

July 20, 1989

Docket No. 50-311

Mr. Steven E. Miltenberger
Vice President and Chief Nuclear
Officer
Public Service Electric & Gas Company
Post Office Box 236
Hancocks Bridge, New Jersey 08038

Dear Mr. Miltenberger:

SUBJECT: MECHANICAL SNUBBER ACCEPTANCE CRITERIA (TAC NO. 73068)

RE: SALEM GENERATING STATION, UNIT NO. 2

The Commission has issued the enclosed Amendment No. 75 to Facility Operating License No. DPR-75 for the Salem Generating Station, Unit No. 2. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated May 5, 1989.

This amendment deletes the criterion that requires expanding the sample if the measured drag force of mechanical snubbers exceeds the previously measured drag force by more than 50%.

A copy of our safety evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

/s/

James C. Stone, Project Manager
Project Directorate I-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 75 to License No. DPR-75
2. Safety Evaluation

cc w/enclosures:
See next page

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[SEM]

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7/13/89 7/20/89

CP
[Signature]

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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Sincerely,

A handwritten signature in cursive script that reads "James C. Stone".

James C. Stone, Project Manager
Project Directorate I-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

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2. Safety Evaluation

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See next page

Mr. Steven E. Miltenberger
Public Service Electric & Gas Company

Salem Nuclear Generating Station

cc:

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

PUBLIC SERVICE ELECTRIC & GAS COMPANY

PHILADELPHIA ELECTRIC COMPANY

DELMARVA POWER AND LIGHT COMPANY

ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-311

SALEM GENERATING STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 75
License No. DPR-75

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for amendment filed by the Public Service Electric & Gas Company, Philadelphia Electric Company, Delmarva Power and Light Company and Atlantic City Electric Company (the licensees) dated May 5, 1989 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-75 is hereby amended to read as follows:

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PDC

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 75, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance to be implemented within 45 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 20, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 75

FACILITY OPERATING LICENSE NO. DPR-75

DOCKET NO. 50-311

Revise Appendix A as follows:

Remove Page

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Insert Page

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In addition to the regular sample, snubbers which failed the previous functional test shall be retested during the next test period. If a spare snubber has been installed in place of a failed snubber, then both the failed snubber (if it is repaired and installed in another position) and the spare snubber shall be retested. Test results of these snubbers may not be included for the re-sampling.

If any snubber selected for functional testing either fails to lockup or fails to move, i.e., frozen in place, the cause will be evaluated and if caused by manufacturer or design deficiency all snubbers of the same design subject to the same defect shall be functionally tested. This testing requirement shall be independent of the requirements stated above for snubbers not meeting the functional test acceptance criteria.

For the snubber(s) found inoperable, an engineering evaluation shall be performed on the components which are supported by the snubber(s). The purpose of this engineering evaluation shall be to determine if the components supported by the snubber(s) were adversely affected by the inoperability of the snubber(s) in order to ensure that the supported component remains capable of meeting the designed service.

d. Hydraulic Snubbers Functional Test Acceptance Criteria

The hydraulic snubber functional test shall verify that:

1. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.
2. Snubber bleed, or release rate, where required, is within the specified range in compression or tension. For snubbers specifically required to not displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

e. Mechanical Snubbers Functional Acceptance Criteria

The mechanical snubber functional test shall verify that:

1. The force that initiates free movement of the snubber rod in either tension or compression is less than the specified maximum drag force.
2. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO.75 TO FACILITY OPERATING LICENSE NO. DRP-75

PUBLIC SERVICE ELECTRIC & GAS COMPANY

PHILADELPHIA ELECTRIC COMPANY

DELMARVA POWER AND LIGHT COMPANY

ATLANTIC CITY ELECTRIC COMPANY

SALEM GENERATING STATION, UNIT NO. 2

DOCKET NO. 50-311

1.0 INTRODUCTION

By letter dated May 5, 1989, Public Service Electric & Gas Company requested an amendment to Facility Operating License Nos. DPR-70 and DPR-75 for the Salem Generating Station Unit Nos. 1 and 2, respectively. Salem Unit 1 was authorized to make the change, on an emergency basis on May 12, 1989. The proposed amendment would delete the requirement in the Salem Technical Specification that the measured drag force of a mechanical snubber should not increase by more than 50% from the previous test result. The licensee contends that the current drag force comparison requirement which was intended to trend increases in drag force in order to predict impending snubber failure is not valid for Pacific Scientific Mechanical Snubbers. This requirement may cause unnecessary increase in the snubber test population even if the drag force is well below the acceptance criteria and may also result in a substantial increase in worker radiation exposure.

2.0 EVALUATION

This proposed change would revise Section 4.7.9.e.1 of the Salem Unit 2 Technical Specifications. The change would delete an aspect of mechanical snubber surveillance test acceptance criteria which requires a verification that the snubber drag force has not increased more than 50% since the previous functional test.

As described in LER 272/89-015-00 dated April 19, 1989, Salem Generating Station has not, in the past, performed the subject drag force comparison. However, since drag forces were measured and documented, it was possible to review the functional test data and apply the 50% criterion. This review indicated that (prior to the Salem Unit 1 outage that began in March, 1989) four snubbers at Salem Unit 1 and nine snubbers at Salem Unit 2 had failed to meet the criterion. Only one of

these snubbers, in Unit 2, was still in use and was replaced in April, 1989. None of these nine snubbers tested have drag forces above the maximum allowable value.

The snubber manufacturer (Pacific Scientific) has generated data related to mechanical snubber drag force loading. The results of these tests indicate that an increase in drag force from one inspection period to the next does not establish a trend that can be used to predict pending snubber failure. Based on this data, PSE&G concludes that a 50% increase in measured drag force from one inspection period to the next is no cause for declaring the snubber inoperable if the load is below the maximum allowable value.

The intent of the current drag force comparison requirement is to trend increases in drag force in order to predict impending snubber failure. However, the aforementioned Pacific Scientific test report indicates that an increase in drag force is not a valid indicator of imminent snubber failure. This supports the position that a 50% increase in drag force is not sufficient cause for declaring a snubber inoperable.

The Salem test results provided by the licensee support the position that the drag force comparison is not an adequate predictor of snubber failure. The data indicates that as many snubber drag forces have decreased as have increased from previous measurements without any identifiable correlation to snubber failures. These variations appear to be within the expected statistical variation considering the techniques and equipment used.

NRC has approved the deletion of the 50% drag force change comparison requirement from the Westinghouse Standard Technical Specifications in addition to approving license changes identical to this one for other plants. This requirement has not been included in the snubber technical specifications for more recent operating licenses (such as Hope Creek). The proposed change does not affect other aspects of the snubber surveillance program and the primary acceptance criteria. Verification is required that the drag force is less than the specified allowable value. Compliance with ASME Section XI per Technical Specification 4.0.5 remains unchanged.

Based on a review of the data provided by the licensee, Staff concludes that the proposed amendment for the deletion of the Salem Generating Station Unit 2 requirement in Technical Specification 4.7.9.e.1 that the measured drag force of a mechanical snubber should not increase by more than 50% from the previous test result, is acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change to a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes to the surveillance requirements. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

4.0 CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register (54 FR 25377) on June 14, 1989 and consulted with the State of New Jersey. No public comments were received and the State of New Jersey did not have any comments.

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security nor to the health and safety of the public.

Principal Contributor: J. Rajan

Dated: July 20, 1989