

March 8, 2013

MEMORANDUM TO: Meena K. Khanna, Chief
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

FROM: Richard B. Ennis, Senior Project Manager */ra/*
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3,
DRAFT REQUEST FOR ADDITIONAL INFORMATION (TAC NOS.
ME9085 AND ME9086)

The attached draft request for additional information (RAI) was transmitted on March 8, 2013, to Mr. Thomas Loomis of Exelon Generation Company, LLC (Exelon, the licensee). This information was transmitted to facilitate an upcoming conference call in order to clarify the licensee's amendment request for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3, dated July 18, 2012, as supplemented on January 17, 2013. The proposed amendment would revise the Technical Specifications (TSs) to change the operability requirements for the normal heat sink (NHS). The NHS for PBAPS is the Susquehanna River. Currently, the NHS is considered operable with a maximum water temperature of 90 °F. However, the PBAPS TSs currently allow plant operation to continue if the NHS water temperature exceeds the 90 °F limit, provided that: (1) the NHS water temperature, averaged over the previous 24-hour period, is verified at least once per hour to be less than or equal to 90 °F and; (2) the NHS water temperature does not exceed 92 °F. The proposed amendment would change the NHS water temperature limit such that the NHS would be considerable operable as long as the maximum water temperature was less than or equal to 92 °F.

The draft RAI was sent to Exelon to ensure that the questions are understandable, the regulatory basis for the questions is clear, and to determine if the information was previously docketed. This memorandum and the attachment do not convey or represent an NRC staff position regarding the licensee's request.

Docket Nos. 50-277 and 50-278

Attachment: Draft RAI

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DATE	03/08/2013

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DRAFT REQUEST FOR ADDITIONAL INFORMATION
REGARDING PROPOSED LICENSE AMENDMENT
REVISE NORMAL HEAT SINK OPERABILITY REQUIREMENTS
PEACH BOTTOM ATOMIC POWER STATION - UNITS 2 AND 3
DOCKET NOS. 50-277 AND 50-278

By letter to the Nuclear Regulatory Commission (NRC) dated July 18, 2012, as supplemented on January 17, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML12200A388 and ML13018A225, respectively), Exelon Generation Company, LLC (Exelon, the licensee), submitted a license amendment request for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. The proposed amendment would revise the Technical Specifications (TSs) to change the operability requirements for the normal heat sink (NHS). The NHS for PBAPS is the Susquehanna River. Currently, the NHS is considered operable with a maximum water temperature of 90 °F. However, the PBAPS TSs currently allow plant operation to continue if the NHS water temperature exceeds the 90 °F limit, provided that: (1) the NHS water temperature, averaged over the previous 24-hour period, is verified at least once per hour to be less than or equal to 90 °F and; (2) the NHS water temperature does not exceed 92 °F. The proposed amendment would change the NHS water temperature limit such that the NHS would be considered operable as long as the maximum water temperature was less than or equal to 92 °F.

The NRC staff has reviewed the information the licensee provided that supports the proposed amendment and would like to discuss the following issues to clarify the submittal.

SBPB RAI-1

Background

TS 3.7.2, "Emergency Service Water (ESW) System and Normal Heat Sink," Limiting Condition for Operation (LCO) Required Action B.1 currently requires that the licensee verify that the water temperature of the NHS is ≤ 90 °F, averaged over the previous 24-hour period, if the water temperature of the NHS is > 90 °F and ≤ 92 °F. The completion time for this action is once per hour. The TS Bases for TS 3.7.2 Required Action B.1 state, in part, that:

With water temperature of the normal heat sink > 90 °F and ≤ 92 °F, the design basis assumptions associated with the initial normal heat sink temperature are bounded provided the temperature of the normal heat sink when averaged over the previous 24 hour period is ≤ 92 °F. **To ensure that the 90 °F normal heat sink temperature limit is not exceeded, Required Action B.1 is provided to more frequently monitor the temperature of the normal heat sink.** The Unit 2 normal heat sink temperature is measured from the Unit 2 intake canal. **The once per hour completion time takes into consideration normal heat sink temperature variations and the increased monitoring frequency needed to ensure design basis assumptions and equipment limitations are not exceeded in this condition. [emphasis added]**

Surveillance Requirement (SR) 3.7.2.2 currently requires the licensee to verify that the average water temperature of the NHS is ≤ 90 °F. The SR frequency is in accordance with the Surveillance Frequency Control Program. In accordance with TS 5.5.14, "Surveillance Frequency Control Program," the program shall ensure that SRs specified in the TSs are performed at intervals sufficient to assure the associated LCOs are met. PBAPS Surveillance Test procedure ST-0-098-01N-2, "Daily Surveillance Log Mode 1, 2, 3" currently requires that the licensee verify and document the NHS temperature once every 24 hours as long as NHS temperature is not above 90 °F.

Issue

The proposed amendment would delete the LCO actions associated with verifying the NHS water temperature on an hourly basis when the temperature approaches the operability limit. As currently proposed, assuming no changes to the Surveillance Frequency Control Program, the NHS water temperature would be verified only once per 24 hours. Due to temperature variations over this time period, this 24-hour surveillance frequency may not be sufficient to provide reasonable assurance that design basis assumptions will be met.

Request

Please provide additional justification to provide assurance that the frequency of surveillance is sufficient to assure that design basis assumptions will continue to be met.

SBPB RAI-2

Background

The proposed amendment would change the NHS water temperature limit such that the NHS would be considerable operable as long as the maximum water temperature was less than or equal to 92 °F. The application dated July 18, 2012, states that "[a]ll design basis analyses use 92 °F or greater as an input or determine that the maximum allowable NHS temperature is greater than or equal to 92 °F. The supplement dated January 17, 2013, states that the temperature elements used to measure the NHS water temperature have an accuracy of ± 0.28 °F.

Issue

In order to ensure that the plant is maintained within the bounds of various analyses, instrument uncertainties and other uncertainties need to be accounted for in the TS limit, plant procedures or in the analyses. It is not clear that instrument uncertainties and other potential uncertainties have been taken into consideration.

Request

Please provide additional justification to provide assurance that instrument uncertainties and other potential uncertainties have been accounted for to assure that design basis assumptions will continue to be met.