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U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
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Salem Nuclear Generating Station Unit 2  
Renewed Facility Operating License No. DPR- 75  
NRC Docket No. 50-311

Subject: **License Amendment Request to Revise the Implementation Period  
for Salem Unit 2 License Amendment No. 294**

In accordance with 10 CFR 50.90, PSEG Nuclear LLC (PSEG) hereby requests an amendment to Renewed Facility Operating License No. DPR-75 for Salem Nuclear Generating Station Unit 2. In accordance with 10 CFR 50.91(b)(1), a copy of this request for amendment has been sent to the State of New Jersey.

The proposed change is requesting approval of a license amendment to revise the implementation period for Salem Unit 2 License Amendment 294. By letter dated April 28, 2016, the NRC issued License Amendment No. 294 for Salem Unit 2, with implementation required during the spring 2017 refueling outage (2R22). This request is to revise the implementation period from the Spring 2017 refueling outage (2R22) to prior to restart from the Fall 2018 refueling outage (2R23).

Amendment 294 revises the Salem Unit 2 Technical Specification (TS) for replacement of the Westinghouse source range (SR) and intermediate range (IR) instrumentation with new instrumentation supplied by Thermo Scientific. Replacement of the SR and IR instrumentation may be moved to Fall 2018 refueling outage. Moving the implementation of Salem Unit 2 Amendment 294 to prior to restart from the Fall 2018 refueling outage will ensure that the Technical Specifications align with the instrumentation currently installed in the plant.

Attachment 1 to this letter provides an evaluation supporting the proposed change.

PSEG requests NRC approval of the proposed License Amendment by June 4, 2017, to allow Salem Unit 2 restart upon completion of the 2R22 refueling outage in the event the replacement of SR and IR instrumentation cannot be completed as currently planned.

There are no regulatory commitments contained in this letter.

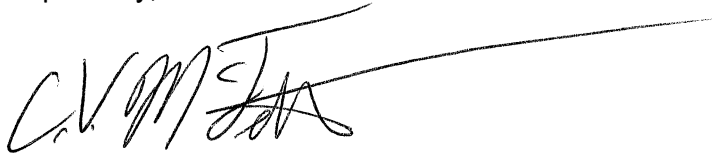
This proposed change has been reviewed by the Plant Operations Review Committee.

If you have any questions or require additional information, please contact Brian Thomas at (856) 339-2022.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 3/13/17  
(Date)

Respectfully,



Charles V. McFeaters  
Site Vice President  
Salem Generating Station

Attachments:

1. License Amendment Request to Extend the Implementation Period for Salem Unit 2 License Amendment No. 294

cc: Mr. D. Dorman, Administrator, Region I, NRC  
Ms. C. Parker, Project Manager, NRC  
NRC Senior Resident Inspector, Salem  
Mr. P. Mulligan, Chief, NJBNE  
Mr. L. Marabella, Corporate Commitment Tracking Coordinator  
Mr. T. Cachaza, Salem Commitment Tracking Coordinator

SALEM GENERATING STATION  
RENEWED FACILITY OPERATING LICENSE NO. DPR-75  
DOCKET NO. 50-311

License Amendment Request to Extend the Implementation Period for Salem Unit 2 License  
Amendment No. 294

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## 1.0 SUMMARY DESCRIPTION

This license amendment request is to revise the implementation period for Salem Unit 2 License Amendment No. 294. PSEG Nuclear LLC (PSEG) proposes to revise the implementation period associated with Unit 2 Amendment No. 294 from the Spring 2017 refueling outage (2R22) to prior to restart from the Fall 2018 refueling outage (2R23).

By letter dated April 28, 2016, the NRC issued License Amendment No. 294 for Salem Unit 2. This amendment revises the Salem Unit 2 Technical Specification (TS) for replacement of the Westinghouse source range (SR) and intermediate range (IR) instrumentation with new instrumentation supplied by Thermo Scientific.

The amendment was effective as of the date of issuance and is required to be implemented during the Spring 2017 refueling outage (2R22).

## 2.0 DETAILED DESCRIPTION

The Amendment 294 implementation period requires the amendment to be implemented prior to the end of the Spring 2017 refueling outage. Amendment 294 revises the Salem Unit 2 TS for replacement of the Westinghouse source range (SR) and intermediate range (IR) instrumentation with new instrumentation supplied by Thermo Scientific.

To support the replacement of the Westinghouse SR and IR channels during the 2R22 outage, PSEG plans to take this instrumentation out of service upon entry into Mode 6 after plant shutdown and to rely on alternate instrumentation during Mode 6 as allowed by TS 3.9.2.2. This plan was developed to minimize the impact to critical path of the outage. The SR and IR detectors will have to be replaced prior to filling the refueling cavity for the core offload. The instrumentation channel hardware could then be replaced during the Mode 6 and defueled outage windows without impacting the critical path of the outage. Prior to the 2R22 refueling outage, a concern was identified with one of the alternate instrumentation channel's ability to meet the requirements of TS 3.9.2.2. In the event the alternate instrumentation cannot be made operable to meet the requirements of TS 3.9.2.2, the existing SR channels will be required to remain in service to support the core offload.

During 2R22, the cavity will remain flooded during the defueled period to support scheduled work inside the reactor vessel. Maintaining the cavity flooded during the defueled period prevents access for the replacement of the source range and intermediate range detectors that are located under the refueling cavity. As a result, the replacement of the source range and intermediate range detectors would not be able to start until after the core is reloaded and the reactor cavity is drained. Starting the replacement following the core reload would require Salem Unit 2 to be in the TS action statement for having no source range channels operable during the replacement evolution. In addition, starting the replacement work at this point in the outage is estimated to add approximately 10 days to the overall length of the refueling outage. Therefore, the replacement of the Westinghouse SR and IR instrumentation would be moved to the Fall 2018 refueling outage to avoid significant impact to the 2R22 outage.

Moving the implementation of Salem Unit 2 Amendment 294 to prior to restart from the Fall 2018 refueling outage will ensure that the technical specifications remain aligned with the instrumentation installed in the plant. Repair of the alternate indication will continue during the

Spring 2017 outage to ensure its ability to meet TS 3.9.2.2 requirements for use during the SR and IR replacement in the Fall 2018 outage.

### **3.0 TECHNICAL EVALUATION**

The request for extending the implementation period is not a technical or safety issue. The proposed change is purely an administrative change. In issuing an amendment to an operating license, the NRC staff states when the amendment is effective and when the amendment must be implemented. These dates are given in the Enclosure of the amendment and are part of the operating license for the plant. Although, there are no regulatory requirements on the implementation date specified in an amendment, the licensee is required by the operating license to fully implement the amendment by the date specified (i.e., by a date no later than that specified).

Revising the implementation period of Salem Unit 2 Amendment No. 294 does not pose any nuclear safety impact. Moving the implementation of Salem Unit 2 Amendment 294 to prior to restart from the Fall 2018 refueling outage will ensure that the technical specifications align with the instrumentation currently installed in the plant.

### **4.0 REGULATORY EVALUATION**

#### **4.1 No Significant Hazards Consideration**

In accordance with 10 CFR 50.90, PSEG Nuclear LLC (PSEG) hereby requests an amendment to Renewed Facility Operating License No. DPR-75 for Salem Nuclear Generating Station Unit 2. The proposed license amendment revises the implementation period specified in Salem Unit 2 License Amendment No. 294 from the Spring 2017 refueling outage (2R22) to prior to restart from the Fall 2018 refueling outage (2R23). This change will support moving the replacement of the Westinghouse source range and intermediate range nuclear instrumentation to the 2R23 refueling outage if necessary.

PSEG has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

#### **1. Do the proposed changes involve a significant increase in the probability or consequences of an accident previously evaluated?**

Response: No.

The proposed amendment implementation schedule revision is administrative in nature and does not require any modifications to or change in operation of plant systems or components. The change to the amendment implementation period does not increase the probability or consequences of an accident previously evaluated in the Updated Final Safety Analysis (UFSAR). Current Technical Specification (TS) requirements will continue to ensure the plant is operated consistent with the UFSAR accident analysis with the currently installed source range and intermediate range nuclear instrumentation.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

**2. Do the proposed changes create the possibility of a new or different kind of accident from any accident previously evaluated?**

Response: No.

The proposed amendment implementation schedule revision is administrative in nature. The revision of the amendment implementation does not require any physical plant modifications, does not alter any plant systems or components, and does not change the operation of the plant.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

**3. Do the proposed changes involve a significant reduction in a margin of safety?**

Response: No.

Margin of safety is related to the confidence in the ability of the fission product barriers to perform their intended functions. These barriers include the fuel cladding, the reactor coolant system pressure boundary, and the containment. The proposed TS change is administrative in nature and does not affect any of these barriers. Current TS requirements will continue to ensure the plant is operated consistent with the UFSAR accident analysis with the currently installed source range and intermediate range nuclear instrumentation.

Therefore, the proposed change does not involve a significant reduction in the margin of safety.

Based upon the above, PSEG Nuclear LLC concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92, and, accordingly, a finding of no significant hazards consideration is justified.

**4.2 Applicable Regulatory Requirements and Criteria**

The proposed change has been evaluated to determine whether applicable regulations and requirements continue to be met. PSEG has determined that the proposed change does not require any exemptions or relief from regulatory requirements other than the operating license. The following applicable regulations and regulatory requirements were reviewed in making this determination: 10 CFR 50.90, 10 CFR 50.91, and 10 CFR 50.92.

#### 4.3 Precedents

Two similarly related license amendments involving extensions to license amendment implementation periods were approved in 2015 and are summarized below:

1. Limerick Generating Station Unit 2 – Issuance of Exigent Amendment Re: Extend Implementation Period for Amendment No. 174 – Leak Detection System Setpoint and Allowable Value Changes (TAC No. MF5695), dated February 25, 2015 (ADAMS Accession No. ML15049A084). The license amendment extended the implementation period for Amendment No. 174 from 60 days to prior to startup from the spring 2015 refueling outage. There were no actual changes to the Technical Specifications.
2. Columbia Generating Station – Issuance of Amendment Re: Extension of Implementation Period for Amendment No. 232 Changing Technical Specification Table 3.3.1.1-1 Function 7, “SCRAM DISCHARGE VOLUME WATER LEVEL – HIGH” (Exigent Circumstances) (TAC No. MF6234), dated June 11, 2015 (ADAMS Accession No. ML15154A800). The license amendment extended the implementation period for Amendment No. 232 from refueling outage R-22 (ongoing at the time of the request) to prior to restarting from refueling outage R-23 scheduled for spring 2017. There were no actual changes to the Technical Specifications.

#### 5.0 ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

#### 6.0 REFERENCES

1. PSEG letter to NRC, "License Amendment Request Regarding Replacement of Source and Intermediate Range Neutron Monitoring Systems," dated April 3, 2015 (ADAMS Accession No. ML15093A291)
2. NRC letter to PSEG, "Salem Nuclear Generating Station, Unit Nos. 1 and 2 – Issuance of Amendments RE" Replacement of Source Range and Intermediate Range Neutron Monitoring Systems (CAC Nos. MF6065 and MF6066)," dated April 28, 2016 (ADAMS Accession No. ML16096A419)