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BVY 11-076

November 23, 2011

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: Vermont Yankee Cycle 28 - 10CFR50.59 Report
Vermont Yankee Nuclear Power Station
Docket No. 50-271
License No. DPR-28

REFERENCE: 1. Letter USNRC to VYNPC, "TMI Action Plan Item II.K.3.3, Reporting of Relief Valve Failures and Challenges," NRY 82-44, dated March 30, 1982

Dear Sir or Madam:

In accordance with 10CFR50.59, attached is the Vermont Yankee Cycle 28 - 10CFR50.59 Report. This report contains a summary of the 50.59 Evaluation that was performed between May 26, 2010 and November 3, 2011.

Additionally, in accordance with the referenced letter, Vermont Yankee reports that there were no in-service Main Steam Relief Valve or Safety Valve failures or challenges during this period.

There are no new regulatory commitments contained in this submittal.

If you have any questions or require additional information, please contact Mr. Robert J. Wanczyk at (802) 451-3166.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Wamser", followed by a horizontal line.

[CJW/JMD]

Attachment: 1 Vermont Yankee Cycle 28 - 10CFR50.59 Report

cc: (next page)

IE42
NRR

cc: Mr. William M. Dean
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BVY 11-076
Docket No. 50-271

Attachment 1

Vermont Yankee Nuclear Power Station

Vermont Yankee Cycle 28 - 10CFR50.59 Report

Vermont Yankee Cycle 28 - 10CFR50.59 Report

Between May 26, 2010 and November 3, 2011, Vermont Yankee implemented one change requiring evaluation in accordance with 10CFR50.59. This report provides a summary of the evaluation performed for this change. The evaluation was reviewed by the On-site Safety Review Committee (OSRC), approved by the OSRC Chairman and concluded that prior Nuclear Regulatory Commission review and approval was not required.

10CFR50.59 Evaluation No. 2011-01 Rev. 0, Reactor Recirculation Loop Design and Operational Startup Change

The purpose of this 10CFR50.59 evaluation was to evaluate a change to the operational configuration of the Reactor Recirculation system.

During the 2011 refueling outage, Reactor Recirculation system discharge bypass valve V2-54A tripped on thermal overload during valve operability testing. The decision was made to declare the bypass valves inoperable in accordance with Technical Specification (TS) section 3.5.A.5 and develop an alternate means to start the recirculation system pumps with the bypass valves closed. To provide operational consistency and minimize the potential for human performance errors, both A & B recirculation loops were modified to maintain the bypass valves closed and allow the pumps to be started up by opening the associated discharge valves.

TS section 3.5.A.5 requires all recirculation pump discharge valves and bypass valves to be operable or closed prior to reactor startup. Placing the bypass valves in the closed position puts the valves in their safety related position, but necessitates development of an alternate means to open the discharge valve during startup of the recirculation pump. The pump is normally started with the bypass valve open and discharge valve closed. Declaring the bypass valves inoperable negates the need to perform required TS operability testing per TS SR 4.0.1.

The 10CFR50.59 evaluation also considered other operational configurations that will now need to reflect that the bypass valves will be closed and rely on opening the discharge valve.

This change does not result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the Updated Final Safety Analysis Report (UFSAR) because the change in bypass valve position and discharge valve/pump operation does not affect the frequency of occurrence of any accidents, abnormal operational transients and other design basis events previously evaluated.

The change does not more than minimally increase the likelihood of occurrence of a malfunction of structures, systems or components important to safety because the change places the bypass valve in the closed position and does not affect the ability of the discharge valve to close to support accident mitigation.

The change does not more than minimally increase the consequences of an accident because this change places the bypass valve in the closed position which is consistent with the valves safety related position to support core cooling and accident mitigation. Closing the bypass valve does not affect the ability of the discharge valve to close to support accident mitigation. The change does not affect analyzed accident mitigation or result in increasing the radiological consequences of any accidents.

The change does not more than minimally increase the consequences of a malfunction because the change does not impact the operation of systems credited to mitigate equipment malfunctions.

The change does not create the possibility of an accident of a different type because the change does not introduce any new sources of energy that could result in an accident of a different type. Also, the failure modes of new equipment introduced into the logic circuit were evaluated and do not impact any safety related functions or introduce any new accident types.

The change does not create the possibility of a malfunction of a structure, system or component important to safety with a different result than previously evaluated because the change does not affect the results of single-failures that have been previously evaluated in the UFSAR.

This change does not alter a fission product barrier because the change does not affect reactor coolant system design or primary containment design and the bypass valve being in the closed position is consistent with the accident analysis and ensures peak clad temperature remains below 2200 degrees F.

This change does not impact any methods of evaluation for controlling and performing a design function as described in the UFSAR.