Distributed: 7-9-12 VSNAP mtg

Memorandum
Vermont Public Service Department

To: VSNAP
From: Sarah Hofmann, Deputy Commissioner and Uldis Vanags, State Nuclear Engineer
Subject: Questions posed by VSNAP member
Date: July 9, 2012

Interim Spent Fuel Storage Installation (ISFSI) Pad

Q. There are now ten casks on the ISFSI; how much room remains on the ISFSI?
A. As of June 29, 2012 there are 13 casks on the ISFSI pad. The pad is designed for 36 casks. There is room for 23 more similar casks.

Q. Will ENVY have enough room in the spent fuel pool after the next refueling outage?
A. Yes. There is sufficient room in the spent fuel pool after the next refueling outage.

Q. If the ISFSI needs to be enlarged, do the funds come from Entergy or the Decommissioning Fund?
A. When Vermont Yankee ceases operation and begins decommissioning, an ISFSI to accommodate all the spent fuel in the spent fuel pool likely would be built with spent fuel management funds from Entergy. Because DOE has defaulted in removing spent fuel from reactor sites, it is likely that spent fuel management funds spent by Entergy would be recovered from the DOE through the courts, assuming DOE has not begun removing the spent fuel from the VY site. Entergy could only use Decommissioning Trust Fund money for the construction of an ISFSI with approval of the NRC. The Decommissioning Trust Fund money is to be used for radiological decommissioning not for nuclear spent fuel management unless NRC approves such an expense.

Decommissioning Fund (DF)

Q. What is the status of the Decommissioning Fund?
A. As of May 31, 2012, the market value of the Vermont Yankee Nuclear Power Station's decommissioning- trust-fund accounts was $516,290,404. In addition, Entergy has provided a 40 million dollar parent guarantee. Entergy in April of 2011 had notified NRC that it planned to cancel the parent company guarantee in light of the federal license renewal, because with the additional twenty years the fund would grow to more than was needed for decommissioning. The Department of Public Service objected citing the uncertainty of that additional twenty years given the Federal Court process and Vermont's process. In August of 2011, the NRC issued a

letter stating that there were still external factors (including a state process) that made anticipated earnings during a renewal period uncertain and thus the "cancellation of the guarantee at this time would be premature."

Q. Who has prepared the cash flow analysis for the DF (when the money will be spent, how much will be spent, and what it will be spent on)?
A. TLG, a contractor hired by Entergy, produces a report entitled "Decommissioning Cost Analysis for the Vermont Yankee Nuclear Power Station". This report estimates the cost and schedule to decommission the Vermont Yankee Nuclear Station. The most recent report is available on the VSNAP website but if you would like a copy without searching the website, please contact Sarah or Uldis.

Q. How have the estimates of the funds required for decommissioning changed over the years?
A. The required funds for decommissioning are stipulated in Federal regulation 10 CFR 50.75 and have changed in accordance with its requirements. More generally speaking, two costs that play a large role in estimates on decommissioning are the costs of labor and inflation.

Q. Who does the financial reviews of the DF?
A. NRC performs the review of Decommissioning Fund assurance for a licensee per 10 CFR 50.75. Licensees are to report on the status of the decommissioning funding every two years unless a plant is within five years of the projected end of its operations, then the report on decommissioning funding is due annually. This year Entergy notified the NRC that because Vermont Yankee had received its renewed federal license for operation until March 21, 2032 and had no plans to close VY within five years, it would not do an annual report for VY. The Department has asked NRC to find this action by Entergy premature in light of ongoing federal litigation and state PSB process, and to require Entergy to file its decommissioning status report annually until these matters are resolved. The Department has not yet heard from NRC on this issue.

Every five years Entergy completes a decommissioning study that looks at costs and tasks to be completed in decommissioning at the site. Entergy submitted its last study in January 2012. Entergy made revisions to that study in February 2012. Entergy is relying upon this study in its PSB proceeding. The Department has hired an outside firm to review the study.

Condenser

Q. What is the status of the condenser?
A. The condenser is reaching end-of-life and Vermont Yankee has replacement or refurbishment plans for the condenser scheduled to begin in 2016. Presently the condenser is operating at a slightly increased back pressure and a reduction in thermal conductivity in certain condenser tubes due to application of a thin layer of an epoxy material. Also, there are a number of tubes that have been plugged over the years. The epoxy coating has been used at other facilities to help protect condenser tubes from internal erosion. At VY approximately half of the

condenser tubes were coated internally with epoxy. This resulted in a larger decrease in conductivity than was expected, meaning less efficient operation.

Q. What is the status of the epoxy coating that was applied to parts of the condenser?
A. At the last refueling outage in the fall of 2011 half of the condenser tubes were epoxy coated on the inside. After greater than expected reduction in thermal conductivity was observed, some of the epoxy was removed to improve condenser performance during a down power last Spring. Entergy believes that the performance of the condenser is now sufficient for summer time operation.

Q. What are the expectations for the efficiency of the condenser this summer as the CT River warms?
A. As the river water warms every summer this will reduce the efficiency of the condenser and thus the electrical power production of the Vermont Yankee station.

Component failure history

Q. Who maintains the list of recent component failures?
A. Vermont Yankee is required by NRC regulation to have a corrective action program to track and resolve problems with components, procedures, etc. Component failures are entered into the Vermont Yankee corrective action program and are tracked by the facility.

Q. What is on the list?
A. There is a comprehensive searchable data base maintained by Entergy Nuclear Vermont Yankee for all problems that occur at the station from the very minor to the major. The database is used by system engineers and others to track, trend, prioritize and correct any problems.

Capacity Factor in recent months

Q. The power generation in each of the first three months of 2012 is less than it has been for the previous five years; please explain.
A. In addition to routine maintenance and adjustments, Vermont Yankee has experienced down powers in the first three months of 2012 to troubleshoot and correct the condenser performance issues. More recently, the station also down-powered because of problem with the feedwater oil pump and control valve, a steam leak in the turbine, and a problem with the Bravo recirculation pump.

Q. How does the capacity factor vary on a daily basis?
A. The electrical production of the facility varies on a daily basis due to changes in river temperature, cooling tower operation, air temperature, relative humidy, etc. Also routine equipment surveillances and scheduled rod pattern adjustments can change the daily capacity factor.

Q. What are the causes of these fluctuations?
A. Many factors can affect the electrical production of the nuclear station including such things as the river temperature, use of the cooling towers, mechanical problems with components, etc. Also equipment problems can necessitate down-powers and reduce electrical production. Also routine equipment surveillances and rod control pattern adjustments can affect daily electrical production.

Vertical Audit Report (VAR)

Q. What is the status of 91 criteria identified in the VAR? Has the Joint Fiscal Office, or the Department of Public Service, hired anyone to keep up with the VAR?

A. The Comprehensive Reliability Assessment and Public Oversight Panels of 2009 and 2010 identified 91 recommendations to Vermont Yankee. All 91 have been addressed by Vermont Yankee in plans for correction found acceptable to the outside consultant (Nuclear Safety Associates) retained for the CRA and the Department. The consultant identified a number of recommendations to monitor over time to gauge the effectiveness of Vermont Yankee's actions. Those monitoring items are inspected by the State Nuclear Engineer. There is no JFO firm presently retained; the Department continues to retain NSA for consultation.