

October 16, 2007

**PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-III-08-011**

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by the Region III staff on this date.

**Facility**

Quad Cities  
Exelon Nuclear Generation Company  
Warrenville, Illinois  
Docket: 50-254; 50-265  
License: DPR-30

**Licensee Emergency Classification**

Notification of Unusual Event  
 Alert  
 Site Area Emergency  
 General Emergency  
 Not Applicable

**SUBJECT: TRITIUM LEAKAGE**

**DESCRIPTION:**

On October 12, 2007, Exelon's Quad Cities Station informed the resident inspectors and the NRC's Region III Office in Lisle, Ill. that elevated levels of tritium (the radioactive isotope of hydrogen) had been found in newly installed onsite ground water monitoring wells. The tritium levels measured up to 800,000 picocuries per liter. No other radionuclides had been identified.

The utility has sampled other onsite ground water wells located closer to the plant property lines and identified no detectable migration of tritium offsite. Based on current information, the effects of the leakage are localized to the immediate area within the licensee's protected area and do not represent a health and safety hazard to the public.

The additional wells were recently installed to investigate fluctuations in tritium measurements in the existing wells that were installed in 2006 as part of Exelon's fleet-wide tritium investigation. Each of these wells was installed by the licensee for monitoring purposes and is not used for drinking water.

The utility is investigating the source of the tritium leak. Underground piping from the condensate water storage tank is being examined as a possible source.

The utility has notified state, local, and federal officials and has issued a press release to local media.

The NRC Region III Office is monitoring the utility's activities and plans to perform independent measurements to verify the utility's sampling results.

The State of Illinois, as well as appropriate local and federal officials, has been informed.

This information is current as of 9:45 a.m. on Tuesday, October 16, 2007.

**CONTACT:**

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