March 19, 2007

MEMORANDUM TO: Tim J. Kobetz, Branch Chief
Technical Specification Branch
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulatory

FROM: George A. Wilson, Branch Chief ***/RA/***
Electrical Engineering Branch
Division of Engineering
Office of Nuclear Reactor Regulatory

SUBJECT: TSTF-431, REVISION1, "CHANGE IN TECHNICAL SPECIFICATION END STATES (BAW-2441)" (TAC NO MD3763)

The Electrical Engineering Branch has reviewed the subject document regarding changes to a number of the Technical Specification end states from cold shutdown (Mode 5) to hot shutdown(Mode 4) for the B&W reactors. We conclude that additional information is needed to complete our evaluation. Please send the enclosed request for additional information to the applicant, and request a response by July 2, 2007.

Enclosure: As stated

Contact: W. Raughley, DE/EEEB
(301) 415-7577

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REQUEST FOR ADDITIONAL INFORMATION REGARDING TSTF-431, REVISION 1, "CHANGE IN TECHNICAL SPECIFICATION END STATES (BAW-2441)" (TAC NO MD3763)

TSTF-431, Revision 1 changes a number of the Technical Specification end states from cold shutdown (Mode 5) to hot shutdown(Mode 4) for the B&W plants. TSTF-431, Revision 1 ge references Technical Report (TR) BAW-2441, Revision 2, "Risk Informed Justification for LCO End-State Changes." The final safety evaluation (ML062130286) defines the basis for the staffs acceptance of the TR.

The safety evaluation (SE) states that the accident sequences that dominate the risk in Mode 4 while on steam generator (SG) cooling are initiated by a LOOP event, with subsequent failure of onsite standby power sources causing loss of all primary and backup core cooling options (SG cooling , decay heat removal system cooling, and feed-and-bleed cooling). Further, Tables 2 and 3 of the SE compares the annual changes in core damage frequency (CDF) between Mode 5 and Mode 4, for a baseline with no limiting conditions of operation (LCO) and various electrical LCOs. Tables 2 and 3 of the SE show a reduction in the CDF for each of the electrical LCOs in Mode 4 as compared to Mode 5; however, there are significant increases in the CDF for several of the electrical LCOs with Mode 4 and Mode 5 that warrant compensatory measures. For example, the CDF for two EDGs inoperable is approximately 1000 and 100 times greater than the baseline for Mode 4 and Mode 5, respectively.

RAI

10 CFR 50.65, paragraph (a)(4) requires licensees to assess and manage the increase in risk that may result from the proposed maintenance activities. The scope of the assessment may be limited to structures, systems, and components that a risk-informed evaluation process has shown to be significant to public health and safety. Regulatory Guide 1.160, Monitoring the Effectiveness of Maintenance at Nuclear Power Plants, (ADAMS Accession No. ML003761663) endorses Revision 2 of NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants", which had been updated by the Nuclear Energy Institute (NEI) and requires compensatory measures to be established when a core damage probability of 1x10 E-06 is reached. Identify the compensatory measures, such as an alternate alternating current (AC) power supplies, to support Mode 4 and 5 operation for each of the degraded power conditions in Sections 3.8.1 3.8.4. 3.8.7, and 3.8.9 of the proposed technical specifications so as to maintain the changes in the core damage frequency (CDF) to approximately E-06 relative to its baseline.

ENCLOSURE