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Executive Vice President
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July 16, 1984
JPN-84-46

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

Attention: Mr. Domenic B. Vassallo, Chief
Operating Reactors Branch No. 2
Division of Licensing

Subject: James A. FitzPatrick Nuclear Power Plant
Docket No. 50-333
Appendix R to 10 CFR 50,
Clarification of Exemption Requests

- References:
1. NRC letter, D.B. Vassallo to J.P. Bayne, dated February 1, 1984, regarding Exemption Requests - 10 CFR 50.48 Fire Protection and Appendix R to 10 CFR Part 50.
 2. PASNY letter, J.P. Bayne to H.R. Denton, regarding request for exemption from implementation of provisions of 10 CFR 50, Appendix R, Section III.G.2. (JPN-82-24).

Dear Sir:

In Reference 1, the Commission granted exemptions from certain requirements of Section 50.48 and Appendix R to 10 CFR Part 50 for the James A. FitzPatrick Nuclear Power Plant. This, and previously issued exemptions, were in response to our letter dated February 26, 1982 (Reference 2), as supplemented. In Reference 1, the NRC granted the seven remaining exemption requests pertaining to the Reactor Building.

After having carefully reviewed the February 1, 1984 exemptions, it has become apparent that some of the amendments to our exemption requests may not have been considered.

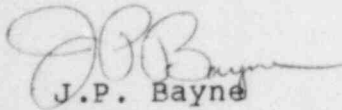
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The Authority has prepared the attached report to clarify our positions and intentions in three specific areas. Neither the positions nor intentions described in the attached report are new; rather, they are the positions understood to result from many discussions with NRC staff. In one case, we withdraw an exemption request which is no longer required.

The Authority anticipates that as a result of this clarification the February 1, 1984 exemptions will have to be revised or amended. As always, the Authority's staff is available to discuss these issues with your staff. Should you have any questions or require additional information, do not hesitate to contact Mr. J. A. Gray, Jr. of my staff.

Very truly yours,



J.P. Bayne
Executive Vice President
Nuclear Generation

cc: Office of the Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 136
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New York Power Authority
James A. FitzPatrick Nuclear Power Plant

Clarification of Exemption Requests Related to
10 CFR 50.48 and Appendix R to 10 CFR 50

I. Introduction

In Reference 1, the Commission issued exemptions from certain requirements of Section 50.48 and Appendix R to 10 CFR Part 50 for the James A. FitzPatrick Nuclear Power Plant. This, and previously issued exemptions, were in response to our letter dated February 26, 1982 (Reference 4) as supplemented. The exemptions included with Reference 1 granted the seven remaining requests pertaining to the Reactor Building.

After having carefully reviewed the February 1, 1984 exemptions, it has become apparent that some of the amendments to our exemption requests may not have been considered.

The Authority has prepared this report to clarify our positions and intentions in three specific areas. Neither the positions or intentions described in this report are new; rather, they are the positions understood to result from many discussions with NRC staff. In one case, we withdraw an exemption request no longer required.

The February 1, 1984 Exemption (Reference 1) grants seven specific exemption requests; each specific exemption was assigned a number, one through seven. This report will refer to specific exemption requests using this same numbering scheme.

II. Exemption Numbers 1 and 4 (Zones RB-1E and RB-1W)

Exemption Number 1 concerns the "HPCI Area," where Division A and Division B cabling are separated by a distance of approximately 26 feet. Combustible material (in the form of cable insulation in overhead trays and lubricating oil in the HPCI system) exists within the intervening 26 feet.

Item C on page 4 of Reference 1 erroneously states that "Cable trays between redundant systems at the RB-1E and RB-1W zone boundary will be equipped with a water spray system." Page 5 similarly states that "Protection from fire involving the combustible cable insulation will be provided by the proposed cable tray water spray system."

Exemption Number 4 also concerns the HPCI area and the interface between zones RB-1E and RB-1W. As detailed on page 11, the Authority committed to install a "water curtain" completely across this zone interface to preclude the spread of fire damage beyond the zone boundary.

The Authority, in our May 19, 1983 letter (Reference 2) clearly states that we are amending our prior exemption requests "...such that instead of providing sprinkler systems for intervening cable trays within the 20 feet separation, a sprinkler system will be provided as described below" (emphasis added). This same letter goes on to describe the water curtain and to specifically list the four zone interfaces associated with this exemption.

The Division A and Division B cables of concern in this area lie on opposite sides of the proposed water curtain. Therefore, the cable tray sprays mentioned in Exemption No. 1 are not required because the new water curtain will prevent the spread of fire between cable divisions despite the presence of intervening combustibles.

For this reason, the Authority withdraws this request for exemption from certain provisions of Section III.G.2 of Appendix R.

III. Exemption Numbers 2 and 3 (Zones RB- 1A & RB-1E and RB-1A & RB-1C)

Both these exemptions concern the presence of a 3-hour fire-rated barrier between redundant divisions (Section III.G.2.a of Appendix R.)

In the Authority's May 19, 1983 letter (Reference 2, page 5 of attachment), we informed you of our intentions to install a water spray around four stairways in lieu of the 1-hour fire-rated barrier originally proposed in our July 13, 1982 "Appendix R Reassessment" (Reference 3).

The Commission's February 1, 1984 Exemption (Reference 1) apparently did not take into account our May 19, 1984 exemption request amendment (Reference 2) because the Exemption justifies granting our requests based upon "...the erection of a barrier having a fire resistance rating of at least 1-hour in lieu of the 3 hours specified by Section III.G.2.a" (pages 8 and 10 of Reference 1).

We have discussed this with members of your staff and they have stated that either method (a one-hour barrier or a spray header system designed to deliver 3 gpm per linear foot around the stairway perimeter) is acceptable. Due to the relatively small area over which these sprays must be effective, a design slightly different from that proposed for the "water curtain" will be used. Specifically, a different water spray pattern will eliminate the need for sheet metal baffles.

Since the Authority prepared the May 19, 1983 letter, we have made significant progress in engineering these sprays. As a result of this work, we have found that it may be preferable to return to 1-hour barriers in certain cases. The Authority therefore, requests that you amend the February 1, 1984 Exemption to permit the installation of either barriers or water sprays around any or all of the four stairways, at our option.

IV. Exemption No.5 - Modification of Existing Cable Tray Sprays

In Section 4(Fire Area/Zone Summary Sheet for Fire Areas RB-1 and RB-1A on page 4-32) of the July 13, 1982 Appendix R Reassessment (Reference 3), we described a modification proposed for existing cable tray sprays above Elevation 272'. The system was to be equipped with fusible-link spray heads and a preaction valve to be opened automatically by heat detectors near the cable trays and zone boundary. These cable tray sprays were originally proposed in Reference 5 (Section 5.1) to preclude the possible spread of fire across the fire zone interface by mitigating the postulated effects of intervening cable combustion.

The cable tray sprays were installed to protect two tiers of cable trays in the immediate vicinity of motor control centers 151 and 161. The lower cable tray of each tier is lightly loaded; the upper cable tray carries at least one full layer of cables. No cable tray from either tier crosses the zone interface. There are no obstructions that would prevent access for manual fire fighting using hose streams. Cable trays are less than or equal to twenty-four inches wide. In the general area, cable trays are stacked to a maximum of four deep.

The Authority subsequently amended our exemption request to eliminate the need for these cable tray sprays (Reference 2, p.2).

Regardless, the NRC makes reference to "existing fire protection for the zones consisting of ... manual water spray systems above the cable trays at Elevation 272' at the southwest boundary of RB-1A and RB-1B," in Section 5 (p.13) of Reference 1.

These cable tray sprays are unnecessary at the interface between zones RB-1A and RB-1B since the water curtain will more effectively perform the same function as the cable tray sprays. Therefore, the Authority hereby requests that this reference to "manual water spray systems" be deleted from Reference 1.

V. References

1. NRC February 1, 1984 letter, D.B. Vassallo to J.P. Bayne regarding Exemption Requests 10 CFR 50.48 Fire Protection and Appendix R to 10 CFR Part 50.
2. NYPA May 19, 1983 letter, J.P. Bayne to D.B. Vassallo, regarding Draft Safety Evaluation of Appendix R Exemption Requests (JPN-83-44).
3. PASNY July 13, 1982 letter, J.P. Bayne to H.R. Denton, regarding "Reassessment of the James A. FitzPatrick Nuclear Power Plant for Conformance to the Requirements of Appendix R to 10 CFR 50," (JPN-82-61), as amended.
4. PASNY February 26, 1982 letter, J.P. Bayne to H.R. Denton regarding "Request for Exemption from Implementation of Provisions of 10 CFR 50, Appendix R, Section III.G.2" (JPN-82-24).
5. PASNY December 6, 1979 letter, P.J. Early to T.A. Ippolito, (JPN-79-80) regarding "Safe Shutdown Analysis - James A. FitzPatrick Nuclear Power Plant," September 1979.