

**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 an affidavit on February 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 a 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 fluctuating levels of tritium within an observed band well below regulatory reporting requirements. The recent tritium concentrations have fluctuated between approximately 2,159 pCi/l and less than minimum detectable levels. Levels of tritium in samples taken from GZ-6 have remained below detectable levels.
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.
7. Pursuant to that Action Plan, Entergy VY has continued with its testing of the five lines identified as potential sources.
8. In order to test the RW-186 Drain Line from the Steam Packing Exhaust (“RW-186”), Entergy VY completed necessary pipe modifications to allow boroscopic inspection and pressure testing.

9. Entergy VY conducted a boroscopic inspection of the accessible portion of RW-186 on February 16, 2011. The inspection did not indicate any loss of integrity of the pipe.
10. Entergy VY then conducted a pressure test of RW-186 on February 18, 2011. The pressure test tore a plug which had been inserted to facilitate the test. The torn plug was repaired and Entergy VY pressure tested RW-186 again on February 21, 2011. The results from the pressure tests for RW-186 were inconclusive since pressure could not be maintained at the level set for the test. A supplemental test plan is under development and other methodologies are being pursued.
11. In order to prepare for the testing of pipes RW-176 1<sup>st</sup> AOG Delay Pipe Drain Line ("RW-176") and RW-187 Standby Gas Treatment Drain Line ("RW-187"), Entergy VY is currently making modifications. Pressure testing of RW-176 is scheduled to occur on or about March 3, 2011 (upon receipt and verification of proper operation of special test equipment that has been ordered), and pressure testing of RW-187 is scheduled to occur later in March.
12. Entergy VY is also currently modifying the loop seals located in the lower level of the RadWaste Building. The loop seals are designed to serve as barriers between different atmospheres present inside the RadWaste Building and inside process piping. The planned modification will alter the loop seal design in order to eliminate the standing water that is currently present in the piping associated

with the loop seals, and thereby ensure that the standing water is not a contributor to the elevated tritium level in groundwater monitoring well GZ-24.

13. 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.
14. Entergy VY also continues to hold weekly, governmental-stakeholder conference calls to provide updates on Entergy VY's investigation progress.

Date: February 25, 2011

 2/25/2011  
Name: Jeff Hardy  
Title: ENVY Chemistry Mgr.

STATE OF VERMONT  
COUNTY OF Windham, SS.

On this 25<sup>th</sup> day of February, 2011, before me, personally appeared Jeffery 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