



*Energy Harbor Nuclear Corp
Perry Nuclear Power Plant
10 Center Road
Perry, Ohio 44081*

Rod L. Penfield
Site Vice President, Perry Nuclear

*440-280-5382
724-462-0816 (cell)*

July 19, 2023
L-23-174

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 2055-0001

SUBJECT:

Perry Nuclear Power Plant
Docket No. 50-440, License No. NPF-58
30-Day Voluntary Report in Accordance with Industry Groundwater Protection Initiative

The Perry Nuclear Power Plant is submitting the attached voluntary 30-day report in accordance with Nuclear Energy Institute (NEI) 07-07, "Industry Groundwater Protection Initiative - Final Guidance Document," Rev. 1. Samples obtained from a plant underdrain piezometer tube contained tritium at a concentration that exceeded the threshold value for voluntary reporting in accordance with NEI 07-07. The initial NRC notification of this condition was completed on June 23, 2023.

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, Manager Radiation Protection/Chemistry, at (440) 280-5032.

Sincerely,

A handwritten signature in black ink, appearing to read "Rod L. Penfield", written over a horizontal line.

Rod L Penfield

L-23-174

Page 2

Enclosure:

30-Day Voluntary Report in Accordance with Industry Groundwater Protection Initiative

Cc: NRC Regional Administrator – Region III
NRC Project Manager
NRC Resident Inspector
Ashtabula County Emergency Management Agency
Geauga County Emergency Management Agency
Lake County Emergency Management Agency
Ohio Radiological Branch Chief

**Enclosure
L-23-174**

**30-Day Voluntary Report in Accordance with Industry Groundwater Protection
Initiative**

30-Day Voluntary Report

Description of Event

On June 23, 2023, Perry Nuclear Power Plant (PNPP) received confirmatory analysis results from a Piezometer Tube in the Plant Underdrain System undergoing routine chemistry sampling. The analysis determined that tritium levels exceeded the NEI 07-07, "Industry Groundwater Protection Initiative Final Guidance", voluntary reporting threshold of 20,000 pico-Curies/liter (pCi/L) for Piezometer Tube 21, which is located inside the plant Protected Area (PA). In accordance with the NEI guidance, reports to required agencies were made the same day. The following information is provided consistent with the NEI reporting guidelines:

- i. This voluntary special 30-day report is submitted in accordance with NEI 07-07, "Industry Groundwater Protection Initiative - Final Guidance Document," Rev. 1.
- ii. On June 22, 2023, PNPP received analysis results for a sample from Piezometer Tube 21. The tritium activity level was determined to be 40,300 pCi/L, and subsequent tests have confirmed continued elevated tritium levels.
- iii. Initial actions taken by the plant included notification to the local counties' Emergency Management Agencies, the Ohio Radiological Branch Supervisor, NEI, INPO, and the Nuclear Regulatory Commission. No leaks or spills causing the elevated activity level have been identified; walkdowns are continuing to ensure there is no active leak. An experienced vendor is assisting PNPP in actions to monitor and remediate the condition.
- iv. Monitoring of the site's effluent pathways indicates that tritium from this groundwater event has not migrated off the plant property outside of an approved plant effluent pathway. The location of the exceedance was in an internal plant piezometer located in Auxiliary Building Unit 1. This piezometer has been included as an early detection and mitigation of groundwater contamination as a part of PNPP's groundwater protection program. The groundwater in the area moves toward the site's underdrain system and will be discharged via a permitted pathway. There is no estimated annual dose increase to any member of the public associated with the event.
- v. Since there is no estimated annual dose increase to a member of the public from the groundwater pathway, no corrective actions are necessary to reduce the projected annual dose to a member of the public to less than the limits in 10 CFR 50, Appendix I. Additional actions are underway to identify the tritium source and once determined actions will be employed as required.