

July 31, 2013

To: Christopher Recchia, Commissioner, PSD
Darren Springer, Deputy Commissioner, PSD
Geoff Commons, Director of Public Advocacy, PSD
Bill Jordan, Director of Engineering, PSD

From: Uldis Vanags, Nuclear Engineer, PSD

Subject: Weekly briefing on Vermont Yankee activities and operation

Vermont Yankee Operation

Since the last report Vermont Yankee has operated at 100% (except for a small reduction twice a week to accommodate chlorination of the condenser) with no notable operational issues that have affected power production. The plant has operated continuously for 117 days since the last refueling outage.

Condenser tube leak at VY

I was notified on July 29th that VY is experiencing a condenser tube leak. First, this is not a nuclear safety issue, not reportable to the NRC, and so far has not affected the production of electricity at VY. VY is monitoring this leak by measuring the chloride concentration in the reactor coolant. The chloride is from the small amount of river water that is entering into the reactor coolant system. VY has received permission from ANR to add as much as 400 pounds of wood flour per day to the river water entering the condensers in an effort to stop or slow the leak. VY will be taking measures to locate which condenser water box has the tube that is leaking by injecting Sulfur Hexafluoride (SF₆) into the water boxes. As long as the leak does not increase beyond administrative limits, VY will make the repair during the next rod pattern exchange when power will be reduced to about 50% so the affected water box can be isolated. The repair is expected to occur before October 15th. (Just for information, the condenser cools the steam to water that leaves the turbines. The water is returned to the reactor and is reheated and cycles again. The condenser is made up of two water boxes that each have about 9000 tubes that carry river water. The water boxes are operated in a vacuum so if a tube has a leak, river water will enter into the reactor coolant (steam). Also, because of the vacuum, radioactive material in the reactor coolant can not enter into the river water.)

Area Alarms experiencing false high radiation spikes

Vermont Yankee issued an event report to the NRC on July 24, 2013 at 07:55 EST for the actuation of a safety system (standby gas treatment and containment isolation) due to an area radiation alarm (ARM) on the reactor refueling floor (345 foot level) that on June 14, 2013 experienced a false high radiation spike. This was not reported as a Licensee Event Report (LER)

but met the lesser conditions to be reported as an Event Report which requires a telephone call to the NRC within 60 days. VY reported their notification to the NRC to the Department Nuclear Engineer on July 24, 2013 at about 8:30am meeting the requirements of the Inspection MOU.

On July 23rd and 24th an ARM on the 280 floor level (not refueling floor) experienced false radiation spikes again actuating a safety system. This will be reported to the NRC as separate event report by Vermont Yankee sometime soon but within 60 days.

Only four ARMs are connected to logic circuits that can actuate a safety system. These four ARMs (2 of which caused the recent spikes) have all been replaced. Of the four ARMs, one was previously replaced in June 2010, and the other three were replaced in September/October 2012.

VY will be working with the vender of these ARMs to determine what caused the spikes. It was reported that the Clinton Station also experienced these spikes from this same vender.

NRC Problem Identification and Resolution (PI&R) Inspection Report.

NRC publically released today the results of a 3 week long inspection of the Vermont Yankee corrective action program (PI&R) which is conducted every two years. The inspection found that overall Vermont Yankee was “generally efective in identifying, evaluating, and resolving problems.” The NRC did identify one non-cited green violation of very low safety significance. The violation is for VY not placing the reactor building HVAC system into the station’ s maintenance rule program eventhough the HVAC system did not reliably start eleven times since December 2011. By placing the HVAC system in the maintence rule program goals are set for reliability and performance of a system.