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VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

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VIRGINIA ELECTRIC AND POWER COMPANY (DOMINION ENERGY VIRGINIA)
SURRY POWER STATION UNITS 1 AND 2
INDUSTRY GROUNDWATER PROTECTION INITIATIVE VOLUNTARY REPORT

This voluntary report is submitted in accordance with NEI 07-07, Industry Ground Water Protection Initiative – Final Guidance Document.

On December 6, 2017, a sample from a groundwater monitoring well was confirmed by a vendor lab to contain tritium above the NEI 07-07 voluntary reporting threshold of 20,000 picoCuries per liter (pCi/L). Samples from monitoring well P-44 were analyzed, resulting in different values, with the highest result of 59,300 (pCi/L). The enclosure describes the event and provides the reporting information specified by NEI 07-07.

If you have any questions regarding this submittal, please contact Mr. Lee Ragland, Manager Radiological Protection, at 757-365-2010.

Sincerely,



Fred Mladen
Site Vice President – Surry Power Station

Enclosure

Commitments made in this letter: None

IE23
NRR

cc: U.S. Nuclear Regulatory Commission
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Description of Event

On December 6, 2017 at 1138 hours, Surry Power Station received analyses results of groundwater monitoring wells that had been sampled in support of the Nuclear Energy Institute (NEI) Industry Groundwater Protection Initiative (GPI). Ten new monitoring wells were placed in service to provide additional monitoring within the Protected Area, to better define the site's hydrology, and to provide early remediation capabilities. One of these new wells, well number P-44, exceeded the tritium activity threshold for voluntary GPI for communication to Surry's stakeholders.

The tritium activity level in well number P-44 was 59,300 picoCuries per liter (pCi/L). Samples were re-analyzed, resulting in different values, with the highest result of 59,300 pCi/L. Since each result was above the voluntary reporting threshold, notification of the recent groundwater monitoring results was made to the Virginia Department of Health, Department of Environmental Quality, Department of Emergency Management, and the Surry County Administrator in accordance with the NEI Ground Water Protection Initiative Voluntary Communication Protocol, Criterion 2.2. Pursuant to 10 CFR 50.72(b)(2)(xi), an event notification was made to the NRC (EN 53107) on December 7, 2017 because of the notification to state and local government agencies. In addition, the Surry NRC Resident Inspector, Branch Chief, and Project Manager were also notified.

- i. This voluntary special 30 day report is submitted in accordance with NEI 07-07, Industry Ground Water Protection Initiative – Final Guidance Document.
- ii. The tritium activity level in well number P-44 exceeded the GPI voluntary reporting threshold. Samples from well number P-44 were re-analyzed, resulting in different values, with the highest result of 59,300 pCi/L. No other radionuclides, attributable to Surry Power Station, were detected in the samples.
- iii. Immediate actions taken by the Station include:
 - Notification of the Virginia Department of Health, Department of Environmental Quality, Department of Emergency Management, the Surry County Administrator, and the Nuclear Regulatory Commission (Event Notification 53107)
 - Station walk downs were performed to identify potential source of ground water contamination. The source of the contamination was not identified.
 - An evaluation has been assigned to determine the apparent cause for the contamination and recommend corrective actions to eliminate the source of contamination.
- iv. The presence of tritium in this Protected Area monitoring well does not present an exposure pathway to onsite personnel or members of the public. Well P-44 is designated for ground water monitoring only and is not a source of drinking water. In addition to the ground water samples taken within the Protected Area, ground water samples were taken outside of the Protected Area. No tritium was detected in these monitoring wells during this sampling cycle and no tritium has been detected in monitoring wells outside the Protected Area since the implementation of the GPI

initiative. The absence of tritium activity in wells outside the Protected Area indicates tritium is not migrating out of the Protected Area. Station hydrology also supports that tritium migration off site is unlikely. In addition, no tritium has ever been detected in drinking water wells. Based upon the sampling results and site hydrology, the presence of tritium in this Protected Area monitoring well does not present a potential exposure to onsite personnel or members of the public.

- v. Corrective actions are not needed to reduce projected annual dose to member of the public to less than the limits in 10CFR50 Appendix I since the contamination found in well P-44 does not present a potential exposure to members of the public; however, corrective actions are in progress under the Station's corrective action program to determine the apparent cause for the contamination and to recommend corrective actions to eliminate the source of contamination. In addition, continued sampling of the monitoring wells will be performed in accordance with Surry's Groundwater Protection Program.