

December 2, 2007

Mr. Frank Barber
[HOME ADDRESS DELETED
UNDER 10 CFR 2.390(A)]

Dear Mr. Barber,

I was very pleased to speak with you at the Braidwood Community Information Night on November 8, 2007, and in our subsequent telephone conversation on November 14, 2007. I understand your questions and concerns related to the tritium groundwater contamination at the Braidwood and Dresden nuclear plants, and I hope that our discussions were helpful in furthering your understanding of the issues and the NRC's response to the issues.

The purpose of this letter is to provide you with the additional information that you requested during our discussions.

Question: You indicated that about 40 people living near the Dresden nuclear plant were offered water testing for tritium. Only 19 or 20 requested the testing. You questioned: (1) How close were they located to the Dresden Plant? (2) What were the tritium levels that were measured? and (3) When were they sampled?

Answer: During our inspections at the Dresden station, we reviewed Exelon's results. The Dresden staff or its contractor collected samples from 18 private wells located in the community immediately south of the plant and just west of the Kankakee River. One of these private wells is routinely sampled as part of the licensee's Radiological Environmental Monitoring Program (REMP) required by the NRC.

Samples from the private wells were collected between November 2004 and September 2005, and were analyzed by the licensee's contract laboratory. Samples were split with the Illinois Emergency Management Agency. Four of the 18 private wells showed concentrations of tritium above the contract laboratory's lower limit of detection of about 200 picocuries/liter (pCi/L). Tritium concentrations in the four wells ranged from 368 to 830 pCi/L. The private well having the highest concentration of tritium was the well that is routinely sampled as part of the licensee's REMP. The REMP required well is located approximately one-quarter mile west of the river while the other three private wells that showed positive results are located on/near the westerly bank of the Kankakee River. The tritium levels in the wells were well below the U.S. Environmental Protection Agency's drinking water standard of 20,000 pCi/L and were well below NRC limits for dose to a member of the public. Consequently, we do not consider the levels to be a health or safety hazard.

Question: How deep are the monitoring wells that are on the Dresden plant site?

Answer: Exelon provided to the NRC the results of its onsite monitoring program at Dresden in a report that was provided to the NRC in September of 2006. A copy of that report is available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room) (ADAMS Accession No. ML062760005). For your convenience, we have enclosed Table 4.1 from that report, which contains the specifications for a number of the onsite monitoring wells. Generally, the wells were screened at depths of 5 to 50 feet below ground surface, which represents the saturation zone closest to the surface. That zone contains the groundwater that is most likely to be affected by any leaks or spills that may originate from the facility.

Question: How deep are the test wells at the Braidwood nuclear plant?

Answer: During 2006, Exelon provided the NRC two documents that contained groundwater sampling results for the Braidwood nuclear plant. In March 2006, Exelon completed its groundwater characterization report that assessed the impact of leakage from the circulating water vacuum breaker valves. Additionally, Exelon provided the NRC the results of its onsite monitoring program at Braidwood in a report that was provided to the NRC in September of 2006. Copies of those reports are available electronically for public inspection in the NRC Public Document Room or from the PARS component of ADAMS (ADAMS Accession Nos. ML 062640270/062740279 and ML062760004, respectively). For your convenience, we have enclosed copies of Table 4.1 from both of the reports, which contain the specifications for a number of the monitoring wells. Generally, the wells were screened at depths of 2 to 100 feet below ground surface, which represents the saturation zone closest to the surface. That zone contains the groundwater that is most likely to be affected by any leaks or spills that originate from the facility.

We have also enclosed a copy of the 2006 Annual Radiological Environmental Operating Report for the Dresden nuclear plant that you requested during our discussions. That report contains the results of tritium measurements in water near the Dresden facility. In particular, Figures C-3, C-4, and C-5 provide trends of tritium measurements for surface and groundwater.

I hope that you find this information useful in your review of the issues at these two facilities. I assure you that the NRC is committed to ensuring that these facilities are operated safely and within NRC requirements.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter with the address redacted will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

If you have any additional questions, please feel free to contact me at (630) 829-9827.

Sincerely,

/RA/

Steven K. Orth, Health Physics Program Manager
Division of Reactor Safety

Enclosures:

1. Table 4.1 from Revision 1 to "Hydrogeologic Investigation Report, Fleetwide Assessment, Dresden Generating Station" (ADAMS ML062760005)
2. Table 4.1 from "Tritium Investigation Report, March 2006" (ADAMS ML062640270 and ML062640279)
3. Table 4.1 from Revision 1 to "Hydrogeologic Investigation Report, Fleetwide Assessment, Braidwood Generating Station" (ADAMS ML062760004)
4. 2006 Annual Radiological Environmental Operating Report (ADAMS ML071380245, ML071380246, and ML071380248)

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