

Public Service
Electric and Gas
Company

Corbin A. McNeill, Jr.
Vice President -
Nuclear

Public Service Electric and Gas Company P.O. Box 236, Hancocks Bridge, NJ 08038 609 339-4800

April 11, 1986

NLR-N86035
not

U. S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Licensing
Washington, DC 20555

Attention: Mr. Steven A. Varga, Director
PWR Project Directorate #3
Division of PWR Licensing A

Dear Mr. Varga:

REQUEST FOR 10CFR50, APPENDIX J EXEMPTION
SALEM GENERATING STATION
FACILITY OPERATING LICENSE DPR-70 AND DPR-75
UNIT NOS. 1 AND 2
DOCKET NOS. 50-272 AND 50-311

In accordance with the provisions of 10CFR50.12a, we hereby request exemption from the requirements of 10CFR50, Appendix J, III D.2(b)(ii).

EXEMPTION REQUEST

This exemption will relieve the requirements of conducting a full pressure airlock leakage test whenever airlocks are opened during periods when containment integrity is not required. We will, instead, rely on seal leakage testing described in paragraph III.D.2(b)(iii) when the reactor is in COLD SHUTDOWN (MODE 5) or REFUELING (MODE 6) and when no maintenance has been performed that affects airlock sealing capabilities. We will continue to perform a full pressure test of airlock leakage at least once per six months and following any maintenance that could affect airlock sealing capability. This testing will verify that:

- ° The sealing capability of the airlock has not degraded as a result of routine use or maintenance since the last time the test was conducted and,
- ° The overall airlock leakage rate is within its Technical Specifications limits.

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Therefore, from the standpoint of public health and safety, there is no undue risk involved with plant operation with this requested exemption in place. There is nothing contained in the exemption request that is inconsistent with the common defense and security. Finally, the exemption, as requested, has been reviewed and has been found to be authorized by law.

SPECIAL JUSTIFYING CIRCUMSTANCES

The special circumstances present which justify the Commission's consideration of this exemption request conform to the following paragraphs in 10CFR50.12a:

50.12(a)(2)(ii) Application of the regulation in this circumstance is not necessary to achieve the underlying purpose of 10CFR50, Appendix J, III.D.2(b)(ii). The six month test requirement of paragraph III.D.2(b)(i) of Appendix J, the three day test requirement of paragraph III.D.2(b)(iii) of Appendix J, and the testing requirements when maintenance is performed on the airlock that affects sealing capacity will provide assurance that the airlock will not leak excessively.

50.12(a)(2)(iii) Compliance would result in undue hardship and cost through reduced operational flexibility and unwarranted delays in power ascension over the life of the Salem plants in excess of those incurred by other similar facilities that have received exemption from the subject Appendix J paragraph. Performance of the leakage rate tests required by paragraph III.D.2(b)(ii) takes approximately 8 hours per airlock and requires installation of a strong back device on the inside airlock door (Test pressure applied inside the airlock tends to unseat this door because it is designed to seat with accident pressure from inside containment). This evolution can presently occur several times during a refueling outage and ultimately can delay mode change on start up. Additionally, the extra testing is a drain on manpower resources with little or no resulting increase in assurance that the airlock will not experience excessive leakage.

TECHNICAL CONSIDERATIONS

The following considerations have been taken into account in our evaluation of the safety and environmental impact attendant to this exemption request:

- ° To assure airlock leakage is within specified limits, an airlock leakage test at design pressure will be performed prior to establishing primary containment integrity when maintenance has been performed on the airlock that could affect its sealing capability and an airlock seal test will be performed within 72 hours following each closure, except when the air lock is being used for multiple entries and then at least once per 72 hours.
- ° Opening of the airlock has the potential of altering the sealing capability of the airlock because of possible damage to the seals. The door operator (hand wheel) shaft seals experience very little alteration as the shafts rotate within packing. History indicates the shaft seals are very effective in maintaining the sealing capability, even with door operation, and a complete test every six months and after maintenance is sufficient to assure operability.
- ° In contrast to the shaft seals, the door seals could experience significant alteration when the doors are cycled. The alterations occur as the knife edges impact the seals. Pressurization of the volume between the door seals after each opening, after maintenance which could affect airlock door gaskets, and prior to establishing containment integrity, provides the necessary surveillance to ensure the sealing capability of the door seals.

CONCLUSION

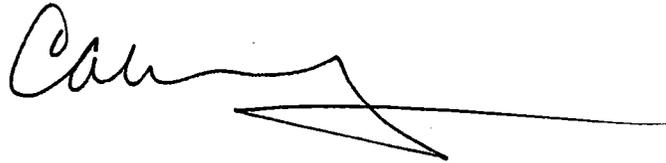
The granting of the requested exemption would allow the substitution of an airlock seal test for an airlock pressure test while the reactor is in a shutdown or refueling mode. With respect to this exemption from Appendix J, the increment of increased risk to public health and safety is related solely to the potential increased probability for, and magnitude of, containment leakage during an accident which could lead to potentially greater offsite radiological consequences. The potential increase due to this exemption is small and would result only from the potential leakage path through the door operator shaft seals which will not be measured by this modified test. However, the six month test requirement of paragraph III.D.2(b)(i) of Appendix J, the three day test requirement of paragraph III.D.2(b)(iii) of Appendix J, and the testing requirements when maintenance is performed on the airlock, will measure the leakage through the door operator shaft seals and, if current, provide assurance that the air lock will not leak excessively and will not affect containment integrity or increase

the risk of any facility accidents. Therefore, post accident radiological releases will not exceed previously determined values. The exemption has no impact on plant radiological or non-radiological effluents and involves no significant occupational exposure.

In accordance with the application fee requirements of 10CFR170.21, a check in the amount of \$150.00 is enclosed.

This submittal includes three (3) signed originals and forty (40) copies.

Sincerely,

A handwritten signature in black ink, appearing to read "Cav", with a long horizontal line extending to the right from the end of the signature.

Enclosure

C Mr. Donald C. Fischer
Licensing Project Manager

Mr. Thomas J. Kenny
Senior Resident Inspector

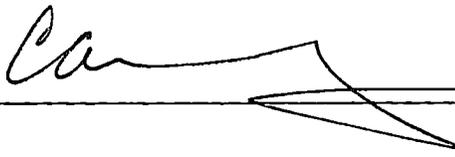
Mr. Samuel J. Collins, Chief
Projects Branch No. 2, DPRP
Region 1

EXEMPTION REQUEST 10CFR50, App. J.

STATE OF NEW JERSEY)
)
COUNTY OF SALEM) SS.

Corbin A. McNeill, Jr., being duly sworn according to law deposes and says:

I am a Vice President of Public Service Electric and Gas Company, and as such, I find the matters set forth in our letter dated April 11, 1986, concerning our request for exemption from the requirements of 10CFR50, Appendix J, III D.2(b)(ii) for Facility Operating Licenses DPR-70 and DPR-75, are true to the best of my knowledge, information and belief.



Subscribed and Sworn to before me
this _____ day of _____, 1986

Notary Public of New Jersey

My Commission expires on _____