



Entergy Nuclear Operations, Inc.  
Pilgrim Nuclear Power Station  
600 Rocky Hill Road  
Plymouth, MA 02360

LETTER NUMBER: 2.15.027

April 13, 2015

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

SUBJECT: Correction of Information Provided in a Response to a Request for Information Related to Feedwater Pump Trip Technical Specifications (TAC No. M474981)

Entergy Nuclear Operations, Inc.  
Pilgrim Nuclear Power Station  
Docket No. 50-293  
License No. DPR-35

REFERENCE: Boston Edison Company letter to NRC, "Pilgrim Nuclear Power Station Response to Feedwater Trip Technical Specifications (TAC No. M474981), dated October 3, 1994 (BECO Ltr. #94-120)

Dear Sir or Madam:

This letter corrects information previously provided to the U.S. Nuclear Regulatory Commission (NRC) in response to a request to submit reactor vessel overfill protection Technical Specifications.

Specifically, Pilgrim Nuclear Power Station (PNPS) staff identified that a Boston Edison Company letter to the NRC dated October 3, 1994 contained two incorrect statements concerning the function of the feedwater pump trip and how it was credited in the station's safety analysis. The correspondence was related to PNPS' response to Generic Letter 89-19, Request for Actions Related to Resolution of Unresolved Safety Issue A-47 "Safety Implication of Control Systems in LWR Nuclear Power Plants" Pursuant to 10 CFR 50.54(f) and directly responded to NRC's request for information on PNPS' plans to add a Technical Specification requirement for the feedwater pump trip.

The October 3, 1994 letter stated, "It can therefore be seen that this trip is a plant design feature incorporated to protect equipment, but has no nuclear safety-related function." It further stated "The MFP [Main Feedwater Pump] trip is not credited for fuel protection in any design basis accident or abnormal operational transient described in Pilgrim's Updated Final Safety Analysis Report." However, even though it was PNPS' intent not to credit the trip consistent with the assertions in the letter, while evaluating a condition reported in the PNPS corrective action program in late 2014, station staff discovered that the reload analysis conducted by the nuclear fuel vendor, in fact, had credited the trip in the plant-specific transient analysis for many cycles

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of operation, including the current cycle. Since the fuel vendor performs this analysis, PNPS staff were unaware that this assumed trip actually terminated the transient and reduced the maximum Critical Power Ratio impact calculated for the event. In Cycles 15 through 20, PNPS input to the transient analysis clearly stated that this trip was not an available feature for transient analysis use by the fuel vendor.

Following discovery, PNPS took actions to ensure for the remainder of Cycle 20 that Turbine Control Valve Fast Closure and Turbine Stop Valve position scrams were active at power levels exceeding 25%, consistent with the use of thermal limits used by 3D Monicore to ensure thermal limit protection for analyzed transients. These actions were formalized in an Operations department Standing Order. PNPS also completed its evaluation of the cause for the discrepancy between PNPS' intent to not credit the high-level feedwater pump trip and the fuel vendor's calculation input assumptions. The cause was that there was no means specified for direct verification of inputs used by the fuel vendor. Additionally, PNPS evaluated the past three years of operation using the more restrictive Minimum Critical Power Ratio and Linear Heat Generation Rate limits calculated for Cycle 20 if the feedwater pump high-level trip is not credited and concluded that there were no thermal limit violations in the preceding three year time period using the more restrictive calculated limits.

Corrective actions have been put into place to ensure discrepancies of this type do not occur in the future. PNPS has confirmed that the reload analysis for Cycle 21 does not credit the high-level feedwater pump trip and that the fuel vendor has taken no deviations from PNPS provided inputs in performance of the transient analyses. Accordingly, going forward, beginning with Cycle 21, the statements in the October 3, 1994, letter will be complete and accurate as originally intended.

Please contact me at (508) 830-8323 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Everett P. Perkins". The signature is fluid and cursive, with a long horizontal stroke at the end.

Everett P. (Chip) Perkins  
Regulatory Assurance Manager

EPP/pjm

cc: Mr. Daniel Dorman  
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NRC Senior Resident Inspector  
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