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DOMINION ENERGY KEWAUNEE, INC.
KEWAUNEE POWER STATION
ON-SITE WATER SAMPLE RESULTS

Dominion Energy Kewaunee, Inc. (DEK) is submitting this report in accordance with reporting criteria contained in the voluntary Nuclear Energy Institute (NEI) Industry Initiative on Groundwater Protection. This report identifies tritium concentrations in on-site water samples at Kewaunee Power Station (KPS) that meet the reporting criterion for off-site water sample results specified in the KPS Radiological Environmental Monitoring Program (REMP). No off-site water samples have exceeded the reporting criterion of the KPS REMP.

Background

The Nuclear Energy Institute (NEI) Industry Groundwater Protection Initiative is a voluntary industry-wide effort designed to assure timely detection of, and effective responses to, situations involving inadvertent radiological releases in groundwater to prevent migration of licensed radioactive materials off-site. NEI has issued interim guidance for development of action plans and a voluntary communications protocol. Criterion 2.2 of the interim voluntary communication protocol requires submittal of a written report to the NRC for any sample result from on-site water that is, or could be, used as a source of drinking water and exceeds the criterion in the REMP for 30-day reporting of off-site water sample results.

On August 9, 2006 DEK identified detectable levels of tritium in on-site water samples taken from under settling plugs located in the auxiliary building and turbine hall. Specifically, tritium levels in the samples taken from under one of eight settling plugs were higher than the reporting criterion in the KPS REMP for off-site water sample results. The reporting criterion for off-site tritium sample results in the KPS REMP is equivalent to the EPA drinking water standard of 20,000 picoCuries per liter (pCi/l). Therefore, this report is being submitted in accordance with the NEI Industry Groundwater Protection Initiative Voluntary Communication Protocol, Criterion 2.2.

Discussion

Eight settling plugs located in the auxiliary and turbine buildings provide information regarding building foundation settlement. A small amount of water (about 12 fluid ounces) removed from under one auxiliary building settling plug indicated a tritium activity level of 102,500 pCi/l, which is above the EPA drinking water standard (and KPS reporting threshold for off-site water sample results) of 20,000 pCi/l. A similarly sized sample from under a second settling plug in the auxiliary building indicated a tritium activity level near 14,000 pCi/l. A sample from under a third settling plug located in the turbine hall indicated a tritium activity level near 6,000 pCi/l. Water under these settling plugs is not isolated physically or by design from contact with soil or water under the plant.

Because of the small sample size and the fact that the analyzed values of 14,000 and 6,000 pCi/l are at or near the lower level of detection (LLD) for on-site equipment, all samples were sent to an independent laboratory for further analysis. The activity of the 102,500 pCi/l sample was confirmed. However, the activity of the other two samples was determined to be approximately 8,800 pCi/l for the sample from under the second auxiliary building settling plug and 1,800 pCi/l for the sample from under the turbine hall settling plug.

Additional samples were taken from under the auxiliary building settling plugs. Tritium activity levels were found to be approximately the same as the initial sample set. Currently, water level has dropped below the lower reach of the settling plugs such that sampling by this means is not possible at the present time.

Analysis

A preliminary hydrogeologic evaluation indicates there is a very low likelihood that the tritium discovered under the settling plugs could have migrated off-site. Samples from other water sources located both on-site and off-site were collected and analyzed by an independent laboratory in accordance with the KPS REMP. These samples were confirmed to not contain tritium above background levels. Thus, there is currently no information indicating that there was an inadvertent release of tritium to the public or site personnel.

A response plan was developed and initiated in accordance with the NEI Groundwater Protection Initiative. This included contacting state and local officials as well as the NRC. A DEK response team was assembled to identify the source of the tritium. Additional actions were initiated to determine the extent of condition and radiological consequence, if any, to the public and to site personnel.

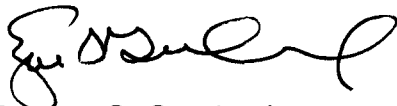
Conclusions

A preliminary hydrogeologic evaluation indicates there is a very low likelihood that the tritium discovered in samples taken from the settling plugs could have migrated off-site. This is confirmed by sample results from on-site and off-site water sources in accordance with the KPS REMP.

The KPS response plan presently being implemented includes actions to evaluate if and where additional on-site sampling wells should be drilled. The on-site team is being supported with specialists in hydrogeology and health physics from the Dominion corporate offices. The response plan includes activities to determine the source of the tritium. Dependent on the results of these activities, remediation will be considered, as applicable.

If you have questions or require additional information, please feel free to contact Mr. Craig Sly at 804-273-2784.

Very truly yours,



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Commitments made by this letter: NONE

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