

**STATE OF VERMONT
PUBLIC SERVICE BOARD**

Investigation into (1) whether Entergy Nuclear Vermont)
Yankee, LLC, and Entergy Nuclear Operations, Inc.,)
(collectively, "Entergy VY"), should be required to cease)
operations at the Vermont Yankee Nuclear Power Station,)
or take other ameliorative actions, pending completion of)
repairs to stop releases of radionuclides, radioactive)
materials, and, potentially, other non-radioactive materials)
into the environment; (2) whether good cause exists to)
modify or revoke the 30 V.S.A. § 231 Certificate of Public)
Good issued to Entergy VY; and (3) whether any penalties)
should be imposed on Entergy VY for any identified)
violations of Vermont statutes or Board orders related to)
the releases)

Docket No. 7600

SWORN AFFIDAVIT OF JEFFERY A. HARDY

Jeffery A. Hardy, being duly sworn, states as follows:

1. My name is Jeffery A. Hardy.
2. I am employed by Entergy Nuclear Operations, Inc. ("ENO"), at the Vermont Yankee Nuclear Power Station (the "VY Station") as Chemistry Manager.
3. In my capacity as Chemistry Manager, I have personal knowledge regarding (i) the groundwater-monitoring program at the VY Station, (ii) the recent detection of low levels of tritium in groundwater wells GZ-24 and GZ-6, (iii) the efforts of ENO and Entergy Nuclear Vermont Yankee, LLC ("ENVY" and, together with ENO, "Entergy VY") to identify the source of the tritium found in these monitoring wells and (iv) Entergy VY's interactions with government regulators, the Vermont Department of Public Service ("DPS"), the Vermont Department of Health ("DOH") and the U.S. Nuclear Regulatory Commission ("NRC") to identify and address the source of the tritium that has been detected in these wells.

4. Pursuant to the Board's order dated February 7, 2011, I submitted affidavits on February 11, 2011, February 25, 2011 and March 11, 2011, describing Entergy VY's investigation into the source of tritium detected in groundwater monitoring wells GZ-24 and GZ-6. Today's affidavit serves as the next biweekly status update, as ordered by the Board.
5. Daily samples taken from groundwater monitoring well GZ-24 in the last two weeks have shown low levels of tritium within an observed band well below regulatory reporting requirements. The recent tritium concentrations have fluctuated between approximately 822 pCi/l and 3,309 pCi/l. Levels of tritium in samples taken from GZ-6 have generally remained below detectable levels, with a maximum observed concentration of 1,020 pCi/L.
6. As described in my affidavit of February 11, 2011, Entergy VY implemented an Action Plan to identify the source of the elevated levels of tritium in groundwater monitoring well GZ-24. As described in my previous affidavits, Entergy VY has identified six lines as potential sources. Four of those six lines have undergone pressure testing. Test results to date do not indicate any gross loss of integrity of the pipes. In an abundance of caution, however, Entergy VY plans to conduct confirmatory testing on two lines that have already undergone pressure testing by using utilizing tracer gas testing methodology: RW-176 1st AOG Delay Pipe Drain Line ("RW-176") and RW-186 Drain Line from the Steam Packing Exhaust ("RW-186"). Entergy VY is consulting with outside experts to identify appropriate gases to use in the tracer gas tests, and plans to test these two lines

after the necessary preparations are completed. The tests are tentatively scheduled for April

7. The fifth line, RW-187 Standby Gas Treatment Drain Line (“RW-187”), is currently undergoing modifications to allow for pressure testing and boroscopic inspection, which are scheduled to occur on or about March 31 and April 1, 2011. After the pressure test and boroscopic inspection are completed, Entergy VY will prepare RW-187 for tracer gas testing as well.
8. Entergy VY is continuing to develop an investigation plan for the sixth line, RW-233 Drain Line from AOG Sump (“RW-233”). However, Entergy VY plans to initially test RW-233 using tracer gas. This gas test is tentatively scheduled to occur in early to mid-April.
9. The modifications to the loop seals located in the lower level of the RadWaste Building has resulted in a decrease of the water level in the piping associated with the loop seals. This will help ensure that the standing water is not a contributor to the tritium levels observed in groundwater monitoring well GZ-24.
10. Entergy VY continues to provide daily communications of all applicable sample results to the Department of Public Service, the Vermont Department of Health and the Nuclear Regulatory Commission.
11. Entergy VY also continues to hold weekly, governmental-stakeholder conference calls to provide updates on Entergy VY’s investigation progress.

Date: March 25, 2011


Name: Jeffery A. Hardy
Title: Chemistry Manager

STATE OF VERMONT
COUNTY OF Windham, SS.

On this 25 day of March, 2011, before me, personally appeared Jeffery A. Hardy,
and made oath to the truth of the foregoing on his own personal knowledge.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Before me,

Notary Public
My commission expires: 2/10/15