

August 28, 2007

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

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

SUBJECT: SALEM NUCLEAR GENERATING STATION, UNIT NOS. 1 AND 2,
DRAFT REQUEST FOR ADDITIONAL INFORMATION
(TAC NOS. MD6353 AND MD6354)

The attached draft request for information (RAI) was transmitted on August 28, 2007, to Mr. Jamie Mallon of PSEG Nuclear LLC (the licensee). This information was transmitted to facilitate an upcoming conference call in order to clarify the licensee's amendment request for Salem Nuclear Generating Station (Salem), Unit Nos. 1 and 2, dated August 15, 2007. The proposed amendment would revise the licensing basis, as described in Appendix 3A of the Salem Updated Final Safety Analysis Report, regarding the method of calculating the net positive suction head available for the emergency core cooling system and containment heat removal system pumps. The proposed change relates to issues associated with Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors."

This memorandum and the attachment do not convey or represent an NRC staff position regarding the licensee's request.

Docket Nos. 50-272 and 50-311

Attachment: Draft RAI

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DRAFT REQUEST FOR ADDITIONAL INFORMATION
REGARDING PROPOSED LICENSE AMENDMENT
REVISION TO LICENSING BASIS - NET POSITIVE SUCTION HEAD METHODOLOGY
FOR EMERGENCY CORE COOLING SYSTEM PUMPS
SALEM NUCLEAR GENERATING STATION, UNIT NOS. 1 AND 2
DOCKET NOS. 50-272 AND 50-311

By letter dated August 15, 2007, PSEG Nuclear LLC (PSEG or the licensee) submitted an amendment request for Salem Nuclear Generating Station (Salem), Unit Nos. 1 and 2. The proposed amendment would revise the licensing basis, as described in Appendix 3A of the Salem Updated Final Safety Analysis Report (UFSAR), regarding the method of calculating the net positive suction head (NPSH) available for the emergency core cooling system and containment heat removal system pumps. The proposed change relates to issues associated with Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors."

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.

1. Please confirm that the pressure to be credited in determining the available NPSH of the residual heat removal pumps during a loss-of-coolant accident is the pre-accident partial air pressure in containment.
2. The August 15, 2007, letter proposes to delete a statement from the UFSAR (Appendix 3A) which states:

Added conservatism is introduced into the NPSH calculation by calculating the static head from the elevation of the top of the sump instead of the available water level above the sump.

The reason for the deletion appears to be that the water level is determined, since 1997¹, as a minimum calculated value rather than the top of the sump. However, this is not clarified by the proposed change to the UFSAR. Please propose wording to add to the UFSAR that will describe how the water level is determined (such as that on page 9 of Attachment 1 of the August 15, 2007, letter).

¹

Letter from E. C. Simpson, Public Service Electric and Gas Company, to NRC, 90 Day Response to Generic Letter 97-04, January 5, 1998