
Approved

A handwritten signature in black ink, appearing to read "Michelle L.Z. Carpenter".

Michelle L.Z. Carpenter, Ph.D.

Laboratory Director

Date 03/06/2026

Distribution: S. Chapin  
P. Hintz, Ohio Department of Health  
B. Mechenbier, Lake County Health Department

PERRY NUCLEAR POWER PLANT

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PERRY NUCLEAR POWER PLANT

1.0 INTRODUCTION

The following constitutes the current 2025 report for the Radiological Environmental Monitoring Program conducted at the Perry Nuclear Power Plant in Perry, Ohio. Results of completed analyses are presented in the attached tables.

The data obtained in the program were within ranges previously encountered and to be expected in the environmental media sampled.

All concentrations, except gross beta, are decay corrected to the time of collection. Airborne iodine is decay corrected to the midpoint of the collection period.

All samples were collected within the scheduled period, unless noted otherwise in Table 2.0, Listing of Missed Samples.

Company: Vistra

Plant: Perry Nuclear Power Plant

2.0 LISTING OF MISSED SAMPLES

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Sample Type	Location	Expected Collection Date	Reason
VE	P-7	07-01-25	No vegetable samples available
VE	P-20	07-01-25	No vegetable samples available
VE	P-70	07-01-25	No vegetable samples available
VE	P-70	08-05-25	No vegetable samples available
VE	P-70	09-01-25	No vegetable samples available

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3.0 DATA TABLES

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Company: Vistra

Plant: Perry Nuclear Power Plant

PNPP

Table 1. Direct Radiation (TLDs), Quarterly Exposure.  
Units: mR/91 days

	<u>1st Qtr.</u>	<u>2nd Qtr.</u>	<u>3rd Qtr.</u>	<u>4th Qtr.</u>
Date Placed	01-06-25	04-08-25	07-08-25	10-08-25
Date Removed	04-08-25	07-08-25	10-08-25	01-06-26
E-1	10.2 ± 1.1	17.5 ± 1.1	13.4 ± 0.8	16.5 ± 0.8
E-3	8.4 ± 0.7	12.0 ± 0.8	10.0 ± 0.9	11.8 ± 0.7
E-4	12.3 ± 0.9	15.6 ± 0.8	16.1 ± 0.6	14.6 ± 0.7
E-5	10.6 ± 0.7	13.6 ± 0.8	12.2 ± 0.7	12.8 ± 0.7
E-6	11.2 ± 0.8	17.4 ± 0.9	13.3 ± 0.8	16.7 ± 1.0
E-7	11.3 ± 1.5	16.7 ± 0.9	14.5 ± 0.6	15.5 ± 0.9
E-8	11.0 ± 0.7	13.8 ± 0.6	15.4 ± 0.8	12.9 ± 0.7
E-9	10.3 ± 0.7	16.3 ± 0.6	12.1 ± 0.5	16.8 ± 1.4
E-10	8.4 ± 0.8	14.6 ± 1.1	13.0 ± 0.5	13.4 ± 1.0
E-11	11.2 ± 0.9	18.9 ± 0.7	16.7 ± 0.9	14.9 ± 0.8
E-12	11.9 ± 0.6	14.9 ± 0.8	13.8 ± 0.7	14.2 ± 0.7
E-13	10.9 ± 0.9	17.4 ± 0.8	13.4 ± 0.8	16.1 ± 0.8
E-14	12.5 ± 0.7	15.5 ± 0.8	18.0 ± 0.8	14.2 ± 0.8
E-15	11.2 ± 0.7	14.2 ± 0.8	14.0 ± 0.7	13.0 ± 0.8
E-21	11.5 ± 0.8	21.7 ± 0.8	17.0 ± 0.8	20.3 ± 1.0
E-23	14.5 ± 0.8	18.2 ± 0.7	16.9 ± 0.6	16.5 ± 0.7
E-24	13.0 ± 1.0	17.1 ± 0.7	16.5 ± 0.5	13.1 ± 0.7
E-29	15.0 ± 0.7	20.5 ± 0.8	20.3 ± 0.7	18.0 ± 0.6
E-30	13.2 ± 0.7	21.1 ± 1.6	16.7 ± 0.7	18.9 ± 1.0
E-31	13.4 ± 0.7	20.2 ± 0.7	18.8 ± 0.7	18.1 ± 0.7
E-33	14.7 ± 0.9	22.1 ± 0.8	21.7 ± 1.1	19.1 ± 0.7
E-35	9.9 ± 0.7	17.1 ± 0.8	13.1 ± 0.5	12.6 ± 0.8
E-36	13.1 ± 0.8	22.2 ± 0.7	21.5 ± 0.8	19.6 ± 0.6
E-53	11.7 ± 0.6	18.7 ± 0.8	16.8 ± 0.6	17.3 ± 0.7
E-54	11.8 ± 0.6	20.2 ± 0.7	15.4 ± 0.5	18.0 ± 1.1
E-55	12.3 ± 1.0	17.1 ± 0.8	15.7 ± 1.1	14.9 ± 0.8
E-56	12.1 ± 0.7	14.6 ± 0.7	14.4 ± 0.5	13.0 ± 0.7
E-57	8.4 ± 0.9	17.0 ± 0.8	14.5 ± 0.7	14.9 ± 1.1
E-58	11.8 ± 1.1	19.9 ± 0.7	15.1 ± 0.9	17.7 ± 0.6
Mean ± s.d.	11.6 ± 1.7	17.5 ± 2.7	15.5 ± 2.7	15.7 ± 2.4
E-Control 1	9.1 ± 0.9	9.5 ± 1.0	8.6 ± 0.6	8.8 ± 1.1
E-Control 2	8.1 ± 0.7	11.3 ± 0.7	10.1 ± 0.7	10.5 ± 0.8

Company: Vistra

Plant: Perry Nuclear Power Plant

PNPP

Table 1. Direct Radiation (TLDs), Quarterly Exposure.  
Units: mR/91 days

	<u>1st Qtr.</u>	<u>2nd Qtr.</u>	<u>3rd Qtr.</u>	<u>4th Qtr.</u>
Date Placed	01-06-25	04-08-25	07-08-25	10-08-25
Date Removed	04-08-25	07-08-25	10-07-25	01-06-26
Q-1	9.5 ± 0.6	13.3 ± 1.6	12.6 ± 0.5	12.0 ± 0.6
Q-3	9.2 ± 0.6	16.2 ± 1.7	9.1 ± 0.7	16.4 ± 1.1
Q-4	10.8 ± 0.5	16.6 ± 1.6	15.4 ± 0.7	15.8 ± 0.5
Q-5	7.7 ± 0.7	15.7 ± 1.6	12.0 ± 0.7	14.7 ± 0.7
Q-6	10.7 ± 0.5	18.1 ± 1.5	12.5 ± 0.5	16.6 ± 0.6
Q-7	8.8 ± 0.5	15.9 ± 1.5	13.3 ± 0.5	15.0 ± 0.6
Q-8	12.6 ± 0.4	13.4 ± 1.5	16.3 ± 0.5	12.5 ± 0.5
Q-9	7.6 ± 1.0	13.0 ± 1.8	11.3 ± 0.9	13.2 ± 1.2
Q-10	8.6 ± 0.5	16.3 ± 1.5	12.9 ± 1.0	15.9 ± 0.7
Q-11	12.4 ± 0.5	18.7 ± 1.5	17.8 ± 0.7	17.4 ± 0.5
Q-12	10.4 ± 0.5	19.3 ± 1.7	14.1 ± 0.7	17.5 ± 0.6
Q-13	12.1 ± 0.6	16.9 ± 1.6	16.3 ± 0.5	13.9 ± 0.9
Q-14	11.3 ± 0.8	17.6 ± 1.6	15.9 ± 0.7	15.7 ± 1.0
Q-15	10.7 ± 0.5	15.9 ± 1.6	14.4 ± 0.6	12.9 ± 0.7
Q-21	12.2 ± 0.7	23.4 ± 1.7	18.9 ± 0.7	22.1 ± 1.0
Q-23	14.2 ± 0.7	20.8 ± 1.6	21.3 ± 0.9	19.3 ± 0.9
Q-24	11.4 ± 0.9	20.2 ± 1.6	13.6 ± 0.7	18.9 ± 1.0
Q-29	14.7 ± 0.7	24.8 ± 1.7	22.3 ± 0.7	22.7 ± 1.3
Q-30	12.7 ± 0.5	20.1 ± 1.6	14.7 ± 0.5	14.8 ± 0.6
Q-31	12.7 ± 0.6	22.9 ± 1.6	19.8 ± 0.6	21.2 ± 0.5
Q-33	15.0 ± 1.0	20.4 ± 1.6	23.1 ± 1.1	18.4 ± 0.8
Q-35	11.4 ± 0.6	14.5 ± 1.7	15.9 ± 0.7	14.2 ± 0.8
Q-36	12.5 ± 0.5	20.8 ± 1.7	19.5 ± 0.6	22.2 ± 0.6
Q-53	9.0 ± 0.6	20.1 ± 1.7	15.8 ± 0.6	15.7 ± 3.8
Q-54	11.2 ± 0.5	18.7 ± 1.6	12.4 ± 0.4	17.3 ± 0.5
Q-55	9.9 ± 0.6	19.5 ± 1.6	15.7 ± 0.6	17.9 ± 0.8
Q-56	9.6 ± 0.7	18.5 ± 1.6	15.0 ± 0.6	16.8 ± 0.6
Q-57	9.2 ± 0.8	18.8 ± 1.6	14.7 ± 0.7	17.3 ± 0.8
Q-58	11.9 ± 1.0	16.0 ± 1.6	16.9 ± 1.2	14.8 ± 0.6
Mean ± s.d.	11.0 ± 1.9	18.2 ± 3.0	15.6 ± 3.3	16.7 ± 2.9
Q-Control 1	8.0 ± 0.4	9.6 ± 1.9	8.5 ± 0.4	9.4 ± 1.1
Q-Control 2	8.4 ± 0.6	10.0 ± 1.6	10.3 ± 0.7	10.3 ± 0.6

Company: Vistra

Plant: Perry Nuclear Power Plant

PNPP

Table 1. Direct Radiation (TLDs), Annual Exposure.  
Units: mR/365 days

	<u>2025</u>
Date Placed	01-06-25
Date Removed	01-06-26
A-1	55.0 ± 3.4
A-3	54.8 ± 2.4
A-4	52.9 ± 3.0
A-5	51.5 ± 1.9
A-6	64.9 ± 1.7
A-7	51.7 ± 2.3
A-8	67.5 ± 1.8
A-9	50.9 ± 3.4
A-10	63.6 ± 2.1
A-11	57.1 ± 1.6
A-12	66.9 ± 2.4
A-13	65.7 ± 3.0
A-14	50.6 ± 3.1
A-15	47.4 ± 2.7
A-21	77.3 ± 5.8
A-23	64.9 ± 2.6
A-24	55.3 ± 3.4
A-29	81.5 ± 3.0
A-30	73.8 ± 2.2
A-31	76.2 ± 2.4
A-33	83.1 ± 2.2
A-35	57.6 ± 0.2
A-36	67.1 ± 2.9
A-53	57.0 ± 2.6
A-54	62.5 ± 3.4
A-55	70.2 ± 1.8
A-56	53.7 ± 3.0
A-57	69.3 ± 2.0
A-58	66.4 ± 2.4
Mean ± s.d.	62.6 ± 9.8
A-Control 1	28.7 ± 1.6
A-Control 2	31.7 ± 1.6

Company: Vistra

Plant: Perry Nuclear Power Plant

PNPP

Table 2. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131.

Location: P-1

Units: pCi/m<sup>3</sup>

Collection: Continuous, weekly exchange.

Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131	Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131
<b>Required LLD</b>		<b>0.0075</b>	<b>0.050</b>			<b>0.0075</b>	<b>0.050</b>
01-08-25	506	0.026 ± 0.003	< 0.011	07-09-25	541	0.024 ± 0.003	< 0.009
01-15-25	497	0.041 ± 0.004	< 0.010	07-16-25	517	0.025 ± 0.003	< 0.009
01-22-25	497	0.034 ± 0.004	< 0.010	07-23-25	549	0.013 ± 0.003	< 0.004
01-29-25	517	0.040 ± 0.004	< 0.010	07-30-25	527	0.025 ± 0.003	< 0.006
02-05-25	544	0.025 ± 0.003	< 0.005	08-06-25	536	0.018 ± 0.003	< 0.007
02-12-25	577	0.027 ± 0.003	< 0.005	08-13-25	552	0.030 ± 0.003	< 0.003
02-19-25	599	0.022 ± 0.003	< 0.005	08-20-25	568	0.021 ± 0.003	< 0.004
02-27-25	624	0.023 ± 0.003	< 0.004	08-27-25	552	0.015 ± 0.003	< 0.009
				09-03-25	548	0.023 ± 0.003	< 0.009
03-05-25	477	0.021 ± 0.003	< 0.006				
03-13-25	608	0.017 ± 0.003	< 0.006	09-10-25	539	0.021 ± 0.003	< 0.008
03-19-25	471	0.023 ± 0.003	< 0.010	09-17-25	560	0.050 ± 0.004	< 0.011
03-26-25	546	0.021 ± 0.003	< 0.006	09-24-25	531	0.047 ± 0.004	< 0.013
04-02-25	545	0.024 ± 0.003	< 0.007	10-01-25	524	0.044 ± 0.004	< 0.015

1Q 2025	Mean ± s.d.	0.026 ± 0.007	< 0.011	3Q 2025	Mean ± s.d.	0.027 ± 0.012	< 0.015
04-09-25	553	0.018 ± 0.003	< 0.008	10-08-25	538	0.043 ± 0.004	< 0.010
04-16-25	539	0.018 ± 0.003	< 0.008	10-15-25	587	0.019 ± 0.003	< 0.012
04-22-25	473	0.018 ± 0.003	< 0.013	10-22-25	547	0.030 ± 0.003	< 0.007
04-30-25	622	0.019 ± 0.003	< 0.009	10-29-25	536	0.013 ± 0.003	< 0.009
05-07-25	541	0.012 ± 0.003	< 0.007	11-05-25	521	0.025 ± 0.003	< 0.009
05-14-25	556	0.015 ± 0.003	< 0.008	11-12-25	539	0.021 ± 0.003	< 0.006
05-21-25	520	0.008 ± 0.003	< 0.007	11-19-25	537	0.026 ± 0.003	< 0.010
05-28-25	546	0.006 ± 0.002	< 0.008	11-26-25	534	0.039 ± 0.004	< 0.009
				12-03-25	528	0.017 ± 0.003	< 0.009
06-04-25	542	0.016 ± 0.003	< 0.007				
06-11-25	527	0.019 ± 0.003	< 0.010	12-10-25	535	0.032 ± 0.003	< 0.013
06-18-25	536	0.012 ± 0.003	< 0.004	12-17-25	536	0.024 ± 0.003	< 0.017
06-25-25	540	0.025 ± 0.003	< 0.007	12-24-25	518	0.034 ± 0.004	< 0.016
07-02-25	542	0.025 ± 0.003	< 0.007	12-31-25	535	0.021 ± 0.003	< 0.013
2Q 2025	Mean ± s.d.	0.016 ± 0.006	< 0.013	4Q 2025	Mean ± s.d.	0.026 ± 0.009	< 0.017
				Cumulative Average		0.024	

Company: Vistra

Plant: Perry Nuclear Power Plant

PNPP

Table 2. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131.

Location: P-3

Units: pCi/m<sup>3</sup>

Collection: Continuous, weekly exchange.

Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131	Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131		
<b>Required LLD</b>		<u>0.0075</u>	<u>0.050</u>			<u>0.0075</u>	<u>0.050</u>		
01-08-25	621	0.027 ± 0.003	< 0.009	07-09-25	591	0.019 ± 0.003	< 0.008		
01-15-25	648	0.034 ± 0.003	< 0.007	07-16-25	564	0.025 ± 0.003	< 0.008		
01-22-25	601	0.030 ± 0.003	< 0.008	07-23-25	610	0.013 ± 0.002	< 0.004		
01-29-25	610	0.035 ± 0.003	< 0.008	07-30-25	575	0.021 ± 0.003	< 0.006		
02-05-25	636	0.021 ± 0.003	< 0.005	08-06-25	581	0.017 ± 0.003	< 0.006		
02-12-25	601	0.022 ± 0.003	< 0.005	08-13-25	573	0.028 ± 0.003	< 0.003		
02-19-25	618	0.021 ± 0.003	< 0.005	08-20-25	589	0.022 ± 0.003	< 0.004		
02-27-25	655	0.022 ± 0.003	< 0.004	08-27-25	577	0.014 ± 0.003	< 0.008		
03-05-25	501	0.018 ± 0.003	< 0.006	09-03-25	599	0.020 ± 0.003	< 0.009		
03-13-25	652	0.016 ± 0.003	< 0.005	09-10-25	566	0.022 ± 0.003	< 0.008		
03-20-25	604	0.019 ± 0.003	< 0.008	09-17-25	602	0.050 ± 0.004	< 0.010		
03-26-25	500	0.016 ± 0.003	< 0.006	09-24-25	575	0.035 ± 0.003	< 0.012		
04-02-25	602	0.018 ± 0.003	< 0.006	10-01-25	578	0.032 ± 0.003	< 0.014		
<b>1Q 2025</b>		Mean ± s.d.	0.023 ± 0.006	< 0.009	<b>3Q 2025</b>		Mean ± s.d.	0.024 ± 0.010	< 0.014
04-09-25	582	0.017 ± 0.003	< 0.008	10-08-25	587	0.040 ± 0.003	< 0.009		
04-16-25	597	0.016 ± 0.003	< 0.007	10-15-25	587	0.019 ± 0.003	< 0.011		
04-22-25	500	0.014 ± 0.003	< 0.012	10-22-25	589	0.023 ± 0.003	< 0.007		
04-30-25	688	0.016 ± 0.002	< 0.008	10-29-25	588	0.011 ± 0.002	< 0.008		
05-07-25	583	0.007 ± 0.002	< 0.007	11-05-25	568	0.023 ± 0.003	< 0.008		
05-14-25	598	0.012 ± 0.002	< 0.007	11-12-25	598	0.021 ± 0.003	< 0.005		
05-21-25	553	0.008 ± 0.003	< 0.006	11-19-25	572	0.023 ± 0.003	< 0.010		
05-28-25	593	0.006 ± 0.002	< 0.007	11-26-25	571	0.031 ± 0.003	< 0.009		
06-04-25	577	0.015 ± 0.003	< 0.007	12-03-25	575	0.002 ± 0.002	< 0.008		
06-11-25	594	0.014 ± 0.003	< 0.009	12-10-25	571	0.030 ± 0.003	< 0.012		
06-18-25	570	0.010 ± 0.003	< 0.004	12-17-25	592	0.022 ± 0.003	< 0.015		
06-25-25	586	0.023 ± 0.003	< 0.006	12-24-25	144	0.020 ± 0.010	< 0.059 <sup>a</sup>		
07-02-25	586	0.018 ± 0.003	< 0.007	12-31-25	227	0.020 ± 0.006	< 0.031 <sup>b</sup>		
<b>2Q 2025</b>		Mean ± s.d.	0.014 ± 0.005	< 0.012	<b>4Q 2025</b>		Mean ± s.d.	0.022 ± 0.009	< 0.059
<b>Cumulative Average</b>						0.020			

<sup>a</sup> The I-131 LLD above the station's < 0.05 pCi/m<sup>3</sup>, due to low volume caused by a power failure at the station. ODCM limit (< 0.07 pCi/m<sup>3</sup>) still met.

<sup>b</sup> Lower volume due to a power failure at the station.

Company: Vistra

Plant: Perry Nuclear Power Plant

PNPP

Table 2. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131.

Location: P-4

Units: pCi/m<sup>3</sup>

Collection: Continuous, weekly exchange.

Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131	Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131
<u>Required LLD</u>		<u>0.0075</u>	<u>0.050</u>			<u>0.0075</u>	<u>0.050</u>
01-08-25	602	0.019 ± 0.003	< 0.009	07-09-25	627	0.022 ± 0.003	< 0.008
01-15-25	598	0.029 ± 0.003	< 0.008	07-16-25	602	0.026 ± 0.003	< 0.008
01-22-25	594	0.025 ± 0.003	< 0.008	07-23-25	641	0.013 ± 0.002	< 0.004
01-29-25	573	0.026 ± 0.003	< 0.009	07-30-25	619	0.020 ± 0.003	< 0.005
02-05-25	611	0.017 ± 0.003	< 0.005	08-06-25	628	0.020 ± 0.003	< 0.006
02-12-25	639	0.018 ± 0.003	< 0.005	08-13-25	546	0.032 ± 0.003	< 0.004
02-19-25	686	0.019 ± 0.003	< 0.005	08-20-25	561	0.021 ± 0.003	< 0.004
02-27-25	753	0.021 ± 0.002	< 0.003	08-27-25	544	0.016 ± 0.003	< 0.009
				09-03-25	569	0.024 ± 0.003	< 0.009
03-05-25	562	0.018 ± 0.003	< 0.005				
03-13-25	741	0.013 ± 0.002	< 0.005	09-10-25	538	0.022 ± 0.003	< 0.008
03-19-25	562	0.018 ± 0.003	< 0.008	09-17-25	581	0.051 ± 0.004	< 0.010
03-26-25	670	0.014 ± 0.002	< 0.005	09-24-25	553	0.045 ± 0.004	< 0.013
04-02-25	641	0.017 ± 0.003	< 0.006	10-01-25	558	0.043 ± 0.004	< 0.014
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1Q 2025	Mean ± s.d.	0.020 ± 0.005	< 0.009	3Q 2025	Mean ± s.d.	0.027 ± 0.012	< 0.014
04-09-25	620	0.018 ± 0.003	< 0.007	10-08-25	562	0.045 ± 0.004	< 0.009
04-16-25	659	0.016 ± 0.002	< 0.007	10-15-25	561	0.022 ± 0.003	< 0.011
04-22-25	536	0.018 ± 0.003	< 0.011	10-22-25	568	0.029 ± 0.003	< 0.007
04-30-25	746	0.016 ± 0.002	< 0.007	10-29-25	555	0.011 ± 0.003	< 0.008
05-07-25	633	0.006 ± 0.002	< 0.006	11-05-25	543	0.026 ± 0.003	< 0.008
05-14-25	658	0.011 ± 0.002	< 0.007	11-12-25	553	0.022 ± 0.003	< 0.005
05-21-25	615	0.007 ± 0.002	< 0.006	11-19-25	575	0.024 ± 0.003	< 0.010
05-28-25	687	0.005 ± 0.002	< 0.006	11-26-25	543	0.035 ± 0.003	< 0.009
				12-03-25	556	0.015 ± 0.003	< 0.008
06-04-25	606	0.014 ± 0.002	< 0.007				
06-11-25	648	0.015 ± 0.002	< 0.008	12-10-25	581	0.033 ± 0.003	< 0.012
06-18-25	629	0.011 ± 0.002	< 0.004	12-17-25	566	0.027 ± 0.003	< 0.016
06-25-25	654	0.020 ± 0.003	< 0.006	12-24-25	563	0.030 ± 0.003	< 0.015
07-02-25	667	0.015 ± 0.002	< 0.006	12-31-25	562	0.023 ± 0.003	< 0.012
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2Q 2025	Mean ± s.d.	0.013 ± 0.005	< 0.011	4Q 2025	Mean ± s.d.	0.026 ± 0.009	< 0.016
						Cumulative Average	0.021

Company: Vistra

Plant: Perry Nuclear Power Plant

PNPP

Table 2. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131.

Location: P-5

Units: pCi/m<sup>3</sup>

Collection: Continuous, weekly exchange.

Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131	Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131
<u>Required LLD</u>		<u>0.0075</u>	<u>0.050</u>			<u>0.0075</u>	<u>0.050</u>
01-08-25	508	0.022 ± 0.003	< 0.011	07-09-25	545	0.019 ± 0.003	< 0.009
01-15-25	504	0.034 ± 0.004	< 0.009	07-16-25	533	0.028 ± 0.003	< 0.009
01-22-25	498	0.026 ± 0.003	< 0.010	07-23-25	568	0.013 ± 0.003	< 0.004
01-29-25	500	0.031 ± 0.003	< 0.010	07-30-25	530	0.023 ± 0.003	< 0.006
02-05-25	494	0.023 ± 0.003	< 0.006	08-06-25	560	0.020 ± 0.003	< 0.007
02-12-25	562	0.021 ± 0.003	< 0.005	08-13-25	544	0.032 ± 0.003	< 0.004
02-19-25	568	0.022 ± 0.003	< 0.005	08-20-25	537	0.021 ± 0.003	< 0.004
02-27-25	669	0.021 ± 0.003	< 0.004	08-27-25	542	0.014 ± 0.003	< 0.009
				09-03-25	541	0.023 ± 0.003	< 0.010
03-05-25	485	0.020 ± 0.003	< 0.006	09-10-25	513	0.018 ± 0.003	< 0.008
03-13-25	639	0.017 ± 0.003	< 0.005	09-17-25	551	0.050 ± 0.004	< 0.011
03-19-25	473	0.019 ± 0.003	< 0.010	09-24-25	523	0.041 ± 0.004	< 0.014
03-26-25	545	0.017 ± 0.003	< 0.006	10-01-25	522	0.038 ± 0.004	< 0.015
04-02-25	554	0.020 ± 0.003	< 0.007				
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1Q 2025	Mean ± s.d.	0.023 ± 0.005	< 0.011	3Q 2025	Mean ± s.d.	0.026 ± 0.011	< 0.015
04-09-25	561	0.019 ± 0.003	< 0.008	10-08-25	533	0.042 ± 0.004	< 0.010
04-16-25	543	0.017 ± 0.003	< 0.008	10-15-25	533	0.022 ± 0.003	< 0.012
04-22-25	491	0.015 ± 0.003	< 0.012	10-22-25	531	0.029 ± 0.003	< 0.007
04-30-25	635	0.015 ± 0.003	< 0.009	10-29-25	514	0.012 ± 0.003	< 0.009
05-07-25	551	0.008 ± 0.003	< 0.007	11-05-25	493	0.027 ± 0.003	< 0.009
05-14-25	577	0.014 ± 0.003	< 0.008	11-12-25	488	0.020 ± 0.003	< 0.006
05-21-25	530	0.009 ± 0.003	< 0.007	11-19-25	481	0.028 ± 0.003	< 0.012
05-28-25	583	0.007 ± 0.002	< 0.007	11-26-25	498	0.045 ± 0.004	< 0.010
				12-03-25	474	0.018 ± 0.003	< 0.010
06-04-25	539	0.016 ± 0.003	< 0.007	12-10-25	534	0.035 ± 0.003	< 0.013
06-11-25	550	0.018 ± 0.003	< 0.009	12-17-25	529	0.026 ± 0.003	< 0.017
06-18-25	542	0.010 ± 0.003	< 0.004	12-24-25	528	0.034 ± 0.004	< 0.016
06-25-25	576	0.025 ± 0.003	< 0.006	12-31-25	530	0.019 ± 0.003	< 0.013
07-02-25	566	0.017 ± 0.003	< 0.007				
<hr/>				<hr/>			
2Q 2025	Mean ± s.d.	0.015 ± 0.005	< 0.012	4Q 2025	Mean ± s.d.	0.027 ± 0.010	< 0.017
Cumulative Average						0.022	

Company: Vistra

Plant: Perry Nuclear Power Plant

PNPP

Table 2. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131.

Location: P-6

Units: pCi/m<sup>3</sup>

Collection: Continuous, weekly exchange.

Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131	Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131
<u>Required LLD</u>		<u>0.0075</u>	<u>0.050</u>			<u>0.0075</u>	<u>0.050</u>
01-08-25	476	0.021 ± 0.003	< 0.011	07-09-25	532	0.022 ± 0.003	< 0.009
01-15-25	544	0.032 ± 0.003	< 0.009	07-16-25	531	0.030 ± 0.003	< 0.009
01-22-25	653	0.027 ± 0.003	< 0.007	07-23-25	546	0.015 ± 0.003	< 0.004
01-29-25	467	0.034 ± 0.004	< 0.011	07-30-25	526	0.024 ± 0.003	< 0.006
02-05-25	577	0.020 ± 0.003	< 0.005	08-06-25	535	0.023 ± 0.003	< 0.007
02-12-25	548	0.022 ± 0.003	< 0.006	08-13-25	459	0.036 ± 0.004	< 0.004
02-19-25	553	0.022 ± 0.003	< 0.006	08-20-25	624	0.021 ± 0.003	< 0.003
02-27-25	653	0.024 ± 0.003	< 0.004	08-27-25	662	0.012 ± 0.002	< 0.007
				09-03-25	648	0.020 ± 0.002	< 0.008
03-05-25	469	0.020 ± 0.003	< 0.006				
03-13-25	614	0.019 ± 0.003	< 0.006	09-10-25	637	0.016 ± 0.002	< 0.007
03-19-25	471	0.023 ± 0.003	< 0.010	09-17-25	658	0.046 ± 0.003	< 0.009
03-26-25	543	0.018 ± 0.003	< 0.006	09-24-25	653	0.034 ± 0.003	< 0.011
04-02-25	536	0.020 ± 0.003	< 0.007	10-01-25	648	0.028 ± 0.003	< 0.012
<hr/>				<hr/>			
1Q 2025	Mean ± s.d.	0.023 ± 0.005	< 0.011	3Q 2025	Mean ± s.d.	0.025 ± 0.009	< 0.012
04-09-25	548	0.017 ± 0.003	< 0.008	10-08-25	653	0.034 ± 0.003	< 0.008
04-16-25	491	0.016 ± 0.003	< 0.009	10-15-25	634	0.018 ± 0.003	< 0.010
04-22-25	436	0.019 ± 0.003	< 0.014	10-22-25	637	0.022 ± 0.003	< 0.006
04-30-25	593	0.018 ± 0.003	< 0.009	10-29-25	620	0.009 ± 0.002	< 0.008
05-07-25	484	0.009 ± 0.003	< 0.008	11-05-25	618	0.021 ± 0.003	< 0.007
05-14-25	489	0.013 ± 0.003	< 0.009	11-12-25	595	0.021 ± 0.003	< 0.005
05-21-25	478	0.013 ± 0.003	< 0.007	11-19-25	608	0.021 ± 0.003	< 0.009
05-28-25	442	0.007 ± 0.003	< 0.010	11-26-25	597	0.025 ± 0.003	< 0.008
				12-03-25	596	0.016 ± 0.003	< 0.008
06-04-25	446	0.018 ± 0.003	< 0.009				
06-11-25	518	0.025 ± 0.003	< 0.010	12-10-25	586	0.030 ± 0.003	< 0.011
06-18-25	503	0.013 ± 0.003	< 0.005	12-17-25	600	0.020 ± 0.003	< 0.015
06-25-25	529	0.027 ± 0.003	< 0.007	12-24-25	615	0.024 ± 0.003	< 0.014
07-02-25	528	0.021 ± 0.003	< 0.007	12-31-25	585	0.018 ± 0.003	< 0.012
<hr/>				<hr/>			
2Q 2025	Mean ± s.d.	0.017 ± 0.006	< 0.014	4Q 2025	Mean ± s.d.	0.021 ± 0.006	< 0.015
Cumulative Average						0.021	

Company: Vistra

Plant: Perry Nuclear Power Plant

PNPP

Table 2. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131.

Location: P-7

Units: pCi/m<sup>3</sup>

Collection: Continuous, weekly exchange.

Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131	Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131
<u>Required LLD</u>		<u>0.0075</u>	<u>0.050</u>			<u>0.0075</u>	<u>0.050</u>
01-08-25	483	0.028 ± 0.004	< 0.011	07-09-25	555	0.021 ± 0.003	< 0.009
01-15-25	157	0.025 ± 0.009	< 0.030 <sup>a</sup>	07-16-25	526	0.026 ± 0.003	< 0.009
01-22-25	475	0.020 ± 0.003	< 0.010	07-23-25	563	0.014 ± 0.003	< 0.004
01-29-25	590	0.027 ± 0.003	< 0.009	07-30-25	532	0.023 ± 0.003	< 0.006
02-05-25	597	0.016 ± 0.003	< 0.005	08-06-25	558	0.019 ± 0.003	< 0.007
02-12-25	568	0.022 ± 0.003	< 0.005	08-13-25	568	0.029 ± 0.003	< 0.003
02-19-25	598	0.023 ± 0.003	< 0.005	08-20-25	582	0.020 ± 0.003	< 0.004
02-27-25	654	0.023 ± 0.003	< 0.004	08-27-25	578	0.013 ± 0.003	< 0.008
03-05-25	504	0.020 ± 0.003	< 0.006	09-03-25	585	0.021 ± 0.003	< 0.009
03-13-25	645	0.016 ± 0.003	< 0.005	09-10-25	576	0.020 ± 0.003	< 0.007
03-19-25	494	0.018 ± 0.003	< 0.009	09-17-25	604	0.052 ± 0.004	< 0.010
03-26-25	579	0.014 ± 0.003	< 0.005	09-24-25	575	0.037 ± 0.003	< 0.012
04-02-25	579	0.017 ± 0.003	< 0.007	10-01-25	569	0.041 ± 0.003	< 0.014
<hr/>				<hr/>			
1Q 2025	Mean ± s.d.	0.021 ± 0.004	< 0.030	3Q 2025	Mean ± s.d.	0.026 ± 0.011	< 0.014
04-09-25	588	0.018 ± 0.003	< 0.008	10-08-25	585	0.042 ± 0.003	< 0.009
04-16-25	568	0.016 ± 0.003	< 0.008	10-15-25	587	0.022 ± 0.003	< 0.011
04-22-25	500	0.017 ± 0.003	< 0.012	10-22-25	595	0.025 ± 0.003	< 0.006
04-30-25	657	0.019 ± 0.003	< 0.008	10-29-25	589	0.010 ± 0.002	< 0.008
05-07-25	569	0.007 ± 0.002	< 0.007	11-05-25	571	0.024 ± 0.003	< 0.008
05-14-25	585	0.012 ± 0.003	< 0.007	11-12-25	583	0.023 ± 0.003	< 0.005
05-21-25	540	0.008 ± 0.003	< 0.007	11-19-25	581	0.028 ± 0.003	< 0.010
05-28-25	589	0.006 ± 0.002	< 0.007	11-26-25	575	0.032 ± 0.003	< 0.009
06-04-25	580	0.017 ± 0.003	< 0.007	12-03-25	570	0.014 ± 0.003	< 0.008
06-11-25	537	0.015 ± 0.003	< 0.010	12-10-25	580	0.035 ± 0.003	< 0.012
06-18-25	565	0.009 ± 0.003	< 0.004	12-17-25	586	0.022 ± 0.003	< 0.015
06-25-25	560	0.022 ± 0.003	< 0.007	12-24-25	557	0.035 ± 0.003	< 0.015
07-02-25	556	0.015 ± 0.003	< 0.007	12-31-25	575	0.023 ± 0.003	< 0.012
<hr/>				<hr/>			
2Q 2025	Mean ± s.d.	0.014 ± 0.005	< 0.012	4Q 2025	Mean ± s.d.	0.026 ± 0.009	< 0.015
<hr/>						Cumulative Average	0.021

<sup>a</sup> Small volume due to a pump failure.

&lt; 0.015

Company: Vistra

Plant: Perry Nuclear Power Plant

PNPP

Table 2. Airborne particulates and charcoal canisters, analyses for gross beta and iodine-131.

Location: P-35

Units: pCi/m<sup>3</sup>

Collection: Continuous, weekly exchange.

Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131	Date Collected	Volume (m <sup>3</sup> )	Gross Beta	I-131
<u>Required LLD</u>		<u>0.0075</u>	<u>0.050</u>			<u>0.0075</u>	<u>0.050</u>
01-08-25	534	0.030 ± 0.003	< 0.007	07-09-25	579	0.021 ± 0.003	< 0.011
01-15-25	532	0.048 ± 0.004	< 0.008	07-16-25	544	0.029 ± 0.003	< 0.005
01-22-25	611	0.044 ± 0.003	< 0.005	07-23-25	584	0.013 ± 0.003	< 0.008
01-29-25	432	0.046 ± 0.004	< 0.010	07-30-25	542	0.025 ± 0.003	< 0.012
02-05-25	540	0.035 ± 0.003	< 0.006	08-06-25	570	0.021 ± 0.003	< 0.008
02-12-25	501	0.038 ± 0.004	< 0.005	08-13-25	558	0.033 ± 0.003	< 0.006
02-19-25	506	0.040 ± 0.004	< 0.006	08-20-25	556	0.022 ± 0.003	< 0.004
02-27-25	582	0.038 ± 0.003	< 0.004	08-27-25	524	0.014 ± 0.003	< 0.008
				09-03-25	555	0.020 ± 0.003	< 0.005
03-05-25	454	0.030 ± 0.004	< 0.006				
03-13-25	717	0.017 ± 0.002	< 0.004	09-10-25	518	0.017 ± 0.003	< 0.013
03-19-25	540	0.021 ± 0.003	< 0.011	09-17-25	562	0.056 ± 0.004	< 0.024
03-26-25	582	0.017 ± 0.003	< 0.013	09-24-25	525	0.045 ± 0.004	< 0.009
04-02-25	570	0.019 ± 0.003	< 0.016	10-01-25	532	0.041 ± 0.004	< 0.008
<hr/>							
1Q 2025	Mean ± s.d.	0.033 ± 0.011	< 0.016	3Q 2025	Mean ± s.d.	0.027 ± 0.013	< 0.024
04-09-25	561	0.019 ± 0.003	< 0.013	10-08-25	542	0.045 ± 0.004	< 0.009
04-16-25	514	0.019 ± 0.003	< 0.014	10-15-25	523	0.052 ± 0.004	< 0.009
04-22-25	464	0.021 ± 0.003	< 0.030	10-22-25	526	0.027 ± 0.003	< 0.012
04-30-25	680	0.020 ± 0.003	< 0.013	10-29-25	512	0.011 ± 0.003	< 0.009
05-07-25	599	0.009 ± 0.002	< 0.014	11-05-25	476	0.027 ± 0.004	< 0.011
05-14-25	624	0.012 ± 0.002	< 0.012	11-12-25	478	0.024 ± 0.003	< 0.007
05-21-25	596	0.009 ± 0.002	< 0.008	11-19-25	462	0.029 ± 0.004	< 0.006
05-28-25	653	0.006 ± 0.002	< 0.009	11-26-25	504	0.033 ± 0.004	< 0.009
				12-03-25	495	0.017 ± 0.003	< 0.013
06-04-25	645	0.015 ± 0.002	< 0.009				
06-11-25	621	0.016 ± 0.003	< 0.010	12-10-25	531	0.036 ± 0.003	< 0.017
06-18-25	621	0.011 ± 0.002	< 0.008	12-17-25	516	0.028 ± 0.003	< 0.019
06-25-25	628	0.021 ± 0.003	< 0.008	12-24-25	499	0.032 ± 0.004	< 0.007
07-02-25	590	0.018 ± 0.003	< 0.017	12-31-25	475	0.023 ± 0.003	< 0.010
<hr/>							
2Q 2025	Mean ± s.d.	0.015 ± 0.005	< 0.030	4Q 2025	Mean ± s.d.	0.030 ± 0.011	< 0.019
						Cumulative Average	0.026

Company: Vistra

Plant: Perry Nuclear Power Plant

PNPP

Table 3. Airborne particulates, analyses for gamma-emitting isotopes.  
Collection: Quarterly Composite  
Units: pCi/m<sup>3</sup>

Location					
PE-1					
Quarter	1st Qtr.	2nd Qtr.	3rd Qtr.	Req. LLD	
Lab Code	PEAP - 3974	PEAP - 4755	PEAP-O5K0023-01	PEAP-O6A0055-01	
Vol. (m <sup>3</sup> )	7008	7037	7044	6991	
Be-7	0.056 ± 0.011	0.049 ± 0.009	0.065 ± 0.012	0.055 ± 0.009	-
Co-58	< 0.0004	< 0.0004	< 0.0006	< 0.0005	-
Co-60	< 0.0005	< 0.0006	< 0.0004	< 0.0003	-
Cs-134	< 0.0005	< 0.0005	< 0.0004	< 0.0004	0.005
Cs-137	< 0.0005	< 0.0006	< 0.0005	< 0.0004	0.045
Location					
PE-3					
Lab Code	PEAP - 3975	PEAP - 4756	PEAP-O5K0023-02	PEAP-O6A0055-02	
Vol. (m <sup>3</sup> )	7849	7607	7580	6769	
Be-7	0.056 ± 0.009	0.057 ± 0.009	0.060 ± 0.012	0.038 ± 0.009	-
Co-58	< 0.0005	< 0.0006	< 0.0008	< 0.0004	-
Co-60	< 0.0004	< 0.0002	< 0.0003	< 0.0004	-
Cs-134	< 0.0004	< 0.0005	< 0.0005	< 0.0004	0.005
Cs-137	< 0.0003	< 0.0004	< 0.0004	< 0.0004	0.045
Location					
PE-4					
Lab Code	PEAP - 3976	PEAP - 4758	PEAP-O5K0023-03	PEAP-O6A0055-03	
Vol. (m <sup>3</sup> )	8232	8358	7567	7288	
Be-7	0.053 ± 0.010	0.042 ± 0.007	0.072 ± 0.011	0.057 ± 0.010	-
Co-58	< 0.0003	< 0.0003	< 0.0005	< 0.0006	-
Co-60	< 0.0005	< 0.0003	< 0.0004	< 0.0003	-
Cs-134	< 0.0003	< 0.0004	< 0.0004	< 0.0005	-
Cs-137	< 0.0004	< 0.0004	< 0.0003	< 0.0003	-
Location					
PE-5					
Lab Code	PEAP - 3977	PEAP - 4759	PEAP-O5K0023-04	PEAP-O6A0055-04	
Vol. (m <sup>3</sup> )	6999	7244	7009	6666	
Be-7	0.057 ± 0.009	0.044 ± 0.008	0.066 ± 0.011	0.048 ± 0.010	-
Co-58	< 0.0003	< 0.0004	< 0.0006	< 0.0004	-
Co-60	< 0.0004	< 0.0005	< 0.0005	< 0.0004	-
Cs-134	< 0.0004	< 0.0004	< 0.0005	< 0.0004	0.005
Cs-137	< 0.0004	< 0.0006	< 0.0004	< 0.0004	0.045

Company: Vistra

Plant: Perry Nuclear Power Plant

PNPP

Table 3. Airborne particulates, analyses for gamma-emitting isotopes.  
Collection: Quarterly Composite  
Units: pCi/m<sup>3</sup>

Location PE-6					
Quarter	1st Qtr.	2nd Qtr.	3rd Qtr.		Req. LLD
Lab Code	PEAP - 3978	PEAP - 4760	PEAP-O5K0023-05	PEAP-O6A0055-05	
Vol. (m <sup>3</sup> )	7104	6485	7659	7944	
Be-7	0.058 ± 0.010	0.057 ± 0.009	0.067 ± 0.013	0.034 ± 0.008	-
Co-58	< 0.0005	< 0.0006	< 0.0004	< 0.0005	-
Co-60	< 0.0005	< 0.0002	< 0.0003	< 0.0004	-
Cs-134	< 0.0004	< 0.0005	< 0.0005	< 0.0004	0.005
Cs-137	< 0.0005	< 0.0005	< 0.0004	< 0.0005	0.045
Location PE-7					
Lab Code	PEAP - 3979	PEAP - 4761	PEAP-O5K0023-06	PEAP-O6A0055-06	
Vol. (m <sup>3</sup> )	6923	7394	7371	7534	
Be-7	0.055 ± 0.009	0.046 ± 0.007	0.069 ± 0.010	0.050 ± 0.010	-
Co-58	< 0.0003	< 0.0004	< 0.0007	< 0.0005	-
Co-60	< 0.0004	< 0.0002	< 0.0003	< 0.0005	-
Cs-134	< 0.0004	< 0.0005	< 0.0004	< 0.0005	0.005
Cs-137	< 0.0004	< 0.0004	< 0.0004	< 0.0005	0.045
Location PE-35					
Lab Code	PEAP - 3980	PEAP - 4762	PEAP-O5K0023-07	PEAP-O6A0055-07	
Vol. (m <sup>3</sup> )	7101	7796	7149	6539	
Be-7	0.054 ± 0.009	0.049 ± 0.008	0.064 ± 0.012	0.049 ± 0.012	-
Co-58	< 0.0003	< 0.0004	< 0.0005	< 0.0007	-
Co-60	< 0.0005	< 0.0002	< 0.0004	< 0.0004	-
Cs-134	< 0.0004	< 0.0005	< 0.0004	< 0.0007	0.005
Cs-137	< 0.0005	< 0.0003	< 0.0005	< 0.0003	0.045

Company: Vistra

Plant: Perry Nuclear Power Plant

Table 4. Lake water, analyses for gross beta and gamma emitting isotopes.

PNPP

Location: P-34

Collection: Monthly composites

Units: pCi/L

Lab Code	PELW- 3478	PELW- 3598	PELW- 3775	PELW- 4090	Req. LLD
Start Date	12-23-24	01-28-25	02-24-25	03-18-25	
End Date	01-28-25	02-24-25	03-18-25	04-22-25	
Gross beta	1.1 ± 0.6	1.7 ± 0.6	1.5 ± 0.6	1.8 ± 0.6	3.0
Mn-54	< 0.9	< 2.2	< 2.1	< 1.5	11
Fe-59	< 1.8	< 5.4	< 5.8	< 5.2	22
Co-58	< 1.3	< 2.7	< 3.5	< 2.5	11
Co-60	< 1.1	< 3.5	< 4.0	< 3.2	11
Zn-65	< 2.1	< 4.5	< 7.3	< 2.8	22
Zr-95	< 2.1	< 3.8	< 3.3	< 5.3	22
Nb-95	< 1.3	< 2.8	< 2.8	< 4.5	11
Cs-134	< 1.1	< 3.7	< 4.3	< 3.6	11
Cs-137	< 1.4	< 4.2	< 4.6	< 5.0	13
Ba-140	< 6.1	< 17.5	< 15.7	< 27.9	45
La-140	< 1.2	< 1.7	< 3.2	< 5.3	11

Lab Code	PELW- 4285	PELW- 4550	PELW- 4846	PELW- 5054	Req. LLD
Start Date	04-22-25	05-20-25	06-17-25	07-22-25	
End Date	05-20-25	06-17-25	07-22-25	08-19-25	
Gross beta	< 0.9	< 0.9	1.2 ± 0.6	1.2 ± 0.6	3.0
Mn-54	< 3.4	< 2.5	< 3.0	< 2.3	11
Fe-59	< 9.0	< 10.8	< 5.6	< 3.3	22
Co-58	< 4.8	< 2.9	< 3.1	< 1.4	11
Co-60	< 5.6	< 5.5	< 5.0	< 2.8	11
Zn-65	< 6.9	< 4.6	< 4.6	< 2.5	22
Zr-95	< 11.1	< 5.7	< 4.8	< 4.5	22
Nb-95	< 5.0	< 3.4	< 2.6	< 2.5	11
Cs-134	< 5.3	< 5.3	< 4.3	< 2.3	11
Cs-137	< 5.5	< 6.2	< 4.9	< 3.0	13
Ba-140	< 18.1	< 21.5	< 17.2	< 10.9	45
La-140	< 3.0	< 3.2	< 1.9	< 1.7	11

Lab Code	PELW-O5J0068-01	PELW-O5J0157-01	PELW-O5K0085-01	PELW-O5L0111-01	Req. LLD
Start Date	08-19-25	09-23-25	10-23-25	11-17-25	
End Date	09-23-25	10-23-25	11-17-25	12-16-25	
Gross beta	1.5 ± 0.6	1.2 ± 0.6	1.3 ± 0.6	1.6 ± 0.6	3.0
Mn-54	< 4.3	< 1.6	< 3.3	< 1.0	11
Fe-59	< 7.0	< 7.4	< 4.6	< 3.7	22
Co-58	< 2.6	< 3.3	< 3.4	< 2.2	11
Co-60	< 4.1	< 4.0	< 4.0	< 1.8	11
Zn-65	< 6.4	< 6.5	< 3.9	< 3.0	22
Zr-95	< 6.8	< 6.0	< 6.0	< 2.8	22
Nb-95	< 3.4	< 2.9	< 4.6	< 2.1	11
Cs-134	< 3.7	< 4.1	< 3.4	< 1.4	11
Cs-137	< 5.8	< 4.9	< 4.3	< 1.6	13
Ba-140	< 43.9	< 18.1	< 28.5	< 40.0	45
La-140	< 6.8	< 4.3	< 2.8	< 10.7	11

Company: Vistra

Plant: Perry Nuclear Power Plant

Table 4. Lake water, analyses for gross beta and gamma emitting isotopes.

PNPP

Location: P-36

Collection: Monthly composites

Units: pCi/L

Lab Code	PELW- 3479	PELW- 3599	PELW- 3776	PELW- 4091	Req. LLD
Start Date	12-23-24	01-28-25	02-24-25	03-18-25	
End Date	01-28-25	02-24-25	03-18-25	04-22-25	
Gross beta	1.1 ± 0.5	1.3 ± 0.6	1.6 ± 0.6	1.3 ± 0.6	3.0
Mn-54	< 2.5	< 6.0	< 3.7	< 3.8	11
Fe-59	< 4.9	< 5.5	< 5.2	< 5.3	22
Co-58	< 1.4	< 5.0	< 4.0	< 3.2	11
Co-60	< 2.9	< 4.0	< 4.0	< 4.5	11
Zn-65	< 3.5	< 8.1	< 3.6	< 3.3	22
Zr-95	< 3.4	< 6.1	< 5.9	< 6.4	22
Nb-95	< 2.5	< 2.9	< 4.4	< 3.4	11
Cs-134	< 2.6	< 5.4	< 3.6	< 3.5	11
Cs-137	< 3.4	< 3.2	< 5.2	< 4.5	13
Ba-140	< 10.9	< 15.3	< 19.3	< 15.0	45
La-140	< 1.7	< 6.0	< 2.2	< 2.3	11
Lab Code	PELW- 4286	PELW- 4552	PELW- 4847	PELW- 5055	Req. LLD
Start Date	04-22-25	05-20-25	06-17-25	07-22-25	
End Date	05-20-25	06-17-25	07-22-25	08-19-25	
Gross beta	1.3 ± 0.5	< 0.9	< 0.8	1.5 ± 0.5	3.0
Mn-54	< 2.0	< 5.0	< 1.6	< 2.7	11
Fe-59	< 4.3	< 8.1	< 3.0	< 2.5	22
Co-58	< 4.1	< 4.9	< 2.6	< 3.1	11
Co-60	< 2.6	< 4.8	< 2.1	< 2.2	11
Zn-65	< 3.5	< 4.9	< 3.9	< 3.7	22
Zr-95	< 6.5	< 5.6	< 4.2	< 3.9	22
Nb-95	< 4.6	< 6.2	< 2.1	< 2.7	11
Cs-134	< 4.0	< 5.4	< 2.0	< 2.5	11
Cs-137	< 5.0	< 8.6	< 3.1	< 3.0	13
Ba-140	< 15.5	< 20.2	< 13.3	< 12.3	45
La-140	< 2.7	< 4.8	< 2.5	< 1.9	11
Lab Code	PELW-O5J0068-02	PELW-O5J0157-02	PELW-O5K0085-02	PELW-O5L0111-02	Req. LLD
Start Date	08-19-25	09-23-25	10-23-25	11-17-25	
End Date	09-23-25	10-23-25	11-17-25	12-16-25	
Gross beta	0.9 ± 0.5	< 0.9	< 0.9	1.3 ± 0.6	3.0
Mn-54	< 3.9	< 3.2	< 1.7	< 0.8	11
Fe-59	< 9.3	< 4.6	< 2.9	< 1.7	22
Co-58	< 3.9	< 3.0	< 2.2	< 1.2	11
Co-60	< 4.0	< 3.5	< 2.4	< 0.8	11
Zn-65	< 5.7	< 5.5	< 4.9	< 1.5	22
Zr-95	< 6.8	< 4.3	< 5.0	< 2.4	22
Nb-95	< 3.7	< 2.7	< 3.2	< 2.0	11
Cs-134	< 4.0	< 2.9	< 2.8	< 0.8	11
Cs-137	< 4.1	< 3.5	< 2.4	< 0.7	13
Ba-140	< 44.4	< 7.8	< 16.4	< 44.2	45
La-140	< 4.1	< 3.2	< 5.8	< 10.1	11

Company: Vistra

Plant: Perry Nuclear Power Plant

Table 4. Lake water, analyses for gross beta and gamma emitting isotopes.

PNPP

Location: P-39

Collection: Monthly composites

Units: pCi/L

Lab Code	PELW- 3480	PELW- 3600	PELW- 3777	PELW- 4092	Req. LLD
Start Date	12-23-24	01-28-25	02-24-25	03-18-25	
End Date	01-28-25	02-24-25	03-18-25	04-22-25	
Gross beta	1.0 ± 0.5	1.1 ± 0.5	1.1 ± 0.6	< 0.9	3.0
Mn-54	< 2.4	< 3.3	< 2.0	< 2.2	11
Fe-59	< 4.9	< 4.0	< 5.4	< 6.1	22
Co-58	< 3.0	< 3.2	< 3.4	< 3.1	11
Co-60	< 3.9	< 3.4	< 3.9	< 3.6	11
Zn-65	< 5.2	< 5.2	< 2.9	< 4.9	22
Zr-95	< 4.1	< 5.7	< 6.1	< 6.4	22
Nb-95	< 2.7	< 2.5	< 4.7	< 3.9	11
Cs-134	< 3.7	< 3.4	< 3.8	< 4.8	11
Cs-137	< 4.8	< 3.7	< 4.2	< 6.0	13
Ba-140	< 17.6	< 14.6	< 17.3	< 31.2	45
La-140	< 1.9	< 2.7	< 3.3	< 4.9	11
Lab Code	PELW- 4287	PELW- 4553	PELW- 4848	PELW- 5056	Req. LLD
Start Date	04-22-25	05-20-25	06-17-25	07-22-25	
End Date	05-20-25	06-17-25	07-22-25	08-19-25	
Gross beta	< 0.9	< 0.8	< 0.9	< 0.9	3.0
Mn-54	< 4.3	< 2.6	< 3.2	< 0.8	11
Fe-59	< 5.3	< 4.3	< 8.0	< 1.4	22
Co-58	< 3.8	< 4.1	< 2.9	< 0.9	11
Co-60	< 4.6	< 2.5	< 5.9	< 1.3	11
Zn-65	< 8.6	< 4.4	< 8.1	< 2.2	22
Zr-95	< 5.1	< 6.9	< 8.5	< 2.7	22
Nb-95	< 3.6	< 4.5	< 2.7	< 1.6	11
Cs-134	< 6.2	< 4.8	< 4.9	< 1.1	11
Cs-137	< 5.7	< 4.1	< 6.9	< 1.1	13
Ba-140	< 14.2	< 26.3	< 13.9	< 10.0	45
La-140	< 3.6	< 4.3	< 4.0	< 1.7	11
Lab Code	PELW-O5J0068-03	PELW-O5J0157-03	PELW-O5K0085-03	PELW-O5L0111-03	Req. LLD
Start Date	08-19-25	09-23-25	10-23-25	11-17-25	
End Date	09-23-25	10-23-25	11-17-25	12-16-25	
Gross beta	1.2 ± 0.5	1.3 ± 0.6	1.4 ± 0.6	1.4 ± 0.6	3.0
Mn-54	< 3.0	< 1.8	< 3.0	< 1.2	11
Fe-59	< 7.8	< 4.3	< 6.0	< 4.0	22
Co-58	< 2.4	< 2.3	< 3.3	< 1.1	11
Co-60	< 3.9	< 3.9	< 2.6	< 0.9	11
Zn-65	< 5.8	< 4.1	< 3.3	< 1.7	22
Zr-95	< 5.4	< 4.8	< 6.6	< 2.9	22
Nb-95	< 5.3	< 3.4	< 4.2	< 2.6	11
Cs-134	< 3.5	< 3.6	< 3.1	< 1.0	11
Cs-137	< 4.3	< 3.9	< 4.3	< 1.1	13
Ba-140	< 42.9	< 15.5	< 28.8	< 33.8	45
La-140	< 5.5	< 2.6	< 4.3	< 10.0	11

Company: Vistra

Plant: Perry Nuclear Power Plant

Table 4. Lake water, analyses for gross beta and gamma emitting isotopes.

PNPP

Location: P-59

Collection: Monthly composites

Units: pCi/L

Lab Code	PELW- 3481	PELW- 3601	PELW- 3778	PELW- 4093	Req. LLD
Start Date	12-23-24	01-28-25	02-24-25	03-18-25	
End Date	01-28-25	02-24-25	03-18-25	04-22-25	
Gross beta	1.2 ± 0.5	1.1 ± 0.6	1.1 ± 0.6	2.5 ± 0.7	3.0
Mn-54	< 2.3	< 6.0	< 3.0	< 1.1	11
Fe-59	< 6.2	< 6.3	< 5.0	< 2.9	22
Co-58	< 3.2	< 4.3	< 3.6	< 3.6	11
Co-60	< 2.7	< 3.5	< 3.7	< 2.6	11
Zn-65	< 5.1	< 9.8	< 5.6	< 5.8	22
Zr-95	< 5.1	< 8.1	< 6.4	< 7.3	22
Nb-95	< 3.9	< 4.7	< 2.9	< 5.0	11
Cs-134	< 3.0	< 5.3	< 4.1	< 3.4	11
Cs-137	< 3.5	< 3.7	< 4.4	< 2.9	13
Ba-140	< 18.7	< 23.8	< 16.7	< 31.9	45
La-140	< 4.3	< 6.2	< 2.2	< 6.4	11
Lab Code	PELW- 4288	PELW- 4554	PELW- 4849	PELW- 5057	Req. LLD
Start Date	04-22-25	05-20-25	06-17-25	07-22-25	
End Date	05-20-25	06-17-25	07-22-25	08-19-25	
Gross beta	0.9 ± 0.5	1.0 ± 0.5	1.0 ± 0.5	1.1 ± 0.5	3.0
Mn-54	< 5.2	< 5.2	< 4.5	< 1.3	11
Fe-59	< 9.2	< 9.0	< 3.5	< 3.0	22
Co-58	< 3.8	< 5.7	< 2.8	< 1.2	11
Co-60	< 4.1	< 5.3	< 2.4	< 1.4	11
Zn-65	< 9.3	< 6.0	< 5.1	< 2.1	22
Zr-95	< 6.2	< 6.7	< 6.3	< 2.2	22
Nb-95	< 5.4	< 4.7	< 4.6	< 1.4	11
Cs-134	< 5.4	< 7.8	< 3.8	< 1.1	11
Cs-137	< 4.9	< 7.2	< 3.6	< 1.2	13
Ba-140	< 24.1	< 21.3	< 21.1	< 8.3	45
La-140	< 3.7	< 5.8	< 3.4	< 2.1	11
Lab Code	PELW-O5J0068-04	PELW-O5J0157-04	PELW-O5K0085-04	PELW-O5L0111-04	Req. LLD
Start Date	08-19-25	09-23-25	10-23-25	11-17-25	
End Date	09-23-25	10-23-25	11-17-25	12-16-28	
Gross beta	1.3 ± 0.5	0.8 ± 0.5	1.2 ± 0.6	1.0 ± 0.5	3.0
Mn-54	< 2.8	< 1.8	< 3.2	< 0.8	11
Fe-59	< 5.5	< 3.3	< 5.6	< 2.7	22
Co-58	< 3.1	< 1.9	< 2.8	< 0.8	11
Co-60	< 3.6	< 2.9	< 4.1	< 0.7	11
Zn-65	< 4.6	< 1.6	< 3.9	< 1.1	22
Zr-95	< 5.3	< 4.8	< 6.9	< 1.3	22
Nb-95	< 4.8	< 2.8	< 3.1	< 1.5	11
Cs-134	< 3.6	< 2.8	< 4.1	< 0.6	11
Cs-137	< 4.0	< 2.9	< 4.8	< 0.7	13
Ba-140	< 41.0	< 12.1	< 38.0	< 26.0	45
La-140	< 3.9	< 3.1	< 3.3	< 3.2	11

Company: **Vistra**

Plant: **Perry Nuclear Power Plant**

Table 4. Lake water, analyses for gross beta and gamma emitting isotopes.

PNPP

Location: P-60

Collection: Monthly composites

Units: pCi/L

Lab Code	PELW- 3482	PELW- 3602	PELW- 3779	PELW- 4094	Req. LLD
Start Date	12-23-24	01-28-25	02-24-25	03-18-25	
End Date	01-28-25	02-24-25	03-18-25	04-22-25	
Gross beta	1.1 ± 0.6	2.2 ± 0.7	1.8 ± 0.7	1.2 ± 0.6	3.0
Mn-54	< 1.6	< 1.7	< 2.1	< 4.3	11
Fe-59	< 4.5	< 3.3	< 5.6	< 10.9	22
Co-58	< 2.9	< 1.6	< 5.5	< 4.0	11
Co-60	< 2.8	< 2.8	< 5.9	< 4.8	11
Zn-65	< 4.1	< 1.3	< 4.5	< 4.2	22
Zr-95	< 3.8	< 3.9	< 4.4	< 7.8	22
Nb-95	< 2.9	< 2.5	< 4.7	< 3.9	11
Cs-134	< 3.1	< 2.8	< 5.2	< 4.7	11
Cs-137	< 3.4	< 3.5	< 5.1	< 6.1	13
Ba-140	< 19.0	< 9.5	< 18.0	< 42.7	45
La-140	< 2.7	< 1.8	< 2.6	< 6.3	11

Lab Code	PELW- 4289	PELW- 4555	PELW- 4850	PELW- 5058	Req. LLD
Start Date	04-22-25	05-20-25	06-17-25	07-22-25	
End Date	05-20-25	06-17-25	07-22-25	08-19-25	
Gross beta	< 0.9	< 0.9	1.4 ± 0.6	1.0 ± 0.5	3.0
Mn-54	< 4.0	< 2.2	< 2.9	< 1.0	11
Fe-59	< 8.8	< 11.2	< 3.7	< 2.9	22
Co-58	< 3.8	< 4.9	< 3.4	< 0.9	11
Co-60	< 4.9	< 3.6	< 1.7	< 1.8	11
Zn-65	< 7.8	< 5.4	< 6.2	< 2.1	22
Zr-95	< 4.3	< 7.8	< 4.9	< 2.6	22
Nb-95	< 4.2	< 4.8	< 2.3	< 1.6	11
Cs-134	< 7.2	< 5.6	< 3.1	< 1.5	11
Cs-137	< 5.3	< 5.5	< 4.2	< 1.7	13
Ba-140	< 19.8	< 23.0	< 13.4	< 8.4	45
La-140	< 4.1	< 5.2	< 2.3	< 2.6	11

Lab Code	PELW-O5J0068-05	PELW-O5J0157-05	PELW-O5K0085-05	PELW-O5L0111-05	Req. LLD
Start Date	08-19-25	09-23-25	10-23-25	11-17-25	
End Date	09-23-25	10-23-25	11-17-25	12-16-25	
Gross beta	1.4 ± 0.6	< 0.9	1.1 ± 0.6	1.0 ± 0.6	3.0
Mn-54	< 2.9	< 2.3	< 1.7	< 0.9	11
Fe-59	< 5.4	< 5.2	< 3.0	< 3.5	22
Co-58	< 3.3	< 3.2	< 2.6	< 0.8	11
Co-60	< 3.3	< 2.5	< 2.2	< 1.1	11
Zn-65	< 5.6	< 3.9	< 6.0	< 1.6	22
Zr-95	< 5.0	< 4.7	< 5.1	< 1.6	22
Nb-95	< 4.0	< 3.8	< 3.7	< 2.0	11
Cs-134	< 2.7	< 3.0	< 3.0	< 0.9	11
Cs-137	< 3.2	< 3.2	< 1.9	< 0.8	13
Ba-140	< 43.4	< 8.0	< 29.7	< 44.8	45
La-140	< 6.5	< 2.1	< 4.0	< 5.7	11

Company: Vistra

Plant: Perry Nuclear Power Plant

PNPP

Table 4. Lake Water, analysis for tritium.  
Collection: Quarterly composites of monthly collections.  
Units: pCi/L

Required limit of detection: 1500 pCi/L

Location				
P-34				
Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	PELW- 3780	PELW- 4567	PELW-O5J0091-01	PELW-O5L0154-01
H-3	< 177	< 178	< 173	< 177
P-36				
Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	PELW- 3781	PELW- 4568	PELW-O5J0091-02	PELW-O5L0154-02
H-3	< 177	< 178	< 173	< 177
P-39				
Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	PELW- 3782	PELW- 4569	PELW-O5J0091-03	PELW-O5L0154-03
H-3	< 177	< 178	< 173	< 177
P-59				
Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	PELW- 3783	PELW- 4570	PELW-O5J0091-04	PELW-O5L0154-04
H-3	< 177	< 178	< 173	< 177
P-60				
Period	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Lab Code	PELW- 3784	PELW- 4571	PELW-O5J0091-05	PELW-O5L0154-05
H-3	< 177	< 178	< 173	< 177

Company: Vistra

Plant: Perry Nuclear Power Plant

PNPP

Table 7. Food Products, analyses for gamma emitting isotopes.

Collection: Monthly		Units: pCi/kg wet			
Location: P-7 (New garden)					
Lab Code	July	PEVE- 4948	PEVE- 4949	PEVE- 4950	Req. LLD
Date Collected	NS <sup>a</sup>	08-05-25	08-05-25	08-05-25	
Sample Type		Turnip Greens	Kale	Collard Greens	
Be-7		656 ± 195	< 223	510 ± 302	-
K-40		4530 ± 614	4364 ± 487	3543 ± 634	-
Co-58		< 22	< 13	< 16	-
Co-60		< 15	< 25	< 20	-
I-131		< 21	< 28	< 37	45
Cs-134		< 21	< 20	< 26	45
Cs-137		< 16	< 24	< 18	60

Lab Code	PEVE- 5160	PEVE- 5161	PEVE- 5162	PEVE- 5163	Req. LLD
Date Collected	09-01-25	09-01-25	09-01-25	09-01-25	
Sample Type	Turnip Greens	Kale	Collard Greens	Swiss Chard	
Be-7	287 ± 118	< 84	269 ± 93	231 ± 65	-
K-40	5794 ± 430	4296 ± 179	4534 ± 259	3740 ± 170	-
Co-58	< 12	< 7	< 9	< 8	-
Co-60	< 9	< 8	< 10	< 7	-
I-131	< 22	< 29	< 28	< 24	45
Cs-134	< 15	< 7	< 9	< 6	45
Cs-137	< 12	< 10	< 10	< 7	60

Lab Code	PEVE-O5J0095-01	PEVE-O5J0095-02	PEVE-O5J0095-03	Req. LLD
Date Collected	10-07-25	10-07-25	10-07-25	
Sample Type	Turnip Greens	Kale	Swiss Chard	
Be-7	< 177	< 214	< 191	-
K-40	5678 ± 532	3897 ± 490	6689 ± 618	-
Co-58	< 16	< 16	< 16	-
Co-60	< 11	< 13	< 16	-
I-131	< 42	< 44	< 43	45
Cs-134	< 16	< 21	< 22	45
Cs-137	< 15	< 17	< 21	60

<sup>a</sup> "NS" = No sample; see Table 2.0, Listing of Missed Samples.

Company: Vistra

Plant: Perry Nuclear Power Plant

PNPP

Table 7. Food Products, analyses for gamma emitting isotopes.

Collection: Monthly

Units: pCi/kg wet

Location: P-16

Lab Code	PEVE- 4610	PEVE- 4611	PEVE- 4612	PEVE- 4951	Req. LLD
Date Collected	07-01-25	07-01-25	07-01-25	08-05-25	
Sample Type	Turnip Greens	Collard Greens	Kale	Swiss Chard	
Be-7	475 ± 186	< 180	< 222	691 ± 248	-
K-40	5057 ± 535	3651 ± 592	4227 ± 580	5749 ± 644	-
Co-58	< 11	< 19	< 22	< 15	-
Co-60	< 18	< 20	< 20	< 13	-
I-131	< 34	< 43	< 44	< 20	45
Cs-134	< 19	< 23	< 24	< 24	45
Cs-137	< 26	< 18	< 29	< 25	60

Lab Code	PEVE- 4953	PEVE- 4954	PEVE- 4955	PEVE- 5164	Req. LLD
Date Collected	08-05-25	08-05-25	08-05-25	09-01-25	
Sample Type	Kale	Turnip Greens	Collard Greens	Swiss Chard	
Be-7	563 ± 177	382 ± 188	< 193	< 200	-
K-40	4755 ± 479	4973 ± 491	3534 ± 428	3528 ± 395	-
Co-58	< 8	< 11	< 10	< 20	-
Co-60	< 14	< 19	< 16	< 19	-
I-131	< 21	< 29	< 24	< 41	45
Cs-134	< 16	< 19	< 16	< 17	45
Cs-137	< 15	< 21	< 25	< 24	60

Lab Code	PEVE- 5165	PEVE- 5166	PEVE-O5J0095-04	Req. LLD
Date Collected	09-01-25	09-01-25	10-07-25	
Sample Type	Kale	Turnip Greens	Turnip Greens	
Be-7	< 162	319 ± 119	336 ± 189	-
K-40	2901 ± 342	3371 ± 373	4568 ± 519	-
Co-58	< 16	< 9	< 14	-
Co-60	< 11	< 9	< 13	-
I-131	< 38	< 43	< 36	45
Cs-134	< 15	< 14	< 18	45
Cs-137	< 13	< 11	< 16	60

Company: Vistra

Plant: Perry Nuclear Power Plant

PNPP

Table 7. Food Products, analyses for gamma emitting isotopes.

Collection: Monthly		Units: pCi/kg wet			
Location: P-20					
Lab Code	July	PEVE- 4956	PEVE- 4957	PEVE- 4958	
Date Collected	NS <sup>a</sup>	08-05-25	08-05-25	08-05-25	Req. LLD
Sample Type		Collard Greens	Kale	Swiss Chard	
Be-7		< 211	510 ± 105	652 ± 269	-
K-40		4259 ± 512	5906 ± 275	5099 ± 705	-
Co-58		< 17	< 8	< 22	-
Co-60		< 18	< 8	< 28	-
I-131		< 31	< 14	< 35	45
Cs-134		< 21	< 9	< 30	45
Cs-137		< 25	< 12	< 35	60
Lab Code	PEVE- 4959	PEVE- 5167	PEVE- 5168	PEVE- 5169	
Date Collected	08-05-25	09-01-25	09-01-25	09-01-25	Req. LLD
Sample Type	Turnip Greens	Collard Greens	Kale	Swiss Chard	
Be-7	868 ± 244	< 99	230 ± 119	< 241	-
K-40	5122 ± 577	4275 ± 204	5145 ± 186	4577 ± 469	-
Co-58	< 21	< 9	< 7	< 14	-
Co-60	< 13	< 10	< 6	< 22	-
I-131	< 26	< 36	< 44	< 33	45
Cs-134	< 20	< 8	< 6	< 15	45
Cs-137	< 20	< 10	< 6	< 23	60
Lab Code	PEVE- 5171	PEVE-05J0095-05	PEVE-05J0095-06	PEVE-05J0095-07	
Date Collected	09-01-25	10-07-25	10-07-25	10-07-25	Req. LLD
Sample Type	Turnip Greens	Collard Greens	Kale	Swiss Chard	
Be-7	486 ± 69	< 192	< 131	< 126	-
K-40	5202 ± 198	4098 ± 429	3944 ± 376	4398 ± 394	-
Co-58	< 6	< 15	< 14	< 13	-
Co-60	< 5	< 12	< 9	< 8	-
I-131	< 25	< 31	< 43	< 41	45
Cs-134	< 6	< 17	< 13	< 14	45
Cs-137	< 7	< 18	< 14	< 14	60
Lab Code	PEVE-05J0095-08				
Date Collected	10-07-25				Req. LLD
Sample Type	Turnip Greens				
Be-7	333 ± 135				-
K-40	4449 ± 457				-
Co-58	< 17				-
Co-60	< 10				-
I-131	< 40				45
Cs-134	< 17				45
Cs-137	< 11				60

<sup>a</sup>NS = no sample; see Table 2.0, Listing of Missed Samples.

Company: Vistra

Plant: Perry Nuclear Power Plant

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Table 7. Food Products, analyses for gamma emitting isotopes.

Collection: Monthly

Units: pCi/kg wet

Location: P-37

Lab Code	PEVE- 4613	PEVE- 4614	PEVE- 4616	PEVE- 4617	Req. LLD
Date Collected	07-01-25	07-01-25	07-01-25	07-01-25	
Sample Type	Turnip Greens	Collard Greens	Kale	Swiss Chard	
Be-7	< 159	< 169	354 ± 98	< 154	-
K-40	3629 ± 411	3561 ± 453	3356 ± 342	4739 ± 637	-
Co-58	< 20	< 14	< 10	< 12	-
Co-60	< 18	< 21	< 12	< 9	-
I-131	< 24	< 22	< 15	< 33	45
Cs-134	< 18	< 22	< 11	< 16	45
Cs-137	< 24	< 26	< 12	< 27	60

Lab Code	PEVE- 4960	PEVE- 4961	PEVE- 4962	PEVE- 4963	Req. LLD
Date Collected	08-05-25	08-05-25	08-05-25	08-05-25	
Sample Type	Collard Greens	Turnip Greens	Swiss Chard	Kale	
Be-7	295 ± 147	331 ± 159	< 222	< 143	-
K-40	5114 ± 488	5770 ± 541	6779 ± 620	4580 ± 476	-
Co-58	< 9	< 13	< 18	< 6	-
Co-60	< 8	< 17	< 21	< 11	-
I-131	< 14	< 22	< 31	< 16	45
Cs-134	< 14	< 18	< 21	< 15	45
Cs-137	< 8	< 21	< 25	< 17	60

Lab Code	PEVE- 5172	PEVE- 5173	PEVE- 5174	PEVE- 5175	Req. LLD
Date Collected	09-01-25	09-01-25	09-01-25	09-01-25	
Sample Type	Collard Greens	Turnip Greens	Swiss Chard	Kale	
Be-7	239 ± 57	247 ± 76	142 ± 65	< 86	-
K-40	3737 ± 140	6971 ± 211	4727 ± 173	4356 ± 211	-
Co-58	< 5	< 7	< 9	< 8	-
Co-60	< 6	< 7	< 5	< 8	-
I-131	< 37	< 30	< 44	< 28	45
Cs-134	< 5	< 7	< 6	< 8	45
Cs-137	< 7	< 7	< 5	< 9	60

Lab Code	PEVE-O5J0095-09	PEVE-O5J0095-10	PEVE-O5J0095-11	PEVE-O5J0095-12	Req. LLD
Date Collected	10-07-25	10-07-25	10-07-25	10-07-25	
Sample Type	Collard Greens	Turnip Greens	Swiss Chard	Kale	
Be-7	< 152	300 ± 159	< 202	< 95	-
K-40	3089 ± 416	3727 ± 466	5667 ± 476	4734 ± 216	-
Co-58	< 5	< 17	< 18	< 7	-
Co-60	< 11	< 13	< 11	< 11	-
I-131	< 43	< 38	< 33	< 31	45
Cs-134	< 16	< 19	< 16	< 9	45
Cs-137	< 13	< 17	< 17	< 10	60

Company: Vistra

Plant: Perry Nuclear Power Plant

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Table 7. Food Products, analyses for gamma emitting isotopes.

Collection: Monthly

Units: pCi/kg wet ✓

Location: P-70

Lab Code	July	August	September	PEVE-O5J0095-13	Req. LLD
Date Collected	NS <sup>a</sup>	NS <sup>a</sup>	NS <sup>a</sup>	10-07-25	
Sample Type				Tumip Greens	
Be-7				335 ± 125	-
K-40				5638 ± 362	-
Co-58				< 12	-
Co-60				< 15	-
I-131				< 32	45
Cs-134				< 14	45
Cs-137				< 14	60
Lab Code	PEVE-O5J0095-14	PEVE-O5J0095-15			
Date Collected	10-07-25	10-07-25			Req. LLD
Sample Type	Swiss Chard	Kale			
Be-7	161 ± 82	< 96			-
K-40	5443 ± 189	4844 ± 201			-
Co-58	< 6	< 9			-
Co-60	< 8	< 9			-
I-131	< 20	< 27			45
Cs-134	< 6	< 8			45
Cs-137	< 6	< 7			60

<sup>a</sup>NS<sup>a</sup> = no sample; see Table 2.0, Listing of Missed Samples.

Company: Vistra

Plant: Perry Nuclear Power Plant

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Table 9. Fish, analyses for gamma emitting isotopes.

Collection: Semiannually

Units: pCi/kg wet

Location		P-25			
Lab Code	PEF- 4607	PEF- 4608	PEF-0510045-01	PEF-05J0069-01	Req. LLC
Date Collected	06-25-25	06-27-25	09-03-25	09-15-25	
Sample Type	Walleye	Yellow Perch	Yellow Perch	Walleye	
K-40	832 ± 138	674 ± 308	2966 ± 475	912 ± 160	-
Mn-54	< 7	< 25	< 68	< 5	94
Fe-59	< 30	< 61	< 897	< 31	195
Co-58	< 8	< 30	< 217	< 10	97
Co-60	< 9	< 29	< 61	< 4	97
Zn-65	< 14	< 43	< 161	< 13	195
Cs-134	< 7	< 26	< 65	< 6	97
Cs-137	< 8	< 29	< 56	< 4	112

<sup>a</sup> Unable to reach LLD due to the very small sample size.

Location		P-32		
Lab Code	PEF- 4609	PEF-0510045-02	PEF-05J0069-02	Req. LLC
Date Collected	06-25-25	09-03-25	09-15-25	
Sample Type	Walleye	Yellow Perch	Walleye	
K-40	934 ± 93	1962 ± 157	1259 ± 184	-
Mn-54	< 6	< 28	< 6	94
Fe-59	< 23	< 450	< 39	195
Co-58	< 8	< 88	< 9	97
Co-60	< 7	< 20	< 6	97
Zn-65	< 11	< 44	< 12	195
Cs-134	< 6	< 21	< 7	97
Cs-137	< 6	< 21	< 4	112

<sup>a</sup> Unable to reach LLD due to the very small sample size.

Company: Vistra

Plant: Perry Nuclear Power Plant

PNPP

Table 11. Sediments, analyses for gamma emitting isotopes.

Collection: Semiannually

Units: pCi/kg dry

Location				P-64			
Lab Code	PEBS- 4095	PEBS-O5J0158-01					
Date Collected	04-21-25	10-23-25					Req. LLD
K-40	8769 ± 165	6025 ± 317					-
Co-58	< 9.3	< 18.0					50
Co-60	< 6.7	< 7.9					40
Cs-134	< 4.5	< 7.0					112
Cs-137	< 5.4	< 7.6					135

Location				P-66			
Lab Code	PEBS- 4096	PEBS-O5J0158-01					
Date Collected	04-21-25	10-23-25					Req. LLD
K-40	8712 ± 546	6111 ± 308					-
Co-58	< 31.5	< 14.2					50
Co-60	< 19.4	< 5.6					40
Cs-134	< 19.7	< 6.2					112
Cs-137	< 19.9	< 6.8					135