

June 25, 2010

Mr. Thomas Joyce
President and Chief Nuclear Officer
PSEG Nuclear LLC
P.O. Box 236
Hancocks Bridge, NJ 08038

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR SALEM NUCLEAR
GENERATING STATION UNITS 1 AND 2 LICENSE RENEWAL APPLICATION
(TAC NO ME1834 / ME 1836)

Dear Mr. Joyce:

By letter dated August 18, 2009, as supplemented by letter dated January 23, 2009, Public Service Enterprise Group Nuclear, LLC, submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54 for renewal of Operating License Nos. DPR-70 and DPR-75 for Salem Nuclear Generating Station Units 1 and 2, respectively. The staff of the U.S. Nuclear Regulatory Commission (NRC or the staff) is reviewing this application in accordance with the guidance in NUREG-1800, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants." During its review, the staff has identified areas where additional information is needed to complete the review. The staff's request for additional information is included in the Enclosure. Further requests for additional information may be issued in the future.

Items in the enclosure were provided to John Hufnagel and other members of your staff, and a mutually agreeable date for the response is within 30 days from the date of this letter. If you have any questions, please contact me by telephone at 301-415-2981 or by e-mail at bennett.brady@nrc.gov.

Sincerely,

/RA/

Bennett M. Brady, Project Manager
Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-272 and 50-311

Enclosure:
As stated

cc w/encl: See next page

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ADAMS Accession No. ML101620190

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Letter to T. Joyce from B. Brady dated June 25, 2010

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR SALEM NUCLEAR
GENERATING STATION UNITS 1 AND 2 LICENSE RENEWAL APPLICATION
(TAC NO ME1834 / ME 1836)

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NMcNamara, RI

Salem Nuclear Generating Station,
Units 1 and 2

cc:

Mr. Robert Braun
Senior Vice President Nuclear
PSEG Nuclear LLC
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Hancocks Bridge, NJ 08038

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Director Nuclear Oversight
PSEG Nuclear
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Hancocks Bridge, NJ 08038

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Station Vice President – Hope Creek
PSEG Nuclear
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Mr. Ali Fakhar
Manager, License Renewal
PSEG Nuclear LLC
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Township Clerk
Lower Alloways Creek Township
Municipal Building, P.O. Box 157
Hancocks Bridge, NJ 08038

Mr. Paul Bauldauf, P.E., Asst. Director
Radiation Protection Programs
NJ Department of Environmental
Protection and Energy, CN 415
Trenton, NJ 08625-0415

Mr. Brian Beam
Board of Public Utilities
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Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. Paul Davison
Vice President, Operations Support
PSEG Nuclear LLC
One Alloway Creek Neck Road
Hancocks Bridge, NJ 08038

Salem Nuclear Generating Station,
Units 1 and 2

- 2 -

cc:

Ms. Christine Neely
Director – Regulator Affairs
PSEG Nuclear LLC
One Alloway Creek Neck Road
Hancocks Bridge, NJ 08038

Senior Resident Inspector
Hope Creek Generating Station
U.S. Nuclear Regulatory Commission
Drawer 0509
Hancocks Bridge, NJ 08038

Mr. Earl R. Gage
Salem County Administrator
Administration Building
94 Market Street
Salem, NJ 08079

REQUEST FOR ADDITIONAL INFORMATION FOR SALEM NUCLEAR GENERATING STATION
UNITS 1 AND 2 LICENSE RENEWAL APPLICATION
(TAC NO ME1834 / ME 1836)

RAI 3.3.2.2.10.6-01

Background:

SRP-LR Section 3.3.2.2.10, item 6 refers to Table 3.3.1, item 28 and GALL Report Item VII.G-9 and recommends further evaluation of a plant-specific program to manage loss of material due to pitting and crevice corrosion for copper alloy piping, piping components, and piping elements exposed to internal condensation. LRA Section 3.3.2.2.10.6 states that copper alloy fire protection system piping, piping components, and piping elements exposed to internal condensation are managed for loss of material due to pitting and crevice corrosion by the Fire Protection and Fire Water System Programs. Specifically, the Fire Protection Program is credited to manage loss of material for the copper alloy spray nozzles, piping and components, and valve bodies exposed to air/gas - wetted in LRA Table 3.3.2-12, pages 3.3-236, 239, and 243.

Issue:

The description of the Fire Protection Program in LRA Section B.2.1.15 states that the program performs visual inspections of fire barriers and the external surfaces of the Halon and CO₂ systems, and includes performance testing of the diesel driven fire pump fuel supply lines. The description of the Fire Protection Program does not include criteria for inspections of the internal surfaces of components which could detect loss of material for the copper alloy spray nozzles, piping and components, and valve bodies exposed to air/gas - wetted listed in LRA Table 3.3.2-12.

Request:

Justify how the Fire Protection Program will adequately manage the aging effect of loss of material due to pitting and crevice corrosion for the copper alloy components exposed to air/gas - wetted in LRA Table 3.3.2-12.

RAI 3.3.2.12-02

Background:

SRP-LR Table 3.3.1, item 54 recommends the "Compressed Air Monitoring Program" to manage loss of material for stainless steel piping, piping components, and piping elements exposed to internal condensation within the compressed air system. LRA Table 3.3.1, item 3.3.1-54 states that the Fire Protection Program will be substituted to manage loss of material due to pitting and crevice corrosion of the stainless steel piping, piping components and piping elements exposed to air/gas - wetted in the Fire Protection System. Specifically, the applicant credited the Fire Protection Program for stainless steel spray nozzles, piping and fittings, and valve bodies in LRA Table 3.3.2-12, pages 3.3-238, 239, 240 and 245, where it references Table 3.3.1, item 3.3.1-54.

SRP-LR Table 3.3.1, item 71 recommends the Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components Program to manage loss of material for steel piping, piping components, and piping elements exposed to moist air or condensation. LRA Table 3.3.1, item 3.3.1-71 states that the Fire Protection Program will be substituted to manage loss of material due to general, pitting and crevice corrosion of the steel piping, piping components and piping elements exposed to air/gas - wetted in the Fire Protection System. Specifically, the applicant credited the Fire Protection Program for steel piping and fittings in LRA Table 3.3.2-12, page 3.3-235, where it references Table 3.3.1 item 3.3.1-71. Furthermore, in the same table and same page, the LRA also credited the Fire Water System Program for the same material, environment, and aging effect/mechanism combination.

SRP-LR Table 3.3.1, item 72 recommends the Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components Program to manage loss of material for steel HVAC ducting and components internal surfaces exposed to condensation. LRA Table 3.3.1, item 3.3.1-72 states that the Fire Protection Program will be substituted to manage loss of material due to general, pitting and crevice corrosion of the galvanized steel damper housing exposed to air/gas - wetted for the Fire Protection System. Specifically, the applicant credited the Fire Protection Program for galvanized steel damper housing in LRA Table 3.3.2-12, page 3.3-227, where it references Table 3.3.1, item 3.3.1-72.

Issue:

The Compressed Air Monitoring Program includes control of contaminants in order to limit loss of material due to corrosion, and leakage testing to detect loss of material. The Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components Program includes inspections of the internal surfaces of piping and components to detect loss of material. LRA Section B.2.1.15 states, "The program also provides for aging management of external surfaces of the Halon and carbon dioxide fire suppression system components through periodic functional tests and visual inspections for any loss of material." The description of the Fire Protection Program in LRA Section B.2.1.15 does not include criteria for inspections of the internal surfaces of components or leakage testing which could detect loss of material. It is not clear to the staff how the Fire Protection Program is adequate to manage loss of material for the steel and stainless steel components for which it is credited in Table 3.3.2-12 under items 3.3.1-54, 3.3.1-71, and 3.3.1-72.

Request:

Justify how the Fire Protection Program will adequately manage the aging effect of loss of material due to pitting and crevice corrosion for the various steel and stainless steel components exposed to an internal environment of air/gas – wetted discussed above.