

September 4, 1987

Docket Nos.: 50-272/311

Mr. Corbin A. McNeill, Jr.
Senior Vice President - Nuclear
Public Service Electric and Gas
Company
Post Office Box 236
Hancocks Bridge, New Jersey 08038

Dear Mr. McNeill:

SUBJECT: EXEMPTION FROM REQUIREMENT OF 10 CFR 50, APPENDIX J, III.D.2.(b)(ii)

The Commission has issued the enclosed Exemption for Salem Nuclear Generating Station, Units 1 and 2, regarding a requirement in Appendix J, III.D.2(b)(ii) of 10 CFR Part 50 in response to your letters dated April 11, 1986, August 29, 1986, and March 13, 1987. The Exemption relieves Public Service Electric and Gas Company from the requirements of conducting a full pressure airlock leakage test whenever airlocks are opened during periods when containment integrity is not required. The latter two letters contain the final version of the proposed Technical Specification changes and the requested exemption respectively. An associated amendment revising the Technical Specifications is being issued under separate cover.

The special circumstances that justified consideration of the Exemption conformed to paragraphs 50.12(a)(2)(ii) and 50.12(a)(2)(iii) of 10 CFR 50.12a.

The basis for this action is included in the enclosed Exemption.

Sincerely,

/s/

Donald C. Fischer, Project Manager
Project Directorate PDI-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosure:
As stated

cc w/enclosure:
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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The special circumstances that justified consideration of the Exemption conformed to paragraphs 50.12(a)(2)(ii) and 50.12(a)(2)(iii) of 10 CFR 50.12a.

The basis for this action is included in the enclosed Exemption.

Sincerely,

A handwritten signature in cursive script that reads "Donald C. Fischer".

Donald C. Fischer, Project Manager
Project Directorate PDI-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosure:
As stated

cc w/enclosure:
See next page

Mr. C. A. McNeill
Public Service Electric & Gas Company

Salem Nuclear Generating Station

cc:

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UNITED STATES NUCLEAR REGULATORY COMMISSION

In the Matter of

PUBLIC SERVICE ELECTRIC AND
GAS COMPANY(Salem Nuclear Generating
Station, Units 1 and 2))
)
)
)
)
)Docket Nos. 50-272
50-311

EXEMPTION

I.

Public Service Electric and Gas Company (the licensee) holds Facility Operating License Nos. DPR-70 and DPR-75, which authorizes operation of the Salem Nuclear Generating Station, Units No. 1 and No. 2 (the facilities or Salem 1 and 2) at power levels not in excess of 3411 megawatts thermal. The licenses provide, among other things, that the facilities are subject to all rules, regulations, and Orders of the Nuclear Regulatory Commission (the Commission) now or hereafter in effect.

The facilities are pressurized water reactors located on the licensee's site in Salem County, New Jersey.

II.

Paragraph III.D.2(b)(ii) of Appendix J of 10 CFR Part 50 requires, in part, that a full pressure airlock leakage test be performed whenever airlocks are opened and when containment integrity is not required by the plant's Technical Specifications.

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III.

By letter dated April 11, 1986, the licensee requested a partial Exemption from the requirement of 10 CFR 50, Appendix J, III.D.2(b)(ii) identified in II above, and substitution of an airlock door seal leakage test (Paragraph III.D.2(b)(iii) of Appendix J, 10 CFR Part 50) for the full pressure airlock test otherwise required by Paragraph III.D.2(b)(ii) when the airlock is opened while the reactor is in cold shutdown (Mode 5) or refueling (Mode 6), if no maintenance has been performed on the airlock that could affect its sealing capability.

By letters dated August 29, 1986, and March 13, 1987, the licensee requested a slightly revised exemption that would additionally allow the door seal leakage rate test of III.D.2(b)(iii) to be used when the maintenance affecting the airlocks sealing capability was performed only on the door gaskets. That is, door seal testing will be done after each opening, after maintenance which could affect the airlock door gaskets, and prior to establishing containment integrity. If maintenance that could affect sealing capability has been performed on an airlock, other than the door gaskets, a full pressure airlock test must still be performed.

If an airlock is opened during Modes 5 and 6, Paragraph III.D.2(b)(ii) of Appendix J requires that an overall airlock leakage test at not less than the calculated peak containment pressure from a design-basis LOCA (Pa) be conducted before plant heatup and startup (i.e., entering Mode 4). The existing airlock doors are so designed that a full-pressure (i.e., Pa = 47.0 psig) test of an entire airlock can only be performed after strongbacks (structural bracing) have been installed on the inner door. Strongbacks are needed because the pressure exerted on the inner door during the test is in a

direction opposite to that of the accident pressure direction. Installing strongbacks, performing the test, and removing strongbacks requires at least 8 hours per airlock (there are two airlocks) during which access through the airlock is prohibited.

If the periodic 6-month test of paragraph III.D.2(b)(i) of Appendix J and the test required by paragraph III.D.2(b)(iii) of Appendix J are current, no maintenance (other than to door gaskets) has been performed on the airlock that could affect its sealing capability, and the airlock is properly sealed, there is no reason to expect the airlock to leak excessively just because it has been opened in Mode 5 or Mode 6.

Accordingly, the Commission concludes that the licensee's proposed approach of substituting the seal leakage test of paragraph III.D.2(b)(iii) for the full pressure test of paragraph III.D.2(b)(ii) of Appendix J is acceptable following door gasket maintenance and/or prior to entering Mode 4. Furthermore, the licensee has committed to meet the requirements of paragraph III.D.2(b)(ii) of Appendix J whenever other maintenance that could affect sealing capability has been performed on the airlock.

The special circumstances for granting this exemption pursuant to 10 CFR 50.12 have also been identified. The purpose of paragraph III.D.2(b)(ii) is to ensure that airlocks are properly sealed when containment integrity is required. The proposed alternative test method is sufficient to achieve this underlying purpose in that it provides adequate assurance of continued leaktight integrity of the airlock. Consequently, the special circumstances described

by 10 CFR 50.12(a)(2)(ii) and (iii) exist in that application of the regulation in these particular circumstances is not necessary to achieve the underlying purpose of the rule in that the licensee has proposed an acceptable alternative test method that accomplishes the intent of the regulation. Compliance would result in undue hardship that would be significantly in excess of that contemplated when the regulation was adopted in that plant startup would be delayed while an overall airlock leakage test was performed at full pressure. The effort and delay required is not warranted by the resulting safety benefit.

IV.

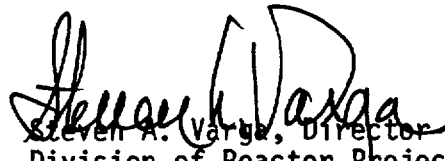
Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12, these exemptions are authorized by law will not present an undue risk to the public health and safety, and is consistent with the common defense and security. The Commission further determines that special circumstances described by 10 CFR 50.12(a)(2)(ii) and (iii) exist in that application of the regulation in the particular circumstances is not necessary to achieve the underlying purpose of the rule in that Public Service has proposed an acceptable alternative test method that accomplishes the intent of the regulation.

Accordingly, the Commission hereby grants the exemption as described in Section III above from 10 CFR 50, Appendix J, III.D.2(b)(ii).

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of this Exemption will have no significant impact on the environment (52 FR 29101, August 5, 1987).

This Exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


Steven A. Varga, Director
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Dated at Bethesda, Maryland,
this 4th day of ~~September~~ 1987.