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March 1, 1983
JPN-83-16

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Director of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Subject: James A. FitzPatrick Nuclear Power Plant
Docket No. 50-333
Draft Safety Evaluation of Appendix R
Exemption Requests

- References:
1. PASNY letter, J. P. Bayne to H. R. Denton dated July 13, 1982 (JPN-82-61).
 2. PASNY letter, J. P. Bayne to H. R. Denton dated November 22, 1982 (JPN-82-87).
 3. NRC letter, D. B. Vassallo to L. W. Sinclair, dated February 2, 1982.

Dear Sir:

Reference 1 submitted to the NRC the Power Authority's report entitled "A Reassessment of the James A. FitzPatrick Nuclear Power Plant for Conformance to the Requirements of Appendix R to 10 CFR 50", hereafter referred to as the Reassessment. Reference 2 provided clarification of information in the Reassessment, as requested by the NRC staff.

The Reassessment contains the Authority's requests for exemption from certain provisions of Appendix R. Reference 3 transmitted the NRC's Draft Safety Evaluation Report (SER) of the majority of these exemption requests. Reference 3 also asked that the Authority comment on the technical accuracy of the Draft SER.

The Draft SER evaluates the eleven exemption requests contained in Section 2.7.2 of the Reassessment. Since several of the exemption requests are similar, they were combined and addressed in

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nine sections of the Draft SER. However, the Draft SER evaluations do not specifically identify to which exemption requests they apply. Therefore, final SER should contain a cross reference between the sections of the Reassessment and the SER. This cross reference is provided in Attachment 1.

The Draft SER does not definitively describe the extent to which the FitzPatrick plant would conform to Appendix R, even if the requested exemptions were approved. The final SER should address this point. Attachment 2 provides a concise summary of the FitzPatrick plant's conformance to Appendix R. This summary is based entirely on information presented in the Reassessment.

Some of the exemption request evaluations, presented in the Draft SER, omit technical information supplied in the Reassessment. In one case, this could result in misinterpretation of information accurately presented in the Reassessment. To prevent this, the comments in Attachment 3 should be incorporated into the final SER.

In the Draft SER, the NRC staff recommends that several of the Authority's exemption requests be denied. Several discussions have been held between Authority personnel and the NRC staff on these requests and the modifications proposed in conjunction with them. As a result of these discussions, revisions to certain of the proposed modifications were identified, which would be acceptable to the Authority and resolve the concerns of the NRC staff.

The Authority had proposed to install cable tray sprays to eliminate intervening combustibles at certain zone interfaces. In lieu of these, the Authority will install water sprays across the zone interface to preclude the spread of postulated fire across the interface.

Conceptually these revised modifications have been found acceptable to the NRC staff in our discussions with them. Since the discussions, the Authority has expeditiously developed the conceptual designs of the revised modifications. The conceptual designs are being reviewed by fire protection specialists to assure: that they will accomplish their intended functions; and, to develop sufficient information to enable the NRC staff to approve the exemptions requests based on the revised modifications.

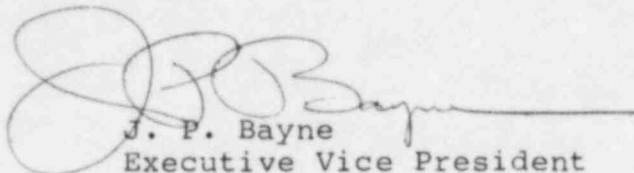
The Power Authority will amend the exemption requests submitted to the NRC in Reference 1, no later than April 5, 1983. The NRC staff will be apprised of the content of the exemption requests as they are being amended. The Power Authority is confident that the amended exemption requests will be mutually acceptable to the Authority and the NRC staff, and that the staff will be able to approve them without extensive additional review.

The Power Authority considers this the most reasonable and expeditious means of achieving a final resolution of our exemption requests. If the NRC intends to issue a final ruling on any exemption request prior to its resolution, the Power Authority

requests an appeal meeting with NRC management prior to issuance of the ruling.

The Authority's staff is available to discuss the enclosed information at anytime. If you have any questions regarding the enclosed evaluations please contact Mr. J. A. Gray, Jr. of my staff.

Very truly yours,

A handwritten signature in dark ink, appearing to read 'J. P. Bayne', is written over the typed name and title.

J. P. Bayne
Executive Vice President
Nuclear Generation

cc: Mr. J. Linville
Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 136
Lycoming, New York 13093

March 1, 1983

Exemption Request Cross Reference

Exemption Request Description	Reassessment ¹ Reference	SER ² Reference
Control Room (automatic area wide suppression)	2.7.2.1	2.0
RB-1E and RB-1W (zone interfaces at Elevs. 227'-6" and 242'-6")	2.7.2.2	3.0
RB-1E and RB-1W (cable separation)	2.7.2.3	4.0
RB-1E and RB-1A (stairway from Elev. 227'-6" to 272'-0")	2.7.2.4	5.0
RB-1A and RB-1B (zone interface on Elev. 272'-0")	2.7.2.5	6.0
RB-1B and RB-1C (zone interface on Elev. 300'-0")	2.7.2.6	7.0
RB-1A and RB-1B (zone interface on Elev. 300'-0")	2.7.2.7	6.0
RB-1A and RB-1C (stairway from Elev. 272'-0" to 300'-0")	2.7.2.8	8.0
RB-1C and RB-1A (stairway from Elev. 300'-0" to 326'-0")	2.7.2.9	8.0
Torus Room (RHR valve separation)	2.7.2.10	9.0
RB-1B and RB-1A (stairway from Elev. 300'-0" to 326'-0")	2.7.2.11	10.0

Note 1: The Reassessment Reference is the number of the section in "A Reassessment of the James A. FitzPatrick Nuclear Power Plant for Conformance to the Requirements of Appencix R to 10 CFR 50." This report was transmitted to the NRC by the Authority's letter, from J.P. Bayne to H.R. Denton, dated July 13, 1982 (JPN-82-61).

Note 2: The SER Reference is the number of the section in the "Draft Safety Evaluation, James A. FitzPatrick Nuclear Power Plant, Appendix R Exemption Requests, Fire Zones." This draft evaluation was transmitted to the Authority by the NRC's letter from D.B. Vassallo to L.W. Sinclair, dated February 2, 1983.

March 1, 1983

Extent of Conformance to Appendix R to 10 CFR 50

On July 13, 1982, the Power Authority transmitted to the NRC a report entitled "A Reassessment of the James A. FitzPatrick Nuclear Power Plant for Conformance to the Requirements of Appendix R to 10 CFR 50", hereafter referred to as the Reassessment. The Reassessment described, at great length and in great detail, the extent to which the FitzPatrick plant meets the requirements of Appendix R. This report also specified the extremely conservative assumption on which the FitzPatrick plant Appendix R analysis was based.

The Power Authority acknowledges the fact that the Draft SER only evaluates exemption requests. However, we feel that the Draft SER does not clearly identify the extent to which the FitzPatrick plant complies with Appendix R. This could be misleading and result in an unfavorable impression of the Authority's efforts to comply with Appendix R.

The Reassessment demonstrates that of the 47 fire areas or zones in the plant, 40 are currently in full compliance with the rule. For the remaining 7, additional modifications were proposed and exemptions were requested. The exemption requests cited all potentially applicable requirements of the rule. In actuality however, an exemption is only being requested from a portion of the rule rather than the rule in its entirety. The Draft SER does not clearly show this to be the case. The exemption requests in question are contained in Sections 3.0, 6.0, 7.0 and 9.0 of the Draft SER. (These correspond to Reassessment Sections 2.7.2.2, 2.7.2.5, 2.7.2.6, 2.7.2.7 and 2.7.2.10).

Section II.G.2 of Appendix R requires that one train of cables and equipment necessary to achieve and maintain safe shutdown be maintained free of fire damage. This may be accomplished by demonstrating compliance with any one of the following paragraphs of II.G.2:

- a. Separation of cables and equipment and associated non-safety circuits of redundant trains by a fire barrier having a 3-hour rating. Structural steel forming a part of or supporting such fire barriers shall be protected to provide fire resistance equivalent to that required of the barrier;
- b. Separation of cables and equipment and associated non-safety circuits of redundant trains by a horizontal distance of more than 20 feet with no intervening combustibles or fire hazards. In addition, fire detectors and an automatic fire suppression system shall be installed in the fire area.

- c. Enclosure of cable and equipment and associated non-safety circuits of one redundant train in a fire barrier having a 1-hour rating. In addition, fire detectors and an automatic fire suppression system shall be installed in the fire area.

The areas or zones in question for which exemptions are requested to meet all the specific criteria of III.G.2.b above, with only one exception. The redundant trains in adjoining areas are separated by at least 20 feet and in some cases a far greater distance. The only intervening combustible is cable insulation. The Authority has proposed cable tray spray modifications which effectively eliminate the intervening combustible. These areas are fully covered by fire detection systems which alarm in the control room.

The only item of II.G.2.b which is not met is the requirement for an area wide automatic fire suppression system. However, the areas are protected by standpipes and fire hose stations which constitute a manual fire suppression capability. The fact that fire hose stations or other features may be required by other NRC guidelines, should not exclude them from consideration as compensation for measures required by the Appendix R, as the NRC stated in Section 3.3 of the draft SER.

The Power Authority does not consider that the significant extent of compliance is noted with sufficient clarity in the Draft SER.

March 1, 1983

POWER AUTHORITY COMMENTS ON SPECIFIC SECTIONS OF THE DRAFT SER

Section 2.0 Control Room

This section of the Draft SER states in part that "... there is an alternate shutdown system which is independent of the control room." There currently exists a capability to safely shut down the plant outside the control room. Not all of the equipment used to do this is independent of the control room. The Authority has proposed a modification which will provide an alternate shutdown capability, independent of the control room, as required by Appendix R.

Section 3.0 Zones RB-1E and RB-1W

This section of the Draft SER does not note that: the area wide fire detection system alarms in the control room; and, the HPCI enclosure water spray system may also be manually activated.

This section also does not note that the distance between some redundant components is greater than the 20 feet required by Appendix R.

The Draft SER states that there are "redundant RCIC pumps." The FitzPatrick plant has only one RCIC pump.

Section 6.0 Zones RB-1A and RB-1B

In the discussion part of this section, the bases of the exemption request are identified. Not included in the discussion are the proposed modifications to reroute RHR valve cables, and install cable tray sprays to eliminate intervening combustibles.