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BVY 13-062

June 26, 2013

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

SUBJECT: Revision of Technical Specification Bases Pages
Vermont Yankee Nuclear Power Station
Docket No. 50-271
License No. DPR-28

REFERENCE: Letter, USNRC to Entergy, "Vermont Yankee Nuclear Power Station -
Issuance of Amendment to Renewed Facility Operating License RE:
Recirculation System Discharge Bypass Valve Change (TAC NO. ME8437),"
NVY 13-048, dated April 26, 2013

Dear Sir or Madam:

This letter provides revised Vermont Yankee Nuclear Power Station (VY) Technical Specification (TS) Bases pages. The TS Bases were revised in conjunction with an Amendment to Renewed Facility Operating License DPR-28 issued in the referenced letter.

These changes, processed in accordance with our TS Bases Control Program (TS 6.7.E), were determined not to require prior NRC approval. The revised Bases pages are provided in Attachment 1 for your information and for updating and inclusion with your copy of VY TS. No NRC action is required in conjunction with this submittal.

There are no new regulatory commitments being made in this submittal.

Should you have any questions concerning this submittal, please contact me at 802-451-3166.

Sincerely,

A handwritten signature in black ink that reads "Robert J. Wanczyk".

[RJW/plc]

A001
NRR

Attachment: 1. Revised Technical Specification Bases Pages

cc: Mr. William M. Dean
Regional Administrator, Region 1
U.S. Nuclear Regulatory Commission
2100 Renaissance Blvd, Suite 100
King of Prussia, PA 19406-2713

Mr. Richard V. Guzman, Project Manager
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USNRC Resident Inspector
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Mr. Christopher Recchia, Commissioner
VT Department of Public Service
112 State Street – Drawer 20
Montpelier, Vermont 05620-2601

Attachment 1

Vermont Yankee Nuclear Power Station
Revised Technical Specification Bases Pages

VYNPS

BASES: 3.2.A/4.2.A EMERGENCY CORE COOLING SYSTEM (ECCS)

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY (continued)

The Low - Low Reactor Vessel Water Level Trip Setting is chosen to allow time for the low pressure core flooding systems to activate and provide adequate cooling. The Trip Setting is referenced from the top of enriched fuel.

Four channels of Low - Low Reactor Vessel Water Level Trip Function are only required to be operable when the ECCS or DG(s) are required to be operable to ensure that no single instrument failure can preclude ECCS and DG initiation.

1.c, 2.a. Low Reactor Pressure (Initiation)

Low reactor pressure signals, in conjunction with low RPV level, indicate that the capability to cool the fuel may be threatened. The low pressure ECCS are initiated upon simultaneous receipt of a low reactor pressure and a low-low reactor vessel water level signal to ensure that the core spray and flooding functions are available to prevent and minimize fuel damage. The Low Reactor Pressure (Initiation) is one of the Trip Functions assumed to be operable and capable of permitting initiation of the ECCS during the accidents analyzed in References 1 and 2. In addition, the Low Reactor Pressure (Initiation) Trip Function is directly assumed in the analysis of the recirculation line break (Ref. 1). The core cooling function of the ECCS, along with the scram action of the RPS, ensures that the requirements of 10 CFR 50.46 are met.

The Low Reactor Pressure (Initiation) signals are initiated from two pressure transmitters that sense the reactor pressure. Each transmitter provides an input to both low pressure ECCS logic trains, such that failure of one transmitter will cause a loss of redundancy but will not result in a loss of automatic low pressure ECCS pump start capability.

The Trip Setting is low enough to prevent overpressurizing the equipment in the low pressure ECCS, but high enough such that the ECCS injection will ensure the requirements of 10 CFR 50.46 are met.

Two channels per trip system of Low Reactor Pressure (Initiation) Trip Function are only required to be operable when the ECCS or DG(s) are required to be operable to ensure that no single instrument failure can preclude ECCS and DG initiation.

1.d, 2.h. Low Reactor Pressure (System Ready and Valve Permissive)

Low reactor pressure signals are used as permissives for the low pressure ECCS subsystems. This ensures that, prior to opening the injection valves of the low pressure ECCS subsystems, the reactor pressure has fallen to a value below these subsystems' maximum design pressure. These low reactor pressure signals are also used as permissives for recirculation pump discharge valve closure. This ensures that the LPCI subsystems inject into the proper RPV location assumed in the safety

VYNPS

BASES: 3.2.A/4.2.A EMERGENCY CORE COOLING SYSTEM (ECCS)

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY (continued)

analysis. Low Reactor Pressure (System Ready and Valve Permissive) is one of the Trip Functions assumed to be operable and capable of permitting initiation and injection of the ECCS and capable of closing the recirculation pump discharge valve(s) during the accidents and transients analyzed in References 1 and 2. The core cooling function of the ECCS, along with the scram action of the RPS, ensures that the requirements of 10 CFR 50.46 are met. The Low Reactor Pressure (System Ready and Valve Permissive) Trip Function is directly assumed in the analysis of the recirculation line break (Ref. 1).

The Low Reactor Pressure (System Ready and Valve Permissive) signals are initiated from four pressure transmitters that sense the reactor pressure.

The Trip Setting is chosen to be low enough to prevent overpressurizing the equipment in the low pressure ECCS, but high enough such that the ECCS injection will ensure the requirements of 10 CFR 50.46 are met and to ensure that the recirculation pump discharge valves close prior to commencement of LPCI injection flow into the core, as assumed in the safety analysis.

Four channels of the Low Reactor Pressure (System Ready and Valve Permissive) Trip Function are only required to be operable when the ECCS or DG(s) are required to be operable to ensure that no single instrument failure can preclude proper ECCS initiation and injection.

1.e, 2.e. CS and LPCI B and C Pump Start Time Delay

The purpose of these time delays is to stagger the start of the CS and RHR (LPCI) B and C pumps on the associated Division 1 and Division 2 buses, thus limiting the starting transients on the 4.16 kV emergency buses. These Trip Functions are necessary when power is being supplied from the standby power sources. The Core Spray Pump Start Time Delay and the LPCI B and C Pump Start Time Delay Trip Functions are assumed to be operable in the accident and transient analyses requiring ECCS initiation. That is, the analyses assume that the pumps will initiate when required and excess loading will not cause failure of the power sources.

There are two Core Spray Pump Start Time Delay relays, one for each trip system. Each time delay relay is dedicated to a single pump start logic, such that a single failure of a Core Spray Pump Start Time Delay relay will not result in failure of more than one CS pump. In this condition, one of the two CS pumps will remain operable; thus, single failure criterion is satisfied.

There are two LPCI B and C Pump Start Time Delay relays, one for each trip system. Each time delay relay is dedicated to a single pump start logic, such that a single failure of a LPCI B or C Pump Start Time Delay relay will not result in failure of more than one of the two associated LPCI pumps. In this condition, one of the two associated LPCI pumps will remain operable; thus, single failure criterion is satisfied.