

BEFORE THE UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of)
NEW YORK POWER AUTHORITY) Docket No. 50-333
James A. FitzPatrick Nuclear Power Plant)

APPLICATION FOR AMENDMENT TO OPERATING LICENSE

The New York Power Authority requests an amendment to the Technical Specifications contained in Appendix A to Facility Operating License No. DPR-59 for the James A. FitzPatrick Nuclear Power Plant. This application is filed in accordance with Section 10 CFR 50.90 of the Nuclear Regulatory Commission's regulations.

The proposed change would eliminate the requirement for the Authority to perform a Type A primary containment integrated leak rate test (ILRT) during the Fall 1993 maintenance outage as required by Technical Specification 4.7.A.2.f. The proposed change allows for the replacement of piping and welds which constitute portions of the Core Spray System minimum flow lines, without having to perform a Type A ILRT as required by Technical Specifications.

The proposed change revises the note associated with Technical Specification 4.7.A.2.f on page 174.

Attachment I to this application contains a request for exemption from 10 CFR 50 Appendix J, Section IV.A. The proposed change to the Technical Specifications are provided as Attachment II. The Safety Evaluation for the proposed change is included as Attachment III. Attachment IV provides a copy of the Flow Diagram - Core Spray System 14.

New York Power Authority



Ralph E. Beedle
Executive Vice President
Nuclear Generation

STATE OF NEW YORK
COUNTY OF WESTCHESTER

Subscribed and sworn to before me
this 28th day of June, 1993.


Notary Public

GERALDINE STRAND
Notary Public, State of New York
No. 4991272
Qualified in Westchester County
Commission Expires Jan. 27, 1994

9307020262 930628
PDR ADOCK 05000333
P PDR

ATTACHMENT I to JPN-93-044

EXEMPTION REQUEST

CONTAINMENT LEAK RATE TESTING

JPTS-93-007

New York Power Authority

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

Docket No. 50-333

DPR-59

**JAMES A. FITZPATRICK NUCLEAR POWER PLANT
EXEMPTION REQUEST
CONTAINMENT LEAK RATE TESTING (JPTS-93-007)**

In accordance with 10 CFR 50.12(a)(2)(ii), the New York Power Authority requests an exemption from 10 CFR 50 Appendix J, Section IV.A which states:

Containment modification. Any major modification, **replacement of a component which is part of the primary reactor containment boundary**, or resealing a seal-welded door, performed after the preoperational leakage rate test **shall be followed by either a Type A, Type B, or Type C test, as applicable for the area affected** by the modification. (emphasis added)

Augmented erosion / corrosion inspections conducted during the 1992 refueling outage revealed the presence of pipe wall thinning on the Core Spray System minimum flow lines (3" W23-152-7A, B), which is believed to be cavitation induced pitting due to the location of the restricting orifice. In accordance with the requirements of ASME Section XI and ANSI B-31.1-1967 (the construction code for the FitzPatrick plant) the Core Spray minimum flow piping will be replaced during the Fall 1993 maintenance outage. The Authority plans to replace approximately 5 feet of the "A" and "B" Core Spray System minimum flow piping. The section of piping scheduled to be replaced includes the restricting orifices (14RO-27A, B) and the Core Spray Minimum flow valves (14MOV-5A/5B). The restricting orifices will be relocated to approximately four feet upstream of the Core Spray minimum flow valves. The exemption request is for the welds and approximately 1 foot of piping beginning at the inboard side of the minimum flow valves towards the intersection with the Core Spray test return lines. This section of piping is shown on the marked up copy of drawing FM-23A, "Flow Diagram - Core Spray System - 14" included as Attachment IV.

This type of repair constitutes a replacement of a component which is part of the primary reactor boundary as described in the regulation quoted above. This regulation requires that the new welds be Type A, B, or C leak rate tested as applicable following installation. Because of the location of the new welds, pressure testing can only be accomplished by performing a Type A primary containment integrated leakage rate test (ILRT). This exemption would allow for the replacement of piping and welds which constitute the Core Spray System minimum flow lines, without having to perform an ILRT. The next Type A ILRT is scheduled to be conducted during the 1995 refueling outage.

10 CFR 50.12(a) indicates that the Commission may grant exemptions if special circumstances are present. Three of the special circumstances presented in 50.12(a)(2) apply to this situation.

Circumstance (ii) states:

Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule.

**JAMES A. FITZPATRICK NUCLEAR POWER PLANT
EXEMPTION REQUEST
CONTAINMENT LEAK RATE TESTING (JPTS-93-007)**

The underlying purpose of 10 CFR 50 Appendix J, Section IV.A is to ensure that modifications to the containment do not result in unacceptable leakage. The Authority plans to conduct 100% radiography, surface examination, and a system leakage test (in accordance with ASME Section XI code, 1980 Edition through Winter 1981 Addenda, paragraph IWA-5213) on the welds that are a part of the primary containment to compensate for the lack of an ILRT. These examinations assure the structural integrity of the new welds and the lack of any flaw through which a leakage path could develop. In combination, these examinations ensure zero leakage through the new welds. Application of Appendix J requirements in these particular circumstances are not necessary to achieve the underlying purpose of the rule.

Circumstance (iii) states:

Compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated.

The exemption from Appendix J is required to allow the FitzPatrick plant to resume power operation following the Fall 1993 maintenance outage. If the Authority was required to perform an ILRT prior to startup, this would significantly lengthen the outage. Substantial resources are required to rent the necessary equipment, perform Type B and C local leak rate tests on all containment penetrations, contract for consultant personnel, and calibrate instrumentation at an outside laboratory.

Circumstance (v) states:

The exemption would provide only temporary relief from the applicable regulation and the licensee or applicant has made good faith efforts to comply with the regulation.

The exemption constitutes only temporary relief from the requirements of Appendix J. The Authority will perform a Type A ILRT during the 1995 refueling outage.

The Core Spray minimum flow lines are not capable of being isolated from primary containment. Performing a local leak rate test on the new welds would require either the use of a plug for the open piping which terminates below the suppression pool water level or to freeze seal the piping at the test boundaries. The Authority does not intend to drain the suppression pool to expose the pipe end. Use of freeze seals would also be difficult to implement because the freeze seal technique is not intended as a leak tight pressure boundary. The freeze seal would have to be applied to carbon steel piping, reducing the temperature of the piping to cryogenic temperatures. The implementation of either of these techniques for local leak rate tests is not practicable and would not be expected to provide good results.

**JAMES A. FITZPATRICK NUCLEAR POWER PLANT
EXEMPTION REQUEST
CONTAINMENT LEAK RATE TESTING (JPTS-93-007)**

Conclusion

As stated above, the exemption would prevent an undue hardship to the Authority, and constitute only temporary relief from the regulations. Compensatory measures ensure that the underlying purpose of the regulations are met. This modification will improve plant design and make this piping less susceptible to potential cavitation induced pitting in the future. Therefore, the special circumstances defined in 10 CFR 50.12(a)(2)(ii), (iii) and (v) for an exemption have been satisfied.